CHINO VALLEY
UNIFIED SCHOOL DISTRICT

Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

BOARD OF EDUCATION AGENDA

April 19, 2018

BOARD OF EDUCATION
Pamela Feix, President
James Na, Vice President
Irene Hernandez-Blair, Clerk
Andrew Cruz, Member
Sylvia Orozco, Member

Jonah Botello, Student Representative

SUPERINTENDENT
Wayne M. Joseph

5130 Riverside Drive. Chino. California 91710
www.chino.k12.ca.us

CHINO VALLEY UNIFIED SCHOOL DISTRICT
REGULAR MEETING OF THE BOARD OF EDUCATION
5130 Riverside Drive, Chino, CA 91710
District Board Room
4:30 p.m. – Closed Session • 7:00 p.m. – Regular Meeting
April 19, 2018

AGENDA

- The public is invited to address the Board of Education regarding items listed on the agenda. Comments on an agenda item will be accepted during consideration of that item, or prior to consideration of the item in the case of a closed session item. Persons wishing to address the Board are requested to complete and submit to the Administrative Secretary, Board of Education, a "Request to Speak" form available at the entrance to the Board room.
- In compliance with the Americans with Disabilities Act, please contact the Administrative Secretary, Board of Education, if you require modification or accommodation due to a disability.
- Agenda documents that have been distributed to members of the Board of Education less than 72 hours prior to the meeting are available for inspection at the Chino Valley Unified School District Administration Center, 5130 Riverside Drive, Chino, California, during the regular business hours of 7:30 a.m. to 4:30 p.m., Monday through Friday.
- Order of business is approximate and subject to change.

I. OPENING BUSINESS

I.A. CALL TO ORDER – 4:30 P.M.

1. Roll Call
2. Public Comment on Closed Session Items
3. Closed Session

Discussion and possible action (times are approximate):

a. Conference with Legal Counsel Existing Litigation: Government Code 54954.4(c) and 54956.9 (d)(1): Federal District Court, Case No. EDCV 14-2336-JGB (DTBx) Freedom from Religion Foundation vs. Chino Valley Unified School District Board of Education. (Tyler & Bursch, LLP) (10 minutes)

b. Conference with Legal Counsel Existing Litigation: Government Code 54954.5 (c) and 54956.9 (d)(1): Oxford Preparatory Academy v. Chino Valley Unified School District, et. al. SBC No. CIVDS1710045. (Chidester, Margaret A. & Associates) (10 minutes)

c. Conference with Legal Counsel Anticipated Litigation: Government Code 54956.9 (d)(2) and (e)(1): One possible case. (Atkinson, Andelson, Loya, Ruud & Romo) (15 minutes)

d. Student Expulsion Matter (Education Code 35146, 48918 (c) & (j): Case 17/18-20. (30 minutes)

e. Public Employee Discipline/Dismissal/Release: Government Code 54957: (25 minutes)

f. Public Employee Employment: Government Code 54957.6 and 54956.8: Director, Assessment & Instructional Technology; Director, Access & Equity; and Coordinator, Elementary Curriculum. (10 minutes)

g. Conference with Labor Negotiators (Government Code 54957.6): A.C.T. and CSEA negotiations. Agency designated representatives: Dr. Norm Enfield, Sandra Chen, Dr. Grace Park, Lea Fellows, Dr. Suzanne Hernandez, and Richard Rideout. (30 minutes)

h. Public Employee Employment: Government Code 54957.6 and 54956.8: Superintendent (5 minutes)

i. Conference with Labor Negotiators: Government Code 54957.6: Agency designated representatives: Sylvia Orozco and James Na. Unrepresented employee: New Superintendent Dr. Norm Enfield. (15 minutes)

I.B. RECONVENE TO REGULAR OPEN MEETING: 7: 00 P.M.

1. Report Closed Session Action
2. Pledge of Allegiance

I.C. STUDENT SHOWCASE/PRESENTATIONS

1. Magnolia JHS
2. Hit the Greens for Scholarships Golf Tournament Check Presentation
3. LCAP: Local Metrics

I.D. COMMENTS FROM STUDENT REPRESENTATIVE

I.E. EMPLOYEE REPRESENTATIVE'S COMMUNICATIONS

I.F. COMMUNITY LIAISONS' COMMUNICATIONS

I.G. COMMENTS FROM THE AUDIENCE ON ITEMS NOT ON THE AGENDA

I.H. CHANGES AND DELETIONS

II. CONSENT

Motion ____ Second ___
Preferential Vote: _____
Vote: Yes _____ No ___

II.A. ADMINISTRATION

II.A.1. Minutes of the Regular Meeting of March 15, 2018
Page 9
Recommend the Board of Education approve the minutes of the regular meeting of March 15, 2018.

II.B. BUSINESS SERVICES

II.B.1. Warrant Register
Page 16
Recommend the Board of Education approve/ratify the warrant register, provided under separate cover.

II.B.2. Fundraising Activities
Page 17
Recommend the Board of Education approve/ratify the fundraising activities.

II.B.3. Donations
Page 21
Recommend the Board of Education accept the donations.

II.B.4. Legal Services
Page 24
Recommend the Board of Education approve payment for legal services to the law offices of Atkinson, Andelson, Loya, Ruud & Romo; Fagen Friedman & Fulfrost LLP; Margaret A. Chidester & Associates; and Parker & Covert LLP.

II.B.5. **Request for Allowance of Attendance Due to a School Shooting Threat at Lyle S. Briggs K-8**
Page 25

Recommend the Board of Education approve the request for allowance of attendance due to a school shooting threat at Lyle S. Briggs K-8.

II.B.6. **Resolution 2017/2018-40 Temporary Borrowing Between Funds of the School District**
Page 26

Recommend the Board of Education adopt Resolution 2017/2018-40 Temporary Borrowing Between Funds of the School District.

II.C. CURRICULUM, INSTRUCTION, INNOVATION, AND SUPPORT

II.C.1. **Student Expulsion Case 17/18-20**
Page 28

Recommend the Board of Education approve student expulsion case 17/18-20.

II.C.2. **School-Sponsored Trips**
Page 29

Recommend the Board of Education approve/ratify the following school-sponsored trips: Country Springs ES; Liberty ES; Briggs K-8; Ayala HS; Chino HS; Chino Hills HS; and Don Lugo HS.

II.C.3. **Advanced Placement History/Social Science Textbook Adoption**
Page 31

Recommend the Board of Education approve the following instructional materials for the Advanced Placement History/Social Science textbook adoption:

a) AP European History: Jackson J. Spielvogel, 2018, *Western Civilization: Since 1300*, 10th Edition. Spielvogel, Cengage. Replaces: McDougal Littell, 2003, *History of Western Society*, 7th Edition and McDougal Littell, 2006, *History of Western Society*, 8th Edition, Houghton Mifflin;
b) AP US History: Henretta, Hinderaker, Edwards, and Self, 2014, *America's History for The AP Course*, 9th Edition, Bedford, Freeman and Worth Publishing Group. Replaces: Henretta, Brody, Dumenil, 2008, *America's History AP Edition*, 6th Edition, Bedford/St. Martin's;
c) AP Psychology: David G. Myers, 2014, *Myers Psychology for AP,* 2nd Edition, Worth Publishers. Replaces: David G. Myers, 2010, AP Psychology, W.H. Freeman and Company; and
d) AP Economics: David Anderson, Margaret Ray, 2011, *Krugman's Economics for AP*, 2nd Edition, BFW/Worth Publishers. Replaces: Robin Bade, Michael Parkin, 2007, *Foundations of Economics,* Pearson.

II.C.4. **English Language Arts/English Language Development Textbook Adoption for Grades 7 and 8**
Page 33

Recommend the Board of Education approve the following instructional materials for English Language Arts/English Language Development textbook adoption for grades 7 and 8:

a) *California Collections Student Edition. 7th Grade.* 2017. Houghton Mifflin Harcourt. Replaces: McDougal Littell. *Language of Literature 7.* 2002. McDougal Littell Reading and Language Arts Program; and *High Point.* Levels A, B, and C. 2002. Hampton-Brown; and
b) *California Collections Student Edition. 8th Grade.* 2017. Houghton Mifflin Harcourt. Replaces: McDougal Littell. *Language of Literature 8.* 2002. McDougal Littell Reading and Language Arts Program; and *High Point.* Levels A, B, and C. 2002. Hampton-Brown.

II.C.5. **Proclamation for National School Nurse Day on May 9, 2018**
Page 35
Recommend the Board of Education adopt the proclamation for National School Nurse day on May 9, 2018.

II.D. FACILITIES, PLANNING, AND OPERATIONS

II.D.1. **Purchase Order Register**
Page 37
Recommend the Board of Education approve/ratify the purchase order register, provided under separate cover.

II.D.2. **Agreements for Contractor/Consultant Services**
Page 38
Recommend the Board of Education approve/ratify the Agreements for Contractor/Consultant Services.

II.D.3. **Surplus/Obsolete Property**
Page 43
Recommend the Board of Education declare the District property surplus/obsolete and authorize staff to sell/dispose of said property.

II.D.4. **Notice of Completion for CUPCCAA Projects**
Page 47
Recommend the Board of Education approve the Notice of Completion for CUPCCAA Projects.

II.D.5. **Bid 17-18-15F Ayala HS and Chino HS High Jump and Pole Vault Equipment**
Page 48
Recommend the Board of Education award Bid 17-18-15F, Ayala HS and Chino HS High Jump and Pole Vault Equipment to VS Athletics.

II.D.6. **Resolutions 2017/2018-61, 2017/2018-62, 2017/2018-63, 2017/2018-66, 2017/2018-67, and 2017/2018-68 for Authorization to Utilize Piggyback Contracts**
Page 49
Recommend the Board of Education adopt Resolutions 2017/2018-61, 2017/2018-62, 2017/2018-63, 2017/2018-66, 2017/2018-67, and 2017/2018-68 for authorization to utilize piggyback contracts.

II.D.7. Page 63 **Resolutions 2017/2018-49, 2017/2018-50, 2017/2018-51, 2017/2018-52, 2017/2018-53, 2017/2018-54, 2017/2018-55, 2017/2018-56, 2017/2018-57, 2017/2018-58, and 2017/2018-59 Adopting Notices of Exemption for School Modernization Projects**

Recommend the Board of Education adopt Resolutions 2017/2018-49, 2017/2018-50, 2017/2018-51, 2017/2018-52, 2017/2018-53, 2017/2018-54, 2017/2018-55, 2017/2018-56, 2017/2018-57, 2017/2018-58, and 2017/2018-59 Adopting Notices of Exemption for School Modernization Projects.

II.D.8. Page 86 **Request to Name the Don Lugo HS Varsity Baseball Field After Joe Marcos**

Recommend the Board of Education approve the request to name the Don Lugo HS varsity baseball field after Joe Marcos.

II.E. HUMAN RESOURCES

II.E.1. Page 87 **Certificated/Classified Personnel Items**

Recommend the Board of Education approve/ratify the certificated/classified personnel items.

II.E.2. Page 94 **New Job Descriptions and Creation of Positions for: Family Services Program Specialist; Junior Database Administrator; and Nutrition Eligibility Specialist**

Recommend the Board of Education:

a) Approve the new job description for Family Services Program Specialist;
b) Authorize the creation of the Family Services Program Specialist position;
c) Approve the new job description of the Junior Database Administrator;
d) Authorize the creation of the Junior Database Administrator position;
e) Approve the new job description for Nutrition Eligibility Specialist; and
f) Authorize the creation of the Nutrition Eligibility Specialist position.

II.E.3. Page 107 **Resolution 2017/2018-64 Classified Employees Week/ Semana de Empleados Clasificados**

Recommend the Board of Education adopt Resolution 2017/2018-64 Classified Employees Week/Semana de Empleados Clasificados.

II.E.4. Page 109 **Resolution 2017/2018-65 Day of the Teacher/Día del Maestro**

Recommend the Board of Education adopt Resolution 2017/2018-65 Day of the Teacher/Día del Maestro.

III. INFORMATION

III.A. CURRICULUM, INSTRUCTION, INNOVATION, AND SUPPORT

III.A.1. Page 111 **New Course: Advanced Placement Comparative Government and Politics**

Recommend the Board of Education receive for information the new course Advanced Placement Comparative Government and Politics.

III.A.2. Page 117 **New Course: Advanced Placement Human Geography**

Recommend the Board of Education receive for information the new course Advanced Placement Human Geography.

III.A.3. Page 123 **New Course: Advanced Placement Seminar**

Recommend the Board of Education receive for information the new course Advanced Placement Seminar.

III.A.4. Page 128 **New Course: Advanced Placement Studio Art: 2D Design**

Recommend the Board of Education receive for information the new course Advanced Placement Studio Art: 2D Design.

III.A.5. Page 136 **New Course: Advanced Placement United States Government and Politics**

Recommend the Board of Education receive for information the new course Advanced Placement United States Government and Politics.

III.A.6. Page 142 **New Course: Biology and the Living Earth**

Recommend the Board of Education receive for information the new course Biology and the Living Earth.

III.A.7. Page 158 **New Course: Biology and the Living Earth Honors**

Recommend the Board of Education receive for information the new course Biology and the Living Earth Honors.

III.A.8. Page 175 **New Course: Chemistry in the Earth System**

Recommend the Board of Education receive for information the new course Chemistry in the Earth System.

III.A.9. Page 183 **New Course: Chemistry in the Earth System Honors**

Recommend the Board of Education receive for information the new course Chemistry in the Earth System Honors.

III.A.10. **Williams Settlement Legislation Quarterly Uniform Complaint Report Summary for January Through March 2018**
Page 199

Recommend the Board of Education receive for information the Williams Settlement Legislation Quarterly Uniform Complaint Report Summary for January through March 2018.

IV. COMMUNICATIONS

BOARD MEMBERS AND SUPERINTENDENT

V. ADJOURNMENT

Prepared by: Patricia Kaylor, Administrative Secretary, Board of Education
Date posted: April 13, 2018

CONSENT

CHINO VALLEY UNIFIED SCHOOL DISTRICT
REGULAR MEETING OF THE BOARD OF EDUCATION
March 15, 2018

MINUTES

I. OPENING BUSINESS

I.A. CALL TO ORDER – 4:00 P.M.

1. Roll Call
   President Feix called to order the regular meeting of the Board of Education, Thursday, March 15, 2018, at 4:00 p.m. with Cruz, Orozco, and Feix present. Mrs. Blair arrived at 4:03 p.m., and Mr. Na arrived at 4:12 p.m.

   Administrative Personnel
   Wayne M. Joseph, Superintendent
   Norm Enfield, Ed.D., Deputy Superintendent
   Sandra H. Chen, Assistant Superintendent, Business Services
   Lea Fellows, Assistant Superintendent, Human Resources
   Grace Park, Ed.D., Assistant Superintendent, CIIS
   Gregory J. Stachura, Asst. Supt., Facilities, Planning, & Operations

2. Public Comment on Closed Session Items
   None.

3. Closed Session
   President Feix adjourned to closed session at 4:00 p.m. regarding conference with legal counsel existing and anticipated litigation; student discipline; public employee discipline/dismissal/release; and conference with labor negotiators agency designated representatives Sylvia Orozco and James Na. Unrepresented employee: new Superintendent Dr. Norm Enfield.

I.B. RECONVENE TO REGULAR OPEN MEETING: 7:00 P.M.

1. Report Closed Session Action
   President Feix reconvened the regular meeting of the Board of Education at 7:00 p.m. with Cruz, Na, Orozco, and Feix present. Mrs. Blair was absent from open session. The Board met in closed session from 4:04 p.m. to 6:38 p.m. regarding conference with legal

counsel existing and anticipated litigation; public employee discipline/dismissal/release; and conference with labor negotiators agency designated representatives: Sylvia Orozco and James Na. Unrepresented employee: new Superintendent Dr. Norm Enfield. No action was taken that required public disclosure.

2. Pledge of Allegiance
Litel ES student Kishka Singh led the Pledge of Allegiance.

I.C. STUDENT SHOWCASE/PRESENTATIONS

1. Litel ES
Music teacher Karen Cuen led strings students in an instrumental performance.

2. Annual Update: Teaching and Learning Task Force and Professional Development Committee
The fourth annual update was presented by the Task Force and Committee.

3. English Language Arts/English Language Development Textbook Adoption for Grades 7 and 8
The presentation included the background of the English Language Arts/English Language Development adoption and pilot committee; summary of the pilot process; evaluating the programs; and the committee's recommendations.

I.D. COMMENTS FROM STUDENT REPRESENTATIVE

Jonah Botello reported on the Student Advisory Committee's March 13 meeting; said he spoke with Superintendent Joseph and Risk Management about school safety; said he had a positive response from students wanting him to express their views; and said the Chino Hills HS's All Male Dance team placed first in all categories in a recent competition in Florida.

I.E. EMPLOYEE REPRESENTATIVE'S COMMUNICATIONS

Tom Mackessy, CHAMP President-elect, thanked President Feix for attending CHAMP's restorative justice speaker event; said CHAMP scholarship applications are open; announced CHAMP's Angel game social event; and commended administrators for making Wednesday's student walk out day a safe experience.

I.F. COMMUNITY LIAISONS' COMMUNICATIONS

None.

I.G. COMMENTS FROM THE AUDIENCE ON ITEMS NOT ON THE AGENDA

Rae G. addressed the Board regarding school shooting action plans; Meg Garrison addressed the Board regarding substitute teachers; Maria Gama addressed the Board regarding student transfers and boundaries; Veronica Nunez addressed the Board regarding a lack of substitute teachers; Charles Chamorro addressed the Board objecting to the student walkouts; Peter Attwood addressed the Board regarding special education litigation; and Elena Lecaro addressed the Board regarding the lack of a sidewalk at Rhodes ES's main entrance.

I.H. CHANGES AND DELETIONS

The following changes were read into the record: Curriculum, Instruction, Innovation, and Support, Item III.C.2., was yellow-sheeted; and Facilities, Planning, and Operations, Item III.D.2., was yellow-sheeted.

II. ACTION

II.A. ADMINISTRATION

II.A.1. Richard Gird Educational Hall of Fame 2018 Inductees

Moved (Na) seconded (Orozco) motion carried (4-0, Blair absent) to approve the Richard Gird Educational Hall of Fame 2018 inductees, as follows: Alumni Recipients: Diana Taurasi and Jonathan Monroe; and Employee Recipients: Glenna Ramsay and Corrie Acosta. Student representative voted yes.

II.B. BUSINESS SERVICES

II.B.1. 2017/2018 Second Interim Financial Report

Moved (Na) seconded (Cruz) motion carried (4-0, Blair absent) to approve the 2017/2018 Second Interim Financial Report and authorized the President of the Board of Education and the Superintendent to sign the positive Certification of Financial Conditions for the current and two subsequent fiscal years. Student representative voted yes.

II.C. FACILITIES, PLANNING, AND OPERATIONS

II.C.1. Public Hearing to Receive Community Input on the Proposed Request to Name the Don Lugo HS Varsity Baseball Field After Joe Marcos

President Feix opened the public hearing to receive community input on the proposed request to name the Don Lugo HS varsity baseball field after

Joe Marcos at 9:44 p.m. Ryan Marcos addressed the Board, and President Feix closed the public hearing at 9:46 p.m.

II.D. HUMAN RESOURCES

II.D.1. Resolution 2017/2018-46 Notice of Layoff of Certain Classified Staff Pursuant to Education Code 45117 and 45298
Moved (Na) seconded (Orozco) motion carried (4-0, Blair absent) to adopt Resolution 2017/2018-46 Notice of Layoff of Certain Classified Staff pursuant to Education Code 45117 and 45298. Student representative voted yes.

III. CONSENT

Moved (Na) seconded (Orozco) motion carried (4-0, Blair was absent) to approve the consent items, as amended.

III.A. ADMINISTRATION

III.A.1. Minutes of the Regular Meeting of March 1, 2018
Approved the minutes of the regular meeting of March 1, 2018.

III.B. BUSINESS SERVICES

III.B.1. Warrant Register
Approved/ratified the warrant register.

III.B.2. Fundraising Activities
Approved/ratified the fundraising activities.

III.B.3. Donations
Accepted the donations.

III.B.4. Legal Services
Approved payment for legal services to the law offices of Atkinson, Andelson, Loya, Ruud & Romo; and Margaret A. Chidester & Associates.

III.B.5. Request for Allowance of Attendance Due to a School Shooting Threat at Chino Hills HS
Approved the request for allowance of attendance due to a school shooting threat at Chino Hills HS.

III.B.6. **Revision of Board Policy 5030 Students—Student Wellness**
Approved the revision of Board Policy 5030 Students—Student Wellness.

III.C. CURRICULUM, INSTRUCTION, INNOVATION, AND SUPPORT

III.C.1. **Student Expulsion Case and 17/18-18**
Approved student expulsion case 17/18-18.

III.C.2. **School-Sponsored Trips**
Approved/ratified the following school-sponsored trips: Cattle ES; Marshall ES; Briggs K-8; Cal Aero K-8; Canyon Hills JHS; Magnolia JHS; Ayala HS; Chino HS; and Chino Hills HS, as amended.

III.C.3. **Proclamation for Alcohol Awareness Month, April 2018**
Adopted the proclamation for Alcohol Awareness Month, April 2018.

III.D. FACILITIES, PLANNING, AND OPERATIONS

III.D.1. **Purchase Order Register**
Approved/ratified the purchase order register.

III.D.2. **Agreements for Contractor/Consultant Services**
Approved/ratified the Agreements for Contractor/Consultant Services, as amended.

III.D.3. **Surplus/Obsolete Property**
Declared the District property surplus/obsolete and authorized staff to sell/dispose of said property.

III.D.4. **Notice of Completion for CUPCCAA Projects**
Approved the Notice of Completion for CUPCCAA Projects.

III.D.5. **Resolutions 2017/2018-44, 2017/2018-45, 2017/2018-47, and 2017/2018-48 for Authorization to Utilize Piggyback Contracts**
Adopted Resolutions 2017/2018-44, 2017/2018-45, 2017/2018-47, and 2017/2018-48 for authorization to utilize piggyback contracts.

III.E. HUMAN RESOURCES

III.E.1. **Certificated/Classified Personnel Items**
Approved/ratified the certificated/classified personnel items.

III.E.2. **Rejection of Claims**
Rejected the claims and referred them to the District's insurance adjuster.

IV. INFORMATION

IV.A. CURRICULUM, INSTRUCTION, INNOVATION, AND SUPPORT

IV.A.1. English Language Arts/English Language Development Textbook Adoption for Grades 7 and 8

Received for information the following instructional materials for the English Language Arts/English Language Development textbook adoption for grades 7 and 8: a) *California Collections Student Edition. 7th Grade.* 2017. Houghton Mifflin Harcourt. Replaces: McDougal Littell. *Language of Literature 7.* 2002. McDougal Littell Reading and Language Arts Program; and *High Point.* Levels A, B, and C. 2002. Hampton-Brown; b) *California Collections Student Edition. 8th Grade.* 2017. Houghton Mifflin Harcourt. Replaces: McDougal Littell. *Language of Literature 8.* 2002. McDougal Littell Reading and Language Arts Program; and *High Point.* Levels A, B, and C. 2002. Hampton-Brown.

IV.A.2. Advanced Placement History/Social Science Textbook Adoption

Received for information the following instructional materials for the Advanced Placement History/Social Science textbook adoption: a) AP European History: Jackson J. Spielvogel, 2018, *Western Civilization: Since 1300*, 10th Edition. Spielvogel, Cengage. Replacing: McDougal Littell, 2003, *History of Western Society*, 7th Edition and McDougal Littell, 2006, *History of Western Society*, 8th Edition, Houghton Mifflin; b) AP US History: Henretta, Hinderaker, Edwards, and Self, 2014, *America's History for The AP Course*, 9th Edition, Bedford, Freeman and Worth Publishing Group. Replacing: Henretta, Brody, Dumenil, 2008, *America's History AP Edition*, 6th Edition, Bedford/St. Martin's; c) AP Psychology: David G. Myers, 2014, *Myers Psychology for AP,* 2nd Edition, Worth Publishers. Replacing: David G. Myers, 2010, AP Psychology, W.H. Freeman and Company; AP Economics: David Anderson, Margaret Ray, 2011, *Krugman's Economics for AP*, 2nd Edition, BFW/Worth Publishers. Replacing: Robin Bade, Michael Parkin, 2007, *Foundations of Economics,* Pearson.

V. COMMUNICATIONS

BOARD MEMBERS AND SUPERINTENDENT

Sylvia Orozco acknowledged retirees on the agenda.

Andrew Cruz said he attended the Chino HS school safety meeting and suggested having more discussion with the parents; and read several student emails regarding their thoughts on school safety and what they would like to see.

Irene Hernandez-Blair was absent.

James Na said he attended the Briggs K-8 Measure G meeting; asked Superintendent Joseph to investigate Rhodes ES's sidewalk safety issue, and to have staff speak with the parent who expressed concern regarding transfers and boundaries; and thanked Peter Attwood for serving special education students and asked staff to follow-up.

Superintendent Joseph made no comments.

President Feix said she met with four government classes at Ayala HS, spoke about student activism, and said it was intentional and had great meaning to the students.

VI. ADJOURNMENT

President Feix adjourned the regular meeting of the Board of Education at 9:56 p.m.

Pamela Feix, President

Irene Hernandez-Blair, Clerk

Recorded by: Patricia Kaylor, Administrative Secretary, Board of Education

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Sandra H. Chen, Assistant Superintendent, Business Services
Liz Pensick, Director, Business Services

SUBJECT: **WARRANT REGISTER**

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BACKGROUND

Education Code 42650 requires the Board to approve and/or ratify all warrants. These payments are made in the form of warrants, and the warrant (check) form is approved by the County Superintendent.

All items listed are within previously budgeted amounts. There is no fiscal impact beyond currently available appropriations.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve/ratify the warrant register, provided under separate cover.

FISCAL IMPACT

$4,129,213.79 to all District funding sources.

WMJ:SHC:LP:wc

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Sandra H. Chen, Assistant Superintendent, Business Services
Liz Pensick, Director, Business Services

SUBJECT: **FUNDRAISING ACTIVITIES**

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BACKGROUND

Board Policy 3452 Business and Noninstructional Operations – Student Activity Funds and Board Policy 1230 Community Relations – School Connected Organizations require that fundraising activities be submitted to the Board of Education for approval.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve/ratify the fundraising activities.

FISCAL IMPACT

None.

WMJ:SHC:LP:wc

CHINO VALLEY UNIFIED SCHOOL DISTRICT
April 19, 2018

SITE/DEPARTMENT	ACTIVITY/DESCRIPTION	DATE
GATE		
AdvoGATE	Rancho Santa Ana Botanic Garden Ticket Sale	4/28/18
AdvoGATE	Chino Community Theatre Ticket Sale	5/5/18
Cattle ES		
PFA	Mountain Mike's Family Nights Out	4/23/18 - 4/26/18
PFA	It's Yogurt Spirit Day	5/31/18
Chaparral ES		
PTO	Book Fair	5/9/18 - 5/18/18
PTO	Scholastic Book Fair	5/14/18 - 5/21/18
PTO	Family Fun Night	5/18/18
Cortez ES		
PFA	Family Movie Night Ticket Sale	4/20/18 - 5/30/18
Country Springs ES		
PFA	Autism Awareness Buttons/Bracelet Sale	4/20/18 - 4/26/18
Dickey ES		
PTO	Off Campus Candy Sale	4/20/18 - 5/11/18
Dickson ES		
PTA	Color Run	4/27/18
Glenmeade ES		
PTA	After School Hot Dogs & Lemonade Sale	4/26/18
PTA	After School Smoothie Sale	4/26/18
PTA	Chick-fil-A Spirit Day	4/30/18
PTA	Book Fair	5/7/18 - 5/11/18
PTA	Stem Family Night Refreshment Sale	5/10/18

CHINO VALLEY UNIFIED SCHOOL DISTRICT
April 19, 2018

SITE/DEPARTMENT	ACTIVITY/DESCRIPTION	DATE
Hidden Trails ES		
PTA	Open House Silent Auction/Refreshment Sale	5/16/18
Rhodes ES		
PEP Club	Harkins Movie Theatre Pass Sale	4/20/18 - 5/4/18
PEP Club	Open House Taco Sale	5/15/18
PEP Club	Open House Silent Auction	5/15/18
PEP Club	JoJo's Pizza Kitchen Coupon Book Sale	5/15/18 - 9/30/18
Rolling Ridge ES		
PTA	Pieology Family Spirit Day	4/25/18
Briggs K-8		
ASB	T-Shirt Sale	4/20/18 - 5/4/18
Ramona JHS		
Band Boosters	Off Campus Car Wash	4/20/18 - 4/27/18
ASB Leadership	Promotion Lei Sale	4/20/18 - 5/17/18
ASB Leadership	After School Ice Cream Sale	4/20/18 - 5/17/18
Band Boosters	M.K. Smith Chevrolet Donation Drive	4/20/18 - 5/30/18
Townsend JHS		
PTSA	Active Sock Sale	4/26/18
PTSA	Habit Burger Grill Family Night Out	5/2/18
Ayala HS		
BSU Club	Entertainment Digital Savings Membership	4/20/18 - 5/11/18
Choral Boosters	Tahoe Joe's Gift Certificate Sale	4/20/18 - 5/17/18
Badminton Club	7 Leaves Café Spirit Days	4/23/18 - 5/5/18
Pre-Med Club	Chipotle Family Night Out	4/25/18
Make-A-Wish Club	Flower Bouquet Sale	5/5/18
Cross Country Boosters	2018 All Comer's Meet	5/12/18
BAC Boosters	Junior Colorguard Camp	6/11/18 - 6/13/18

CHINO VALLEY UNIFIED SCHOOL DISTRICT
April 19, 2018

SITE/DEPARTMENT	ACTIVITY/DESCRIPTION	DATE
Chino HS		
Pep Squad Boosters	T-Shirts/Snack Sale at Cheer Tryouts	4/23/18 - 4/27/18
Boys Tennis Boosters	Serve-A-Thon Donation Drive	4/23/18 - 4/27/18
ASB - Red Cross Club	Measles & Rubella Initiative Pin Sale	4/23/18 - 5/7/18
LJPS Academy	Tastea Café Spirit Day	5/2/18
Girls Basketball Boosters	Summer Basketball Tournament	6/16/18 - 6/17/18
Chino Hills HS		
African Cultural Club	African Cultural Show	4/20/18
Football Boosters	Donation Drive	4/20/18 - 6/30/18
General Boosters	Choir for a Cause Donation Drive	4/21/18 - 4/22/18
Football Boosters	Football Summer Camp	6/1/18 - 7/31/18
Girls Soccer	Girls Soccer Camp	6/5/18 - 7/15/18
Wrestling Team	Wrestling Camp	6/5/18 - 7/26/18
Cross Country Team	Cross Country Camp	6/25/18 - 7/6/18
Softball Team	Husky Softball Camp	6/26/18 - 6/27/18
Don Lugo HS		
Class of 2019	Off Campus Krispy Kreme Donut Sale	4/20/18 - 5/26/18
Band Boosters	Catalog Sale	4/23/18 - 5/5/18
Class of 2020	Tastea Café Spirit Day	4/24/18

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Sandra H. Chen, Assistant Superintendent, Business Services
Liz Pensick, Director, Business Services

SUBJECT: **DONATIONS**

==========

BACKGROUND

Board Policy 3290 Business and Noninstructional Operations - Gifts, Grants, and Bequests states the Board of Education may accept any bequest or gift of money or property on behalf of the District. All gifts, grants, and bequests shall become property of the District. Use of the gift shall not be impaired by restrictions or conditions imposed by the donor. Approximate values are determined by the donor.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education accept the donations.

FISCAL IMPACT

Any cost for repairs of donated equipment will be a site expense.

WMJ:SHC:LP:wc

CHINO VALLEY UNIFIED SCHOOL DISTRICT
April 19, 2018

DEPARTMENT/SITE DONOR	ITEM DONATED	APPROXIMATE VALUE
Elementary Curriculum & Instruction		
Upendra Patel	Clarinet	$100.00
Dr. Michelle Eckersall	Kimball Piano	$2,000.00
Health Services		
Veterans of Foreign Wars-Post 11546	Gift Cards	$300.00
Cattle ES		
Cattle PFA	Cash	$200.00
Hidden Trails ES		
Keyur Mistry	Cash	$25.00
Rhodes ES		
PEP Club	Cash	$16,797.00
Wickman ES		
Yogurtland	Cash	$75.00
Briggs K-8		
Edison International	Cash	$100.00
Cal Aero K-8		
Your Cause, LLC	Cash	$625.00
Magnolia JHS		
Edison International	Cash	$60.00

CHINO VALLEY UNIFIED SCHOOL DISTRICT
April 19, 2018

DEPARTMENT/SITE DONOR	ITEM DONATED	APPROXIMATE VALUE
Chino Hills HS		
Circle K. Stores, Inc.	Cash	$1,000.00
Don Lugo HS		
Ozrick Estrada	Cash	$15.00
Hottingers Family Meats	Barbeque Sauces	$20.00
Mark & Judith Scott	Cash	$40.00
Ananta Mukerji & Kumkum Mukherjee	Cash	$50.00
Felipe & Sabrina Juatco	Cash	$100.00
Louise Tasinga-Ningo	Cash	$100.00
Christine Dominguez	Cash	$325.00
I.H.O.P. #930	Cash	$350.00

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Sandra H. Chen, Assistant Superintendent, Business Services
Liz Pensick, Director, Business Services

SUBJECT: **LEGAL SERVICES**

==========

BACKGROUND

The following law firms provide services to the Chino Valley Unified School District and have submitted their invoices. The current invoice amounts, along with the fiscal year-to-date totals for each individual law firm, are listed below.

FIRM	MONTH	INVOICE AMOUNTS	2017/2018 YEAR-TO-DATE
Atkinson, Andelson, Loya, Ruud & Romo	February 2018	$ 17,607.94	$ 181,679.18
Fagen Friedman & Fulfrost LLP	February 2018	$ 700.50	$ 700.50
Margaret A. Chidester & Associates	January 2018	$177,120.83	$ 847,874.49
McCune & Harber, LLP	-	-	$ 45.00
Parker & Covert LLP	February 2018	$ 153.00	$ 1,777.50
	Total	$195,582.27	$1,032,076.67

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve payment for legal services to the law offices of Atkinson, Andelson, Loya, Ruud & Romo; Fagen Friedman & Fulfrost LLP; Margaret A. Chidester & Associates; and Parker & Covert LLP.

FISCAL IMPACT

$195,582.27 to the General Fund.

WMJ:SHC:LP:wc

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Sandra H. Chen, Assistant Superintendent, Business Services
Liz Pensick, Director, Business Services

SUBJECT: **REQUEST FOR ALLOWANCE OF ATTENDANCE DUE TO A SCHOOL SHOOTING THREAT AT LYLE S. BRIGGS K-8**

==========

BACKGROUND

Education Code 46392 allows the District to request authorization to disregard lost attendance days in the computation of average daily attendance (ADA) when the ADA of a school district is decreased due to the imminence of a major safety hazard as determined by the local law enforcement agency.

On the evening of Wednesday, March 21, 2018, Lyle S. Briggs K-8 (Briggs K-8) administrators were alerted of social media postings where a shooting threat was made to the Briggs K-8 campus for Thursday, March 22, 2018. As a result, more than 43% of the student population was absent from Briggs K-8 on March 22, 2018. Local law enforcement investigated the claim and found no credible threat.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve the request for allowance of attendance due to a school shooting threat at Lyle S. Briggs K-8.

FISCAL IMPACT

Negate loss of ADA.

WMJ:SHC:LP:wc

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Sandra H. Chen, Assistant Superintendent, Business Services
Liz Pensick, Director, Business Services

SUBJECT: **RESOLUTION 2017/2018-40 TEMPORARY BORROWING BETWEEN FUNDS OF THE SCHOOL DISTRICT**

==========

BACKGROUND

The cash flow of revenues for certain funds in the District does not always match the cash flow of expenditures during that year. When a mismatch between receipt of projected revenues and ongoing expenditures occur, it could cause a shortage of cash.

Interfund borrowing is a form of borrowing on a temporary basis between other available funds of the District. Education Code 42603 specifies that the governing board of any school district may direct funds to be temporarily transferred to another fund or account of the District. Interfund borrowing must be repaid in the same fiscal year, or the following year, if borrowing takes place within 120 days of fiscal year end.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education adopt Resolution 2017/2018-40 Temporary Borrowing Between Funds of the School District.

FISCAL IMPACT

None.

WMJ:SHC:LP:wc

Chino Valley Unified School District
Resolution 2017/2018-40,
Resolution to Authorize Temporary Borrowing
Between Funds of the School District

WHEREAS, the San Bernardino County Treasurer does not have authority to honor warrants drawn on school district funds with insufficient cash balances in the absence of an approved borrowing arrangement with the District;

WHEREAS, the Board of Education of any school district may direct that moneys held in any fund or account may be temporarily transferred to another fund or account of the District for payment of obligations as authorized by Education Code 42603;

WHEREAS, actual interfund transfers shall be accounted for as temporary loans between funds and shall not be available for appropriation or be considered income to the borrowing fund or account; and

WHEREAS, amounts transferred shall be repaid either in the same fiscal year, or in the following fiscal year if the transfer takes place within the final 120 calendar days of a fiscal year.

NOW, THEREFORE, BE IT RESOLVED:

1. The Board of Education of the Chino Valley Unified School District hereby authorizes, for fiscal year 2018/2019, temporary transfers between the following funds and authorizes the San Bernardino County Treasurer to honor warrants drawn on those funds, regardless of their cash balances, provided the aggregate cash balance of all those funds is positive: All funds.

2. The Board of Education of the Chino Valley Unified School District hereby authorizes the Superintendent or his designee to approve any actual interfund transfers processed between the above-mentioned funds and requires that any actual transfer of funds pursuant to this resolution be ratified by the Board as soon as practicable.

APPROVED, PASSED, AND ADOPTED by the Board of Education of the Chino Valley Unified School District this 19th day of April 2018.

_____
Wayne M. Joseph, Superintendent
Secretary, Board of Education

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Norm Enfield, Ed.D., Deputy Superintendent
Stephanie Johnson, Director, Student Support Services

SUBJECT: **STUDENT EXPULSION CASE 17/18-20**

==========

BACKGROUND

The Board of Education has established policies and standards of behavior in order to promote learning and protect the safety and well-being of all students. When these policies and standards are violated, it may be necessary to suspend or expel a student from regular classroom instruction.

Expulsion is an action taken by the Board for severe or prolonged breaches of discipline by a student. Except for single acts of a grave nature, expulsion is used only when there is a history of misconduct, when other forms of discipline, including suspension, have failed to bring about proper conduct, or when the student's presence causes a continuing danger to him/herself or others.

A student may be expelled only by the Board of Education. The Board shall expel, as required by law, any student found to have committed certain offenses listed in Education Code 48915.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

Based upon the recommendation of the Expulsion Hearing Administrative Panel, it is recommended the Board of Education approve student expulsion case 17/18-20.

FISCAL IMPACT

None.

WMJ:NE:SJ:ss

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support

SUBJECT: SCHOOL-SPONSORED TRIPS

==========

BACKGROUND

The Board of Education recognizes that school-sponsored trips are an important component of a student's development and supplement and enrich the classroom learning experience. School-sponsored trips may be conducted in connection with the District's course of study or school related social, educational, cultural, athletic, school band activities, or other extracurricular or cocurricular activities. Resources will be identified and established at the school site to assist economically disadvantaged students in obtaining funding for field trips and, in some cases, student travel. School sponsored trips that require overnight stay or are in excess of 250 miles (one way) require board approval.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve/ratify the following school-sponsored trips:

School-Sponsored Trips	Date	Fiscal Impact
Site: Country Springs ES Event: Sacramento Day Trip Place: Sacramento, CA Chaperone: 90 students/29 chaperones	April 27, 2018	Cost: $445.00 per student Funding Source: Parents
Site: Liberty ES Event: Riley's Farm - Revolutionary War Overnight Field Trip Place: Oak Glen, CA Chaperone: 45 students/13 chaperones	April 10-11, 2018	Cost: $140.00 per student Funding Source: Parents and fundraising

Site: Briggs K-8 Event: Rube Goldberg Nationals - Science and Engineering Competition Place: Chicago, IL Chaperone: 10 students/6 chaperones	April 20-23, 2018	Cost: $1,629.00 per student Funding Source: Parents and fundraising
Site: Ayala HS Event: Boys Tennis - Ojai Valley Tennis Tournament Place: Ojai, CA Chaperone: 2 students/2 chaperones	April 24-26, 2018	Cost: $225.00 per student Funding Source: Parents
Site: Chino HS Event: Band, Chorale, and Pageantry – WorldStrides OnStage Tour 2018 Place: San Francisco, CA Chaperone: 53 students/6 chaperones	April 26-29, 2018	Cost: $695.00 per student Funding Source: Fundraising
Site: Chino Hills HS Event: Band - State Basketball Championships Place: Sacramento, CA Chaperone: 16 students/5 chaperones	March 23-24, 2018	Cost: $100.00 per student Funding Source: Athletics
Site: Don Lugo HS Event: State Future Farmers of America Leadership Conference Place: Anaheim, CA Chaperone: 19 students/5 chaperones	April 22-25, 2018	Cost: $280.00 per student Funding Source: Parents and fundraising

FISCAL IMPACT

None.

WMJ:GP:rtr

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum and Instruction

SUBJECT: **ADVANCED PLACEMENT HISTORY/SOCIAL SCIENCE TEXTBOOK ADOPTION**

==========

BACKGROUND

To provide current standards-aligned instructional materials to the students in the Chino Valley Unified School District, as mandated by the state of California, the textbooks specified below are proposed for adoption.

The selection process for these materials involved representative teachers with a vested interest in the material. The Office of Secondary Curriculum and Instruction and Media Services secured samples of curriculum and standards-aligned textbooks. Teachers evaluated all materials and selected one publisher that best matched District goals and needs. The materials were piloted by participating teachers and evaluated using the following criteria: quality of match to California standards and College Board Advanced Placement standards; quality of lesson design; quality of teacher materials; provision for universal access; and overall quality of the programs. This item was presented to the Board of Education on March 15, 2018, as information.

All recommended instructional materials shall be available for public inspection at the District Samuel R. Burton Professional Development and Media Center.

These textbooks were presented to the Curriculum Council and A.C.T. has been consulted.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve the following instructional materials for the Advanced Placement History/Social Science textbook adoption:

a) AP European History: Jackson J. Spielvogel, 2018, *Western Civilization: Since 1300*, 10th Edition. Spielvogel, Cengage. Replaces: McDougal Littell, 2003, *History of Western Society*, 7th Edition and McDougal Littell, 2006, *History of Western Society*, 8th Edition, Houghton Mifflin;

b) AP US History: Henretta, Hinderaker, Edwards, and Self, 2014, *America's History for The AP Course*, 9th Edition, Bedford, Freeman and Worth Publishing Group. Replaces: Henretta, Brody, Dumenil, 2008, *America's History AP Edition*, 6th Edition, Bedford/St. Martin's;

c) AP Psychology: David G. Myers, 2014, *Myers Psychology for AP,* 2nd Edition, Worth Publishers. Replaces: David G. Myers, 2010, AP Psychology, W.H. Freeman and Company; and

d) AP Economics: David Anderson, Margaret Ray, 2011, *Krugman's Economics for AP*, 2nd Edition, BFW/Worth Publishers. Replaces: Robin Bade, Michael Parkin, 2007, *Foundations of Economics,* Pearson.

FISCAL IMPACT

$338,461.05 from the College Readiness Block Grant Program.

WMJ:GP:JR:lar

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum and Instruction

SUBJECT: **ENGLISH LANGUAGE ARTS/ENGLISH LANGUAGE DEVELOPMENT TEXTBOOK ADOPTION FOR GRADES 7 AND 8**

==========

BACKGROUND

To provide current standards-aligned instructional materials to the students in the Chino Valley Unified School District, as mandated by the state of California, the textbooks specified below is proposed for adoption.

The selection and piloting process for these materials involved representative teachers from each of our junior high schools and included six English Learner teachers and two Special Education teachers. The Office of Secondary Curriculum and Instruction secured samples of state-adopted textbooks. Teachers evaluated the samples and chose to pilot two publishers' materials.

Each of the materials were evaluated using criteria established and prescribed by the California Department of Education's 2015 Adoption Toolkit for English Language Arts/Literacy English Language Development. The criteria included: quality of match to California standards; quality of lesson design; quality of teacher and student materials; provisions for universal access; and overall quality of the programs. Teachers evaluated all textbooks and selected one publisher that best matched District goals and needs. The recommended textbooks were piloted for a 6-week period in grades 7 and 8. This item was presented to the Board of Education on March 15, 2018, as information.

All recommended instructional materials shall be available for public inspection at the District Samuel R. Burton Professional Development and Media Center from April 12-19, 2018.

These textbooks were presented to the Curriculum Council and A.C.T. has been consulted.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve the following instructional materials for the English Language Arts/English Language Development textbook adoption for grades 7 and 8:

a) *California Collections Student Edition. 7th Grade.* 2017. Houghton Mifflin Harcourt. Replaces: McDougal Littell. *Language of Literature 7.* 2002. McDougal Littell Reading and Language Arts Program; and *High Point.* Levels A, B, and C. 2002. Hampton-Brown; and

b) *California Collections Student Edition. 8th Grade.* 2017. Houghton Mifflin Harcourt. Replaces: McDougal Littell. *Language of Literature 8.* 2002. McDougal Littell Reading and Language Arts Program; and *High Point.* Levels A, B, and C. 2002. Hampton-Brown.

FISCAL IMPACT

$841,221.49 from LCAP.

WMJ:GP:JR:lar

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Sherri Johnson, Psy.D., Director, Health Services/Child Development

SUBJECT: **PROCLAMATION FOR NATIONAL SCHOOL NURSE DAY ON MAY 9, 2018**

==========

BACKGROUND

National School Nurse Day was created in 1972 to recognize school nurses and to encourage a better understanding of their role in the educational setting. This day is celebrated on the Wednesday within National Nurse Week, and this week is always May 6 through May 12.

National School Nurse Day highlights the school nurse's vital role in advocating for students' health and safety. This day also urges school communities to work with their school nurse to stay informed on public health issues, and health related research and policies for the well-being and safety of our students.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education adopt the proclamation for National School Nurse Day on May 9, 2018.

FISCAL IMPACT

None.

WMJ:GP:SJ:rtr

Chino Valley Unified School District
Proclamation
National School Nurse Day
May 9, 2018

WHEREAS, children are the future and, by investing in them today, we are ensuring our world for tomorrow;

WHEREAS, all students have a right to have their health needs safely met while in the school setting;

WHEREAS, children today face more complex and life-threatening health problems requiring care in school;

WHEREAS, school nurses are professional nurses that advance the well-being, academic success, and life-long achievements of all students by providing a critical safety net for our nation's most fragile children;

WHEREAS, school nurses act as a liaison to the school community, parents, and health care providers on behalf of children's health;

WHEREAS, school nurses support the health and educational success of children and youth by developing and providing programs and leadership; and

WHEREAS, school nurses understand the link between health and learning and are in a position to make a positive difference for children every day.

NOW, THEREFORE, BE IT RESOLVED the Board of Education of the Chino Valley Unified School District celebrates the accomplishments of school nurses everywhere and their efforts of meeting the needs of today's student by improving the effective delivery of health care in our schools and shows gratitude for the nation's school nurses, not just on this National School Nurse Day, but at every opportunity throughout the year.

Wayne M. Joseph, Superintendent
Secretary, Board of Education

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Gregory J. Stachura, Asst. Supt., Facilities, Planning, and Operations
Anna G. Hamilton, Director, Purchasing

SUBJECT: PURCHASE ORDER REGISTER

==========

BACKGROUND

Board Policy 3310 Business and Noninstructional Operations – Purchasing requires approval/ratification of purchase orders by the Board of Education. A purchase order is a legal contract between a district and vendor, containing a description of each item listed and/or a statement to the effect that supplies, equipment or services furnished herewith shall be in accordance with specifications and conditions.

Purchase orders represent a commitment of funds. No item on this register will be processed unless within budgeted funds. The actual payment for the services or materials is made with a warrant (check) and reported on the warrant register report.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve/ratify the purchase order register, provided under separate cover.

FISCAL IMPACT

$15,981,625.04 to all District funding sources.

WMJ:GJS:AGH:pw

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Gregory J. Stachura, Asst. Supt., Facilities, Planning, and Operations
Anna G. Hamilton, Director, Purchasing

SUBJECT: AGREEMENTS FOR CONTRACTOR/CONSULTANT SERVICES

==========

BACKGROUND

All contracts between the District and outside agencies shall conform to standards required by law and shall be prepared under the direction of the Superintendent or designee. To be valid or to constitute an enforceable obligation against the District, all contracts must be approved and/or ratified by the Board of Education.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve/ratify the Agreements for Contractor/Consultant Services.

FISCAL IMPACT

As indicated.

WMJ:GJS:AGH:pw

CURRICULUM, INSTRUCTION, INNOVATION, AND SUPPORT	FISCAL IMPACT
CIIS-1718-129 Secure Transportation. To provide student transportation from home to school. Submitted by: Health Services Duration of Agreement: April 20, 2018 – June 30, 2019	Contract amount: $5,000.00 Funding source: Title I
CIIS-1718-130 K-12 Insight. To provide subscription to Let's Talk and Engage platforms and customized surveys. Submitted by: Curriculum, Instruction, Innovation, and Support Duration of Agreement: July 1, 2018 – March 31, 2019	Contract amount: $113,300.00 Funding source: LCAP
CIIS-1718-132 SHI. To provide DameWare remote license for technicians. Submitted by: Technology Duration of Agreement: April 13, 2018 – June 30, 2018	Contract amount: $576.30 Funding source: General Fund
CIIS-1718-133 International Academy of Science. To provide Acellus web-based learning. Submitted by: Alternative Education Center Duration of Agreement: January 1, 2018 – June 30, 2019	Contract amount: $35,590.00 Funding source: School Site Budget
CIIS-1718-134 Future N Focus. To provide student career exploration training. Submitted by: Alternative Education Center Duration of Agreement: April 20, 2018 – June 30, 2019	Contract amount: $3,000.00 Funding source: School Site Budget
CIIS-1718-135 Lexia Learning Systems. To provide Lexia reading subscription. Submitted by: Elementary Curriculm Duration of Agreement: April 20, 2018 – June 30, 2019	Contract amount: $269,414.00 Funding source: LCAP
CIIS-1718-136 Educatius International. To provide marketing services to recruit and enroll qualified international students. Submitted by: Alternative Education Center Duration of Agreement: April 20, 2018 – June 30, 2019	Contract amount: $500.00 Funding source: School Site Budget
CIIS-1718-137 Herff Jones. To provide 2018/2019 elementary and junior high school yearbooks. Submitted by: Cal Aero Preserve K-8 Duration of Agreement: April 20, 2018 – June 30, 2019	Contract amount: $10,898.75 Funding source: School Site Budget
CIIS-1718-138 Herff Jones. To provide 2018/2019 junior high school yearbooks. Submitted by: Townsend JHS Duration of Agreement: April 20, 2018 – June 30, 2019	Contract amount: $21,405.91 Funding source: School Site Budget
CIIS-1718-139 Adobe Systems Inc. To provide Creative Cloud software license. Submitted by: Alternative Education Center Duration of Agreement: February 28, 2018 – February 27, 2019	Contract amount: $839.76 Funding source: Summer School
CIIS-1718-140 FLVS Global. To provide licensing for online coursework. Submitted by: Alternative Education Center Duration of Agreement: March 30, 2018 – March 30, 2019	Contract amount: $2,298.00 Funding source: Summer School
CIIS-1718-141 Practice Fusion Inc. To provide electronic health records system. Submitted by: Health Services Duration of Agreement: May 1, 2018 – May 1, 2019	Contract amount: $2,400.00 Funding source: LCAP

CURRICULUM, INSTRUCTION, INNOVATION, AND SUPPORT	FISCAL IMPACT
CIIS-1718-142 Castle Software Inc. dba Castle Learning. To provide software license for PrepPath. Submitted by: Boys Republic HS Duration of Agreement: April 20, 2018 – April 20, 2019	Contract amount: $192.50 Funding source: School Site Budget
CIIS-1718-145 Yudu Media Corporation. To provide a digital platform for District newsletters. Submitted by: Communications Duration of Agreement: April 20, 2018 – June 30, 2018	Contract amount: $1,500.00 Funding source: General Fund

FACILITIES, PLANNING, AND OPERATIONS	FISCAL IMPACT
F-1718-026 Balfour Beatty Construction LLC. To provide a master agreement for construction management services for Ayala HS modernization and additions. Submitted by: Facilities, Planning, and Operations Duration of Agreement: April 20, 2018 – project completion	Contract amount: Per rate sheet Funding source: Various
F-1718-027 IWS Environmental Inc. To provide Storm water site evaluation, Level I report and Storm Water Pollution Prevention Plan (SWPPP) revisions. Submitted by: Maintenance, Operations, and Construction Duration of Agreement: April 20, 2018 – June 30, 2018	Contract amount: Per rate sheet Funding source: General Fund

SAN BERNARDINO COUNTY SUPERINTENDENT OF SCHOOLS	FISCAL IMPACT
SBCSS 17/18-1013 California Association of Health Education Linked Professions. To provide trainings for MediCal legal requirements, bill, assessment, progress monitoring, and documentation. Submitted by: Special Education Duration of Agreement: March 15, 2018 – June 30, 2018	Contract amount: $12,800.00 Funding source: General Fund

MASTER CONTRACTS	FISCAL IMPACT
MC-1718-072 Wedgewood Wedding & Banquet Centers. To provide banquet and catering facility. Submitted by: Chino HS Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-073 Renaissance Learning. To provide Renaissance products, services, Accelerated Reader and Star subscriptions. Submitted by: Dickson ES Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Title I
MC-1718-074 Dave & Busters Rancho Cucamonga. To provide banquet facility. Submitted by: Chino Hills HS Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-075 School Portraits by Adams Photography. To provide student photos and ID cards. Submitted by: Don Lugo HS Duration of Agreement: July 1, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-076 Juice It Up. To provide fundraising and catering services. Submitted by: Don Lugo HS Duration of Agreement: July 1, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various

MASTER CONTRACTS	FISCAL IMPACT
MC-1718-077 High Society DJs. To provide DJ services. Submitted by: Don Lugo HS Duration of Agreement: July 1, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-079 Boogie Down DJ Services. To provide DJ and lighting services. Submitted by: Chino HS Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-080 The PhotoBooth Guy. To provide photo booth services. Submitted by: Chino HS Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-081 Juan Alex Chediak. To provide motivational speaker. Submitted by: Townsend JHS Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-082 Keystone Training Solutions. To provide CPR/First Aid training. Submitted by: Oak Ridge ES Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-083 Blake eLearning. To provide Mathseeds comprehensive, blended mathematics program for grades Pre-K-2. Submitted by: Glenmeade ES Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: School Site Budget
MC-1718-084 Lenovo Software. To provide Stoneware LanSchool K-12 school site license upgrade. Submitted by: Townsend JHS Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: School Site Budget
MC-1718-085 Learning A-Z. To provide Raz-Kids & Science A-Z software license. Submitted by: Glenmeade ES Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: School Site Budget
MC-1718-086 Discovery Education. To provide Discovery Education science textbook subscription. Submitted by: Glenmeade ES Duration of Agreement: February 19, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-087 Fantasyard Inc. To provide Jansport Back to School fundraiser. Submitted by: Purchasing Department Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-088 Dustin McCarty dba McCarty BMX. To provide BMX Assembly. Submitted by: Wickman ES Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-089 Central Basco Hotel and Resturant. To provide banquet facilities and catering services. Submitted by: Chino HS Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-090 Juan's Tacos. To provide catering services. Submitted by: Don Lugo HS Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various

MASTER CONTRACTS	FISCAL IMPACT
MC-1718-091 Entercom Radio. To provide Amp Radio, live on site. Submitted by: Purchasing Department Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-092 Breakout Inc. dba Breakout EDU. To provide immersive learning games platform. Submitted by: Alternative Education Center Duration of Agreement: April 20, 2018 – June 30, 2021	Contract amount: Per rate sheet Funding source: Various
MC-1718-093 Timothy Dana Bowen dba Play-Well Teknologies. To provide STEM Challenge with LEGO workshop. Submitted by: Walnut ES Duration of Agreement: March 5, 2018 – June 30, 2018	Contract amount: $1,980.00 Funding source: Title I

APPROVED CONTRACTS TO BE AMENDED	AMENDMENT
CIIS-1617-060 Blackboard Connect Inc. To provide add-on service for made-to-order templates, annual full quality assurance review, update for accessibility, and enhance security. Submitted by: Deputy Superintendent Duration of Agreement: April 1, 2018 – March 31, 2019 Original Agreement Board Approved: April 16, 2017	Increase contract amount from $82,129.96 to $83,469.58 Funding source: General Fund
CIIS-1718-009 Educational Equity for All. To provide professional development for AbleNet curriculum programs. Submitted by: Special Education Duration of Agreement: October 20, 2017 – June 30, 2018 Original Agreement Board Approved: November 16, 2017	Increase contract amount from $3,000.00 to $12,600.00 Funding source: Special Education
CIIS-1718-126 Athena Software. To provide annual subscription for web-based case management software. Submitted by: Health Services Duration of Agreement: March 16, 2018 – March 14, 2019 Original Agreement Board Approved: March 15, 2018	Increase contract amount from $3,600.00 to $6,450.00 Funding source: Various
CIIS-1718-069 Leading Edge Learning Center. To provide in home tutoring. Submitted by: Student Support Services Duration of Agreement: July 1,2017 – June 30, 2018 Original Agreement Board Approved: August 17, 2017	Increase contract amount from $10,000.00 to $15,000.00 Funding source: LCAP

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Gregory J. Stachura, Asst. Supt., Facilities, Planning, and Operations

SUBJECT: SURPLUS/OBSOLETE PROPERTY

==========

BACKGROUND

The Board of Education recognizes that the District may own personal property which is unusable, obsolete, or no longer needed by the District. The Superintendent or designee shall arrange for the sale or disposal of District personal property in accordance with Board policy and the requirements of Education Code 17545.

Lists of surplus items are emailed to the Facilities/Planning Department to be placed on an upcoming Board agenda. After Board approval, items may be picked up by District warehouse or a liquidation company for public auction. Proceeds of the sale are deposited into the General Fund.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education declare the District property surplus/obsolete and authorize staff to sell/dispose of said property.

FISCAL IMPACT

Increase to the General Fund from proceeds of sale.

WMJ:GJS:pw

CHINO VALLEY UNIFIED SCHOOL DISTRICT
SURPLUS/OBSOLETE PROPERTY
April 19, 2018

DESCRIPTION	MAKE/MODEL	I.D./SERIAL	DEPT/SITE
Keyboard	Dell	CN0DJ425-71616-83K	Borba ES
Keyboard	Dell	CJODJ331-71616-01F	Borba ES
Keyboard	Dell	CN-0DJ331-71616	Borba ES
Keyboard	Dell	CN-ODJ 473-D-44751	Borba ES
Keyboard	Dell		Borba ES
Keyboard	Logitech	620-00178	Borba ES
Monitors (5)	Dell		Borba ES
Tower	Dell	G4JS461	Borba ES
Tower	Dell	9RWM5M1	Borba ES
Tower	Dell	32441	Borba ES
Tower	Dell	30429	Borba ES
Tower	Dell	30471	Borba ES
Mouses (6)			Borba ES
Hi-Fi Monitors (2)			Borba ES
Student Desks (29)			Eagle Canyon ES
TV	Panasonic	LB33430059	Oak Ridge ES
TV	Panasonic	LB33010137	Oak Ridge ES
TV	Panasonic	MB33430568	Oak Ridge ES
TV	Panasonic	MB33020719	Oak Ridge ES
VCR/DVD	Go Video	342213013778	Oak Ridge ES
VCR/DVD	Go Video	347213006960	Oak Ridge ES
VCR/DVD	Go Video	346213000708	Oak Ridge ES
VCR/DVD	Go Video	346213001042	Oak Ridge ES
VCR/DVD	Go Video	346213003614	Oak Ridge ES
VCR/DVD	Go Video	346213001752	Oak Ridge ES
VCR/DVD	Go Video	342213004048	Oak Ridge ES
Computer	Dell	DQCCMB1	Oak Ridge ES
Computer	Dell	3RCCMB1	Oak Ridge ES
Computer	Dell	6S654G1	Oak Ridge ES
Radio	Califone	EL 63815	Oak Ridge ES
Radio	Califone	EL 62542	Oak Ridge ES
Radio	Califone	EL 62610	Oak Ridge ES
Radio	Califone	BL 50062	Oak Ridge ES
Panasonic TV	LB33010139		Oak Ridge ES
Panasonic TV	MB32380866		Oak Ridge ES
Go-Video VCR/DVD	324213008138		Oak Ridge ES
Go-Video VCR/DVD	324213026882		Oak Ridge ES

DESCRIPTION	MAKE/MODEL	I.D./SERIAL	DEPT/SITE
Epson Powerlite	KM3F071069L		Oak Ridge ES
Epson Powerlite	KM3F0071061L		Oak Ridge ES
Epson Powerlite	KM3F071074L		Oak Ridge ES
Printer	HP Deskjet 6540	SNMY4C84R2N1	Rhodes ES
Projector	Powerlite S1+	FWDG434275F	Rhodes ES
Projector	Powerlite 83c	JXJF788876L	Rhodes ES
Printer	Laserjet 400	PHGFD43309	Rhodes ES
Projector	Powerlite 83c	JXJF789889L	Rhodes ES
Projector	Epson	33165	Wickman ES
Projector	Epson	29867	Wickman ES
Projector	Epson	29865	Wickman ES
Projector	Epson	32374	Wickman ES
Projector	Epson	34395	Wickman ES
Projector	Epson	35326	Wickman ES
Boom Box	Califone		Wickman ES
Boom Box	Califone		Wickman ES
ELMO	Avermedia	36540	Wickman ES
ELMO	Avermedia	38956	Wickman ES
Printer	HP 1300	18087	Wickman ES
Printer	HP 1300	18086	Wickman ES
Printer	HP 1300	18080	Wickman ES
Printer	HP 1300	KM3F932855L	Wickman ES
Computer	Dell Optiplex780	4DSGLV1	Buena Vista HS
Computer	Dell Optiplex 790	73DYW1	Buena Vista HS
Computer	Dell Optiplex780	4DWGLN1	Buena Vista HS
Computer	Dell Optiplex 780	4DRJLN1	Buena Vista HS
Computer	Dell Optiplex790	73FNW1	Buena Vista HS
Computer	Dell Optiplex 790	73FWV1	Buena Vista HS
Computer	Dell Optiplex 790	73FSYV1	Buena Vista HS
Dinner Plates (168)			Chino Hills HS
Dinner Bowls (98)			Chino Hills HS
Kitchen Aid Mixer			Chino Hills HS
Fryers			Chino Hills HS
Silverware Trays			Chino Hills HS
Coffee Cups (41)			Chino Hills HS
Black Chef Coats (42)			Chino Hills HS
Drinking Cups 46			Chino Hills HS
Food for Today (36)			Chino Hills HS
Becoming a Food Service Professional Year 1 (33)			Chino Hills HS
Becoming a Food Service Professional Year 2 (37)			Chino Hills HS

DESCRIPTION	MAKE/MODEL	I.D./SERIAL	DEPT/SITE
Outdated Instructional Resources			Chino Hills HS
Stock Pots (4)			Chino Hills HS
VHS/DVDs (30)			Chino Hills HS
Chef Coats (10)			Chino Hills HS
Cookbooks (7)			Chino Hills HS
VCR	VR-6700	A0811-000087A	Chino Hills HS
VCR			Chino Hills HS
Misc. Teacher Matls.			Chino Hills HS

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Gregory J. Stachura, Asst. Supt., Facilities, Planning, and Operations

SUBJECT: NOTICE OF COMPLETION FOR CUPCCAA PROJECTS

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BACKGROUND

On May 9, 2013, the Board of Education adopted Resolution 2012/2013-71, Adoption of California Uniform Public Construction Cost Accounting Act (CUPCCAA). Per Public Contract Code 22030, the adoption of CUPCCAA allows the use of alternate bidding procedures for projects under $175,000.00, while still ensuring the District receives the lowest pricing possible from responsible vendors and contractors. Utilizing CUPCCAA, the District has completed the projects listed below.

CUPCCAA Project	Project Description	Contractor	Original Quotation	Change Order	Total	Funding Source
CC2018-07	Rain Gutter Replacement at Buena Vista HS	A\VE Sheet Metal Inc.	$19,355.00	N/A	$19,355.00	01
CC2018-23	Security Fencing at Glenmeade ES	Valley Cities/Gonzales Fence Co.	$18,000.00	N/A	$18,000.00	21

Documentation indicating satisfactory completion and compliance with specifications has been obtained from school site administrators; Alex Rivera, Maintenance Supervisor; and Martin Silveira, Director, Maintenance, Operations, and Construction.

Staff recommends approval of the Notice of Completion for these projects.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve the Notice of Completion for CUPCCAA Projects.

FISCAL IMPACT

$19,355.00 to General Fund 01.
$18,000.00 to Building Fund 21.

WMJ:GJS:pw

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
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Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Gregory J. Stachura, Asst. Supt., Facilities, Planning, and Operations
Anna G. Hamilton, Director, Purchasing

SUBJECT: **BID 17-18-15F, AYALA HS AND CHINO HS HIGH JUMP AND POLE VAULT EQUIPMENT**

==========

BACKGROUND

Public Contract Code 20111 requires competitive bidding for most public contracts. School districts are required to competitively bid any contracts for the lease or purchase of equipment, materials, supplies or services which do not constitute a public project and which are not exempted from competitive bidding and expenditure of more than $90,200.00 be legally advertised and awarded to the lowest responsible bidder.

A Notice Calling for Bids for Bid 17-18-15F, Ayala HS and Chino HS High Jump and Pole Vault Equipment was published in the Chino Champion on March 3, 2018, and March 10, 2018. Bids were opened at 2:00 p.m. on March 21, 2018. The results are as follows:

Vendor	Bid Amount
VS Athletics	$95,946.00
Sportsfield Specialties Inc.	$107,208.34
Universal Athletics	$109,355.00
BSN Sports, LLC	$121,980.00
Sports Facilities Group, Inc.	$154,390.88

The basic scope of work for this project includes purchase and installation of high jump and pole vault equipment for Ayala HS and Chino HS.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education award Bid 17-18-15F, Ayala HS and Chino HS High Jump and Pole Vault Equipment to VS Athletics.

FISCAL IMPACT

$95,946.00 to Capital Facilities Fund 25.

WMJ:GJS:AGH:pw

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Gregory J. Stachura, Asst. Supt., Facilities, Planning, and Operations
Anna G. Hamilton, Director, Purchasing

SUBJECT: **RESOLUTIONS 2017/2018-61, 2017/2018-62, 2017/2018-63, 2017/2018-66, 2017/2018-67, AND 2017/2018-68 FOR AUTHORIZATION TO UTILIZE PIGGYBACK CONTRACTS**

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BACKGROUND

Public Contract Code (PCC) 20111 requires school district governing boards to competitively bid and award any contracts involving an expenditure of more than $86,000.00 to the lowest responsible bidder.

Notwithstanding PCC 20111, PCC 20118 and Administrative Regulation 3311 state that without advertising for bids and upon a determination that it is in the best interest of the District, the Board may authorize District staff by contract, lease, requisition, or purchase order of another public corporation or agency, to lease data-processing equipment, or to purchase materials, supplies, equipment, automotive vehicles, tractors and other personal property for the District in the manner that the other public corporation or agency is authorized to make the leases or purchases from a vendor (piggyback).

Alternatively, if there is an existing contract between a public corporation or agency and a vendor for the lease or purchase of personal property, the District may authorize the lease or purchase of personal property directly to the vendor under the same terms that are available to the public corporation or agency under the contract.

Staff requests approval of the following resolutions to provide authorization for the District to participate by piggyback in contracts as itemized below:

Resolution	Contract	Contractor	Description	Term
2017/2018-61	State of California Multiple Awards Schedule (CMAS) 3-17-00-0511A	SupplyMaster, Inc.	Hewlett Packard (HP) Printers (Color, Multi-Function, High Speed, Ink Jet/Dot Matrix, Laser), Accessories, Scanner, Supplies, and Toner	6/7/2017-12/31/2018

Resolution	Contract	Contractor	Description	Term
2017/2018-62	California Participating Addendum No. 7-14-70-11	Palo Alto Networks, Inc.	Network Security	11/27/2013-5/31/2019
2017/2018-63	State of California Multiple Awards Schedule (CMAS) 3-16-36-0027C	Canon USA, Inc.	Canon Copiers, Printers (Color, Multi-Function, High Speed, Ink Jet/Dot Matrix, High Speed, Plotter), Scanner, Supplies, Software, and Toner	11/29/2016-4/30/2021
2017/2018-66	Garden Grove Unified School District Bid No. 1505	Action Sales, Arrow Restaurant Equipment & Supplies, Inc., Chef's Toys, Douglas Equipment, Kamran & Company, Inc., and Myers Restaurant Supply	Kitchen Equipment for Food Services	2/16/2016-4/30/2018
2017/2018-67	Pomona Unified School District Bid No.14(16-17)FN	Arrow Restaurant Equipment & Supplies, Inc.	Kitchen Equipment for Food Services	4/12/2017-4/12/2019
2017/2018-68	Irvine Unified School District Bid No. 2017/2018-1FA, Furniture and Equipment #2	Hamel School Outfitters Inc., Culver Newlin, and GM Business Interiors	Furniture and Equipment	10/18/2017-6/30-2018

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education adopt Resolutions 2017/2018-61, 2017/2018-62, 2017/2018-63, 2017/2018-66, 2017/2018-67, and 2017/2018-68 for authorization to utilize piggyback contracts.

FISCAL IMPACT

Unknown.

WMJ:GJS:AGH:pw

Chino Valley Unified School District
Resolution 2017/2018-61
Authorization to Utilize the State of California Multiple Awards (CMAS)
Contract 3-17-00-0511A
With SupplyMaster, Inc.
to Purchase Hewlett Packard (HP) Printers (Color, Multi-Function, High Speed, Ink Jet/Dot Matrix, Laser), Accessories, Scanner, Suppplies, and Toner
Through the Piggyback Contract

WHEREAS, the Board of Education (Board) of the Chino Valley Unified School District (District) has determined that a true and very real need exists to procure HP printers (color, multi-function, high speed, ink jet/dot matrix, laser), accessories, scanner, supplies, and toner for the District;

WHEREAS, CMAS currently has a piggyback contract, Contract 3-17-00-0511A, in accordance with Public Contract Code 20118 with SupplyMaster, Inc. that contains the materials, supplies, equipment and/or other personal property the District currently requires;

WHEREAS, the board of education of a school district, without advertising for bids, if the board has determined it to be in the best interests of the district, may authorize by contract, lease, requisition, or purchase order of any public corporation or agency, including any county, city, town, or district, to lease data-processing equipment, purchase materials, supplies, equipment, automotive vehicles, tractors, and other personal property for the district in the manner in which the public corporation or agency is authorized by law to make the leases or purchases from a vendor;

WHEREAS, the board of education of a school district is required to make a determination that a purchase and/or lease through a public corporation or agency is in the best interests of the district to take advantage of this exception; and

WHEREAS, the Board has determined that it is in the best interest of the District to authorize the purchase of HP printers (color, multi-function, high speed, ink jet/dot matrix, laser), accessories, scanner, supplies, and toner through the piggyback contract procured by the CMAS Contract 3-17-00-0511A.

NOW, **THEREFORE**, **BE IT RESOLVED** the Board hereby finds, determines, and declares as follows:

Section 1. Determination re: Recitals. All of the recitals set forth above are true and correct.

Section 2. Determination re: Purchase through Other Public Agency. Pursuant to Public Contract Code 20118, that authorizing the purchase of HP printers (color, multi-function, high speed, ink jet/dot matrix, laser), accessories, scanner, supplies, and toner through the piggyback contract originally procured by the CMAS Contract 3-17-00-0511A is in the best interests of the District because there is volume pricing that can be used to reduce the District's overall price.

Section 3. Authorization. The Board hereby authorizes the acquisition of HP printers (color, multi-function, high speed, ink jet/dot matrix, laser), accessories, scanner, supplies, and toner in accordance with Public Contract Code 20118 through the piggyback contract originally procured by the CMAS Contract 3-17-00-0511A.

Section 4. Other Actions. The Superintendent or his designee are each hereby authorized and directed, jointly and severally, to do any and all things and to execute and deliver any and all documents which they may deem necessary or advisable in order to consummate the purchase, sale, and lease, and otherwise to carry out, give effect to and comply with the terms and intent of this Resolution, and that any and all such prior actions by the District's Superintendent, or his designee, are hereby ratified by the Board.

Section 5. Effective Date. This resolution shall be effective as of June 7, 2017, for the term ending December 31, 2018.

APPROVED, **PASSED**, **AND ADOPTED** by the Board of Education of the Chino Valley Unified School District this 19th day of April 2018 by the following vote:

Blair	_____
Cruz	_____
Feix	_____
Na	_____
Orozco	_____

I, Wayne M. Joseph, Secretary of the Chino Valley Unified School District Board of Education, do hereby certify that the foregoing is a full, true, and correct copy of the Resolution passed and adopted by said Board at a regularly scheduled and conducted meeting held on said date, which Resolution is on file in the office of said Board.

_____
Wayne M. Joseph, Superintendent
Secretary, Board of Education

Chino Valley Unified School District
Resolution 2017/2018-62
Authorization to Utilize the California Participating Addendum No. 7-14-70-11
With Palo Alto Networks, Inc.
to Purchase Network Security
Through the Piggyback Contract

WHEREAS, the Board of Education (Board) of the Chino Valley Unified School District (District) has determined that a true and very real need exists to procure network security for the District;

WHEREAS, California Participating Addendum currently has a piggyback contract, Contract No. 7-14-70-11, in accordance with Public Contract Code 20118 with Palo Alto Networks, Inc. that contains the materials, supplies, equipment and/or other personal property the District currently requires;

WHEREAS, the board of education of a school district, without advertising for bids, if the board has determined it to be in the best interests of the district, may authorize by contract, lease, requisition, or purchase order of any public corporation or agency, including any county, city, town, or district, to lease data-processing equipment, purchase materials, supplies, equipment, automotive vehicles, tractors, and other personal property for the district in the manner in which the public corporation or agency is authorized by law to make the leases or purchases from a vendor;

WHEREAS, the board of education of a school district is required to make a determination that a purchase and/or lease through a public corporation or agency is in the best interests of the district to take advantage of this exception; and

WHEREAS, the Board has determined that it is in the best interest of the District to authorize the purchase of network security through the piggyback contract procured by the California Participating Addendum Contract No. 7-14-70-11.

NOW, **THEREFORE**, **BE IT RESOLVED** the Board hereby finds, determines, and declares as follows:

Section 1. Determination re: Recitals. All of the recitals set forth above are true and correct.

Section 2. Determination re: Purchase through Other Public Agency. Pursuant to Public Contract Code 20118, that authorizing the purchase of network security through the piggyback contract originally procured by the California Participating Addendum Contract No. 7-14-70-11 is in the best interests of the District because there is volume pricing that can be used to reduce the District's overall price.

Section 3. Authorization. The Board hereby authorizes the acquisition of network security in accordance with Public Contract Code 20118 through the piggyback contract originally procured by the California Participating Addendum Contract No. 7-14-70-11.

Section 4. Other Actions. The Superintendent or his designee are each hereby authorized and directed, jointly and severally, to do any and all things and to execute and deliver any and all documents which they may deem necessary or advisable in order to consummate the purchase, sale, and lease, and otherwise to carry out, give effect to and comply with the terms and intent of this Resolution, and that any and all such prior actions by the District's Superintendent, or his designee, are hereby ratified by the Board.

Section 5. Effective Date. This resolution shall be effective as of November 27, 2013, for the term ending May 31, 2019.

APPROVED, **PASSED**, **AND ADOPTED** by the Board of Education of the Chino Valley Unified School District this 19th day of April 2018 by the following vote:

Blair	_____
Cruz	_____
Feix	_____
Na	_____
Orozco	_____

I, Wayne M. Joseph, Secretary of the Chino Valley Unified School District Board of Education, do hereby certify that the foregoing is a full, true, and correct copy of the Resolution passed and adopted by said Board at a regularly scheduled and conducted meeting held on said date, which Resolution is on file in the office of said Board.

_____
Wayne M. Joseph, Superintendent
Secretary, Board of Education

Chino Valley Unified School District
Resolution 2017/2018-63
Authorization to Utilize the State of California Multiple Awards (CMAS)
Contract 3-16-36-0027C
With Canon USA, Inc.
to Purchase Canon Copiers, Printers (Color, Multi-Function, High Speed, Ink Jet/Dot Matrix, High Speed, Plotter), Scanner, Supplies, Software, and Toner Through the Piggyback Contract

WHEREAS, the Board of Education (Board) of the Chino Valley Unified School District (District) has determined that a true and very real need exists to procure Canon copiers, printer (color, multi-function, high speed, ink jet/dot matrix, high speed, plotter), scanner, supplies, software, and toner for the District;

WHEREAS, CMAS currently has a piggyback contract, Contract 3-16-36-0027C, in accordance with Public Contract Code 20118 with Canon USA, Inc. that contains the materials, supplies, equipment and/or other personal property the District currently requires;

WHEREAS, the board of education of a school district, without advertising for bids, if the board has determined it to be in the best interests of the district, may authorize by contract, lease, requisition, or purchase order of any public corporation or agency, including any county, city, town, or district, to lease data-processing equipment, purchase materials, supplies, equipment, automotive vehicles, tractors, and other personal property for the district in the manner in which the public corporation or agency is authorized by law to make the leases or purchases from a vendor;

WHEREAS, the board of education of a school district is required to make a determination that a purchase and/or lease through a public corporation or agency is in the best interests of the district to take advantage of this exception; and

WHEREAS, the Board has determined that it is in the best interest of the District to authorize the purchase of Canon copiers, printer (color, multi-function, high speed, ink jet/dot matrix, high speed, plotter), scanner, supplies, software, and toner through the piggyback contract procured by the CMAS Contract 3-16-36-0027C.

NOW, **THEREFORE**, **BE IT RESOLVED** the Board hereby finds, determines, and declares as follows:

Section 1. Determination re: Recitals. All of the recitals set forth above are true and correct.

Section 2. Determination re: Purchase through Other Public Agency. Pursuant to Public Contract Code 20118, that authorizing the purchase of Canon copiers, printer (color, multi-function, high speed, ink jet/dot matrix, high speed, plotter), scanner, supplies, software, and toner through the piggyback contract originally procured by the CMAS Contract 3-16-36-0027C is in the best interests of the District because there is volume pricing that can be used to reduce the District's overall price.

Section 3. Authorization. The Board hereby authorizes the acquisition of Canon copiers, printer (color, multi-function, high speed, ink jet/dot matrix, high speed, plotter), scanner, supplies, software, and toner in accordance with Public Contract Code 20118 through the piggyback contract originally procured by the CMAS Contract 3-16-36-0027C.

Section 4. Other Actions. The Superintendent or his designee are each hereby authorized and directed, jointly and severally, to do any and all things and to execute and deliver any and all documents which they may deem necessary or advisable in order to consummate the purchase, sale, and lease, and otherwise to carry out, give effect to and comply with the terms and intent of this Resolution, and that any and all such prior actions by the District's Superintendent, or his designee, are hereby ratified by the Board.

Section 5. Effective Date. This resolution shall be effective as of November 29, 2016, for the term ending April 30, 2021.

APPROVED, **PASSED**, **AND ADOPTED** by the Board of Education of the Chino Valley Unified School District this 19th day of April 2018 by the following vote:

Blair	_____
Cruz	_____
Feix	_____
Na	_____
Orozco	_____

I, Wayne M. Joseph, Secretary of the Chino Valley Unified School District Board of Education, do hereby certify that the foregoing is a full, true, and correct copy of the Resolution passed and adopted by said Board at a regularly scheduled and conducted meeting held on said date, which Resolution is on file in the office of said Board.

_____
Wayne M. Joseph, Superintendent
Secretary, Board of Education

Chino Valley Unified School District
Resolution 2017/2018-66
Authorization to Utilize the Garden Grove Unified School District Bid No.1505 With Action Sales, Arrow Restaurant Equipment & Supplies, Inc., Chef's Toys, Douglas Equipment, Kamran & Company, Inc., and Myers Restaurant Supply to Purchase Kitchen Equipment for Food Services Through the Piggyback Contract

WHEREAS, the Board of Education (Board) of the Chino Valley Unified School District (District) has determined that a true and very real need exists to procure kitchen equipment for food services for the District;

WHEREAS, Garden Grove Unified School District currently has a piggyback contract, Bid No.1505, in accordance with Public Contract Code 20118 with Action Sales, Arrow Restaurant Equipment & Supplies, Inc., Chef's Toys, Douglas Equipment, Kamran & Company, Inc., and Myers Restaurant Supply that contains the materials, supplies, equipment and/or other personal property the District currently requires;

WHEREAS, the board of education of a school district, without advertising for bids, if the board has determined it to be in the best interests of the district, may authorize by contract, lease, requisition, or purchase order of any public corporation or agency, including any county, city, town, or district, to lease data-processing equipment, purchase materials, supplies, equipment, automotive vehicles, tractors, and other personal property for the district in the manner in which the public corporation or agency is authorized by law to make the leases or purchases from a vendor;

WHEREAS, the board of education of a school district is required to make a determination that a purchase and/or lease through a public corporation or agency is in the best interests of the district to take advantage of this exception; and

WHEREAS, the Board has determined that it is in the best interest of the District to authorize the purchase of kitchen equipment for food services through the piggyback contract procured by the Garden Grove Unified School District Bid No.1505.

NOW, **THEREFORE**, **BE IT RESOLVED** the Board hereby finds, determines, and declares as follows:

Section 1. Determination re: Recitals. All of the recitals set forth above are true and correct.

Section 2. Determination re: Purchase through Other Public Agency. Pursuant to Public Contract Code 20118, that authorizing the purchase of kitchen equipment for food services through the piggyback contract originally procured by the Garden Grove Unified School District Bid No.1505 is in the best interests of the District because there is volume pricing that can be used to reduce the District's overall price.

Section 3. Authorization. The Board hereby authorizes the acquisition of kitchen equipment for food services in accordance with Public Contract Code 20118 through the piggyback contract originally procured by the Garden Grove Unified School District Bid No.1505.

Section 4. Other Actions. The Superintendent or his designee are each hereby authorized and directed, jointly and severally, to do any and all things and to execute and deliver any and all documents which they may deem necessary or advisable in order to consummate the purchase, sale, and lease, and otherwise to carry out, give effect to and comply with the terms and intent of this Resolution, and that any and all such prior actions by the District's Superintendent, or his designee, are hereby ratified by the Board.

Section 5. Effective Date. This resolution shall be effective as of February 16, 2016, for the term ending April 30, 2018.

APPROVED, **PASSED**, **AND ADOPTED** by the Board of Education of the Chino Valley Unified School District this 19th day of April 2018 by the following vote:

Blair	_____
Cruz	_____
Feix	_____
Na	_____
Orozco	_____

I, Wayne M. Joseph, Secretary of the Chino Valley Unified School District Board of Education, do hereby certify that the foregoing is a full, true, and correct copy of the Resolution passed and adopted by said Board at a regularly scheduled and conducted meeting held on said date, which Resolution is on file in the office of said Board.

_____
Wayne M. Joseph, Superintendent
Secretary, Board of Education

Chino Valley Unified School District
Resolution 2017/2018-67
Authorization to Utilize the Pomona Unified School District Bid No.14(16-17)FN
With Arrow Restaurant Equipment & Supplies, Inc.
to Purchase Kitchen Equipment for Food Services
Through the Piggyback Contract

WHEREAS, the Board of Education (Board) of the Chino Valley Unified School District (District) has determined that a true and very real need exists to procure kitchen equipment for food services for the District;

WHEREAS, Pomona Unified School District currently has a piggyback contract, Bid No.14(16-17)FN, in accordance with Public Contract Code 20118 with Arrow Restaurant Equipment & Supplies, Inc. that contains the materials, supplies, equipment and/or other personal property the District currently requires;

WHEREAS, the board of education of a school district, without advertising for bids, if the board has determined it to be in the best interests of the district, may authorize by contract, lease, requisition, or purchase order of any public corporation or agency, including any county, city, town, or district, to lease data-processing equipment, purchase materials, supplies, equipment, automotive vehicles, tractors, and other personal property for the district in the manner in which the public corporation or agency is authorized by law to make the leases or purchases from a vendor;

WHEREAS, the board of education of a school district is required to make a determination that a purchase and/or lease through a public corporation or agency is in the best interests of the district to take advantage of this exception; and

WHEREAS, the Board has determined that it is in the best interest of the District to authorize the purchase of kitchen equipment for food services through the piggyback contract procured by the Pomona Unified School District Bid No.14(16-17)FN.

NOW, **THEREFORE**, **BE IT RESOLVED** the Board hereby finds, determines, and declares as follows:

Section 1. Determination re: Recitals. All of the recitals set forth above are true and correct.

Section 2. Determination re: Purchase through Other Public Agency. Pursuant to Public Contract Code 20118, that authorizing the purchase of kitchen equipment for food services through the piggyback contract originally procured by the Pomona Unified School District Bid No.14(16-17)FN is in the best interests of the District because there is volume pricing that can be used to reduce the District's overall price.

Section 3. Authorization. The Board hereby authorizes the acquisition of kitchen equipment for food services in accordance with Public Contract Code 20118 through the piggyback contract originally procured by the Pomona Unified School District Bid No.14(16-17)FN.

Section 4. Other Actions. The Superintendent or his designee are each hereby authorized and directed, jointly and severally, to do any and all things and to execute and deliver any and all documents which they may deem necessary or advisable in order to consummate the purchase, sale, and lease, and otherwise to carry out, give effect to and comply with the terms and intent of this Resolution, and that any and all such prior actions by the District's Superintendent, or his designee, are hereby ratified by the Board.

Section 5. Effective Date. This resolution shall be effective as of April 12, 2017, for the term ending April 12, 2019.

APPROVED, **PASSED**, **AND ADOPTED** by the Board of Education of the Chino Valley Unified School District this 19th day of April 2018 by the following vote:

Blair	_____
Cruz	_____
Feix	_____
Na	_____
Orozco	_____

I, Wayne M. Joseph, Secretary of the Chino Valley Unified School District Board of Education, do hereby certify that the foregoing is a full, true, and correct copy of the Resolution passed and adopted by said Board at a regularly scheduled and conducted meeting held on said date, which Resolution is on file in the office of said Board.

_____
Wayne M. Joseph, Superintendent
Secretary, Board of Education

Chino Valley Unified School District
Resolution 2017/2018-68
Authorization to Utilize the Irvine Unified School District Bid No. 2017/2018-1FA, Furniture and Equipment #2
With Hamel School Outfitters Inc., Culver Newlin, and GM Business Interiors to Purchase Furniture and Equipment
Through the Piggyback Contract

WHEREAS, the Board of Education (Board) of the Chino Valley Unified School District (District) has determined that a true and very real need exists to procure furniture and equipment for the District;

WHEREAS, Irvine Unified School District currently has a piggyback contract, Bid No. 2017/2018-1FA, Furniture and Equipment #2, in accordance with Public Contract Code 20118 with Hamel School Outfitters Inc., Culver Newlin, and GM Business Interiors that contains the materials, supplies, equipment and/or other personal property the District currently requires;

WHEREAS, the board of education of a school district, without advertising for bids, if the board has determined it to be in the best interests of the district, may authorize by contract, lease, requisition, or purchase order of any public corporation or agency, including any county, city, town, or district, to lease data-processing equipment, purchase materials, supplies, equipment, automotive vehicles, tractors, and other personal property for the district in the manner in which the public corporation or agency is authorized by law to make the leases or purchases from a vendor;

WHEREAS, the board of education of a school district is required to make a determination that a purchase and/or lease through a public corporation or agency is in the best interests of the district to take advantage of this exception; and

WHEREAS, the Board has determined that it is in the best interest of the District to authorize the purchase of furniture and Equipment through the piggyback contract procured by the Irvine Unified School District Bid No. 2017/2018-1FA, Furniture and Equipment #2.

NOW, **THEREFORE**, **BE IT RESOLVED** the Board hereby finds, determines, and declares as follows:

Section 1. Determination re: Recitals. All of the recitals set forth above are true and correct.

Section 2. Determination re: Purchase through Other Public Agency. Pursuant to Public Contract Code 20118, that authorizing the purchase of furniture and equipment through the piggyback contract originally procured by the Irvine Unified School District Bid No. 2017/2018-1FA, Furniture and Equipment #2 is in the best interests of the District because there is volume pricing that can be used to reduce the District's overall price.

Section 3. Authorization. The Board hereby authorizes the acquisition of furniture and equipment in accordance with Public Contract Code 20118 through the piggyback contract originally procured by the Irvine Unified School District Bid No. 2017/2018-1FA, Furniture and Equipment #2.

Section 4. Other Actions. The Superintendent or his designee are each hereby authorized and directed, jointly and severally, to do any and all things and to execute and deliver any and all documents which they may deem necessary or advisable in order to consummate the purchase, sale, and lease, and otherwise to carry out, give effect to and comply with the terms and intent of this Resolution, and that any and all such prior actions by the District's Superintendent, or his designee, are hereby ratified by the Board.

Section 5. Effective Date. This resolution shall be effective as of October 18, 2017, for the term ending June 30, 2018.

APPROVED, **PASSED**, **AND ADOPTED** by the Board of Education of the Chino Valley Unified School District this 19th day of April 2018 by the following vote:

Blair	_____
Cruz	_____
Feix	_____
Na	_____
Orozco	_____

I, Wayne M. Joseph, Secretary of the Chino Valley Unified School District Board of Education, do hereby certify that the foregoing is a full, true, and correct copy of the Resolution passed and adopted by said Board at a regularly scheduled and conducted meeting held on said date, which Resolution is on file in the office of said Board.

_____
Wayne M. Joseph, Superintendent
Secretary, Board of Education

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Gregory J. Stachura, Asst. Supt., Facilities, Planning, and Operations

SUBJECT: **RESOLUTIONS 2017/2018-49, 2017/2018-50, 2017/2018-51, 2017/2018-52, 2017/2018-53, 2017/2018-54, 2017/2018-55, 2017/2018-56, 2017/2018-57, 2017/2018-58, AND 2017/2018-59, ADOPTING NOTICES OF EXEMPTION FOR SCHOOL MODERNIZATION PROJECTS**

==========

BACKGROUND

The following school sites, Butterfield Ranch ES, Howard Cattle ES, Country Springs ES, Eagle Canyon ES, Hidden Trails ES, Gerald Litel ES, Oak Ridge ES, Rolling Ridge ES, Canyon Hills JHS, Robert Townsend JHS, and Ruben S. Ayala HS, are eligible for the state modernization program. Modernization work will begin at three school sites within the next six to nine months, and the remaining sites will be scheduled accordingly.

District legal counsel has provided an opinion and upon adoption of the subject resolutions, the Board has determined that these projects are categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education adopt Resolutions 2017/2018-49, 2017/2018-50, 2017/2018-51, 2017/2018-52, 2017/2018-53, 2017/2018-54, 2017/2018-55, 2017/2018-56, 2017/2018-57, 2017/2018-58, and 2017/2018-59, Adopting Notices of Exemption for School Modernization Projects.

FISCAL IMPACT

None.

WMJ:GJS:pw

RESOLUTION NO. 2017/2018-49

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Butterfield Ranch ES, located at 6350 Mystic Canyon Drive, in the City of Chino Hills, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

RESOLUTION NO. 2017/2018-50

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Howard Cattle ES, located at 13590 Cypress Avenue, in the City of Chino, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

RESOLUTION NO. 2017/2018-51

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Country Springs ES, located at 14145 Village Center Drive, in the City of Chino Hills, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

RESOLUTION NO. 2017/2018-52

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Eagle Canyon ES, located at 13435 Eagle Canyon Drive, in the City of Chino Hills, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

RESOLUTION NO. 2017/2018-53

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Hidden Trails ES, located at 2250 Ridgeview Drive, in the City of Chino Hills, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

RESOLUTION NO. 2017/2018-54

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Gerald Litel ES, located at 3425 Eucalyptus Avenue, in the City of Chino Hills, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

RESOLUTION NO. 2017/2018-55

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Oak Ridge ES, located at 15452 Valle Vista Drive, in the City of Chino Hills, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

RESOLUTION NO. 2017/2018-56

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Rolling Ridge ES, located at 13677 Calle San Marcos, in the City of Chino Hills, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

RESOLUTION NO. 2017/2018-57

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Canyon Hills JHS, located at 2500 Madrugada Drive, in the City of Chino Hills, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

RESOLUTION NO. 2017/2018-58

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Robert Townsend JHS, located at 15359 Ilex Drive, in the City of Chino Hills, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

RESOLUTION NO. 2017/2018-59

RESOLUTION OF THE BOARD OF EDUCATION OF THE CHINO VALLEY UNIFIED SCHOOL DISTRICT ADOPTING NOTICE OF EXEMPTION

WHEREAS, the Chino Valley Unified School District ("District") owns the property commonly known as Ruben S. Ayala HS, located at 14255 Peyton Drive, in the City of Chino Hills, County of San Bernardino, State of California ("Project");

WHEREAS, on August 17, 2017, the District's governing board ("Board") approved Resolution 2017/2018-09, authorizing the filing of applications for funding under the School Facilities Program, including but not limited to modernization;

WHEREAS, the Board has determined that the Project is categorically exempt from the provisions of the California Environmental Quality Act of 1974, as amended, pursuant to Title 14, sections 15303 and 15311 of the California Code of Regulations as the Project does not have a significant impact on the environment;

WHEREAS, the Project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work;

NOW, THEREFORE, the Board of Education of the Chino Valley Unified School District does hereby resolve, determine and order as follows:

Section 1. The Notice of Exemption attached hereto as Exhibit "A" and incorporated herein by reference is adopted.

Section 2. The Superintendent or his designee is hereby authorized and directed to cause the Notice of Exemption to be executed and timely filed with the Recorder-Clerk for San Bernardino County.

ADOPTED, SIGNED, AND APPROVED this 19th day of April 2018.

BOARD OF EDUCATION
CHINO VALLEY UNIFIED SCHOOL DISTRICT

By: _____
Pamela Feix, President

By: _____
Irene Hernandez-Blair, Clerk

Print Form

Notice of Exemption

Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk - Recorder/Assessor
County of: San Bernardino
222 West Hospitality Lane, 1st Floor
San Bernardino, CA 91415

From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Butterfield Ranch ES Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Butterfield Ranch ES
6350 Mystic Canyon Drive, Chino Hills, CA 91709

Project Location - City: Chino Hills Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The work will have very minimal impact , if any at all, on the environment.

Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?. ☐ Yes ☐ No

Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

Revised 2011

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Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk - Recorder/Assessor
County of: San Bernardino
222 West Hospitality Lane, 1st Floor
San Bernardino, CA 91415

From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Howard Cattle ES Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Howard Cattle Elementary School
13590 Cypress Avenue, Chino, CA 91710

Project Location - City: Chino Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The work will have very minimal impact , if any at all, on the environment.

Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?. ☐ Yes ☐ No

Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

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San Bernardino, CA 91415

From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Country Springs ES Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Country Springs Elementary School,
14145 Village Center Drive, Chino Hills, CA 91709

Project Location - City: Chino Hills Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The work will have very minimal impact , if any at all, on the environment.

Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?. ☐ Yes ☐ No

Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
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San Bernardino, CA 91415

From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Eagle Canyon ES Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Eagle Canyon Elementary School,
13435 Eagle Canyon Drive, Chino Hills, CA 91709

Project Location - City: Chino Hills Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The work will have very minimal impact , if any at all, on the environment.

Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?. ☐ Yes ☐ No

Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
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San Bernardino, CA 91415

From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Hidden Trails ES Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Hidden Trails Elementary School
2250 Ridgeview Drive, Chino Hills, CA 91709

Project Location - City: Chino Hills Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The work will have very minimal impact , if any at all, on the environment.

Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?. ☐ Yes ☐ No

Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
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From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Gerald Litel ES Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Gerald Litel Elementary School,
3425 Eucalyptus Avenue Chino Hills, CA 91709

Project Location - City: Chino Hills Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The work will have very minimal impact , if any at all, on the environment.

Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?. ☐ Yes ☐ No

Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
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San Bernardino, CA 91415

From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Oak Ridge ES Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Oak Ridge Elementary School
15452 Valle Vista Drive Chino Hills, CA 91709

Project Location - City: Chino Hills Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The work will have very minimal impact , if any at all, on the environment.

Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

If filed by applicant:

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2. Has a Notice of Exemption been filed by the public agency approving the project?, ☐ Yes ☐ No

Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

☒ Signed by Lead Agency ☐ Signed by Applicant

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From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Rolling Ridge ES Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Rolling Ridge Elementary School
13677 Calle San Marcos, Chino Hills, CA 91709

Project Location - City: Chino Hills Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
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- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
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Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

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Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
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San Bernardino, CA 91415

From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Canyon Hills JHS Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Canyon Hills Junior High School
2500 Madrugada Drive, Chino Hills, CA 91709

Project Location - City: Chino Hills Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
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Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

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1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?. ☐ Yes ☐ No

Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
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222 West Hospitality Lane, 1st Floor
San Bernardino, CA 91415

From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Robert Townsend JHS Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Robert Townsend Junior High School
15359 Ilex Drive Chino Hills, CA 91709

Project Location - City: Chino Hills Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The work will have very minimal impact , if any at all, on the environment.

Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

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1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?. ☐ Yes ☐ No

Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

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San Bernardino, CA 91415

From: (Public Agency): Chino Valley Unified School Dist.
5130 Riverside Drive
Chino, CA 91710
(Address)

Project Title: Ruben S. Ayala High School Modernization

Project Applicant: Chino Valley Unified School District

Project Location - Specific:
Ruben S. Ayala High School
14255 Peyton DriveChino Hills, CA 91709

Project Location - City: Chino Hills Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The beneficiaries will be the school students, staff, and community

Name of Public Agency Approving Project: Chino Valley Unified School District

Name of Person or Agency Carrying Out Project: Chino Valley Unified School District

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: 15303 and 15311
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:
The project scope of work consists of interior renovations to existing school buildings and limited exterior renovation work. The work will have very minimal impact , if any at all, on the environment.

Lead Agency Contact Person: Gregory Stachura Area Code/Telephone/Extension: 909 628-1201

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project?. ☐ Yes ☐ No

Signature: _____ Date: April 19, 2018 Title: Asst. Superintendent

☒ Signed by Lead Agency ☐ Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

Revised 2011

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Gregory J. Stachura, Asst. Supt., Facilities, Planning, and Operations

SUBJECT: **REQUEST TO NAME THE DON LUGO HS VARSITY BASEBALL FIELD AFTER JOE MARCOS**

==========

BACKGROUND

On April 20, 2017, Ryan Marcos (community member) addressed the Board of Education to request naming the Don Lugo HS varsity baseball field after his father, retired Don Lugo HS varsity baseball coach Joe Marcos. Shortly thereafter, Mr. Marcos followed up with a formal written request to the District.

The Citizens' Advisory Committee on the Naming of Facilities held a public meeting on January 10, 2018, to discuss the naming proposal, fiscal impact, and impact to the educational program. The committee agreed that this request was worthy of consideration and potential further action by the Board of Education. An information item on this request was presented to the Board on February 1, 2018.

Beginning February 2, 2018, the public was notified through the local news media, the District cable channel, social media outlets, and the District website of the 30-day opportunity to submit recommendations for naming this facility.

On March 15, 2018, the Board held a public hearing on the proposed name change and entertained public comments.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve the request to name the Don Lugo HS varsity baseball field after Joe Marcos.

FISCAL IMPACT

None.

WMJ:GJS:pw

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Lea Fellows, Assistant Superintendent, Human Resources
Suzanne Hernandez, Ed.D., Director, Human Resources
Richard Rideout, Director, Human Resources

SUBJECT: CERTIFICATED/CLASSIFIED PERSONNEL ITEMS

==========

BACKGROUND

Board approval of personnel transactions is required by Board Bylaw 9324 Bylaws of the Board - Minutes and Recordings and Education Code 35163. Included are new hires based on need, which includes replacements, growth, and/or class size reduction.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education approve/ratify the certificated/classified personnel items.

FISCAL IMPACT

All personnel assignments are within the approved staffing ratio for the appropriate school year budget.

WMJ:LF:SH:RR:mcm

CERTIFICATED PERSONNEL

NAME	POSITION	LOCATION	EFFECTIVE DATE

CERTIFICATED MANAGEMENT PERSONNEL FOR THE 2017/2018 SCHOOL YEAR

RETIREMENT

SEFTEL, Anna (5 Years of Service)	Assistant Principal-ES	Dickson ES	06/14/2018
CUMMINS, Alan (21 Years of Service)	Assistant Principal-ES	Newman ES	06/14/2018

HIRED AT THE APPROPRIATE PLACEMENT ON THE CERTIFICATED SALARY SCHEDULE AND APPROPRIATE CREDENTIAL FOR THE 2017/2018 SCHOOL YEAR

GOMEZ, Teresa	Special Education Teacher	Borba ES	04/20/2018
SAVALA, Amanda	Special Education Teacher	Butterfield ES/Dickey ES	04/20/2018
TICKENOFF, Jill	Special Education Teacher	Glenmeade ES	04/20/2018
ON, Bic	Elementary Teacher	Liberty ES	04/20/2018
HOFFMAN, Alexandrea	Special Education Teacher	Litel ES	04/20/2018
MAYORGA, Nydia	Special Education Teacher	Magnolia JHS	04/20/2018

RETIREMENT

MELENDEZ, Margaret (19 Years of Service)	Elementary Teacher	Liberty ES	06/30/2018
COUCHOIS, Sharon (14 Years of Service)	Elementary Teacher	Oak Ridge ES	07/01/2018
MARIS, Erlinda (20 Years of Service)	Elementary Teacher	Newman ES	06/02/2018
MILLER, Beth (26 Years of Service)	Elementary Teacher	Oak Ridge ES	06/02/2018
ROE, Gaylen (28 Years of Service)	Life Skills Teacher	Magnolia JHS	06/02/2018
WHITMORE III, Robert (9 Years of Service)	Social Science Teacher	Magnolia JHS	06/02/2018
FLANAGAN, Susan (13 Years of Service)	Special Education Teacher	Magnolia JHS	06/02/2018
HOLK, Richard (15 Years of Service)	Drama Teacher	Ayala HS	06/02/2018
PURDY, Charles (32 Years of Service)	Physical Ed. Teacher	Ayala HS	06/02/2018
WYCKOFF, Jeffery (12 Years of Service)	Science Teacher	Chino Hills HS	07/01/2018
BERGER, Stanley (32 Years of Service)	Music Teacher	Elementary Curriculum	06/02/2018
SNYDER, Harriet (5 years of Service)	Speech and Lang. Path	Special Education	06/02/2018

CERTIFICATED PERSONNEL (cont.)

NAME	POSITION	LOCATION	EFFECTIVE DATE
AMENDMENT TO RESIGNATION DATE ON THE MARCH 1, 2018 AGENDA			
GONZALEZ, Vanessa	Psychologist	Special Education	03/30/2018
HIRED AT APPROPRIATE PLACEMENT ON THE CERTIFICATED SALARY SCHEDULE AND APPROPRIATE CREDENTIAL FOR THE 2018/2019 SCHOOL YEAR			
VILFORT, Amanda	Special Education Teacher	Liberty ES	08/07/2018
GARCIA, Brian	Video Production Teacher	Don Lugo HS	08/07/2018
LEAVE OF ABSENCE – JOB SHARES - 2018/2019			
CINTRA DO PRADO, Theresa	Transitional Kindergarten 40%	Chaparral ES	2018/2019
SOMERVILLE, Carol	Transitional Kindergarten 60%	Chaparral ES	2018/2019
APPOINTMENT - EXTRA DUTY			
GARCIA, Paul (NBM)	Band (B)	Woodcrest JHS	04/20/2018
GRACIA III, Arthur	Baseball (B)	Ayala HS	04/20/2018
ORDONEZ, Andrew (NBM)	Band (B)	Ayala HS	04/20/2018
ZARATE, Abby (NBM)	Band (B)	Ayala HS	04/20/2018
AKER, Carol	7th Grade Girls Basketball (GF)	Canyon Hills JHS	04/20/2018
ANYANWU, Onyema	8th Grade Boys Basketball (GF)	Canyon Hills JHS	04/20/2018
BROMLEY, Maureen	8th Grade Girls Basketball (GF)	Canyon Hills JHS	04/20/2018
WALKER, Carri	7th Grade Boys Basketball (GF)	Canyon Hills JHS	04/20/2018
TORRES, Miguel (NBM)	Swim (GF)	Chino HS	04/20/2018
WINTON, Bryce (NBM)	Swim (GF)	Chino Hills HS	04/20/2018
CRAWFORD, Timothy (NBM)	Track & Field (B)	Don Lugo HS	04/20/2018
		TOTAL:	$13,572.00
DELETE – EXTRA DUTY			
CHILTON, Jana	Assist. Pep Squad Advisor	Ayala HS	3/21/2018
		TOTAL:	($1,308.15)

CERTIFICATED PERSONNEL (cont.)

NAME	POSITION	LOCATION	EFFECTIVE DATE
APPOINTMENT- EXTRA DUTY – DEPARTMENT CHAIR			
FLORES, Elvira	Foreign Language	Chino HS	2/1/2018
		TOTAL:	$783.51
DELETE - APPOINTMENT- EXTRA DUTY – DEPARTMENT CHAIR			
CARDENAS-ISLEY, Adriana	Foreign Language	Chino HS	1/31/2018
		TOTAL:	($783.51)

APPOINTMENT OF CERTIFICATED SUBSTITUTES EFFECTIVE JULY 1, 2017, THROUGH JUNE 30, 2018

ANDERSON, Mary	BOLANOS, Taylor	CARR, Russell
CASTRO, Camille	EDWARDS, Julie	FOY, Lorin
GULLEDGE, Jennifer	HUYNH, Linh	LEMOINE, Maurice
MALIXI, Jennifer	PATTISON, Brent	RICHARD, Teresa
ROBERTS, Sarah	TRAN, HoangPhuong	VEENSTRA, Victoria

CLASSIFIED PERSONNEL

NAME	POSITION	LOCATION	EFFECTIVE DATE

CLASSIFIED MANAGEMENT SALARY SCHEDULE

LEAVE OF ABSENCE – 2018/2019

CHEN, Lina	Occupational Therapist–40%	Special Education	2018/2019

HIRED AT THE APPROPRIATE PLACEMENT ON THE CLASSIFIED SALARY SCHEDULE

APPOINTMENT

BABEY, Jessica	Child Care Specialist (CDF)	Chaparral FC	04/20/2018
VALADEZ, Maria	Nutrition Services Asst. I (NS)	Dickey ES	04/20/2018
MORTON, Taylor	IA/Childhood Ed. (CDF)	Dickey SOAR	04/20/2018
WICKER, Brittany	IA/Special Ed. (SELPA/GF)	Magnolia JHS	04/23/2018
KING, Rosemary	IA/Special Ed. (SELPA/GF)	Ayala HS	04/20/2018
WILSON, Kayla	Athletic Trainer (GF)	Ayala HS	04/20/2018
GONZALEZ, Ileana	Nutrition Services Asst. II (NS)	Chino Hills HS	04/20/2018
GUZMAN, Guadalupe	Playground Supervisor (GF)	Chino Hills HS	04/20/2018
MELO, Jennifer	Behavior Intervention Aide (SELPA/GF)	Special Education	04/20/2018

PROMOTION

MURRAY, Marissa	FROM: Elementary Library/ Media Center Asst. (GF) 3.5 hrs./150 contract days TO: Secondary Library/ Media Center Asst. (GF) 8 hrs./213 work days	Litel ES Chino Hills HS	04/20/2018
SEIBERT, Shirley	FROM: Custodian I (GF) 8 hrs./261 contract days TO: Custodian II (GF) 8 hrs./261 contract days	Townsend JHS Townsend JHS	04/20/2018
ALLBRIGHT, Michelle	FROM: Typist Clerk II (GF) 8 hrs./201 work days TO: Counseling Asst. (GF) 8 hrs./205 work days	Ayala HS Alternative Ed.	04/20/2018

CLASSIFIED PERSONNEL (cont.)

NAME	POSITION	LOCATION	EFFECTIVE DATE
CHANGE OF ASSIGNMENT			
ARREDONDO HICKS, Irma	FROM: Nutrition Services Asst. I (NS) 2 hrs./261 contract days TO: Nutrition Services Asst. I (NS) 3 hrs./181 work days	Cal Aero K-8 Wickman ES	04/20/2018
RINIE, Heather	FROM: Health Tech. (GF) 3.5 hrs./185 work days TO: Typist Clerk II (GF) 8 hrs./201 work days	Hidden Trails ES Liberty ES	04/20/2018
PERSONAL LEAVE OF ABSENCE			
MISQUEZ, Sherry	Nutrition Services Asst. I (NS)	Hidden Trails ES	03/31/2018 through 06/30/2018
RESIGNATION			
STONE, Jennifer	Playground Supervisor (GF)	Rolling Ridge ES	05/22/2018
DE AZEVEDO-CORREA, Justyn	IA/Special Ed. (SELPA/GF)	Magnolia JHS	04/06/2018
GONZALEZ, Maxine	IA/Special Ed. (SELPA/GF)	Chino Hills HS	03/02/2018
RETIREMENT			
CHERNEY, Barbara (1 year of service)	Playground Supervisor (GF)	Borba ES	06/02/2018
HOLLAND, Karen (24 years of service)	Typist Clerk II (GF)	Wickman ES	07/07/2018
VILLESCAS, Ruby (8 years of service)	IA/Special Ed. (SELPA/GF)	Briggs K-8	07/01/2018
BALARA, Bruce (5 years of service)	Custodian I (GF)	Adult School	07/01/2018
WEISCHEDEL, Terry (15 years of service)	Electronics Technician II (GF)	Maintenance	07/01/2018
WEDDELL, Dennice (3 years of service)	Bus Driver (GF)	Transportation	04/02/2018
APPOINTMENT OF SHORT TERM EMPLOYEES EFFECTIVE APRIL 1, 2018, THROUGH JUNE 30, 2018			
LOERA, Bertha	IA/Special Ed./Collab.	Litel ES	
FREESTONE, Jessica	IA/Special Ed./SH	Rhodes ES	

CLASSIFIED PERSONNEL (cont.)

NAME	POSITION	LOCATION	EFFECTIVE DATE

APPOINTMENT OF SHORT TERM EMPLOYEES EFFECTIVE APRIL 1, 2018, THROUGH JUNE 30, 2018 (cont.)

ROCHA, Ashlie	IA/Special Ed./SH	Ayala HS
MOHLMAN, Tyler	District Media Center Clerk	Media Center
WARD, Claudia	District Media Center Clerk	Media Center

APPOINTMENT OF CLASSIFIED SUBSTITUTES EFFECTIVE JULY 1, 2017, THROUGH JUNE 30, 2018

BUQUID, Natasha
DEMARCO, Janelle
TAFOYA, Darlene
VARNER, Kelsea

(504) = Federal Law for Individuals with Handicaps
(ACE) = Ace Driving School
(ABG) = Adult Education Block Grant
(ASB) = Associated Student Body
(ASF) = Adult School Funded
(ATE) = Alternative to Expulsion
(B) = Booster Club
(BTSA) = Beginning Teacher Support & Assessment
(C) = Categorically Funded
(CAHSEE)= California High School Exit Exam
(CC) = Children's Center (Marshall)
(CDF) = Child Development Fund
(CSR) = Class Size Reduction
(CVLA) = Chino Valley Learning Academy
(CWY) = Cal Works Youth
(E-rate) = Discount Reimbursements for Telecom.
(G) = Grant Funded
(GF) = General Fund
(HBE) = Home Base Education
(MM) = Measure M – Fund 21
(MAA) = Medi-Cal Administrative Activities
(MH) = Mental Health – Special Ed.
(NBM) = Non-Bargaining Member
(ND) = Neglected and Delinquent
(NS) = Nutrition Services Budget
(OPPR) = Opportunity Program
(PFA) = Parent Faculty Association
(R) = Restricted
(ROP) = Regional Occupation Program
(SAT) = Saturday School
(SB813) = Medi-Cal Admin. Activities Entity Fund
(SELPA) = Special Education Local Plan Area
(SOAR) = Students on a Rise
(SPEC) = Spectrum Schools
(SS) = Summer School
(SWAS) = School within a School
(VA) = Virtual Academy
(WIA) = Workforce Investment Act

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Lea Fellows, Assistant Superintendent, Human Resources
Suzanne Hernandez, Ed. D., Director, Human Resources
Richard Rideout, Director, Human Resources

SUBJECT: **NEW JOB DESCRIPTIONS AND CREATION OF POSITIONS FOR: FAMILY SERVICES PROGRAM SPECIALIST; JUNIOR DATABASE ADMINISTRATOR; AND NUTRITION ELIGIBILITY SPECIALIST**

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BACKGROUND

Job descriptions are a statement of duties, qualifications, and responsibilities associated with a particular job. It is a matter of standard practice to modify and/or create job descriptions as new positions become necessary, jobs evolve, and responsibilities and duties change. Additionally, changes in organizational structure, student needs, and other factors require the revision of existing positions to support the District's mission of increased student achievement.

The District has consulted with the California School Employees Association on the job descriptions, as required.

New language is provided in UPPER CASE.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education:

a) Approve the new job description for Family Services Program Specialist;
b) Authorize the creation of the Family Services Program Specialist position;
c) Approve the new job description for Junior Database Administrator;
d) Authorize the creation of the Junior Database Administrator position;
e) Approve the new job description for Nutrition Eligibility Specialist; and
f) Authorize the creation of the Nutrition Eligibility Specialist position.

FISCAL IMPACT

The new positions impacts are inclusive of salary, mandatory benefits, health and welfare, and other allowances. $64,175.25 to the Restricted Fund and $21,391.75 to LCAP Fund for the Family Services Program Specialist position; $90,804.00 to the General Fund for the Junior Database Administrator position; and $58,487.00 to the Nutrition Services fund for the Nutrition Eligibility Specialist position.

WMJ:LF:SH:RR:mcm

CHINO VALLEY UNIFIED SCHOOL DISTRICT

RANGE 50

FAMILY SERVICES PROGRAM SPECIALIST

DEFINITION

UNDER SUPERVISION OF THE HEALTH SERVICES/CHILD DEVELOPMENT DIRECTOR ASSISTS WITH THE IMPLEMENTATION OF GRANT PROGRAMS INCLUDING GRANT WRITING, MONITORS GRANT/PROGRAM FINANCIAL AND PROGRAM REPORTS, PROGRAM PLANNING, REVIEWING GRANT CONTRACTS, AND PURCHASING EQUIPMENT AND SUPPLIES FOR PROGRAMS. INFORMS PERSONNEL ABOUT PROGRAM COMPONENTS. WORKING IN CONJUNCTION WITH THE DIRECTOR, ASSISTS WITH OVERSIGHT OF PROGRAM IMPLEMENTATION, CLERICAL AND ACCOUNTING DUTIES, AND TRACKING AND MONITORING SPECIAL FUNDED PROGRAMS AND THEIR ACCOUNTS. COORDINATES WITH GRANT-FUNDED SITES TO ENSURE COMPLIANCE WITH PROGRAM GUIDELINES, FEDERAL, AND STATE REGULATIONS. ACTS AS A LIAISON BETWEEN THE DISTRICT, CITIES, NON-PROFIT, AND OTHER PUBLIC AND GOVERNMENTAL AGENCIES.

DISTINGUISHING CHARACTERISTICS

THIS POSITION IS DISTINGUISHED BY THE FULFILLMENT OF GRANT OBLIGATIONS INCLUDING OVERSIGHT OF CONTRACTS, FISCAL AND PROGRAM REPORTS, AND ENGAGING IN THE GRANT REQUEST FOR FUNDING APPLICATION (RFA) AND/OR REQUEST FOR PROPOSAL (RFP) PROCESS PER FUNDING CYCLES.

OCCUPATIONAL GROUP

CLASSIFIED (CLERICAL)

EXAMPLES OF DUTIES

DUTIES MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1. FACILITATES THE ORGANIZATION/OPERATION OF GRANT FUNDED PROGRAMS AND DISTRICT OPERATED FAMILY RESOURCE CENTERS, AND ENSURES GRANT AND PROJECT OBJECTIVES ARE MET. **(E)**

2. PREPARES, WRITES, AND SUBMITS COUNTY, STATE, GRANT/REQUEST FOR APPLICATION/PROPOSAL (RFA/RFP) APPLICATIONS. **(E)**

3. ASSISTS IN DEVELOPING VARIOUS PROGRAM BUDGETS, MONITORS EXPENDITURES, MAINTAINS RECORDS, AND PROCESSES BUDGET-RELATED PAPERWORK. **(E)**

4. MONITORS AND PROCESSES TIME SHEETS AND ABSENCE REPORTS FOR GRANT RELATED ACTIVITIES. **(E)**

5. GENERATES FISCAL AND PROGRAM REPORTS FOR GRANT-FUNDED PROGRAMS AS REQUIRED BY GRANT PROGRAM OR STATE MANDATES. **(E)**

6. ASSISTS WITH THE COORDINATION AND TRACKING OF GRANT-FUNDED REQUIREMENTS TO ENSURE COMPLIANCE WITH GRANT PROGRAM OR FEDERAL, STATE, AND COUNTY REGULATIONS. **(E)**

7. GATHERS DATA AND GENERATES DOCUMENTS FOR BOARD AGENDA ITEMS, CITY COUNCIL, AND COMMITTEE OVERSIGHT. **(E)**

8. ACTS AS LIAISON WITH SITE ADMINISTRATORS REGARDING PROGRAM ISSUES, INCLUDING ALLOCATION OF SITE RESOURCES TO MEET GRANT PROGRAM REQUIREMENTS (E.G. FACILITIES, STAFFING, ETC). **(E)**

9. ACTS AS A LIAISON BETWEEN THE DISTRICT, CITIES, NON-PROFIT, AND OTHER PUBLIC AND GOVERNMENTAL AGENCIES. **(E)**

10. ASSISTS AND PROVIDES STAFF, PARENTS AND THE PUBLIC WITH A VARIETY OF INFORMATION RELATED TO GRANT PROGRAM AND COMMUNITY RESOURCES/SERVICES. **(E)**

11. ASSISTS THE DIRECTOR OF HEALTH SERVICES/CHILD DEVELOPMENT IN ENSURING THAT CONTRACTOR OBLIGATIONS ARE MET FOR PROGRAM STAFFING AND SUPERVISION**. (E)**

12. ATTENDS LOCAL, DISTRICT, COUNTY, COLLABORATIVE, AND COMMISSION MEETINGS AS NEEDED. **(E)**

13. OVERSEES PROGRAM OUTREACH ACTIVITIES INCLUDING MARKETING MATERIALS, FLYERS, AND NEWSLETTERS.

14. PERFORMS OTHER RELATED DUTIES AS ASSIGNED.

(E) = ESSENTIAL FUNCTIONS

MINIMUM REQUIREMENTS

KNOWLEDGE OF:

- BASIC MATHEMATICAL, ACCOUNTING, AND BUDGET PROCEDURES;
- CORRECT USAGE OF THE ENGLISH LANGUAGE, SPELLING, GRAMMAR, AND PUNCTUATION;
- VARIETY OF COMPUTER SOFTWARE APPLICATIONS, TO INCLUDE, BUT NOT LIMITED TO, SPREADSHEETS, DATABASES, AND WORD PROCESSING PROGRAMS; AND
- FEDERAL AND STATE GUIDELINES PERTAINING TO SPECIAL-FUNDED PROGRAMS.

ABILITY TO:

- INTERPRET MANDATED FEDERAL AND STATE GUIDELINES;
- UNDERSTAND, INTERPRET, ANALYZE AND REPORT FINANCIAL DATA OF VARIOUS TYPES;
- MAINTAIN A VARIETY OF RECORDS AND RESOURCE FILES;
- OPERATE A KEYBOARD AT A MINIMUM TYPING SPEED OF 50 NET WPM;
- COMMUNICATE WITH STAFF AND PUBLIC, BOTH ORALLY AND IN WRITING, IN A COURTEOUS, PROFESSIONAL, AND EFFECTIVE MANNER;
- ESTABLISH AND MAINTAIN COOPERATIVE AND EFFECTIVE RELATIONSHIPS WITH THOSE CONTACTED DURING THE WORK DAY; AND
- MAKE ORAL PRESENTATIONS.

EXPERIENCE

ONE YEAR OF PAID WORK EXPERIENCE IN THE CHILD DEVELOPMENT, SOCIAL SERVICES, STUDENT SUPPORT PROGRAMS, BUSINESS ADMINISTRATION, OR THE HEALTHCARE OR HEALTH EDUCATION FIELD. TWO YEARS OF EXPERIENCE WORKING WITH GRANT PROGRAMS AND WITH GRANT WRITING.

EDUCATION/CERTIFICATION

EQUIVALENT TO THE COMPLETION OF TWELFTH GRADE. BACHELOR'S DEGREE IN EDUCATION, CHILD DEVELOPMENT, BUSINESS ADMINISTRATION OR HEALTH SCIENCES DESIRABLE.

MUST POSSESS, OR OBTAIN PRIOR TO APPOINTMENT, A VALID CALIFORNIA VEHICLE OPERATOR'S LICENSE. MUST HAVE THE ABILITY TO OBTAIN AND MAINTAIN INSURABILITY STATUS UNDER THE DISTRICT'S VEHICLE INSURANCE POLICY.

WORKING CONDITIONS

ENVIRONMENT

- DISTRICT OFFICE ENVIRONMENT AND SCHOOL SITES;
- DEMANDING TIMELINES;
- SUBJECT TO FREQUENT INTERRUPTIONS AND EXTENSIVE CONTACT WITH STUDENTS, STAFF, PARENTS AND THE PUBLIC;
- INDOOR AND OUTDOOR ENVIRONMENT; AND
- SUBJECT TO DRIVING TO A VARIETY OF LOCATIONS TO CONDUCT WORK DURING DAY, EVENING, AND WEEKEND HOURS.

PHYSICAL ABILITIES

- BENDING AT THE WAIST, KNEELING OR CROUCHING, AND REACHING TO RETRIEVE AND MAINTAIN FILES AND RECORDS;
- REACHING OVERHEAD, ABOVE THE SHOULDERS AND HORIZONTALLY;

- DEXTERITY OF HANDS AND FINGERS TO OPERATE STANDARD OFFICE EQUIPMENT, COMPUTER KEYBOARD, AND OTHER EQUIPMENT NECESSARY TO COMPLETE THE REQUIRED DUTIES;
- HEARING AND SPEAKING TO EXCHANGE INFORMATION IN PERSON AND ON THE TELEPHONE;
- VISUAL ABILITY TO READ AND TO PREPARE/PROCESS DOCUMENTS AND TO MONITOR VARIOUS SERVICES AND PERSONNEL;
- SITTING AND STANDING FOR EXTENDED PERIODS;
- WALKING OVER ROUGH OR UNEVEN SURFACES;
- CLIMBING, OCCASIONAL USE OF A LADDER; AND
- PHYSICAL ACTIVITY MAY BE REQUIRED, WHICH COULD INCLUDE MODERATE LIFTING.

HAZARDS

- EXTENDED VIEWING OF COMPUTER MONITOR;
- WORKING AROUND AND WITH OFFICE EQUIPMENT HAVING MOVING PARTS; AND
- MAY BE EXPOSED TO CONTACT WITH HOSTILE OR ABUSIVE INDIVIDUALS.

BOARD APPROVED:

CHINO VALLEY UNIFIED SCHOOL DISTRICT

RANGE 51

JUNIOR DATABASE ADMINISTRATOR

DEFINITION

UNDER SUPERVISION OF THE DIRECTOR OF TECHNOLOGY, SUPPORTS DATABASE ADMINISTRATION TASKS AND PROGRAM DEVELOPMENT. THIS POSITION IS RESPONSIBLE FOR DEVELOPING AND SUPPORTING DATABASE APPLICATIONS ON A DISTRICT-WIDE BASIS.

OCCUPATIONAL GROUP

CLASSIFIED (TECHNICAL)

EXAMPLES OF DUTIES

DUTIES MAY INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1. MANAGES DATABASE CONFIGURATIONS, SCHEMAS AND SPACE. VERIFYING AND TESTING OF STRUCTURED QUERY LANGUAGE (SQL) BACKUP AND RECOVERY PROCESSES. **(E)**

2. PERFORMS SQL REGULAR SECURITY ADMINISTRATION TASKS. **(E)**

3. CREATES NEW APPLICATION CODE AND BUILDS IN VARIOUS PRODUCTION AND NON-PRODUCTION ENVIRONMENTS. **(E)**

4. CONDUCTS PERFORMANCE TUNING, PROBLEM RESEARCH/RESOLUTION, CODE REVIEWS AND DEPLOYMENTS, SQL SUPPORT AND DATA MOVEMENT. **(E)**

5. MONITORS DATABASE HEALTH. **(E)**

6. TROUBLESHOOTS DATABASE ISSUES. **(E)**

7. ANALYZES AND CORRECTS SUSPECTED OR REPORTED PROBLEMS WITH INTEGRITY OF STORED DATA; REVIEWS AND MODIFIES EXISTING SYSTEMS AND PROGRAMS TO IMPROVE EFFICIENCY OR TO CORRECT LOGIC OR PROCEDURAL PROBLEMS. **(E)**

8. CREATES AND MAINTAINS DATABASE AND OPERATIONAL DOCUMENTATION. **(E)**

9. COMMUNICATES REGULARLY WITH TECHNICAL APPLICATIONS AND OPERATIONAL STAFF TO ENSURE DATABASE INTEGRITY AND SECURITY. **(E)**

10. OPENS AND FOLLOWS UP ON SERVICE SUPPORT TICKETS WITH MULTIPLE VENDORS. **(E)**

11. PROVIDES SUPPORT FOR VARIOUS APPLICATIONS, INCLUDING THE STUDENT INFORMATION SYSTEM, TO DISTRICT AND SITE LEVEL STAFF. **(E)**

12. CONSULTS WITH USERS TO PROVIDE SUPPORT AND DETERMINE SYSTEMS AND PROGRAM REQUIREMENTS AND OBJECTIVES AND TO IDENTIFY PROBLEMS IN EXISTING PROGRAMS AND SYSTEMS; DETERMINE FEASIBILITY OF PROGRAMMING PROJECTS; PROVIDES SUPPORT INTEGRATING THIRD PARTY VENDOR SYSTEMS WITH THE STUDENT INFORMATION SYSTEMS. **(E)**

13. PREPARES AND MAINTAINS ASSIGNED RECORDS AND REPORTS. **(E)**

14. ATTENDS VARIOUS MEETINGS AND TRAINING SESSIONS AS REQUIRED.

15. ASSISTS WITH PROFESSIONAL LEARNING SESSIONS, AS REQUIRED.

16. MAINTAINS CURRENT KNOWLEDGE OF INDUSTRY TRENDS.

17. OTHER RELATED DUTIES AS ASSIGNED.

(E) = ESSENTIAL FUNCTIONS

MINIMUM REQUIREMENTS

KNOWLEDGE OF:

- ENTERPRISE LEVEL DATABASE PRINCIPLES; MICROSOFT STRUCTURED QUERY LANGUAGE (SQL) DATABASE DESIGN PRINCIPLES; SQL DATABASE MANAGEMENT PRINCIPLES; CODE RELEASES AND THEIR IMPACT IN VARIOUS ENVIRONMENTS;
- STUDENT DATA PRIVACY LAWS AND REGULATIONS; AND
- MICROSOFT VISUAL STUDIO.

ABILITY TO:

- PERFORM ROUTINE MICROSOFT SQL APPLICATION DATABASE ADMINISTRATOR TASKS; CREATE AND MAINTAIN MICROSOFT SQL ENTERPRISE DATABASES;
- TROUBLESHOOT PERFORMANCE ISSUES AND ROLL OUT DATABASE PATCHES;
- ACQUIRE FAMILIARITY AND COMPLY WITH ALL DISTRICT POLICIES AND LOCAL, STATE AND FEDERAL LAWS PERTAINING TO PUBLIC EDUCATION ENTITIES WITH RESPECT TO DATA AND REPORTING REQUIREMENTS;
- ESTABLISH AND MAINTAIN EFFECTIVE WORKING RELATIONSHIPS WITH SITE AND DISTRICT LEVEL PERSONNEL;
- USE EFFECTIVE WRITTEN AND ORAL COMMUNICATION SKILLS;
- COMMUNICATE EFFECTIVELY WITH NON-TECHNICAL STAFF;
- UNDERSTAND AND CARRY OUT ORAL AND WRITTEN INSTRUCTIONS;
- ORGANIZE, SET PRIORITIES WHEN MULTIPLE PROJECTS ARE IN PLACE; AND
- WORK UNDER DEADLINES AND FREQUENT INTERRUPTIONS.

EXPERIENCE

TWO YEARS OF MICROSOFT SQL EXPERIENCE; ONE YEAR OF MICROSOFT SQL REPORTING SERVICES EXPERIENCE; MANAGEMENT OF SQL DATABASES; AND EXPERIENCE IN K-12 EDUCATION PREFERRED.

EDUCATION

BACHELOR OF SCIENCE DEGREE IN COMPUTER SCIENCE OR RELATED FIELD. EXPERIENCE IN COMPUTER SCIENCE OR RELATED FIELD MAY BE SUBSTITUTED ON A YEAR-FOR-YEAR BASIS FOR UP TO TWO YEARS OF COLLEGE OR UNIVERSITY COURSE WORK IN COMPUTER SCIENCE OR RELATED FIELD.

WORKING CONDITIONS

- DEMANDING TIMELINES;
- DISTRICT OFFICE ENVIRONMENT; AND
- SUBJECT TO FREQUENT INTERRUPTIONS AND EXTENSIVE CONTACT WITH STAFF.

PHYSICAL ABILITIES

- BENDING, TWISTING, STOOPING AND REACHING;
- DEXTERITY OF HANDS AND FINGERS TO OPERATE STANDARD OFFICE EQUIPMENT;
- HEARING AND SPEAKING TO EXCHANGE INFORMATION IN PERSON AND ON THE TELEPHONE;
- LIFTING, CARRYING, PUSHING/PULLING OBJECTS WEIGHING UP TO 15 POUNDS; AND
- SITTING AND/OR STANDING FOR EXTENDED PERIODS OF TIME.

HAZARDS

- EXTENDED VIEWING OF A COMPUTER MONITOR;
- MAY BE EXPOSED TO CONTACT WITH UNCOOPERATIVE OR ABUSIVE INDIVIDUALS;
- NOISE FROM EQUIPMENT OPERATION; AND
- WORKING AROUND AND WITH OFFICE EQUIPMENT HAVING MOVING PARTS.

BOARD APPROVED:

CHINO VALLEY UNIFIED SCHOOL DISTRICT

RANGE 32

NUTRITION ELIGIBILITY SPECIALIST

DEFINITION

UNDER GENERAL DIRECTION OF THE DIRECTOR OF NUTRITION SERVICES, PERFORMS SPECIFIC DATA ENTRY AND CLERICAL FUNCTIONS IN CONNECTION WITH APPROVING, PROCESSING AND MAINTAINING MEAL APPLICATION RECORDS, INVOLVING MANUAL, MACHINE AND COMPUTER SYSTEMS TO PREPARE NUTRITION SERVICES' RELATED REPORTS AND RECORDS; INTERACTS WITH PUBLIC; RESPONDS TO TELEPHONE INQUIRIES; EXERCISES INDEPENDENT JUDGMENT IN THE APPLICATION AND INTERPRETATION OF RULES, REGULATIONS AND PROCEDURES.

DISTINGUISHING CHARACTERISTICS

THIS POSITION IS CHARACTERIZED BY THE PRIMARY RESPONSIBILITY TO PERFORM DUTIES RELATED TO THE MEAL APPLICATIONS, MAINTENANCE AND UPDATING OF ALL TYPES OF STUDENT AND FAMILY MEAL APPLICATION RECORDS AND FILES. INDIVIDUALS MUST BE KNOWLEDGEABLE OF AND ADHERE TO ALL GUIDELINES ESTABLISHED BY THE U.S. DEPARTMENT OF AGRICULTURE (USDA) AND STATE BOARD OF EDUCATION DEPARTMENT OF CHILD NUTRITION RELATING TO THE NATIONAL SCHOOL LUNCH PROGRAM (NSLP) AND SCHOOL BREAKFAST PROGRAM (SBP).

OCCUPATIONAL GROUP

CLASSIFIED

EXAMPLES OF DUTIES

1. PERFORMS A VARIETY OF TECHNICAL NUTRITION SERVICES CLERICAL FUNCTIONS, INCLUDING TYPING OF LETTERS, MEMORANDUMS, LISTS, OR OTHER MATERIAL FROM WRITTEN DIRECTION OR EXAMPLES. **(E)**

2. ASSISTS PARENTS AND GUARDIANS IN COMPLETING THE MEAL APPLICATION; RECEIVES, REVIEWS, PROCESSES, FILES AND MAINTAINS ALL MEAL APPLICATIONS. **(E)**

3. VERIFIES PARENT OR GUARDIAN SALARY INFORMATION; DETERMINES THE MEAL ELIGIBILITY OF STUDENTS FOR THE NUTRITION SERVICES PROGRAM. **(E)**

4. CONDUCTS MEAL APPLICATION VERIFICATION IN ACCORDANCE WITH USDA REGULATIONS. **(E)**

5. CONDUCTS DIRECT CERTIFICATION OF CATEGORICAL AND OTHER CATEGORICAL ELIGIBILITIES IN ACCORDANCE WITH USDA REGULATIONS. **(E)**

6. ASSISTS OFFICE VISITORS BY PROVIDING INFORMATION ON ROUTINE PROCEDURAL QUESTIONS.

7. DEVELOPS FORMATS AND PROCEDURES FOR ENTERING AND RETRIEVING NUTRITION RELATED DATA. ENTERS A VARIETY OF STUDENT AND FAMILY DATA, INCLUDING BUT NOT LIMITED TO NAME, SOCIAL SECURITY NUMBER AND SOURCE OF INCOME, ADDRESS, GRADE AND ENROLLMENT DATA; RECEIVES, REVIEWS AND VERIFIES ENTERED DATA AGAINST A VARIETY OF DOCUMENTS. **(E)**

8. ENTERS, UPDATES, AND MONITORS DATA; CONTROLS TEMPORARY APPROVALS OF MEAL BENEFITS. **(E)**

9. MAINTAINS AND UPDATES ALL MEAL APPLICATION RECORDS AND FILES; MAINTAINS CONFIDENTIALITY OF RECORDS AND INFORMATION; MAINTAINS ACCURATE MEAL APPLICATION COUNTS. **(E)**

10. PREPARES STATISTICAL DATA FOR SCHOOLS AND DISTRICT PERSONNEL; ANSWERS QUESTIONS RELATED TO THE MEAL APPLICATION ELIGIBILITIES. **(E)**

11. PARTICIPATES IN DEVELOPING NEW PROCEDURES AS NEEDED AND ASSISTS IN ASSURING THAT ESTABLISHED PROCEDURES ARE CARRIED OUT EFFICIENTLY.

12. PERFORMS A VARIETY OF CLERICAL WORK; INCLUDED BUT NOT LIMITED TO: DISTRIBUTION OF REPORTS, LETTERS AND OTHER CORRESPONDENCES; OPENS, SORTS, AND DISTRIBUTES DEPARTMENT MAIL.

13. PROVIDES VACATION AND TEMPORARY RELIEF AS REQUIRED.

14. PERFORMS OTHER RELATED DUTIES AS ASSIGNED.

(E) = ESSENTIAL FUNCTIONS

MINIMUM REQUIREMENTS

KNOWLEDGE OF:

- USDA/NSLP REGULATIONS AND PROCEDURES PERTAINING TO MEAL APPLICATIONS;
- PROCEDURES, POLICIES, RULES AND REGULATIONS OF THE NATIONAL SCHOOL LUNCH AND BREAKFAST PROGRAMS;
- DISTRICT POLICIES AND PROCEDURES AS THEY APPLY TO STUDENT RECORD KEEPING;
- METHODS AND PRACTICES OF STATISTICAL RECORD KEEPING WORK INVOLVING DATA PROCESSING;

- FORMATS AND PROCEDURES FOR ENTERING AND RETRIEVING VARIOUS TYPES OF DATA;
- MODERN OFFICE PRACTICES, PROCEDURES AND EQUIPMENT;
- TELEPHONE TECHNIQUES AND ETIQUETTE;
- CORRECT ENGLISH USAGE, GRAMMAR, SPELLING PUNCTUATION AND VOCABULARY; AND
- ORAL AND WRITTEN COMMUNICATION SKILLS.

ABILITY TO:

- READ, INTERPRET AND FOLLOW RULES, REGULATIONS, POLICIES AND PROCEDURES;
- VERIFY ACCURACY AND COMPLETENESS OF DOCUMENTS AND PROCESS DATA;
- PREPARE CLEAR, ACCURATE, CONCISE AND COMPLETE RECORDS AND REPORTS;
- UNDERSTAND AND CARRY OUT ORAL AND WRITTEN DIRECTIONS;
- MEET SCHEDULES AND TIME LINES;
- WORK EFFECTIVELY IN A DIVERSE SETTING;
- ESTABLISH AND MAINTAIN EFFECTIVE WORKING RELATIONSHIPS;
- ORGANIZE AND MAINTAIN HIGHLY DETAILED RECORDS, RESOURCE FILES, AND CONFIDENTIAL STUDENT AND FAMILY RECORDS;
- COMMUNICATE CLEARLY AND EFFECTIVELY ORALLY AND IN WRITING;
- ORGANIZE, SET PRIORITIES AND EXERCISE SOUND INDEPENDENT JUDGMENT;
- MAKE ROUTINE MATHEMATICAL CALCULATIONS;
- OPERATE A COMPUTER AND ASSIGNED SOFTWARE; AND
- TYPE AT A NET CORRECTED SPEED OF 45 WORDS PER MINUTE.

EXPERIENCE

THREE YEARS OF INCREASINGLY RESPONSIBLE CLERICAL EXPERIENCE; ONE YEAR EXPERIENCE OF DATA ENTRY AND ANALYSIS.

EDUCATION

EQUIVALENT TO THE COMPLETION OF THE TWELFTH GRADE; SUPPLEMENTAL TRAINING OR COURSE WORK DESIRABLE.

WORKING CONDITIONS

- DISTRICT OFFICE ENVIRONMENT;
- DEMANDING TIMELINES; AND
- SUBJECT TO FREQUENT INTERRUPTIONS AND EXTENSIVE CONTACT WITH DISTRICT PERSONNEL AND PUBLIC.

PHYSICAL ABILITIES

- BENDING AT THE WAIST AND REACHING TO RETRIEVE AND MAINTAIN FILES AND RECORDS;
- CARRYING, PUSHING, PULLING EQUIPMENT TO LOAD AND UNLOAD;
- DEXTERITY OF HANDS AND FINGERS TO OPERATE JOB-RELATED EQUIPMENT;
- HEARING AND SPEAKING TO EXCHANGE INFORMATION IN PERSON AND ON THE TELEPHONE;
- KNEELING, CROUCHING, OR STOOPING;
- REACHING OVERHEAD, ABOVE THE SHOULDERS, AND HORIZONTALLY;
- VISUAL ABILITY TO PERFORM JOB-RELATED DUTIES AND ENSURE PROPER USE OF EQUIPMENT AND MATERIALS; AND
- SITTING FOR EXTENDED PERIODS OF TIME.

HAZARDS

- EXTENDED VIEWING OF COMPUTER MONITOR;
- WORKING WITH OFFICE EQUIPMENT HAVING MOVING PARTS; AND
- CONTACT WITH UNCOOPERATIVE OR ABUSIVE INDIVIDUALS.

BOARD APPROVED:

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Lea Fellows, Assistant Superintendent, Human Resources
Suzanne Hernandez, Ed.D., Director, Human Resources
Richard Rideout, Director, Human Resources

SUBJECT: **RESOLUTION 2017/2018-64 CLASSIFIED EMPLOYEES WEEK/SEMANA DE EMPLEADOS CLASIFICADOS**

==========

BACKGROUND

Classified School Employee Week began as a resolution at the California Schools Employees Association's Annual Conference in 1984. Two years later, it was adopted as California Senate Bill 1552 and decreed to be an official recognition of classified school employees.

When the legislature passed the law, making the third full week of every May Classified School Employees Week/Semana de Empleados Clasificados, it brought to light classified workers' many contributions to education in California. The signing of the law was also a testament to the importance of the work being performed by classified employees who help to shape the future for California's children.

The week of May 20-26, 2018, is recognized throughout the State as Classified Employees Week/Semana de Empleados Clasificados. Resolution 2017/2018-64 supports this statewide effort to recognize the contributions of more than 1,000 classified employees in the Chino Valley Unified School District.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education adopt Resolution 2017/2018-64 Classified Employees Week/Semana de Empleados Clasificados.

FISCAL IMPACT

None.

WMJ:LF:SH:RR:mcm

Chino Valley Unified School District
Resolution 2017/2018-64
Classified Employees Week/Semana de Empleados Clasificados

WHEREAS, the services provided by classified school employees are an essential and integral part of an effective and efficient public school system;

WHEREAS, the services provided by classified school employees meet the needs of children and teachers by maintaining a safe, clean, healthy, and positive environment for all students and employees;

WHEREAS, the services provided by classified school employees strive to fulfill the District's motto of "Student Achievement, Safe Schools, and Positive School Climate, Humility, Civility, and Service;"

WHEREAS, all classified employees regardless of their specific duties and responsibilities are partners in providing the community with educational opportunities for all students.

NOW, THEREFORE, BE IT RESOLVED the Chino Valley Unified School District hereby acknowledges and honors the contributions of all classified employees regarding their contributions toward achieving excellence in education in California and in the District, and designates the week of May 20-26, 2018, as Classified School Employees Week/Semana de Empleados Clasificados in the Chino Valley Unified School District".

BE IT FURTHER RESOLVED the Board of Education calls on the community to join with it in expressing sincere appreciation to our classified employees for a job well done.

APPROVED, PASSED, AND ADOPTED by the Board of Education of the Chino Valley Unified School District this 19th day of April 2018.

Blair	_____
Cruz:	_____
Feix:	_____
Na:	_____
Orozco:	_____

I, Wayne M. Joseph, Secretary of the Chino Valley Unified School District Board of Education, do hereby certify that the foregoing is a full, true, and correct copy of the Resolution passed and adopted by said Board at a regularly scheduled and conducted meeting held on said date, which Resolution is on file in the office of said Board.

_____
Wayne M. Joseph, Superintendent
Secretary, Board of Education

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Lea Fellows, Assistant Superintendent, Human Resources
Suzanne Hernandez, Ed.D., Director, Human Resources
Richard Rideout, Director, Human Resources

SUBJECT: **RESOLUTION 2017/2018-65 DAY OF THE TEACHER/DÍA DEL MAESTRO**

==========

BACKGROUND

The Legislature of the State of California has declared Wednesday, May 9, 2018, as Day of the Teacher/Día del Maestro. Resolution 2017/2018-65 supports this statewide effort to recognize the significant contributions of teachers to our society.

The Day of the Teacher/Día del Maestro is also sponsored by the Association of Mexican-American Educators (AMAE). During the early 1970s, AMAE adopted the Mexican tradition of annually recognizing members of the teaching profession and began organizing appropriate events throughout the state. In 1982, a bill sponsored by AMAE became California law; it called for a Day of the Teacher/Día del Maestro to be observed.

Approval of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education adopt Resolution 2017/2018-65 Day of the Teacher/Día del Maestro.

FISCAL IMPACT

None.

WMJ:LF:SH:RR:mcm

Chino Valley Unified School District
Resolution 2017/2018-65
Day of the Teacher/Día del Maestro

WHEREAS, the instructional philosophy of the Chino Valley Unified School District holds that education is an essential factor in the achievement of a happy, purposeful, and healthy life**;**

WHEREAS, the teacher provides the student with knowledge and learning skills essential for one to achieve his or her human potential as a member of society;

WHEREAS, the teacher's caring, positive and supportive relationship with the student is essential to the learning and growing process;

WHEREAS, the teaching profession is the noblest of human endeavors deserving of deep respect and appreciation; and

WHEREAS, May 9, 2018, has been designated by the State Legislature as the "Day of the Teacher/Día del Maestro" in California.

NOW, THEREFORE, BE IT RESOLVED the Chino Valley Unified School District hereby recognizes May 9, 2018, as the "Day of the Teacher/Día del Maestro".

APPROVED, PASSED, AND ADOPTED by the Board of Education of the Chino Valley Unified School District this 19th day of April 2018.

Blair	_____
Cruz:	_____
Feix:	_____
Na:	_____
Orozco:	_____

I, Wayne M. Joseph, Secretary of the Chino Valley Unified School District Board of Education, do hereby certify that the foregoing is a full, true, and correct copy of the Resolution passed and adopted by said Board at a regularly scheduled and conducted meeting held on said date, which Resolution is on file in the office of said Board.

_____
Wayne M. Joseph, Superintendent
Secretary, Board of Education

INFORMATION

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum

SUBJECT: **NEW COURSE: ADVANCED PLACEMENT COMPARATIVE GOVERNMENT AND POLITICS**

==========

BACKGROUND

The Chino Valley Unified School District routinely revises curriculum guides and develops new courses in accordance with State Content Standards, State Frameworks, and student need. Accordingly, the revision and development of curriculum guides are the results of a collaborative effort of teachers in the related academic areas.

Advanced Placement (AP) Comparative Government and Politics introduces students to fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. The course aims to illustrate the rich diversity of political life, to show available institutional alternatives, to explain differences in processes and policy outcomes, and to communicate to students the importance of global political and economic changes. AP Comparative Government and Politics is taken in conjunction with the AP US Government and Politics Course. The study of various case studies will provide a meaningful comparison and context for studying governments throughout the world.

This course was presented to the Curriculum Council and A.C.T. has been consulted.

Consideration of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education receive for information the new course Advanced Placement Comparative Government and Politics.

FISCAL IMPACT

None.

WMJ:GP:JR:lar

A. CONTACTS	
1. School/District Information:	School/District: Chino Valley Unified School District Street Address: 5130 Riverside Dr., Chino, CA 91710 Phone: (909) 628-1201 Web Site: chino.k12.ca.us
2. Course Contact:	Teacher Contact: Office of Secondary Curriculum Position/Title: Director of Secondary Curriculum Site: District Office Phone: (909) 628-1201 X1630
B. COVER PAGE - COURSE ID	
1. Course Title:	Advanced Placement Comparative Government and Politics
2. Transcript Title/Abbreviation:	AP Comp Gov
3. Transcript Course Code/Number:	
4. Seeking Honors Distinction:	No
5. Subject Area/Category:	Meets the UC/CSU "g" General Elective requirement
6. Grade Level(s):	12
7. Unit Value:	5 credits per semester/10 credits total
8. Course Previously Approved by UC:	No
9. Classified as a Career Technical Education Course:	No
10. Modeled after an UC-approved course:	Yes
11. Repeatable for Credit:	No
12. Date of Board Approval:	
13. Brief Course Description: The AP course in Comparative Government and Politics introduces students to fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of country settings. The course aims to illustrate the rich diversity of political life, to show available institutional alternatives, to explain differences in processes and policy outcomes, and to communicate to students the importance of global political and economic changes.	
14. Prerequisites:	None
15. Context for Course: Students will take AP Comparative Government and Politics in conjunction with the AP US Government and Politics Course. The study of various case studies will help to inform the course in AP US Government and Politics and provide a meaningful comparison and context for studying governments throughout the world.	
16. History of Course Development: This course has been developed over the 2017-2018 school year. The curriculum has been approved by College Board and meets the requirements of the AP Comparative Government and Politics Course.	
17. Textbooks:	Kesselman, M., Krieger, J., & Joseph, W. A. (2018). *Introduction to comparative politics: political challenges and changing agendas*. Cengage Learning.
18. Supplemental Instructional Materials:	Hauss, C., & Haussman, M. (2012). *Comparative Politics: Domestic Responses to Global Challenges*. Nelson Education. Powell Jr, G. B. J., Strøm, K. J., & Dalton, R. J. (2011). *Comparative Politics Today: A Theoretical Framework*. Pearson Higher Ed. Mansbach, R. W., & Rhodes, E. J. (2009). *Global politics in a changing world: a reader*. Cengage Learning. Lachmann, R. (2010). *States and power* (Vol. 5). Polity.

	Throughout the course, students will be reading articles from a variety of academic journals, including, but not limited to the Economist, Foreign Policy, and others.

C. COURSE CONTENT

1. Course Purpose:

This course is designed to examine the political institutions, policies, and peoples of the following case studies: The United Kingdom, Mexico, China, Russia, Iran, and Nigeria. Students who complete this course will successfully:

1. Define and describe major comparative political concepts
2. Support generalizations with relevant, factual, information pertaining to the government and politics of Great Britain, Mexico, Russia, China, Iran, and Nigeria
3. Analyze typical patterns of political processes and behavior and their consequences
4. Compare and contrast political institutions and processes across countries
5. Analyze and interpret basic data relevant to comparative government and politics

2. Course Outline:

I. Introduction to Comparative Politics

- Purpose and methods of comparison and classification
- Concepts (state, nation, regime, government)
- Process and policy (what is politics; purpose of government; what are political science and comparative politics; common policy challenges)

II. Sovereignty, Authority, and Power

- Political culture, communication, and socialization
- Nations and states C. Supranational governance (e.g., European Union)
- Sources of power
- Constitutions (forms, purposes, application)
- Regime types
- Types of economic systems
- State building, legitimacy, and stability
- Belief systems as sources of legitimacy
- Governance and accountability

III. Political Institutions

- Levels of government
    - Supranational/national/regional/local
    - Unitary/federal
    - Centralization/decentralization
- Executives (head of state, head of government, cabinets)
- Legislatures
    - Unicameral/bicameral (symmetric/asymmetric)
    - Organization
    - Membership (representation)
    - Parliamentary and presidential systems
    - Elections
    - Electoral systems
    - Political parties (organization, membership, institutionalization, ideological position)
    - Party systems
    - Leadership and elite recruitment

- Interest groups and interest group systems
- Bureaucracies
- Military and other coercive institutions
- Judiciaries

IV. Citizens, Society, and the State

- Cleavages and politics (ethnic, racial, class, gender, religious, regional)
- Civil society and social capital
- Media roles
- Political participation (forms/modes/trends) including political violence E. Social movements
- Citizenship and representation

V. Political and Economic Change

- Revolution, coups, and war
- Trends and types of political change (including democratization)
- Trends and types of economic change (including privatization)
- Relationship between political and economic change
- Globalization and fragmentation: interlinked economies, global culture, reactions against globalization, regionalism
- Approaches to development

VI. Public Policy

- Common policy issues
  - Economic performance
  - Social welfare (e.g., education, health, poverty)
  - Civil liberties, rights, and freedoms
  - Environment
  - Population and migration
  - Economic development
  - Factors influencing public policymaking and implementation
    - Domestic
    - International

3. Key Assignments:

- Reading Quizzes and Discussions
  - Students will take a reading quiz on each section and then discuss the readings in partners and then in groups to ensure they have comprehended what they read
- Notecards
  - Students will create a set of notecards for each country to use to review key terms and people
- Model United Nations:
  - Students will use their knowledge of supranational organizations to further analyze global issues as if they were country members of the united nations
  - The topic that students will analyze and formulate solutions to will be failed states – using Iran and Nigeria as examples
- Organizing Government in the Case Studies Group Lessons:
  - Students will work together to present lessons to the class on the 6 different case studies, focusing on how each country organizes its government – specifically unitary, federal, and confederal

- Lessons will include an overview of the political institutions in the country to further their understanding of unitary, federal, and confederal systems

- Election Simulations:
  - Students will analyze the electoral system, pressure groups, and the media in each of the case studies by participating in short election simulations for each country
  - Students will be asked to do a written analysis of the election in each case study and be able to recall and explain their difference and similarities
- Documentary Project:
  - Students will choose a revolution, coup, or war that changed the political or economic landscape in one of the case studies
  - They will create a 3-5 minute documentary about that revolution, coup, or war and present it to the class, focusing on the changes that it caused to that country
- Political Current Event Projects:
  - Students will choose a current policy issue in one of the case studies and write a news article that captures the political change that is occurring as a result
- Economic Current Event Projects:
  - Students will choose a current economic policy issue in one of the case studies and write a news article that captures the economic change that is occurring as a result
- Model European Union:
  - Students will be assigned a member country of the European Union and will complete a role-play that allows them to live in the European Union
  - Students will analyze and make decisions about what is best for their country
  - They will then complete a written analysis on how regionalism affects the politics of each member states
- Unit Exams:
  - Students will answer multiple choice and free-response questions from each unit
  - Each exam will be cumulative and include questions from previous exams
- Midterm Exam:
  - Students will take a midterm exam with cumulative questions half way through the semester
  - The exam will include both multiple choice and free-response questions
- Final Exam:
  - Students will take a Final exam with cumulative questions at the end of the semester
  - The exam will include both multiple choice and free-response questions

4. Instructional Methods and/or Strategies:

Activities:

Debates, Mock Trials, Socratic Seminars, Simulations, Discussions, Reading Secondary and Primary Sources, Research Projects, Formal and Informal Writing Assignments, Taking notes on lectures

Homework:

Students will be expected to complete textbook and supplemental readings at home, as well as various research projects, and current events.

Current Events:

Aside from class activities, reading assignments, and notes, students will need to complete current event write-up once per week. Students will also be asked to present their current events to the class orally at least once a unit. The use of

consistent current event analysis will allow students to better connect the concepts learned in class to the world in which they live.

Using Graphs, Maps, and Charts:
Each unit will make use of a variety of data and stimuli, including graphs, maps, and charts that are relevant to the topic being studied. Students will also gain practice analyzing these stimuli for a variety of purposes.

5. Assessment Including Methods and/or Tools:
The evaluation of student progress and evaluation will be based on the following criteria outlined in Board Policy:

- Assessments: 60-75% of the final grade
    - Midterm/Final
    - Reading Quizzes
- Assignments and class discussions: 25-40% of the final grade
    - Projects
    - Free-Response Question Practice/Participation

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
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Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum

SUBJECT: **NEW COURSE: ADVANCED PLACEMENT HUMAN GEOGRAPHY**

==========

BACKGROUND

The Chino Valley Unified School District routinely revises curriculum guides and develops new courses in accordance with State Content Standards, State Frameworks, and student need. Accordingly, the revision and development of curriculum guides are the results of a collaborative effort of teachers in the related academic areas

Advanced Placement Human Geography introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of earth's surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications.

This course was presented to the Curriculum Council and A.C.T. has been consulted.

Consideration of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education receive for information the new course Advanced Placement Human Geography.

FISCAL IMPACT

None.

WMJ:GP:JR:lar

A. CONTACTS	
1. School/District Information:	School/District: Chino Valley Unified School District Street Address: 5130 Riverside Dr., Chino, CA 91710 Phone: (909) 628-1201 Web Site: chino.k12.ca.us
2. Course Contact:	Teacher Contact: Office of Secondary Curriculum Position/Title: Director of Secondary Curriculum Site: District Office Phone: (909) 628-1201 X1630
B. COVER PAGE - COURSE ID	
1. Course Title:	Advanced Placement Human Geography
2. Transcript Title/Abbreviation:	AP Human Geography
3. Transcript Course Code/Number:	
4. Seeking Honors Distinction:	Yes
5. Subject Area/Category:	Meets the UC/CSU "a" History/Social Science requirement
6. Grade Level(s):	9-10
7. Unit Value:	5 credits per semester/10 credits total
8. Course Previously Approved by UC:	No
9. Classified as a Career Technical Education Course:	No
10. Modeled after an UC-approved course:	Yes
11. Repeatable for Credit:	No
12. Date of Board Approval:	

13. Brief Course Description:
The AP Human Geography course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of earth's surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications.

14. Prerequisites:	None

15. Context for Course:
AP Human Geography will be a year-long elective course offered primarily to freshmen and sophomores. Freshmen who take AP Human Geography will be encouraged to meet their world history requirement by taking AP European History or Honors World History their sophomore year. AP Human Geography is anticipated as a critical component of Ayala High School's attempts to expand the reach of AP course offerings to a broader swath of students.

16. History of Course Development:
This course has been developed over the 2017-2018 school year. The curriculum is modeled on the requirements and suggestions in the College Board's AP Human Geography Course Description AP Human Geography Teacher's Guide.

17. Textbooks:	Recommended textbooks from the College Board will be evaluated, piloted in the 2018/2019 school year.
18. Supplemental Instructional Materials:	Textbook publisher ancillary materials and web resources (see above). Newspaper and magazine articles (see "Key Assignments" section). Videos: *The Power of Place: Geography for the 21st Century* video series from Annenberg/CPB; Cultures: *A Tapestry of Life* by National Geographic Society; select YouTube clips, and other videos

	Web Resources: UN Human Development Reports; US Census Bureau, and other web resources as appropriate Atlases: *Goode's World Atlas; Penguin* topic-specific atlases, etc. Other instructional materials are currently under review and will be added to the list as appropriate.

C. COURSE CONTENT

1. Course Purpose:

The AP Human Geography course is designed to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences. Students will also learn about the methods and tools geographers use in their research and applications.

2. Course Outline:

I. Geography: Its Nature and Perspectives
   - A. Geography as a field of inquiry
   - B. Evolution of key geographical concepts and models associated with notable geographers
   - C. Key concepts underlying the geographical perspective: location, space, place, scale, pattern, regionalization, and globalization
   - D. Key geographical skills
     1. How to use and think about maps and spatial data
     2. How to understand and interpret the implications of associations among phenomena in places
     3. How to recognize and interpret at different scales the relationships among patterns and processes
     4. How to define regions and evaluate the regionalization process
     5. How to characterize and analyze changing interconnections among places
   - E. New geographic technologies, such as GIS and GPS
   - F. Sources of geographical ideas and data: the field, census data

II. Population and Migration
   - A. Geographical analysis of population
     1. Density, distribution, and scale
     2. Consequences of various densities and distributions
     3. Patterns of composition: age, sex, race, and ethnicity
     4. Population and natural hazards: past, present, and future
   - B. Population growth and decline over time and space
     1. Historical trends and projections for the future
     2. Theories of population growth including the Demographic Model
     3. Patterns of fertility, mortality, and health
     4. Regional variations of demographic transitions
     5. Effects of population policies
   - C. Population movement
     1. Push and pull factors
     2. Major voluntary and involuntary migrations at different scales
     3. Migration selectivity
     4. Short-term, local movements, and activity space

III. Cultural Patterns and Processes
   - A. Concepts of culture
     1. Traits
     2. Diffusion
     3. Acculturation
     4. Cultural regions

B. Cultural differences
    1. Language
    2. Religion
    3. Ethnicity
    4. Gender
    5. Popular and folk culture
C. Environmental impact of cultural attitudes and practices
D. Cultural landscapes and cultural identity
    1. Values and preferences
    2. Symbolic landscapes and sense of place

IV. Political Organization of Space
A. Territorial dimensions of politics
    1. The concept of territoriality
    2. The nature and meaning of boundaries
    3. Influences of boundaries on identity, interaction, and exchange
B. Evolution of the contemporary political pattern
    1. The nation-state concept
    2. Colonialism and imperialism
    3. Federal and unitary states
C. Challenges to inherited political–territorial arrangements
    1. Changing nature of sovereignty
    2. Fragmentation, unification, alliance
    3. Spatial relationships between political patterns and patterns of ethnicity, economy, and environment
    4. Electoral geography, including gerrymandering

V. Agriculture, Food Production, and Rural Land Use
A. Development and diffusion of agriculture
    1. Neolithic Agricultural Revolution
    2. Second Agricultural Revolution
B. Major agricultural production regions
    1. Agricultural systems associated with major bioclimatic zones
    2. Variations within major zones and effects of markets
    3. Linkages and flows among regions of food production and consumption
C. Rural land use and settlement patterns
    1. Models of agricultural land use, including von Thünen's model
    2. Settlement patterns associated with major agriculture types
D. Modern commercial agriculture
    1. Third Agricultural Revolution
    2. Green Revolution
    3. Biotechnology
    4. Spatial organization and diffusion of industrial agriculture
    5. Future food supplies and environmental impacts of agriculture

VI. Industrialization and Economic Development
A. Key concepts in industrialization and development
B. Growth and diffusion of industrialization
    1. The changing roles of energy and technology
    2. Industrial Revolution
    3. Evolution of economic cores and peripheries

4. Geographic critiques of models of economic localization (i.e., land rent, comparative costs of transportation), industrial location, economic development, and world systems

C. Contemporary patterns and impacts of industrialization and development
   1. Spatial organization of the world economy
   2. Variations in levels of development
   3. Deindustrialization and economic restructuring
   4. Pollution, health, and quality of life
   5. Industrialization, environmental change, and sustainability
   6. Local development initiatives: government policies

VII. Cities and Urban Land Use

A. Definitions of urbanism

B. Origin and evolution of cities
   1. Historical patterns of urbanization
   2. Rural–urban migration and urban growth

C. Global cities and megacities
   1. Models of urban systems

D. Functional character of contemporary cities
   1. Changing employment mix
   2. Changing demographic and social structures

E. Built environment and social space
   1. Comparative models of internal city structure
   2. Transportation and infrastructure
   3. Political organization of urban areas
   4. Urban planning and design
   5. Patterns of race, ethnicity, gender, and class
   6. Uneven development, ghettoization, and gentrification
   7. Impacts of suburbanization and edge cities

3. Key Assignments:

- Readings: Students will be required to regularly read assigned textbook chapters and other select readings outside of class. Most weeks, students will read a chapter from their textbook. Newspaper and magazine articles from sources such as *The New York Times, The Economist, The Los Angeles Times, The Atlantic,* and *The Chino Champion* will be assigned occasionally. Students will be held accountable for the readings in a variety of ways— reading quizzes, comprehension questions, class discussions, and/or notecards.
- Notebook: Students will be required to keep an organized notebook containing all of their discussion/ video/ lecture notes, homework, class handouts and returned assignments and tests. Student notebooks will be periodically checked for completeness and organization. Students will be expected and encouraged to use their notebooks as they prepare for taking the AP Human Geography exam.
- Unit exams: The College Board has identified seven major units of study that are listed in the section above. At the culmination of each unit, students will be assessed on the key concepts and skills in that unit. Exam questions may include of a combination of multiple choice, short answer and essay questions depending on the specific content in the unit.
- Practice tests: Students will take released tests from the College Board and commercially published practice tests to help them better prepare for the AP Human Geography exam. These formative assessments will be taken with increased frequency approaching the AP exam in May.
- Research-based projects: Students will engage in at least one research-based project each semester on a topic of their choice. Projects may be completed individually or in small groups. All projects will require students to engage in academic research beyond the textbook and websites such as Wikipedia. Students will need to use and cite at least three quality academic sources appropriate for a college research project. Student learning

may be expressed in a variety of ways such as through a written paper, class presentation, video, power point, etc. based on the specific nature of each project topic.

4. Instructional Methods and/or Strategies: Instruction will focus on student understanding and application of the curricular concepts outlined above with an emphasis on making connections within and across units. Instructional strategies will include all of the following methods.

- Discussion and Debates: Class discussion and debate will be frequently used to help students internalize the course material and make connections across topics. Some discussions will be whole-class Socratic Seminars or fishbowl style while other discussions and debates will take place in smaller groups using a jigsaw or shared inquiry approach. Some possible discussion and debate topics include: Should government encourage or restrict migration? Should cultural diffusion be encouraged or resisted? How should political boundaries and cultural patterns be reconciled? Is the impact of globalization and new technologies positive or negative? How effective are transnational organizations and agreements? How should the negative effects of restructuring and deindustrialization be addressed? How should cities and countries regulate environmental issues and land use?
- Mapping Activities: Students will engage regularly in a variety of mapping exercises such as creating a mind map (e.g. of Chino Hills), comparing different types of maps and mapped information (e.g. dot distribution, choropleth), evaluating the advantages and limitations of specific maps and projections (e.g. conic, cylindrical), and using maps to analyze data and answer questions (e.g. population, climate, socio-economic).
- Case Studies: Within each unit, students will examine one or more case studies to grapple with the real-world implications of the issues being studied. Case studies may include some of the following examples—overpopulation in Egypt, Mexican migration, the legacy of colonialism in the Ivory Coast, shared space in Jerusalem, ethnic diversity in Boston, Chile's role in world trade, and the emergence of Tokyo as a megacity.
- Data Analysis: Students will read, collect and analyze various geographical data. Examples may include collecting class data on residential preference, calculating the Human Development Index for a country based on a set of statistical data, examining local and national U.S. Census data, comparing and plotting data over time to look for patterns, and ranking regions of the world based on data from the *CIA's World Factbook.*
- Direct Instruction: Periodic direct instruction will be used to deliver and reinforce important concepts. Lectures, readings and video clips will provide students with essential course content. As befitting an AP class taught primarily to freshmen and sophomores, direct instruction will be chunked into manageable segments and built upon with skill-based activities. In other words, the content provided via direct instruction will be the foundation for the activities, exercises, discussions and debates in and beyond the classroom.

5. Assessment Including Methods and/or Tools:

The evaluation of student progress and evaluation will be based on the following criteria outlined in Board Policy:

- Assessments: 60-75% of the final grade
    - Multiple choice quizzes and tests
    - Short answer responses and essays
    - Research projects
- Assignments and class discussions: 25-40% of the final grade
    - Document analysis
    - Graphic organizers
    - Written questions
    - Discussion, video, and lecture notes
    - Class notebook

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum

SUBJECT: **NEW COURSE: ADVANCED PLACEMENT SEMINAR**

==========

BACKGROUND

The Chino Valley Unified School District routinely revises curriculum guides and develops new courses in accordance with State Content Standards, State Frameworks, and student need. Accordingly, the revision and development of curriculum guides are the results of a collaborative effort of teachers in the related academic areas.

Advanced Placement Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

This course was presented to the Curriculum Council and A.C.T. has been consulted.

Consideration of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education receive for information the new course Advanced Placement Seminar.

FISCAL IMPACT

None.

WMJ:GP:JR:lar

A. CONTACTS	
1. School/District Information:	School/District: Chino Valley Unified School District Street Address: 5130 Riverside Dr., Chino, CA 91710 Phone: (909) 628-1201 Web Site: chino.k12.ca.us
2. Course Contact:	Teacher Contact: Office of Secondary Curriculum Position/Title: Director of Secondary Curriculum Site: District Office Phone: (909) 628-1201 X1630
B. COVER PAGE - COURSE ID	
1. Course Title:	Advanced Placement Seminar
2. Transcript Title/Abbreviation:	AP Seminar
3. Transcript Course Code/Number:	
4. Seeking Honors Distinction:	No
5. Subject Area/Category:	Meets the CSU/UC "g" General Elective requirement
6. Grade Level(s):	11-12
7. Unit Value:	5 credits per semester/10 credits total
8. Course Previously Approved by UC:	No
9. Classified as a Career Technical Education Course:	No
10. Modeled after an UC-approved course:	Yes
11. Repeatable for Credit:	No
12. Date of Board Approval:	
13. Brief Course Description: AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.	
14. Prerequisites:	None
15. Context for Course: Ayala High School has already been approved through College Board to teach AP Seminar for the 2018-2019 school year. This course is meant to complement other AP courses and help AP students improve their AP skills. Students who complete AP Seminar and AP Research will receive the AP Capstone Certificate. Students who take both courses and also pass four additional AP exams will receive an AP Diploma.	
16. History of Course Development: This course has been approved by College Board and the teacher will be attending AP Capstone training the summer of 2018 to prepare for the 2018-2019 school-year.	
17. Textbooks:	N/A
18. Supplemental Instructional Materials:	Provided by College Board
C. COURSE CONTENT	
1. Course Purpose: This course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.	

a. Students explore the complexities of one or more themes by making connections within, between, and/or among multiple cross-curricular areas by exploring multiple perspectives and lenses related to those themes
b. Students develop and apply discrete skills identified in the learning objectives of the enduring understandings within the following big 5 ideas (Question and Explore; Understand and Analyze; Evaluate Multiple Perspectives; Synthesize Ideas; Team, Transform, and Transmit)
c. Students gain a rich appreciation and understanding of issues through the following activities: reading articles and research studies; reading foundational, literary, and philosophical texts; viewing and listening to speeches, broadcasts, and/or personal accounts; and experiencing artistic works and performances
d. Students work collaboratively with a team to identify, investigate, analyze, and evaluate a real-world or academic problem or issue; consider and evaluate alternatives or options; propose one or more solutions or resolutions; and present and defend the argument for their solutions through a multimedia presentation
e. Students work independently to identify a research question based on provided stimulus material; research the issue; analyze, evaluate, and select evidence to develop an argument; present and defend a conclusion; and produce a multimedia presentation to be delivered to their peers.

2. Course Outline:

This course will use the approved "student interest" format, in which students are given a list of 10 possible themes by the teacher and asked to rate them. The 4 highest rated themes will then be used for the course and will be the center of the 5 big ideas.

- Big Idea #1: Question and Explore
  - Context of a problem or issue and effects on how it is interpreted or presented
  - Multiple perspectives of the problem or issue
  - Questions that haven't been asked
  - Voices or perspectives missing from research
  - Keywords to search for information about this topic
- Big Idea #2: Understand and Analyze
  - Strategies to help comprehend the text
  - Argument's main idea and what reasoning does the author use to develop it
  - Author's point of view
  - Biases of the author
  - Does the argument acknowledge other perspectives?
  - Is the source trustworthy
  - Implications of the arguments
  - How does the conclusion impact the students and the community?
- Big Idea #3: Evaluate Multiple Perspectives
  - Patterns or trends can be identified among the arguments about this issue
  - Implication and/or consequences of accepting or rejecting a particular argument
  - Connecting multiple perspectives and other issues, questions, and topics that they relate to
  - Explain contradictions within or between arguments
  - From whose perspective is this information being presented
- Big Idea #4: Synthesize Ideas
  - Connect and analyze the evidence in order to develop an argument or support a conclusion
  - Is the reasoning logical and what reasoning and evidence would best support the argument?
  - Other conclusions to consider
  - How to account for their own biases and assumptions

- Best way to acknowledge and attribute the work of others
- Avoid plagiarism

- Big Idea #5: Team, Transform, and Transmit
  - How to appeal and engage and audience
  - The best medium or genre through which to engage the audience
  - Common misconceptions the audience might have
  - How to adapt the argument for different audiences and situations
  - How do communication choices affect my credibility with my audience?
  - Contributions to offer to a team
  - The benefits of revision
  - Benefits of reflecting on work
- Possible Themes:
  - Aesthetics, belief, communication, courage, culture, democracy, discovery, discrimination, diversity, education, environment, evolution, food, freedom, government, health, home, identity, immigration, innovation, intelligence, justice, language, leisure, liberty, media, modeling, myth, networks, opportunity, patterns, peace, perception, place, power, protest, representation, revolution, rights and responsibilities, social media, space, sustainability, technology, theory, traditions, transformation, utopia, war, wealth and poverty, work

3. Key Assignments:

- I-Search Paper – personal research paper about a topic that is important to the student
- Service Learning – Linking classroom based contexts with field-based learning in the community
- Source Mining – reviewing bibliographies of research studies or articles on a topic to see which names or works are referenced repeatedly to get an overview of key scholars or sources in the field
- Annotated bibliographies – bibliography with brief summary of each sources and a commentary about its usefulness to the inquiry along with the source's citation
- Peer Reviews – students providing structured reviews of each other's essays and presentations
- Team Project and Presentation – Students work in teams of 3-5 to identify, investigate, and analyze an academic or real-world problem or issue. Each team designs and/or considers options and evaluates alternatives; develops a multimedia presentation to present the argument for their proposed solution or resolution; and provides a defense to questions posed by the teacher.
- Individual Research-Based Essay and Presentation – students will read an analyze the cross-curricular stimulus material released by college board to identify thematic connections among them and possible areas fro inquiry; compose a research question of their own; conduct research; analyze, evaluate, and select evidence to develop an argument; and present and defend their conclusions.
- End-of-Course Exam – Exam consists of three short answers and one essay question

4. Instructional Methods and/or Strategies:

- Debates
- Socratic Seminar
- Jigsaw
- Fishbowl
- Shared Inquiry
- Discussion Groups
- Debriefing
- Graphic Organizers
- Focused Note-Taking
- Close Reading

- Marking the Text
- Summarizing
- Paraphrasing
- Retelling
- Think-Alouds
- Videotaping for self-evaluation
- Practice Modeling from Teacher
- Team-Building Activities

5. Assessment Including Methods and/or Tools:

The evaluation of student progress and evaluation will be based on the following criteria outlined in Board Policy:

- Assessments: 60-75% of the final grade
    - Individual Research-Based Essay and Presentation
    - End of Course Exam
- Assignments and class discussions: 25-40% of the final grade
    - Team Project and Presentation

CHINO VALLEY UNIFIED SCHOOL DISTRICT
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum

SUBJECT: **NEW COURSE: ADVANCED PLACEMENT STUDIO ART: 2D DESIGN**

==========

BACKGROUND

The Chino Valley Unified School District routinely revises curriculum guides and develops new courses in accordance with State Content Standards, State Frameworks, and student need. Accordingly, the revision and development of curriculum guides are the results of a collaborative effort of teachers in the related academic areas

Advanced Placement Studio Art: 2D Design is a year-long elective course that prepares students for classes and careers that use 2D design. The course consists of work involved with diverse media, styles, subjects, and content. Through the use of portfolios, students demonstrate their artistic skills and ideas they have developed, refined, and applied over the course of the year.

This course was presented to the Curriculum Council and A.C.T. has been consulted.

Consideration of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education receive for information the new course Advanced Placement Studio Art: 2D Design.

FISCAL IMPACT

None.

WMJ:GP:JR:lar

A. CONTACTS	
1. School/District Information:	School/District: Chino Valley Unified School District Street Address: 5130 Riverside Dr., Chino, CA 91710 Phone: (909) 628-1201 Web Site: chino.k12.ca.us
2. Course Contact:	Teacher Contact: Office of Secondary Curriculum Position/Title: Director of Secondary Curriculum Site: District Office Phone: (909) 628-1201 X1630
B. COVER PAGE - COURSE ID	
1. Course Title:	AP Studio Art: 2D Design
2. Transcript Title/Abbreviation:	AP Design
3. Transcript Course Code/Number:	
4. Seeking Honors Distinction:	Yes
5. Subject Area/Category:	Meets the UC/CSU "f" Visual & Performing Arts requirement
6. Grade Level(s):	10-12
7. Unit Value:	5 credits per semester/10 credits total
8. Course Previously Approved by UC:	No
9. Classified as a Career Technical Education Course:	No
10. Modeled after an UC-approved course:	Yes
11. Repeatable for Credit:	No
12. Date of Board Approval:	

13. Brief Course Description:

In this course, students will be creating a portfolio that focuses on two-dimensional (2-D) design. Design involves purposeful decision making about how to use the elements and principles art in an integrative way.

The principle of designs (unity/variety, balance, emphasis, contrast, rhythm, repetition, proportion/scale, figure/ground relationships) can be articulated through the visual elements (line, shape, color, value, texture, space). The principles and elements of art help guide artists in making decisions about how to organize an image on a picture plane in order to communicate content. Effective Design is possible whether one uses representational or abstract approaches to art.

The 2-D Design portfolio has a basic, three-section structure, which requires the student to show a fundamental competence and range of understanding in visual concerns (and methods). The portfolio asks the student to demonstrate a depth of investigation and process of discovery through the Sustained Investigation section (Section II). In the Range of Approaches section (Section III), the student is asked to demonstrate a serious grounding in visual principles and material techniques. The Selected Works section (Section I) permits the student to select the works that best exhibit a synthesis of form, technique, and content

For this portfolio, students are asked to demonstrated understanding 2-D Design through any two-dimensional medium or process, including, but not limited to, graphic design, digital imaging, photography, collage, fabric design, weaving, fashion design, fashion illustration, painting and printmaking. Video clips, DVDs, CDs and three-dimensional works may not be submitted. However still images from videos or films are accepted. There is no preferred) or unacceptable) style or content.

When creating a portfolio in two-dimensional design, students must submit artwork that should show a clear individual "voice" that is evident within the art piece. Any work that makes use of(appropriate) photographs, published images and/or other artists' work must show substantial and significant development beyond duplication. It is unethical, constitutes plagiarism, and often violates copyright law simply to copy another artists' work or imagery (even in another medium) and represent it as one's own art.

When students submit digital images to the teacher and the AP exam, the images in the Breadth and Concentration sections of the portfolio may be edited. However, the goals of image editing should be able to present the clearest, most accurate representation of the student's artwork, and to ensure that images meet the requirements of the Digital Submission Web application.

14. Prerequisites:	Teacher Approval

15. Context for Course:

AP Studio Art: 2D design will be a year-long elective course offered primarily to sophomores, juniors, and seniors. Students will need to present a portfolio of previous work to the teacher when entering the class. AP Studio Art is anticipated as a critical component of Ayala High School's attempts to expand the reach of AP course offerings to a broader range of students and to help provide a course that will prepare our students for classes and careers that use 2D design.

16. History of Course Development:

This course has been developed over the 2017-2018 school year. The curriculum is modeled on the requirements and suggestions in the College Board's AP Studio Art Course Description.

17. Textbooks:	None

18. Supplemental Instructional Materials:	• Computers for Each Student (Computer Lab). Suggested operating systems for computers:
	  ○ Windows 10
	  ○ Windows XP
	  ○ Winows Vista
	  ○ Mac OS
	• Licenses for the adobe suite (Photoshop, Lightroom, Illustrator, Animate etc.),
	• Drawing tablet for each computer (Wacom tablets)

C. COURSE CONTENT

1. Course Purpose:

AP Studio Art: 2D design is a class designed for students who have an interest in the practical experience of art. Students will learn skills and techniques necessary to be successful in college courses and careers in the field of art. Students will be creating a portfolio in this class that demonstrates artistic skills and ideas they have developed, refined, and applied over the course of the year to produce visual compositions.

This course will:

- Encourage create and systematic investigation of formal and conceptual issues
- Emphasize making art as an ongoing process that involves the student in informed and critical decision making
- Help students develop technical skills and familiarize them with the functions of the visual elements
- Encourage students to become independent thinkers who will contribute inventively and critically to their culture through artmaking.

2. Course Outline:

Week 1: AP Portfolio Overview

- AP Portfolio requirements and its components will be explored in detail.
- Students will look at examples of successful and less successful portfolios.

- Students will practice scoring portfolios themselves to see if they can recognize the expectations of the readers.
- Discuss and understand the principles of design and the elements of art. Understand how it is connected to making work

Weeks 2-3: Quick Breadth Work

- Students will begin 4 smaller scale works in a variety of media. These lessons are designed to get the students back into practice, give a refresher on techniques, and create several quick works that may fit into the Breadth section.
- Explanation of the Breadth Section
- Components of a Critique. Practice in small groups analyzing a variety of different works to practice vocabulary
- In small groups, students will start listing possible ideas for works they can make for the Breadth Section.
- Start Rough sketches for the portfolio sections.
- Tutorials on how to use Photoshop and Illustrator.

Weeks 4-12: Breadth Section

- Group collaboration on making a schedule and goals for the breadth section
- Students will start creating works for their breadth section. There will be the expectation of ***creating two portfolio-ready works every two and a half weeks***
- Ever work will require a written reflection explaining their rationale and thought process.
- Students will start their case studies which will be due at the end of the semester.
- Presentations will be made at the end of the Breadth Section so students can explain what they have learned over the semester.
- Every 2 weeks, we will spend one day doing critiques on works so far. This will be done as a whole class to talk what is successful within the works and what could possibly be improved.

Week 13: Quick Concentration Work

- Explanation of the Concentration Section
- Students will research and show a wide variety of artists that have a good theme that connects a wide variety of pieces in a concentration. Students will choose a theme for their portfolio.
- In small groups, students will start listing possible ideas for works they can make for the concentration section.
- Start Rough sketches for the portfolio section.

Weeks 14-33: Concentration Section

- Group collaboration on making a schedule and goals for the concentration section
- Students will start creating works for their concentration section. There will be the expectation of creating two portfolio ready works every two and a half weeks
- Ever work will require a written reflection explaining their rationale and thought process.
- Students will start their case studies which will be due at the end of the semester.
- Presentations will be made at the end of the Concentration Section so students can explain what they have learned over the semester.
- Every 2 weeks, we will spend one day doing critiques on works so far. This will be done as a whole class to talk what is successful within the works and what could possibly be improved.
- Begin downloading completed work to the AP Website during this time. Students will also be writing/revising your artist statement. All work to be included in your portfolio must be completed before the submission deadline.

Weeks 34-36: Wrap Up

- Students will create a Powerpoint presentation of their portfolio including the breadth sections, concentration sections, and their quality works.
- Any unfinished work should be completed.
- Final evaluation of portfolio and final reflection

3. Key Assignments:

Overview

Students will be required to make a portfolio in 2D design. This portfolio will have a three-section structure, which requires the students to show a fundamental competence and range of understanding in visual concerns and methods. The portfolio is broken up into the following sections: Quality (Selected Works), Concentration (Sustained Investigation), and Breadth (Range of Approaches)

2D Design Portfolio

Section I: Quality (Selected Works)

Requirements: 5 pieces of actual work in one or more media. These pieces will be mailed and delivered to the AP testing site.

Description:

For this section of the portfolio, students are asked to submit *5 actual works* in one or more media. Students should carefully select works that demonstrate their in-depth understanding of 2-D design issues. The works shout be on flat surfaces, such as paper, cardboard, canvas board, or unstretched canvas.

Students will receive all the portfolio materials for submission of the Quality (Selected Works) in May. Because of limitations imposed by shipping and handling of the portfolios, work submitted for this section must fit easily into the portfolio envelop which will be provided by the teacher. The envelop will be approximately 18" X 24". Works for Quality (Selected Works) that are smaller than 8"X10" should be mounted on sheets 8" X 10" or larger. To protect all work, all work on paper should be backed or mounted. Mats are optional. Do not use reflective materials such as acetate or shrink-wrap because they cause a glare that makes the work difficult to see. A sturdy, opaque overleaf that is hinged to one edge of the backing so that it may be easily lifted, provides excellent protection and is highly recommended. Materials that may smudge should be protected with fixative. If the work is matted, a neutral color for that mat is advisable. Do NOT send books, or journals, work on glass, fragile work, work that is rolled or folded, or unmounted work that can be crumbled or damaged in shipping.

The works selected for the Quality Works may come from the Concentration (Sustained Investigation) and /or Breadth (Range of Approaches) sections, but they do not have to. They may be a group of related pieces, unrelated works, or a combination of related and unrelated materials.

Section II: Concentration (Sustained Investigation)

Requirements: 12 digital images submitted that have a clear concentration that connects all the pieces and an explanation of how your concentration demonstrates your intent and the exploration of your idea.

Description:

This section will focus on students creating a body of work that has a concentration. A concentration is a body of related works that demonstrate a student's sustained and thoughtful investigation on a specific topic. It is not a selection of a variety of works produced as solutions to class projects or a collection of works with differing intent. Students are encouraged to explore a personal, central interest as intensively as possible. Students are free to work with any idea

in any medium that addresses two-dimensional design issues. The concentration should grow out of the student's idea and demonstrate growth and discovery through a number of conceptually related works. Students in this section should make artwork that not only create art that is good technically, but a piece or work that has visual evidence of the student thinking, selected method of working, and development of the work over time

Some examples of artwork that meet the requirements of the concentration section:

- Development of a series of identity products (logos, letterhead, signage, and so on) for businesses
- A series of political cartoons using current events and images
- Use classical standard such as the golden ration and variations of it to produce differing compositions
- Diagrammatic overlays of mathematical principles on photography of architectural structures
- A series of fabric designs, apparel design or weavings used to express a particular theme

Since there is a wide range of possibilities of concentration works, the number of works the student creates should be dictated by the focus of the investigation. Students will produce and select 12 pieces of artwork in the concentration section that best represents the process of investigation.

When turning in concentration pieces, students should give though to the sequence of images on the AP portfolio website. There is no required order but the images should be organized in a way to show the development of the concentration. In most cases, this would be chronological.

Section III: Breadth (Range of Approaches)
Requirements: 12 pieces submitted of 12 different works that show experimentation and a wide range of conceptual approaches to the elements and principles of design.

Description:
This section will focus on students creating 12 works in which the elements and principles of art/two-dimensional design are the main focus. Students are asked to demonstrate that they are thoughtfully applying these principles while composing skills. These works should demonstrate exploration, inventiveness, and the expressive manipulation of form as well as knowledge of compositional organization.
Artwork that has the best demonstrations of breadth clearly show experimentation and a range of conceptual approaches to the work. Students can do this in a single medium or a variety of mediums. For example, students can use the medium of collage and use collage to make a wide variety of works that explore different parts of the elements and principles of design. There are many ways that students can show experimentation and exploration of the elements and principles of design. This can include:

- Work that employs line, shape, and color to create unity or variety in a composition
- Work that demonstrates symmetry/asymmetry, balance, or anomaly
- Work that explores figure/ground relationships
- Work that develops a modular or repeat pattern to create rhythm
- Work that uses various color relationship for emphasis or contrast in a concentration
- Work that investigates or exaggerates proportion/scale

<u>Critiques</u>
Throughout the course, students will be expected to participate in written and verbal discussion of works of art. Students will learn the process of critiques with examples of portfolios which include discussing the subject, composition, and content of a work. Students will then learn how the principles and elements of art are used in order to support the subject, composition, and content. After learning how to identify the principles and elements of design in a work, students will learn how to improve a piece focusing on how the artist can change the elements and principles of design that will improve the quality of the subject, composition, or content within a piece.

Reflections

For each work in the breadth and concentration section of the portfolio, students will be expected to write a reflection about their work. When students write their reflections, they will be expected to describe the following:

- The title, medium, and dimensions of the work
- The elements and principles of design focused in the work
- How the artist utilized subject, content, and composition within the work. Artists will describe how the elements and principles of design support the subject, content, and composition
- Describe their thought process on how they created the work. Students will describe what main idea/concept on they are trying to get across in the work. They will also describe what experimentation used to get to the final result.

Research

Students will be asked to do research on different artists that have specialize with a certain medium, style, or creative theme/idea. Students will have to learn the thought and experimentation process the artist used to create the work, how the artist utilized the principles and elements of design to support the composition/subject/content of a work, and what the student can take and use from this artist to incorporate into their own work.

4. Instructional Methods and/or Strategies:

Methods used in the class will include:

- Experimentation, Critiques, and Collaboration- When students are working on their works for their portfolio, students will be expected to experiment with different ideas with rough sketches of possible compositions they would want to do for their final work. Before the experimentation process, students will be asked to collaborate in small groups of 3-4 on what concepts and ideas would make an interesting piece. This will provide feedback from other artists and the instructor
- Reflections- For each work in the breadth and concentration section of the portfolio, students will be expected to write a reflection about their work. When students write their reflections, they will be expected to describe the following:
    1. The title, medium, and dimensions of the work
    2. The elements and principles of design focused in the work
    3. How the artist utilized subject, content, and composition within the work. Artists will describe how the elements and principles of design support the subject, content, and composition
    4. Describe their thought process on how they created the work. Students will describe what main idea/concept on they are trying to get across in the work. They will also describe what experimentation used to get to the final result.
- Guided Practice- Throughout the year, the teacher will have different tutorials to provide students skills needed in ordered to help create engaging works. The teacher will provide sequence steps of a concept that students can easily understand and follow to create a final result. There will be many concepts taught including:

1. How to draw a head from multiple angles to support the element form in a work
2. How to use color theory to show emphasis and harmony in a work
3. How to use line and shape to create flow in a composition.

- Independent Practice- After a student learns a concept through guided practice, the teacher will have students practice the concept on their own with a few prompts provided by the teacher. The teacher will walk around the classroom to ensure that students understand the concept. For students that are struggling, the teacher will provide tutoring to have the students help understand the concept better.
- Discussions and Critiques- Class discussion and debate will be frequently used to help students internalize the course material and make connections across topics. Some discussions will be whole-class while other discussions and critiques will take place in smaller groups an inquiry approach. Some possible discussion and debate topics include: How are the elements and principles of design being used in order to support an idea in a work? What elements and principles of design can be changed to strengthen the work? What is a

concentration and how can you make multiple pieces based off a single concentration? What makes good and bad art? How do we measure if something is "good" or "bad" in art?

- Research- Students will be asked to do research on different artists that have specialize with a certain medium, style, or creative theme/idea. Students will have to learn the thought and experimentation process the artist used to create the work, how the artist utilized the principles and elements of design to support the composition/subject/content of a work, and what the student can take and use from this artist to incorporate into their own work.
- Case Studies- Once a semester, students will examine one or more case studies to grapple with the real-world implications of the issues being studied. Case studies may include some of the following examples—politics in the art field, creating a good portfolio for careers, components of a functional art studio, outsourcing animation and graphic design positions to different countries and its affect to current art industry
- Presentation- At the end of each semester, students will have to make a presentation about all of the art pieces that they created over the semester. For the presentation, they must:
    1. Describe the ideas and concepts in each of their works or a group of works
    2. The elements of art and principles of design focused on in the work
    3. How they used experimentation and collaboration to improve the quality of their piece
    4. The successes and failures they had throughout the creative process and time management
    5. How they plan to improve next semester, in college, or into an art career based off their experience in the class so far.

5. Assessment Including Methods and/or Tools:

The evaluation of student progress and evaluation will be based on the following criteria outlined in Board Policy:

- Assessments: 60-75% of the final grade
- Assignments and class discussions: 25-40% of the final grade

CHINO VALLEY UNIFIED SCHOOL DISTRICT
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DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum

SUBJECT: **NEW COURSE: ADVANCED PLACEMENT UNITED STATES GOVERNMENT AND POLITICS**

==========

BACKGROUND

The Chino Valley Unified School District routinely revises curriculum guides and develops new courses in accordance with State Content Standards, State Frameworks, and student need. Accordingly, the revision and development of curriculum guides are the results of a collaborative effort of teachers in the related academic areas

Advanced Placement (AP) United States Government and Politics will be a semester-long course designed to give students a critical perspective on politics and government and can be taught in conjunction with AP Comparative Government and Politics. This course includes both general concepts and relevant case studies for the purpose of interpreting politics and government in a critical way. It will also require an understanding of the institutions, groups, people, beliefs, and ideas that make up the past and current US political system.

This course was presented to the Curriculum Council and A.C.T. has been consulted.

Consideration of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education receive for information the new course Advanced Placement United States Government and Politics.

FISCAL IMPACT

None.

WMJ:GP:JR:lar

A. CONTACTS	
1. School/District Information:	School/District: Chino Valley Unified School District Street Address: 5130 Riverside Dr., Chino, CA 91710 Phone: (909) 628-1201 Web Site: chino.k12.ca.us
2. Course Contact:	Teacher Contact: Office of Secondary Curriculum Position/Title: Director of Secondary Curriculum Site: District Office Phone: (909) 628-1201 X1630
B. COVER PAGE - COURSE ID	
1. Course Title:	Advanced Placement United States Government and Politics
2. Transcript Title/Abbreviation:	AP US Gov
3. Transcript Course Code/Number:	
4. Seeking Honors Distinction:	Yes
5. Subject Area/Category:	Meets the UC/CSU "a" History/Social Science requirement
6. Grade Level(s):	12
7. Unit Value:	5 credits per semester/10 credits total
8. Course Previously Approved by UC:	No
9. Classified as a Career Technical Education Course:	No
10. Modeled after an UC-approved course:	Yes
11. Repeatable for Credit:	No
12. Date of Board Approval:	
13. Brief Course Description: The Advanced Placement Course in US Government and Politics is designed to give students a critical perspective on politics and government. This course includes both general concepts and relevant case studies for the purpose of interpreting politics and government in a critical way. It will also require an understanding of the institutions, groups, people, beliefs, and ideas that make up the past and current US political system. At the conclusion of the course, students will have the opportunity to take the Advanced Placement Examination in the hopes of receiving college credit for this course.	
14. Prerequisites:	None
15. Context for Course: This course is already approved by Chino Valley Unified School District as a year-long course. However, College Board allows AP US Government and Politics to be a semester-long course, which is the change being submitted. This change is being made so that AP US Government and Politics can be taught in conjunction with AP Comparative Government and Politics. Students would take both AP Comparative Government and Politics and AP US Government in Politics during their senior year as a "year-long" course.	
16. History of Course Development: This course introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning, assess causes and consequences of political events, and interpret data to develop evidence-based arguments. The course is designed to prepare students for the Advanced Placement Exam in US Government and Politics.	
17. Textbooks:	Wilson, James Q. *American Government.* 13th edition. Boston: Wadsworth Cengage Learning, 2013.

18. Supplemental Instructional Materials:	Throughout the course, students will be reading articles from a variety of academic journals, including, but not limited to the Economist, Foreign Policy, and others.

C. COURSE CONTENT

1. Course Purpose:

This course is designed to examine the institutions, participants, and processes which characterize political activity in the United States. The course has three objectives:

1. To introduce students to the basics of American national and state governments
2. To help students develop an analytical perspective toward the conduct of politics in the United States
3. To introduce students to the manner in which political scientists conduct research on politics, government, and the political process

2. Course Outline:

Unit 1: Constitutional Underpinnings of United States Government

- Considerations that influenced the formation and adoption of the Constitution
- Separation of Powers
- Checks and Balances
- Federalism
- Theories of Democratic Government

Unit 2: Political Beliefs and Behaviors

- Beliefs that citizens hold about their government and its leaders
- Processes by which citizens learn about politics
- The nature, sources, and consequences of public opinion
- The ways in which citizens vote and otherwise participate in political life
- Factors that influence citizens to differ from one another in terms of political beliefs and behaviors

Unit 3: Political Parties, Interest Groups, and Mass Media

- Political Parties and Elections
  - Functions
  - Organization
  - Development
  - Effects on the Political Process
  - Electoral laws and systems
- Interest groups, including political action committees (PACs)
  - The range of interests represented
  - The activities of interest groups
  - The effects of interest groups on the political process
  - The unique characteristics and roles of PACs in the political process
- The mass media
  - The functions and structures of the news media
  - The impacts of the news media on politics
  - The news media industry and its consequences

Unit 4: Institutions of National Government: The Congress, the Presidency, the Bureaucracy, and the Federal Courts

- The major formal and informal institutional arrangements of power
- Relationships among these four institutions and varying balances of power
- Linkages between institutions and the following:
  - Public opinion and voters
  - Interest groups
  - Political parties
  - The media
  - State and local governments

Unit 6: Public Policy

- Policymaking in the federal system
- The formation of policy agendas
- The role of institutions in the enactment of policy
- The role of the bureaucracy and the courts in policy implementation and interpretation
- Linkages between policy processes and the following:
  - Political institutions and federalism
  - Political parties
  - Interest groups
  - Public opinion
  - Elections
  - Policy networks

Unit 7: Civil Rights and Civil Liberties

- The development of civil liberties and civil rights by judicial interpretation
- Knowledge of substantive rights and liberties
- The impact of the 14th amendment on the constitutional development of rights and liberties

3. Key Assignments:

- Reading Quizzes and Discussions
  - Students will take a reading quiz on each section and then discuss the readings in partners and then in groups to ensure they have comprehended what they read
- Notecards
  - Students will create a set of notecards to use to review key terms and people
- Students will assess and discuss current events occurring in US government and politics, in writing.
  - Current Event Write-Ups due, present in class.
- Students will interpret and assess at least 5 amendments to the US constitution and how those amendments have affect US government and politics, while working in groups.
  - Group research project – analyze 5-6 amendments and present to class, must include analysis of relevant supreme court cases and current examples.
- Students will define and explain the sources of American political culture, including: mistrust of government, political tolerance, religious roots, and class consciousness.
  - Group Research project on sources of political culture and how it affects public opinion.
    - Students must provide public opinion polls along with analysis of those polls to support their arguments.

- Students will practice using the academic language in AP Free-Response questions, as it relates to the Judicial branch, Supreme Court cases, civil rights and civil liberties.
    - Practice FRQs
- Students will interpret political ideology and how it relates to their own political participation and ideals.
    - Political ideology Activity and Essay – students discover own political ideology
- Students will analyze the causes and effects of different levels of voter turnout and political participation.
    - "Who participates" survey project – students conduct their own surveys of adults in their lives and whether or not they participate politically
    - "Letter to Congressmen" Project – Students will participate in politics by writing letters to Congressmen about issues they are concerned about
- Students will describe the media process that contributes to awareness during campaigns.
    - Campaign Simulation – create their own platform, campaign ad, and prepare for mock debates
- Students will analyze how a President's character affects campaigns, elections, policy making power, and public opinion ratings.
    - Create the perfect President project – traits and characteristics
- Students will compare and contrast at least 2 presidents and their approval ratings.
    - President research project
- Students will define and describe the bill making process in both houses, including how committees are organized and the tasks of staff members of Congress members.
    - Project and Simulation – Students will create a bill and simulate the process by which it needs to be passed
- Students will analyze the federal budget process, budget deficits, surpluses, and the cooperation between Congress and the Executive in passing economic policy.
    - Budget project – students will create a school budget and figure out where to allocate funds
- Unit Exams:
    - Students will answer multiple choice and free-response questions from each unit
    - Each exam will be cumulative and include questions from previous exams
- Midterm Exam:
    - Students will take a midterm exam with cumulative questions half way through the semester
    - The exam will include both multiple choice and free-response questions
- Final Exam:
    - Students will take a Final exam with cumulative questions at the end of the semester
    - The exam will include both multiple choice and free-response questions

4. Instructional Methods and/or Strategies:

Activities:

Debates, Mock Trials, Socratic Seminars, Simulations, Discussions, Reading Secondary and Primary Sources, Research Projects, Formal and Informal Writing Assignments, Taking notes on lectures

Homework:

Students will be expected to complete textbook and supplemental readings at home, as well as various research projects, and current events.

Current Events:

Aside from class activities, reading assignments, and notes, students will need to complete current event write-up once per week. Students will also be asked to present their current events to the class orally at least once a unit. The use of consistent current event analysis will allow students to better connect the concepts learned in class to the world in which they live.

Using Graphs, Maps, and Charts:
Each unit will make use of a variety of data and stimuli, including graphs, maps, and charts that are relevant to the topic being studied. Students will also gain practice analyzing these stimuli for a variety of purposes.

5. Assessment Including Methods and/or Tools:
The evaluation of student progress and evaluation will be based on the following criteria outlined in Board Policy:

- Assessments: 60-75% of the final grade
  - Midterm/Final
  - Reading Quizzes
- Assignments and class discussions: 25-40% of the final grade
  - Projects
  - Free-Response Question Practice/Participation

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum

SUBJECT: **NEW COURSE: BIOLOGY AND THE LIVING EARTH**

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BACKGROUND

The Chino Valley Unified School District routinely revises curriculum guides and develops new courses in accordance with State Content Standards, State Frameworks, and student need. Accordingly, the revision and development of curriculum guides are the results of a collaborative effort of teachers in the related academic areas.

Biology and the Living Earth is part of the high school three course model that is aligned to the Next Generation Science Standards. The course emphasizes the understanding of the nature of living things, their environment, and their relationships with man. The students will learn unity, interaction, continuity, and diversity of life. The major concepts that will be covered are cell biology, genetics, ecology, evolution, and physiology.

This course was presented to the Curriculum Council and A.C.T. has been consulted.

Consideration of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education receive for information the new course Biology and the Living Earth.

FISCAL IMPACT

None.

WMJ:GP:JR:lar

A. CONTACTS	
1. School/District Information:	School/District: Chino Valley Unified School District Street Address: 5130 Riverside Dr., Chino, CA 91710 Phone: (909) 628-1201 Web Site: chino.k12.ca.us
2. Course Contact:	Teacher Contact: Office of Secondary Curriculum Position/Title: Director of Secondary Curriculum Site: District Office Phone: (909) 628-1201 X1630
B. COVER PAGE - COURSE ID	
1. Course Title:	Biology and the Living Earth
2. Transcript Title/Abbreviation:	Bio and Living Earth
3. Transcript Course Code/Number:	
4. Seeking Honors Distinction:	No
5. Subject Area/Category:	Meets the UC/CSU "d" Laboratory Science requirement
6. Grade Level(s):	9-12
7. Unit Value:	5 credits per semester/10 credits total
8. Course Previously Approved by UC:	No
9. Classified as a Career Technical Education Course:	No
10. Modeled after an UC-approved course:	Yes
11. Repeatable for Credit:	No
12. Date of Board Approval:	
13. Brief Course Description: Biology and the Living Earth Honors emphasizes the understanding of the nature of living things, their environment, and their relationships with man.	
14. Prerequisites:	Co-requisite: Integrated Math 1 or Higher
15. Context for Course: Biology and the Living Earth is one of three courses in California's three-course model for high schools implementing the Next Generation Science Standards (NGSS). To highlight the nature of Earth and space sciences (ESS) as an interdisciplinary pursuit, the course presents an integration of ESS and Biology.	
16. History of Course Development: The course was developed to meet the 2013 state adopted NGSS standards. It is one course from a three-course model that combines all high school performance expectations into three courses.	
17. Textbooks:	BIOLOGY by Prentice Hall, Kenneth R. Miller, Joseph S. Levine, Kenneth Miller, Joseph Levine, Prentice Hall Staff, Joe Levine, Ken Miller, Pearson Education
18. Supplemental Instructional Materials:	Teacher-created materials, as needed
C. COURSE CONTENT	
1. Course Purpose: The Biology and the Living Earth course, based on the Next Generation Science Standards, explores relationships between the living and nonliving components of Earth's systems. By using science and engineering practices, cross-cutting disciplinary concepts, and evidence from experiments, research, and observations, students will learn how to formulate questions, evaluate claims, and develop models to make interpretations and investigate the natural world. The Sequence of Units are as followed: Ecosystems Interactions and Energy, Structure, Function, and Growth (from organisms to cells), History of Earth's Atmosphere (Photosynthesis and Respiration), Evidence of Evolution, Inheritance of Traits, and Ecosystem Stability and the Response to Climate Change.	

2. Course Outline:

Unit 1: Ecosystems Interactions & Energy (Intro Earth systems thru organisms): Students use mathematical and computer models to determine the factors that affect the size and diversity of populations in ecosystems, including the availability of resources and interactions between organisms.

Guiding Questions:

- What factors affect the size of populations within an ecosystem?
- What are common threats to remaining natural ecosystems and biodiversity? How can these threats be reduced?

Learning Targets:

- Students will use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales.
- Students will use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.
- Students will use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.
- Students will evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.

NGSS Three Dimensions:

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS2.A: Interdependent Relationships in Ecosystems
- LS2.D: Social Interactions and Group Behavior

Science and Engineering Practices

- SEP-2: Developing and Using Models
- SEP-3: Planning and Carrying Out Investigations
- SEP-4: Analyzing and Interpreting Data
- SEP-5: Using Mathematics and Computational Thinking
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-8: Obtaining, Evaluating, and Communicating Information

Crosscutting Concepts

- CCC-2: Cause and Effect
- CCC-3: Scale, Proportion, and Quantity
- CCC-4: System and System Models
- CCC-5: Energy and Matter: Flows, Cycles, and Conservation

Highlighted California Environmental Principles & Concepts:

- Principle II: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.
- Principle IV: The exchange of matter between natural systems and human societies affects the long-term functioning of both.

Common Core:

- CA CCSS Math Connections: N-Q.1-3; S-ID.1; S-IC.1,6; MP.2, MP.4
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: RST.9-10.8; RST.11-12.1,7,8; WHST.9- 12.2a-e

Unit 2: Structure, Function & Growth (organisms to cells): Students use models to create explanations of how cells use DNA to construct proteins, build biomass, reproduce, and create complex multicellular organisms. They investigate how these organisms maintain stability.

Guiding Questions:

- What happens if a cell in our body dies?
- How does the structure of DNA affect how cells look and behave?
- How do systems work in a multi-celled organism (emergent properties) and what happens if there is a change in the system?
- How do organisms survive even when there are changes in their environment?

Learning Targets:

- Students will construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.
- Students will develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
- Students will plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.
- Students will use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.
- Students will construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.

NGSS Three Dimensions:

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS1.B: Growth and Development of Organisms
- LS1.A: Structure and Function
- ETS1.C: Optimizing the Design Solution

Science and Engineering Practices

- SEP-2: Developing and Using Models
- SEP-3: Planning and Carrying Out Investigations
- SEP-4: Analyzing and Interpreting Data
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-7: Engaging in Argument from Evidence
- SEP-8: Obtaining, Evaluating, and Communicating

Crosscutting Concepts

- CCC-1: Patterns
- CCC-2: Cause and Effect
- CCC-3: Scale, Proportion, and Quantity
- CCC-4: System and System Models
- CCC-6: Structure and Function
- CCC-7: Stability and Change

Common Core:

- CA CCSS Math Connections: F-IF.7.a-e; F-BF.1a-c; MP.2; MP.4
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: RST.11-12.1,8, WHST.9-12.2.a-e, 7,9

Unit 3: History of Earth's Atmosphere (Photosynthesis & Respiration, Earth's atmosphere): Students make a model that links photosynthesis and respiration in organisms to cycles of energy and matter in the Earth system. They gather evidence about the linked history of Earth's biosphere and atmosphere.

Guiding Questions:

- How do living things acquire energy and matter for life?
- How do organisms store energy?
- How are photosynthesis and cellular respiration connected?
- How do organisms use the raw materials they ingest from the environment?
- How has the cycling of energy and matter changed over Earth's history?

Learning Targets:

- Students will use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.
- Students will construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.
- Students will use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.
- Students will construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.
- Students will develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.
- Students will apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of Earth's formation and early history.
- Students will develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.
- Students will construct an argument based on evidence about the simultaneous coevolution of Earth's systems and life on Earth.
- Students will use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.
- Students will plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.

NGSS Three Dimensions:

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS1.A: Structure and Function
- LS1.B: Growth and Development of Organisms

Science and Engineering Practices

- SEP-2: Developing and Using Models
- SEP-3: Planning and Carrying Out Investigations
- SEP-4: Analyzing and Interpreting Data
- SEP-5: Using Mathematics and Computational Thinking
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-7: Engaging in Argument from Evidence
- SEP-8: Obtaining, Evaluating, and Communicating Information

Crosscutting Concepts

- CCC-1: Patterns

- CCC-3: Scale, Proportion, and Quantity [CCC-6] Structure and Function
- CCC-7: Stability and Change

Highlighted California Environmental Principles & Concepts:

- Principle I: The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services.
- Principle II: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.
- Principle III: Natural systems proceed through cycles that humans depend upon, benefit from and can alter.
- Principle IV: The exchange of matter between natural systems and human societies affects the long-term functioning of both.
- Principle V: Decisions affecting resources and natural systems are based on a wide range of considerations and decision-making processes.

Common Core:

- CA CCSS Math Connections: MP.2; MP.4
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: SL.11-12.4; RST.11-12.1,8, WHST.9- 12.2.a-e, 7,9

Unit 4: Evolution: Students develop a model about how rock layers record evidence of evolution as fossils. Building on their learning from previous grades, they focus on effectively communicating this evidence and relate it to principles of natural selection.

Guiding Questions:

- How do layers of rock form and how do they contain fossils?
- Why do we see fossils across the world from each other but living organisms that are very different from each other?
- What evidence shows that different species are related?
- How did modern day humans evolve?

Learning Targets:

- Students will communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.
- Students will construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.
- Students will construct an explanation based on evidence for how natural selection leads to adaptation of populations.
- Students will evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.
- Students will evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks.
- Students will plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.
- Students will construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.
- Students will evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

- Students will use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.
- Students will evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.

NGSS Three Dimension

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS1.B: Growth and Development of Organisms
- LS3.A: Inheritance of Traits
- LS3.B: Variation of Traits
- LS4.B: Natural Selection

Science and Engineering Practices

- SEP-1: Asking Questions and Defining Problems
- SEP-2: Developing and Using Models
- SEP-4: Analyzing and Interpreting Data
- SEP-5: Using mathematics and Computational Thinking
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-7: Engaging in Argument from Evidence
- SEP-8: Obtaining, Evaluating, and Communicating Information

Crosscutting Concepts

- CCC-3: Scale, Proportion, and Quantity

Highlighted California Environmental Principles & Concepts:

- Principle I: The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services.
- Principle II: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.
- Principle III: Natural systems proceed through cycles that humans depend upon, benefit from and can alter.
- Principle IV: The exchange of matter between natural systems and human societies affects the long- term functioning of both.

Common Core:

- CA CCSS Math Connections: MP.2; MP.4
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: RST.11-12.1,9, WHST.9-12.1.a-e, 2.a-e, 7,9

Unit 4: Inheritance of Traits: Students develop explanations about the specific mechanisms that enable parents to pass traits on to their offspring. They make claims about which processes give rise to variation in deoxyribonucleic acid (DNA) codes and calculate the probability that offspring will inherit traits from their parents.

Guiding Questions:

- How are characteristics of one generation passed to the next?
- What allows traits to be transmitted from parents to offspring?
- How does variation affect a population under selective pressures?

Learning Targets:

- Students will ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.

- Students will make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.
- Students will apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.
- Students will construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.
- Students will apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait.
- Students will construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.

NGSS Three Dimension

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS4.A: Evidence of Common Ancestry and Diversity LS4.B: Natural Selection
- LS4.C: Adaptation
- ESS1.C: The History of Planet Earth
- ESS2.C: The Roles of Water in Earth's Surface Processes

Science and Engineering Practices

- SEP-2: Developing and Using Models
- SEP-3: Planning and Carrying Out Investigations
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-7: Engaging in Argument from Evidence
- SEP-8: Obtaining, Evaluating, and Communicating Information

Crosscutting Concepts

- CCC-1: Patterns [CCC-2] Cause and Effect[CCC-4] System and System Models
- CCC-5: Energy and Matter: Flows, Cycles, and Conservation [CCC-7] Stability and Change

Highlighted California Environmental Principles & Concepts:

- Principle II: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.
- Principle III: Natural systems proceed through cycles that humans depend upon, benefit from and can alter.
- Principle IV: The exchange of matter between natural systems and human societies affects the long-term functioning of both.

Common Core:

- CA CCSS Math Connections: N-Q.1-3; F.IF.5; S-ID.6.a-c; MP.2, MP.4
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: SL.11-12.5; RST.11-12.1, WHST.9-12.2a-e, 5,8,9

Unit 6: Ecosystems Stability: Students use computer models to investigate how Earth's systems respond to changes, including climate change. They make specific forecasts and design solutions to mitigate the impacts of these changes on the biosphere.

Guiding Questions:

- What effects changes in ecosystems that ultimately effect populations?
- What are the changes that are happening in the climate and what effects are those having on life?
- How are human activities impacting Earth's systems and how does that affect life on Earth?

- What can humans do to mitigate their negative impact on the environment?

Learning Targets:

- Students will evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.
- Students will design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
- Students will evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.
- Students will create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.
- Students will create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.
- Students will evaluate or refine a technological solution that reduces impacts of human activities on natural systems.
- Students will analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems.
- Students will use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.
- Students will analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
- Students will design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
- Students will evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
- Students will use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.

NGSS Three Dimensions:

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS2.C: Ecosystem Dynamics, Functioning, and Resilience LS4.C: Adaptation
- LS4.D: Biodiversity and Humans
- ESS3.D: Global Climate Change

Science and Engineering Practices

- SEP-1: Asking Questions and Defining Problems
- SEP-2: Developing and Using Models
- SEP-4: Analyzing and Interpreting Data
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-7: Engaging in Argument from Evidence
- SEP-8: Obtaining, Evaluating, and Communicating Information]

Crosscutting Concepts

- CCC-1: Patterns
- CCC-3: Scale, Proportion, and Quantity [CCC-4] System and System Models [CCC-7] Stability and Change

Highlighted California Environmental Principles & Concepts:

- Principle I: The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services.
- Principle II: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.
- Principle III: Natural systems proceed through cycles that humans depend upon, benefit from and can alter.
- Principle IV: The exchange of matter between natural systems and human societies affects the long-term functioning of both.
- Principle V: Decisions affecting resources and natural systems are based on a wide range of considerations and decision-making processes.

Common Core:

- CA CCSS Math Connections: MP.2; N-Q.1-3; S-ID.1; S-IC.1,6
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: RST.9-10.8; RST.11-12.1,2,7,8; WHST.9- 12.2.a-e, 7,8.9

Nest Generation Science Standards

Earth and Space Science:

HS-ESS1-5. Evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks. [Clarification Statement: Emphasis is on the ability of plate tectonics to explain the ages of crustal rocks. Examples include evidence of the ages oceanic crust increasing with distance from mid-ocean ridges (a result of plate spreading) and the ages of North American continental crust increasing with distance away from a central ancient core (a result of past plate interactions).] (Introduced, but assessed in High School Chemistry in the Earth System course)

HS-ESS1-6. Apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of Earth's formation and early history. [Clarification Statement: Emphasis is on using available evidence within the solar system to reconstruct the early history of Earth, which formed along with the rest of the solar system 4.6 billion years ago. Examples of evidence include the absolute ages of ancient materials (obtained by radiometric dating of meteorites, moon rocks, and Earth's oldest minerals), the sizes and compositions of solar system objects, and the impact cratering record of planetary surfaces.]

HS-ESS2-5. Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes. [Clarification Statement: Emphasis is on mechanical and chemical investigations with water and a variety of solid materials to provide the evidence for connections between the hydrologic cycle and system interactions commonly known as the rock cycle. Examples of mechanical investigations include stream transportation and deposition using a stream table, erosion using variations in soil moisture content, or frost wedging by the expansion of water as it freezes. Examples of chemical investigations include chemical weathering and recrystallization (by testing the solubility of different materials) or melt generation (by examining how water lowers the melting temperature of most solids).]

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HS-ESS2-6. Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere. [Clarification Statement: Emphasis is on modeling biogeochemical cycles that

include the cycling of carbon through the ocean, atmosphere, soil, and biosphere (including humans), providing the foundation for living organisms.]

HS-ESS2-7. Construct an argument based on evidence about the simultaneous coevolution of Earth's systems and life on Earth. [Clarification Statement: Emphasis is on the dynamic causes, effects, and feedbacks between the biosphere and Earth's other systems, whereby geoscience factors control the evolution of life, which in turn continuously alters Earth's surface. Examples of include how photosynthetic life altered the atmosphere through the production of oxygen, which in turn increased weathering rates and allowed for the evolution of animal life; how microbial life on land increased the formation of soil, which in turn allowed for the evolution of land plants; or how the evolution of corals created reefs that altered patterns of erosion and deposition along coastlines and provided habitats for the evolution of new life forms.] [Assessment Boundary: Assessment does not include a comprehensive understanding of the mechanisms of how the biosphere interacts with all of Earth's other systems.]

HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. [Clarification Statement: Examples of key natural resources include access to fresh water (such as rivers, lakes, and groundwater), regions of fertile soils such as river deltas, and high concentrations of minerals and fossil fuels. Examples of natural hazards can be from interior processes (such as volcanic eruptions and earthquakes), surface processes (such as tsunamis, mass wasting, and soil erosion), and severe weather (such as hurricanes, floods, and droughts). Examples of the results of changes in climate that can affect populations or drive mass migrations include changes to sea level, regional patterns of temperature and precipitation, and the types of crops and livestock that can be raised.]

HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.* [Clarification Statement: Examples of data on the impacts of human activities could include the quantities and types of pollutants released, changes to biomass and species diversity, or areal changes in land surface use (such as for urban development, agriculture and livestock, or surface mining). Examples for limiting future impacts could range from local efforts (such as reducing, reusing, and recycling resources) to large-scale geoengineering design solutions (such as altering global temperatures by making large changes to the atmosphere or ocean).]

HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.* [Clarification Statement: Examples of data on the impacts of human activities could include the quantities and types of pollutants released, changes to biomass and species diversity, or areal changes in land surface use (such as for urban development, agriculture and livestock, or surface mining). Examples for limiting future impacts could range from local efforts (such as reducing, reusing, and recycling resources) to large-scale geoengineering design solutions (such as altering global temperatures by making large changes to the atmosphere or ocean).]

HS-ESS3-5. Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems. [Clarification Statement: Examples of evidence, for both data and climate model outputs, are for climate changes (such as precipitation and temperature) and their associated impacts (such as on sea level, glacial ice volumes, or atmosphere and ocean composition).] [Assessment Boundary: Assessment is limited to one example of a climate change and its associated impacts.]

HS-ESS3-6. Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.* [Clarification Statement: Examples of Earth systems to be considered are the hydrosphere, atmosphere, cryosphere, geosphere, and/or biosphere. An example of the far-reaching impacts from a human activity is how an increase in atmospheric carbon dioxide results in an increase in photosynthetic biomass on land and an increase in ocean acidification, with resulting impacts on sea organism health and marine populations.] [Assessment Boundary: Assessment does not include running

computational representations but is limited to using the published results of scientific computational models.] (Introduced but not fully assessed until IS6)

HS-ESS3-6. Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.* [Clarification Statement: Examples of Earth systems to be considered are the hydrosphere, atmosphere, cryosphere, geosphere, and/or biosphere. An example of the far-reaching impacts from a human activity is how an increase in atmospheric carbon dioxide results in an increase in photosynthetic biomass on land and an increase in ocean acidification, with resulting impacts on sea organism health and marine populations.] [Assessment Boundary: Assessment does not include running computational representations but is limited to using the published results of scientific computational models.]

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Engineering, Technology and Applications of Science:

HS-ETS1-1. Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

HS-ETS1-2. Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.

HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.

HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.

HS-ETS1-4. Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.

Life Science:

HS-LS1-1. Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells. [Assessment Boundary: Assessment does not include identification of specific cell or tissue types, whole body systems, specific protein structures and functions, or the biochemistry of protein synthesis.]

HS-LS1-1. Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells. [Assessment Boundary: Assessment does not include identification of specific cell or tissue types, whole body systems, specific protein structures and functions, or the biochemistry of protein synthesis.]

HS-LS1-2. Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. [Clarification Statement: Emphasis is on functions at the organism system level such as nutrient uptake, water delivery, and organism movement in response to neural stimuli. An example of an interacting system could be an artery depending on the proper function of elastic tissue and smooth muscle to regulate and deliver the proper amount of blood within the circulatory system.] [Assessment Boundary: Assessment does not include interactions and functions at the molecular or chemical reaction level.]

HS-LS1-3. Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis. [Clarification Statement: Examples of investigations could include heart rate response to exercise, stomate response to moisture and temperature, and root development in response to water levels.] [Assessment Boundary: Assessment does not include the cellular processes involved in the feedback mechanism.]

HS-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms. [Assessment Boundary: Assessment does not include specific gene control mechanisms or rote memorization of the steps of mitosis.]

HS-LS1-5. Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy. [Clarification Statement: Emphasis is on illustrating inputs and outputs of matter and the transfer and transformation of energy in photosynthesis by plants and other photosynthesizing organisms. Examples of models could include diagrams, chemical equations, and conceptual models.] [Assessment Boundary: Assessment does not include specific biochemical steps.]

HS-LS1-6. Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules. [Clarification Statement: Emphasis is on using evidence from models and simulations to support explanations.] [Assessment Boundary: Assessment does not include the details of the specific chemical reactions or identification of macromolecules.]

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HS-LS1-7. Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy. [Clarification Statement: Emphasis is on the conceptual understanding of the inputs and outputs of the process of cellular respiration.] [Assessment Boundary: Assessment should not include identification of the steps or specific processes involved in cellular respiration.]

HS-LS2-1. Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales. [Clarification Statement: Emphasis is on quantitative analysis and comparison of the relationships among interdependent factors including boundaries, resources, climate, and competition. Examples of mathematical comparisons could include graphs, charts, histograms, and population changes gathered from simulations or historical data sets.] [Assessment Boundary: Assessment does not include deriving mathematical equations to make comparisons.]

HS-LS2-2. Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales. [Clarification Statement: Examples of mathematical representations include finding the average, determining trends, and using graphical comparisons of multiple sets of data.] [Assessment Boundary: Assessment is limited to provided data.]

HS-LS2-3. Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions. [Clarification Statement: Emphasis is on conceptual understanding of the role of aerobic and anaerobic respiration in different environments.] [Assessment Boundary: Assessment does not include the specific chemical processes of either aerobic or anaerobic respiration.]

HS-LS2-4. Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem. [Clarification Statement: Emphasis is on using a mathematical model of stored energy in biomass to describe the transfer of energy from one trophic level to another and that matter and energy are conserved as matter cycles and energy flows through ecosystems. Emphasis is on atoms and molecules such as carbon, oxygen, hydrogen and nitrogen being conserved as they move through an ecosystem.] [Assessment Boundary: Assessment is limited to proportional reasoning to describe the cycling of matter and flow of energy.]

HS-LS2-5. Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere. [Clarification Statement: Examples of models could include simulations and mathematical models.] [Assessment Boundary: Assessment does not include the specific chemical steps of photosynthesis and respiration.]

HS-LS2-6. Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem. [Clarification Statement: Examples of changes in ecosystem conditions could include modest biological or physical changes, such as moderate hunting or a seasonal flood; and extreme changes, such as volcanic eruption or sea level rise.]

HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.* [Clarification Statement: Examples of human activities can include urbanization, building dams, and dissemination of invasive species.]

HS-LS2-8. Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce. [Clarification Statement: Emphasis is on: (1) distinguishing between group and individual behavior, (2) identifying evidence supporting the outcomes of group behavior, and (3) developing logical and reasonable arguments based on evidence. Examples of group behaviors could include flocking, schooling, herding, and cooperative behaviors such as hunting, migrating, and swarming.]

HS-LS3-1. Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring. [Assessment Boundary: Assessment does not include the phases of meiosis or the biochemical mechanism of specific steps in the process.]

HS-LS3-2. Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors. [Clarification Statement: Emphasis is on using data to support arguments for the way variation occurs.] [Assessment Boundary: Assessment does not include the phases of meiosis or the biochemical mechanism of specific steps in the process.]

HS-LS3-3. Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population. [Clarification Statement: Emphasis is on the use of mathematics to describe the probability of traits as it relates to genetic and environmental factors in the expression of traits.] [Assessment Boundary: Assessment does not include Hardy-Weinberg calculations.]

HS-LS4-1. Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence. [Clarification Statement: Emphasis is on a conceptual understanding of the role each line of evidence has relating to common ancestry and biological evolution. Examples of evidence could include similarities in DNA sequences, anatomical structures, and order of appearance of structures in embryological development.]

HS-LS4-2. Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment. [Clarification Statement: Emphasis is on using evidence to explain the influence each of the four factors has on number of organisms, behaviors, morphology, or physiology in terms of ability to compete for limited resources and subsequent survival of individuals and adaptation of species. Examples of evidence could include mathematical models such as simple distribution graphs and proportional reasoning.] [Assessment Boundary: Assessment does not include other mechanisms of evolution, such as genetic drift, gene flow through migration, and co-evolution.]

HS-LS4-2. Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment. [Clarification Statement: Emphasis is on using evidence to explain the influence each of the four factors has on number of organisms,

behaviors, morphology, or physiology in terms of ability to compete for limited resources and subsequent survival of individuals and adaptation of species. Examples of evidence could include mathematical models such as simple distribution graphs and proportional reasoning.] [Assessment Boundary: Assessment does not include other mechanisms of evolution, such as genetic drift, gene flow through migration, and co-evolution.]

HS-LS4-3. Apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait. [Clarification Statement: Emphasis is on analyzing shifts in numerical distribution of traits and using these shifts as evidence to support explanations.] [Assessment Boundary: Assessment is limited to basic statistical and graphical analysis. Assessment does not include allele frequency calculations.]

HS-LS4-4. Construct an explanation based on evidence for how natural selection leads to adaptation of populations. [Clarification Statement: Emphasis is on using data to provide evidence for how specific biotic and abiotic differences in ecosystems (such as ranges of seasonal temperature, long-term climate change, acidity, light, geographic barriers, or evolution of other organisms) contribute to a change in gene frequency over time, leading to adaptation of populations.]

HS-LS4-5. Evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species. [Clarification Statement: Emphasis is on determining cause and effect relationships for how changes to the environment such as deforestation, fishing, application of fertilizers, drought, flood, and the rate of change of the environment affect distribution or disappearance of traits in species.]

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HS-LS4-6. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.* [Clarification Statement: Emphasis is on designing solutions for a proposed problem related to threatened or endangered species, or to genetic variation of organisms for multiple species.]

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3. Key Assignments:

Unit 1: Interactive Population Dynamics: Students determine where mice, rabbits, foxes, and owls fit into a food chain. The classroom is set-up to present a various number of these animals are posted; students calculate the population density of each organism, then evaluate the effect of density-dependent and density-independent limiting factors.

Unit 2: Life is in the Blood: Evaluate how multiple human body systems maintain homeostasis in am multicellular organism focusing on the transfer of material through the circulatory system via blood cells. Instructional strategies used are using visuals to model the systems, small group collaborative research, and presentation.

Unit 3: Floating Leaf Disk: An inquiry lab opportunity for students to collect and record the number of floating disks under different treatments. Using the collected data, students model the results in a graph to indicate the rate of photosynthesis. As photosynthesis occurs oxygen is released inside the leaf causing the disks to rise, however, different variables can be manipulated (color or light, light intensity, type of leaf, water temperature, CO2 concentration, etc.)

Unit 4: It's not Fair: Modeling how mutations contribute to natural selection, based on traits and random environmental factors. Students choose traits each round with potential to be beneficial or harmful; it's a visual representation of evolution (change of organism throughout the rounds).

Unit 5: Super Baby Genetics: Connecting concepts of co-dominance, multiple alleles, Punnett Squares, 2-factor cross, sex-linked in inheritance; Students choose a male a female superhero and determine phenotypic traits. Then demonstrating recombination by rolling dice to determine offspring traits. Potential assessment will include, but not limited to, a poster, storyline/biography, and illustration (made by hand or computer).

Unit 6: Analyzing Climate Change Data: Interpreting data and making predictions using artic sea ice satellite data from the 1980's to current day. Students predict trends based on prior knowledge; then analyze data from "science on a sphere" website, and compare actual graphical representation to their initial predictions. Students are then tasked with creating an argument to justify the importance of using data collected over long periods of time vs. short periods of time.

4. Instructional Methods and/or Strategies:

- Lab-based learning (skills based labs as well as student designed and implemented labs)
- Cross Cutting Concepts (Patterns, Similarity & Diversity; Cause & Effect; Scale, Proportion & Quantity; Systems & Systems Models; Energy & Matter; Structure & Function; Stability & Change)
- Science & Engineering Practices (Asking Questions & Defining Problems; Developing & Using Models; Planning & Carrying out Investigations; Analyzing & Interpreting Data; Using Mathematics, Information & Computer Technology & Computational Thinking; Constructing Explanations & Designing Solutions; Engaging in Argument from Evidence; Obtaining, Evaluating & Communication Information)
- Four Corners discussions (Agree, Strongly Agree, Disagree, Strongly Disagree)
- Data interpretation and predictions
- Jig Saw research projects (students or student groups research different aspects of a topic and report their learning back to the whole class, e.g. different types of invasive species or genetic disorders)
- Computer based research projects: individual students or groups research
- Evidence based data interpretation (Claim, Evidence and Reasoning writing from labs or research projects)
- Student centered and created activities (e.g. Evolution Island where students determine changes over time to organisms (e.g. rats) on islands with different ecosystems)
- Scientific article reading, annotation and/or class report/presentation
- Using CER (claims, evidence, and reasoning) graphic organizer
- Project Based Learning
- Argument Driven Instruction
- "5 E" Lessons (Engage, Explore, Explain, Elaborate & Evaluate)
- Phenomena

5. Assessment Including Methods and/or Tools:

The evaluation of student progress and evaluation will be based on the following criteria outlined in Board Policy:

- Assessments: 60-75% of the final grade
- Assignments, Labs and class discussions: 25-40% of the final grade

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum

SUBJECT: **NEW COURSE: BIOLOGY AND THE LIVING EARTH HONORS**

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BACKGROUND

The Chino Valley Unified School District routinely revises curriculum guides and develops new courses in accordance with State Content Standards, State Frameworks, and student need. Accordingly, the revision and development of curriculum guides are the results of a collaborative effort of teachers in the related academic areas.

Biology and the Living Earth Honors is part of the high school three course model that is aligned to the Next Generation Science Standards. The course emphasizes an understanding with depth and complexity of the nature of living things, their environment, and their relationships with man. The students will learn unity, interaction, continuity, and diversity of life. The major concepts that will be covered are cell biology, genetics, ecology, evolution, and physiology.

This course was presented to the Curriculum Council and A.C.T. has been consulted.

Consideration of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education receive for information the new course Biology and the Living Earth Honors.

FISCAL IMPACT

None.

WMJ:GP:JR:lar

A. CONTACTS	
1. School/District Information:	School/District: Chino Valley Unified School District Street Address: 5130 Riverside Dr., Chino, CA 91710 Phone: (909) 628-1201 Web Site: chino.k12.ca.us
2. Course Contact:	Teacher Contact: Office of Secondary Curriculum Position/Title: Director of Secondary Curriculum Site: District Office Phone: (909) 628-1201 X1630
B. COVER PAGE - COURSE ID	
1. Course Title:	Biology and the Living Earth Honors
2. Transcript Title/Abbreviation:	Bio and Living Earth H
3. Transcript Course Code/Number:	
4. Seeking Honors Distinction:	No
5. Subject Area/Category:	Meets the UC/CSU "d" Laboratory Science requirement
6. Grade Level(s):	9-12
7. Unit Value:	5 credits per semester/10 credits total
8. Course Previously Approved by UC:	No
9. Classified as a Career Technical Education Course:	No
10. Modeled after an UC-approved course:	Yes
11. Repeatable for Credit:	No
12. Date of Board Approval:	
13. Brief Course Description: Biology and the Living Earth Honors emphasizes an understanding with depth and complexity of the nature of living things, their environment, and their relationships with man.	
14. Prerequisites:	Co-requisite: Integrated Math 1 or Higher
15. Context for Course: Biology and the Living Earth is one of three courses in California's three-course model for high schools implementing NGSS. To highlight the nature of Earth and space sciences (ESS) as an interdisciplinary pursuit the course presents an integration of ESS and Biology. The honors course in Biology is distinguished by the depth and scope of work required to show mastery of the skills with increased rigor and complexity beyond the scope of a general course.	
16. History of Course Development: The course was developed to meet the 2013 state adopted NGSS standards for the advanced learner. It is one course from a three-course model that combines all high school performance expectations into three courses.	
17. Textbooks:	BIOLOGY by Prentice Hall, Kenneth R. Miller, Joseph S. Levine, Kenneth Miller, Joseph Levine, Prentice Hall Staff, Joe Levine, Ken Miller, Pearson Education
18. Supplemental Instructional Materials:	Teacher-created materials, as needed
C. COURSE CONTENT	
1. Course Purpose: The Biology and the Living Earth course, based on the Next Generation Science Standards, explores relationships between the living and nonliving components of Earth's systems. By using science and engineering practices, cross-cutting disciplinary concepts, and evidence from experiments, research, and observations, students will learn how to formulate questions, evaluate claims, and develop models to make interpretations and investigate the natural world. The Sequence of Units are as followed: Ecosystems Interactions and Energy, Structure, Function, and Growth (from	

organisms to cells), History of Earth's Atmosphere (Photosynthesis and Respiration), Evidence of Evolution, Inheritance of Traits, and Ecosystem Stability and the Response to Climate Change.

2. Course Outline:

Unit 1: Ecosystems Interactions & Energy (Intro Earth systems thru organisms): Students use mathematical and computer models to determine the factors that affect the size and diversity of populations in ecosystems, including the availability of resources and interactions between organisms.

Guiding Questions:

- What factors affect the size of populations within an ecosystem?
- What are common threats to remaining natural ecosystems and biodiversity? How can these threats be reduced?

Learning Targets:

- Students will use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales.
- Students will use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales.
- Students will use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem.
- Students will evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce.

NGSS Three Dimensions:

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS2.A: Interdependent Relationships in Ecosystems
- LS2.D: Social Interactions and Group Behavior

Science and Engineering Practices

- SEP-2: Developing and Using Models
- SEP-3: Planning and Carrying Out Investigations
- SEP-4: Analyzing and Interpreting Data
- SEP-5: Using Mathematics and Computational Thinking
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-8: Obtaining, Evaluating, and Communicating Information

Crosscutting Concepts

- CCC-2: Cause and Effect
- CCC-3: Scale, Proportion, and Quantity
- CCC-4: System and System Models
- CCC-5: Energy and Matter: Flows, Cycles, and Conservation

Highlighted California Environmental Principles & Concepts:

- Principle II: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.
- Principle IV: The exchange of matter between natural systems and human societies affects the long-term functioning of both.

Common Core:

- CA CCSS Math Connections: N-Q.1-3; S-ID.1; S-IC.1,6; MP.2, MP.4
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: RST.9-10.8; RST.11-12.1,7,8; WHST.9- 12.2a-e

Unit 2: Structure, Function & Growth (organisms to cells): Students use models to create explanations of how cells use DNA to construct proteins, build biomass, reproduce, and create complex multicellular organisms. They investigate how these organisms maintain stability.

Guiding Questions:

- What happens if a cell in our body dies?
- How does the structure of DNA affect how cells look and behave?
- How do systems work in a multi-celled organism (emergent properties) and what happens if there is a change in the system?
- How do organisms survive even when there are changes in their environment?

Learning Targets:

- Students will construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.
- Students will develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms.
- Students will plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis.
- Students will use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.
- Students will construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.

NGSS Three Dimensions:

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS1.B: Growth and Development of Organisms
- LS1.A: Structure and Function
- ETS1.C: Optimizing the Design Solution

Science and Engineering Practices

- SEP-2: Developing and Using Models
- SEP-3: Planning and Carrying Out Investigations
- SEP-4: Analyzing and Interpreting Data
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-7: Engaging in Argument from Evidence
- SEP-8: Obtaining, Evaluating, and Communicating

Crosscutting Concepts

- CCC-1: Patterns
- CCC-2: Cause and Effect
- CCC-3: Scale, Proportion, and Quantity
- CCC-4: System and System Models
- CCC-6: Structure and Function
- CCC-7: Stability and Change

Common Core:

- CA CCSS Math Connections: F-IF.7.a-e; F-BF.1a-c; MP.2; MP.4
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: RST.11-12.1,8, WHST.9-12.2.a-e, 7,9

Unit 3: History of Earth's Atmosphere (Photosynthesis & Respiration, Earth's atmosphere): Students make a model that links photosynthesis and respiration in organisms to cycles of energy and matter in the Earth system. They gather evidence about the linked history of Earth's biosphere and atmosphere.

Guiding Questions:

- How do living things acquire energy and matter for life?
- How do organisms store energy?
- How are photosynthesis and cellular respiration connected?
- How do organisms use the raw materials they ingest from the environment?
- How has the cycling of energy and matter changed over Earth's history?

Learning Targets:

- Students will use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.
- Students will construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules.
- Students will use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy.
- Students will construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions.
- Students will develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.
- Students will apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of Earth's formation and early history.
- Students will develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.
- Students will construct an argument based on evidence about the simultaneous coevolution of Earth's systems and life on Earth.
- Students will use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.
- Students will plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.

NGSS Three Dimensions:

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS1.A: Structure and Function
- LS1.B: Growth and Development of Organisms

Science and Engineering Practices

- SEP-2: Developing and Using Models
- SEP-3: Planning and Carrying Out Investigations
- SEP-4: Analyzing and Interpreting Data
- SEP-5: Using Mathematics and Computational Thinking
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-7: Engaging in Argument from Evidence
- SEP-8: Obtaining, Evaluating, and Communicating Information

Crosscutting Concepts

- CCC-1: Patterns

- CCC-3: Scale, Proportion, and Quantity [CCC-6] Structure and Function
- CCC-7: Stability and Change

Highlighted California Environmental Principles & Concepts:

- Principle I: The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services.
- Principle II: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.
- Principle III: Natural systems proceed through cycles that humans depend upon, benefit from and can alter.
- Principle IV: The exchange of matter between natural systems and human societies affects the long-term functioning of both.
- Principle V: Decisions affecting resources and natural systems are based on a wide range of considerations and decision-making processes.

Common Core:

- CA CCSS Math Connections: MP.2; MP.4
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: SL.11-12.4; RST.11-12.1,8, WHST.9- 12.2.a-e, 7,9

Unit 4: Evidence of Evolution: Students develop a model about how rock layers record evidence of evolution as fossils. Building on their learning from previous grades, they focus on effectively communicating this evidence and relate it to principles of natural selection.

Guiding Questions:

- How do layers of rock form and how do they contain fossils?
- Why do we see fossils across the world from each other but living organisms that are very different from each other?
- What evidence shows that different species are related?
- How did modern day humans evolve?

Learning Targets:

- Students will communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.
- Students will construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.
- Students will construct an explanation based on evidence for how natural selection leads to adaptation of populations.
- Students will evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.
- Students will evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks.
- Students will plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes.
- Students will construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.
- Students will evaluate or refine a technological solution that reduces impacts of human activities on natural systems.

- Students will use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.
- Students will evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.

NGSS Three Dimension

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS1.B: Growth and Development of Organisms
- LS3.A: Inheritance of Traits
- LS3.B: Variation of Traits
- LS4.B: Natural Selection

Science and Engineering Practices

- SEP-1: Asking Questions and Defining Problems
- SEP-2: Developing and Using Models
- SEP-4: Analyzing and Interpreting Data
- SEP-5: Using mathematics and Computational Thinking
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-7: Engaging in Argument from Evidence
- SEP-8: Obtaining, Evaluating, and Communicating Information

Crosscutting Concepts

- CCC-3: Scale, Proportion, and Quantity

Highlighted California Environmental Principles & Concepts:

- Principle I: The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services.
- Principle II: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.
- Principle III: Natural systems proceed through cycles that humans depend upon, benefit from and can alter.
- Principle IV: The exchange of matter between natural systems and human societies affects the long- term functioning of both.

Common Core:

- CA CCSS Math Connections: MP.2; MP.4
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: RST.11-12.1,9, WHST.9-12.1.a-e, 2.a-e, 7,9

Unit 4: Inheritance of Traits: Students develop explanations about the specific mechanisms that enable parents to pass traits on to their offspring. They make claims about which processes give rise to variation in deoxyribonucleic acid (DNA) codes and calculate the probability that offspring will inherit traits from their parents.

Guiding Questions:

- How are characteristics of one generation passed to the next?
- What allows traits to be transmitted from parents to offspring?
- How does variation affect a population under selective pressures?

Learning Targets:

- Students will ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.

- Students will make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.
- Students will apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.
- Students will construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.
- Students will apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait.
- Students will construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.

NGSS Three Dimension

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS4.A: Evidence of Common Ancestry and Diversity LS4.B: Natural Selection
- LS4.C: Adaptation
- ESS1.C: The History of Planet Earth
- ESS2.C: The Roles of Water in Earth's Surface Processes

Science and Engineering Practices

- SEP-2: Developing and Using Models
- SEP-3: Planning and Carrying Out Investigations
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-7: Engaging in Argument from Evidence
- SEP-8: Obtaining, Evaluating, and Communicating Information

Crosscutting Concepts

- CCC-1: Patterns [CCC-2] Cause and Effect[CCC-4] System and System Models
- CCC-5: Energy and Matter: Flows, Cycles, and Conservation [CCC-7] Stability and Change

Highlighted California Environmental Principles & Concepts:

- Principle II: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.
- Principle III: Natural systems proceed through cycles that humans depend upon, benefit from and can alter.
- Principle IV: The exchange of matter between natural systems and human societies affects the long-term functioning of both.

Common Core:

- CA CCSS Math Connections: N-Q.1-3; F.IF.5; S-ID.6.a-c; MP.2, MP.4
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: SL.11-12.5; RST.11-12.1, WHST.9-12.2a-e, 5,8,9

Unit 6: Ecosystems Stability: Students use computer models to investigate how Earth's systems respond to changes, including climate change. They make specific forecasts and design solutions to mitigate the impacts of these changes on the biosphere.

Guiding Questions:

- What effects changes in ecosystems that ultimately effect populations?
- What are the changes that are happening in the climate and what effects are those having on life?
- How are human activities impacting Earth's systems and how does that affect life on Earth?

- What can humans do to mitigate their negative impact on the environment?

Learning Targets:

- Students will evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.
- Students will design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.
- Students will evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.
- Students will create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.
- Students will create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.
- Students will evaluate or refine a technological solution that reduces impacts of human activities on natural systems.
- Students will analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems.
- Students will use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.
- Students will analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.
- Students will design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.
- Students will evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.
- Students will use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.

NGSS Three Dimensions:

The bundle of performance expectations above focuses on the following elements from the NRC document *A Framework for K–12 Science Education*:

Disciplinary Core Ideas

- LS2.C: Ecosystem Dynamics, Functioning, and Resilience LS4.C: Adaptation
- LS4.D: Biodiversity and Humans
- ESS3.D: Global Climate Change

Science and Engineering Practices

- SEP-1: Asking Questions and Defining Problems
- SEP-2: Developing and Using Models
- SEP-4: Analyzing and Interpreting Data
- SEP-6: Constructing Explanations (for science) and Designing Solutions (for engineering)
- SEP-7: Engaging in Argument from Evidence
- SEP-8: Obtaining, Evaluating, and Communicating Information]

Crosscutting Concepts

- CCC-1: Patterns
- CCC-3: Scale, Proportion, and Quantity [CCC-4] System and System Models [CCC-7] Stability and Change

Highlighted California Environmental Principles & Concepts:

- Principle I: The continuation and health of individual human lives and of human communities and societies depend on the health of the natural systems that provide essential goods and ecosystem services.
- Principle II: The long-term functioning and health of terrestrial, freshwater, coastal and marine ecosystems are influenced by their relationships with human societies.
- Principle III: Natural systems proceed through cycles that humans depend upon, benefit from and can alter.
- Principle IV: The exchange of matter between natural systems and human societies affects the long-term functioning of both.
- Principle V: Decisions affecting resources and natural systems are based on a wide range of considerations and decision-making processes.

Common Core:

- CA CCSS Math Connections: MP.2; N-Q.1-3; S-ID.1; S-IC.1,6
- CA ELD Connections: ELD.PI.11-12.1,5,6a-b,9,10,11a
- CA CCSS ELA/Literacy Connections: RST.9-10.8; RST.11-12.1,2,7,8; WHST.9- 12.2.a-e, 7,8.9

Nest Generation Science Standards

Earth and Space Science:

HS-ESS1-5. Evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks. [Clarification Statement: Emphasis is on the ability of plate tectonics to explain the ages of crustal rocks. Examples include evidence of the ages oceanic crust increasing with distance from mid-ocean ridges (a result of plate spreading) and the ages of North American continental crust increasing with distance away from a central ancient core (a result of past plate interactions).] (Introduced, but assessed in High School Chemistry in the Earth System course)

HS-ESS1-6. Apply scientific reasoning and evidence from ancient Earth materials, meteorites, and other planetary surfaces to construct an account of Earth's formation and early history. [Clarification Statement: Emphasis is on using available evidence within the solar system to reconstruct the early history of Earth, which formed along with the rest of the solar system 4.6 billion years ago. Examples of evidence include the absolute ages of ancient materials (obtained by radiometric dating of meteorites, moon rocks, and Earth's oldest minerals), the sizes and compositions of solar system objects, and the impact cratering record of planetary surfaces.]

HS-ESS2-5. Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes. [Clarification Statement: Emphasis is on mechanical and chemical investigations with water and a variety of solid materials to provide the evidence for connections between the hydrologic cycle and system interactions commonly known as the rock cycle. Examples of mechanical investigations include stream transportation and deposition using a stream table, erosion using variations in soil moisture content, or frost wedging by the expansion of water as it freezes. Examples of chemical investigations include chemical weathering and recrystallization (by testing the solubility of different materials) or melt generation (by examining how water lowers the melting temperature of most solids).]

HS-ESS2-5. Plan and conduct an investigation of the properties of water and its effects on Earth materials and surface processes. [Clarification Statement: Emphasis is on mechanical and chemical investigations with water and a variety of solid materials to provide the evidence for connections between the hydrologic cycle and system interactions commonly known as the rock cycle. Examples of mechanical investigations include stream transportation and deposition using a stream table, erosion using variations in soil moisture content, or frost wedging by the expansion of water as it freezes. Examples of chemical investigations include chemical weathering and recrystallization (by testing the solubility of different materials) or melt generation (by examining how water lowers the melting temperature of most solids).]

HS-ESS2-6. Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere. [Clarification Statement: Emphasis is on modeling biogeochemical cycles that

include the cycling of carbon through the ocean, atmosphere, soil, and biosphere (including humans), providing the foundation for living organisms.]

HS-ESS2-7. Construct an argument based on evidence about the simultaneous coevolution of Earth's systems and life on Earth. [Clarification Statement: Emphasis is on the dynamic causes, effects, and feedbacks between the biosphere and Earth's other systems, whereby geoscience factors control the evolution of life, which in turn continuously alters Earth's surface. Examples of include how photosynthetic life altered the atmosphere through the production of oxygen, which in turn increased weathering rates and allowed for the evolution of animal life; how microbial life on land increased the formation of soil, which in turn allowed for the evolution of land plants; or how the evolution of corals created reefs that altered patterns of erosion and deposition along coastlines and provided habitats for the evolution of new life forms.] [Assessment Boundary: Assessment does not include a comprehensive understanding of the mechanisms of how the biosphere interacts with all of Earth's other systems.]

HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity. [Clarification Statement: Examples of key natural resources include access to fresh water (such as rivers, lakes, and groundwater), regions of fertile soils such as river deltas, and high concentrations of minerals and fossil fuels. Examples of natural hazards can be from interior processes (such as volcanic eruptions and earthquakes), surface processes (such as tsunamis, mass wasting, and soil erosion), and severe weather (such as hurricanes, floods, and droughts). Examples of the results of changes in climate that can affect populations or drive mass migrations include changes to sea level, regional patterns of temperature and precipitation, and the types of crops and livestock that can be raised.]

HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.* [Clarification Statement: Examples of data on the impacts of human activities could include the quantities and types of pollutants released, changes to biomass and species diversity, or areal changes in land surface use (such as for urban development, agriculture and livestock, or surface mining). Examples for limiting future impacts could range from local efforts (such as reducing, reusing, and recycling resources) to large-scale geoengineering design solutions (such as altering global temperatures by making large changes to the atmosphere or ocean).]

HS-ESS3-4. Evaluate or refine a technological solution that reduces impacts of human activities on natural systems.* [Clarification Statement: Examples of data on the impacts of human activities could include the quantities and types of pollutants released, changes to biomass and species diversity, or areal changes in land surface use (such as for urban development, agriculture and livestock, or surface mining). Examples for limiting future impacts could range from local efforts (such as reducing, reusing, and recycling resources) to large-scale geoengineering design solutions (such as altering global temperatures by making large changes to the atmosphere or ocean).]

HS-ESS3-5. Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems. [Clarification Statement: Examples of evidence, for both data and climate model outputs, are for climate changes (such as precipitation and temperature) and their associated impacts (such as on sea level, glacial ice volumes, or atmosphere and ocean composition).] [Assessment Boundary: Assessment is limited to one example of a climate change and its associated impacts.]

HS-ESS3-6. Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.* [Clarification Statement: Examples of Earth systems to be considered are the hydrosphere, atmosphere, cryosphere, geosphere, and/or biosphere. An example of the far-reaching impacts from a human activity is how an increase in atmospheric carbon dioxide results in an increase in photosynthetic biomass on land and an increase in ocean acidification, with resulting impacts on sea organism health and marine populations.] [Assessment Boundary: Assessment does not include running

computational representations but is limited to using the published results of scientific computational models.] (Introduced but not fully assessed until IS6)

HS-ESS3-6. Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.* [Clarification Statement: Examples of Earth systems to be considered are the hydrosphere, atmosphere, cryosphere, geosphere, and/or biosphere. An example of the far-reaching impacts from a human activity is how an increase in atmospheric carbon dioxide results in an increase in photosynthetic biomass on land and an increase in ocean acidification, with resulting impacts on sea organism health and marine populations.] [Assessment Boundary: Assessment does not include running computational representations but is limited to using the published results of scientific computational models.]

HS-ESS3-6. Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.* [Clarification Statement: Examples of Earth systems to be considered are the hydrosphere, atmosphere, cryosphere, geosphere, and/or biosphere. An example of the far-reaching impacts from a human activity is how an increase in atmospheric carbon dioxide results in an increase in photosynthetic biomass on land and an increase in ocean acidification, with resulting impacts on sea organism health and marine populations.] [Assessment Boundary: Assessment does not include running computational representations but is limited to using the published results of scientific computational models.]

Engineering, Technology and Applications of Science:

HS-ETS1-1. Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

HS-ETS1-2. Design a solution to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.

HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.

HS-ETS1-3. Evaluate a solution to a complex real-world problem based on prioritized criteria and trade-offs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.

HS-ETS1-4. Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.

Life Science:

HS-LS1-1. Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells. [Assessment Boundary: Assessment does not include identification of specific cell or tissue types, whole body systems, specific protein structures and functions, or the biochemistry of protein synthesis.]

HS-LS1-1. Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells. [Assessment Boundary: Assessment does not include identification of specific cell or tissue types, whole body systems, specific protein structures and functions, or the biochemistry of protein synthesis.]

HS-LS1-2. Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. [Clarification Statement: Emphasis is on functions at the organism system level such as nutrient uptake, water delivery, and organism movement in response to neural stimuli. An example of an interacting system could be an artery depending on the proper function of elastic tissue and smooth muscle to regulate and deliver the proper amount of blood within the circulatory system.] [Assessment Boundary: Assessment does not include interactions and functions at the molecular or chemical reaction level.]

HS-LS1-3. Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis. [Clarification Statement: Examples of investigations could include heart rate response to exercise, stomate response to moisture and temperature, and root development in response to water levels.] [Assessment Boundary: Assessment does not include the cellular processes involved in the feedback mechanism.]

HS-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms. [Assessment Boundary: Assessment does not include specific gene control mechanisms or rote memorization of the steps of mitosis.]

HS-LS1-5. Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy. [Clarification Statement: Emphasis is on illustrating inputs and outputs of matter and the transfer and transformation of energy in photosynthesis by plants and other photosynthesizing organisms. Examples of models could include diagrams, chemical equations, and conceptual models.] [Assessment Boundary: Assessment does not include specific biochemical steps.]

HS-LS1-6. Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules. [Clarification Statement: Emphasis is on using evidence from models and simulations to support explanations.] [Assessment Boundary: Assessment does not include the details of the specific chemical reactions or identification of macromolecules.]

HS-LS1-6. Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and/or other large carbon-based molecules. [Clarification Statement: Emphasis is on using evidence from models and simulations to support explanations.] [Assessment Boundary: Assessment does not include the details of the specific chemical reactions or identification of macromolecules.]

HS-LS1-7. Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy. [Clarification Statement: Emphasis is on the conceptual understanding of the inputs and outputs of the process of cellular respiration.] [Assessment Boundary: Assessment should not include identification of the steps or specific processes involved in cellular respiration.]

HS-LS2-1. Use mathematical and/or computational representations to support explanations of factors that affect carrying capacity of ecosystems at different scales. [Clarification Statement: Emphasis is on quantitative analysis and comparison of the relationships among interdependent factors including boundaries, resources, climate, and competition. Examples of mathematical comparisons could include graphs, charts, histograms, and population changes gathered from simulations or historical data sets.] [Assessment Boundary: Assessment does not include deriving mathematical equations to make comparisons.]

HS-LS2-2. Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales. [Clarification Statement: Examples of mathematical representations include finding the average, determining trends, and using graphical comparisons of multiple sets of data.] [Assessment Boundary: Assessment is limited to provided data.]

HS-LS2-3. Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions. [Clarification Statement: Emphasis is on conceptual understanding of the role of aerobic and anaerobic respiration in different environments.] [Assessment Boundary: Assessment does not include the specific chemical processes of either aerobic or anaerobic respiration.]

HS-LS2-4. Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem. [Clarification Statement: Emphasis is on using a mathematical model of stored energy in biomass to describe the transfer of energy from one trophic level to another and that matter and energy are conserved as matter cycles and energy flows through ecosystems. Emphasis is on atoms and molecules such as carbon, oxygen, hydrogen and nitrogen being conserved as they move through an ecosystem.] [Assessment Boundary: Assessment is limited to proportional reasoning to describe the cycling of matter and flow of energy.]

HS-LS2-5. Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere. [Clarification Statement: Examples of models could include simulations and mathematical models.] [Assessment Boundary: Assessment does not include the specific chemical steps of photosynthesis and respiration.]

HS-LS2-6. Evaluate the claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem. [Clarification Statement: Examples of changes in ecosystem conditions could include modest biological or physical changes, such as moderate hunting or a seasonal flood; and extreme changes, such as volcanic eruption or sea level rise.]

HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.* [Clarification Statement: Examples of human activities can include urbanization, building dams, and dissemination of invasive species.]

HS-LS2-8. Evaluate the evidence for the role of group behavior on individual and species' chances to survive and reproduce. [Clarification Statement: Emphasis is on: (1) distinguishing between group and individual behavior, (2) identifying evidence supporting the outcomes of group behavior, and (3) developing logical and reasonable arguments based on evidence. Examples of group behaviors could include flocking, schooling, herding, and cooperative behaviors such as hunting, migrating, and swarming.]

HS-LS3-1. Ask questions to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring. [Assessment Boundary: Assessment does not include the phases of meiosis or the biochemical mechanism of specific steps in the process.]

HS-LS3-2. Make and defend a claim based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors. [Clarification Statement: Emphasis is on using data to support arguments for the way variation occurs.] [Assessment Boundary: Assessment does not include the phases of meiosis or the biochemical mechanism of specific steps in the process.]

HS-LS3-3. Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population. [Clarification Statement: Emphasis is on the use of mathematics to describe the probability of traits as it relates to genetic and environmental factors in the expression of traits.] [Assessment Boundary: Assessment does not include Hardy-Weinberg calculations.]

HS-LS4-1. Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence. [Clarification Statement: Emphasis is on a conceptual understanding of the role each line of evidence has relating to common ancestry and biological evolution. Examples of evidence could include similarities in DNA sequences, anatomical structures, and order of appearance of structures in embryological development.]

HS-LS4-2. Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment. [Clarification Statement: Emphasis is on using evidence to explain the influence each of the four factors has on number of organisms, behaviors, morphology, or physiology in terms of ability to compete for limited resources and subsequent survival of individuals and adaptation of species. Examples of evidence could include mathematical models such as simple distribution graphs and proportional reasoning.] [Assessment Boundary: Assessment does not include other mechanisms of evolution, such as genetic drift, gene flow through migration, and co-evolution.]

HS-LS4-2. Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment. [Clarification Statement: Emphasis is on using evidence to explain the influence each of the four factors has on number of organisms,

behaviors, morphology, or physiology in terms of ability to compete for limited resources and subsequent survival of individuals and adaptation of species. Examples of evidence could include mathematical models such as simple distribution graphs and proportional reasoning.] [Assessment Boundary: Assessment does not include other mechanisms of evolution, such as genetic drift, gene flow through migration, and co-evolution.]

HS-LS4-3. Apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait. [Clarification Statement: Emphasis is on analyzing shifts in numerical distribution of traits and using these shifts as evidence to support explanations.] [Assessment Boundary: Assessment is limited to basic statistical and graphical analysis. Assessment does not include allele frequency calculations.]

HS-LS4-4. Construct an explanation based on evidence for how natural selection leads to adaptation of populations. [Clarification Statement: Emphasis is on using data to provide evidence for how specific biotic and abiotic differences in ecosystems (such as ranges of seasonal temperature, long-term climate change, acidity, light, geographic barriers, or evolution of other organisms) contribute to a change in gene frequency over time, leading to adaptation of populations.]

HS-LS4-5. Evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species. [Clarification Statement: Emphasis is on determining cause and effect relationships for how changes to the environment such as deforestation, fishing, application of fertilizers, drought, flood, and the rate of change of the environment affect distribution or disappearance of traits in species.]

HS-LS4-5. Evaluate the evidence supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species. [Clarification Statement: Emphasis is on determining cause and effect relationships for how changes to the environment such as deforestation, fishing, application of fertilizers, drought, flood, and the rate of change of the environment affect distribution or disappearance of traits in species.]

HS-LS4-6. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.* [Clarification Statement: Emphasis is on designing solutions for a proposed problem related to threatened or endangered species, or to genetic variation of organisms for multiple species.]

HS-LS4-6. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.* [Clarification Statement: Emphasis is on designing solutions for a proposed problem related to threatened or endangered species, or to genetic variation of organisms for multiple species.]

3. Key Assignments:

Unit 1: Interactive Population Dynamics: Students determine where mice, rabbits, foxes, and owls fit into a food chain. The classroom is set-up to present a various number of these animals are posted; students calculate the population density of each organism, then evaluate the effect of density-dependent and density-independent limiting factors.

Unit 2: Life is in the Blood: Evaluate how multiple human body systems maintain homeostasis in am multicellular organism focusing on the transfer of material through the circulatory system via blood cells. Instructional strategies used are using visuals to model the systems, small group collaborative research, and presentation.

Unit 3: Floating Leaf Disk: An inquiry lab opportunity for students to collect and record the number of floating disks under different treatments. Using the collected data, students model the results in a graph to indicate the rate of photosynthesis. As photosynthesis occurs oxygen is released inside the leaf causing the disks to rise, however, different variables can be manipulated (color or light, light intensity, type of leaf, water temperature, CO_2 concentration, etc.)

Unit 4: It's not Fair: Modeling how mutations contribute to natural selection, based on traits and random environmental factors. Students choose traits each round with potential to be beneficial or harmful; it's a visual representation of evolution (change of organism throughout the rounds).

Unit 5: Super Baby Genetics: Connecting concepts of co-dominance, multiple alleles, Punnett Squares, 2-factor cross, sex-linked in inheritance; Students choose a male a female superhero and determine phenotypic traits. Then demonstrating recombination by rolling dice to determine offspring traits. Potential assessment will include, but not limited to, a poster, storyline/biography, and illustration (made by hand or computer).

Unit 6: Analyzing Climate Change Data: Interpreting data and making predictions using artic sea ice satellite data from the 1980's to current day. Students predict trends based on prior knowledge; then analyze data from "science on a sphere" website, and compare actual graphical representation to their initial predictions. Students are then tasked with creating an argument to justify the importance of using data collected over long periods of time vs. short periods of time.

4. Instructional Methods and/or Strategies:

- Lab-based learning (skills based labs as well as student designed and implemented labs)
- Cross Cutting Concepts (Patterns, Similarity & Diversity; Cause & Effect; Scale, Proportion & Quantity; Systems & Systems Models; Energy & Matter; Structure & Function; Stability & Change)
- Science & Engineering Practices (Asking Questions & Defining Problems; Developing & Using Models; Planning & Carrying out Investigations; Analyzing & Interpreting Data; Using Mathematics, Information & Computer Technology & Computational Thinking; Constructing Explanations & Designing Solutions; Engaging in Argument from Evidence; Obtaining, Evaluating & Communication Information)
- Four Corners discussions (Agree, Strongly Agree, Disagree, Strongly Disagree)
- Data interpretation and predictions
- Jig Saw research projects (students or student groups research different aspects of a topic and report their learning back to the whole class, e.g. different types of invasive species or genetic disorders)
- Computer based research projects: individual students or groups research
- Evidence based data interpretation (Claim, Evidence and Reasoning writing from labs or research projects)
- Student centered and created activities (e.g. Evolution Island where students determine changes over time to organisms (e.g. rats) on islands with different ecosystems)
- Scientific article reading, annotation and/or class report/presentation
- Using CER (claims, evidence, and reasoning) graphic organizer
- Project Based Learning
- Argument Driven Instruction
- "5 E" Lessons (Engage, Explore, Explain, Elaborate & Evaluate)
- Phenomena

5. Assessment Including Methods and/or Tools:

The fall final exam will cover the first two units and will assess students' understanding through the use of multiple choice questioning, short answer responses, and long answer responses.

The spring final exam will be a cumulative exam, consisting of all four units and all concepts covered. Students will be assessed through multiple choice, short answer responses, and long answer responses. Both mathematical and conceptual concepts will be assessed, with the long answer responses focusing primarily on the application of mathematics and the integration of various chemistry concepts. Additionally, students will also be assessed through a laboratory final, which will assess students' ability as it applies to hands on performance. The laboratory final will be drawn from one of the last five units and will likely cover titrations, calorimetry, and/or galvanic/voltaic cells. Students will be assessed not only on their performance in the lab, but on post-lab questions that delve into the core mathematical and conceptual concepts at hand. Students will submit a written final report that will serve as a portion of their final examination grade.

The evaluation of student progress and evaluation will be based on the following criteria outlined in Board Policy:

- Assessments: 60-75% of the final grade
- Assignments and class discussions: 25-40% of the final grade

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum

SUBJECT: **NEW COURSE: CHEMISTRY IN THE EARTH SYSTEM**

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BACKGROUND

The Chino Valley Unified School District routinely revises curriculum guides and develops new courses in accordance with State Content Standards, State Frameworks, and student need. Accordingly, the revision and development of curriculum guides are the results of a collaborative effort of teachers in the related academic areas.

Chemistry in the Earth System is part of the high school three course model that is aligned to the Next Generation Science Standards. The course explains how chemical processes help drive the earth's system. The course emphasizes the following instructional segments: combustion, heat and energy in the earth's system; atoms, elements, and molecules; chemical reactions; chemistry of climate change; and dynamics of chemical reactions and ocean acidifications.

This course was presented to the Curriculum Council and A.C.T. has been consulted.

Consideration of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education receive for information the new course Chemistry in the Earth System.

FISCAL IMPACT

None.

WMJ:GP:JR:lar

A. CONTACTS	
1. School/District Information:	School/District: Chino Valley Unified School District Street Address: 5130 Riverside Dr., Chino, CA 91710 Phone: (909) 628-1201 Web Site: chino.k12.ca.us
2. Course Contact:	Teacher Contact: Office of Secondary Curriculum Position/Title: Director of Secondary Curriculum Site: District Office Phone: (909) 628-1201 X1630
B. COVER PAGE - COURSE ID	
1. Course Title:	Chemistry in the Earth System
2. Transcript Title/Abbreviation:	Chem in Earth Syst
3. Transcript Course Code/Number:	
4. Seeking Honors Distinction:	No
5. Subject Area/Category:	Science
6. Grade Level(s):	9-12
7. Unit Value:	5 credits per semester/10 credits total
8. Course Previously Approved by UC:	No
9. Classified as a Career Technical Education Course:	No
10. Modeled after an UC-approved course:	Yes
11. Repeatable for Credit:	No
12. Date of Board Approval:	
13. Brief Course Description: Chemistry in the Earth Systems entails the understanding of the nature of matter and its transformations when they study atomic and molecular structure, the effects of electron interaction, chemical bonds, and stoichiometry. Additionally, the course offers the study of the properties of gases, acids and bases, solutions, and organic and inorganic compounds and an exploration of chemical systems through reactions and nuclear processes.	
14. Prerequisites:	Biology; Co-requisite: Integrated Math1 or Higher
15. Context for Course: Chemistry in the Earth System Honors is one of three courses in California's three-course model for high schools implementing NGSS. To highlight the nature of Earth and space sciences (ESS) as an interdisciplinary pursuit with crucial importance in California, the course presents an integration of ESS and Chemistry.	
16. History of Course Development: The course was developed to meet the 2013 state adopted NGSS standards for the advanced learner. It is one course from a three-course model that combines all high school performance expectations into three courses.	
17. Textbooks:	Wilbraham, A. C., & Prentice-Hall, Inc. (2007). Prentice Hall Chemistry. Upper Saddle River, NJ: Prentice Hall.
18. Supplemental Instructional Materials:	Teacher-created materials as needed
C. COURSE CONTENT	
1. Course Purpose: This course is a laboratory science course designed for the college-bound student that emphasizes students' ability to demonstrate their knowledge of chemistry within the context of the Science and Engineering Practices delineated in the Next Generation Science Standards. This course specifically examines the role of chemical properties and processes in driving the Earth system.	

The sequence of this course is based on a specific storyline about climate ***change*** modeled in the CA State Science Framework. It begins with a tangible example of combustion and food calorimetry, and indeed the combustion of fossil fuels and release of heat, carbon dioxide, and water is a fundamental thread that ties together most of the sections of the course and ensures that chemistry concepts are able to be placed in the context of Earth's systems.

While many chemistry courses begin with the study of the atom, this course begins with macroscopic observations of a familiar phenomenon (combustion) and then zooms into the microscopic, but begins with simple interactions between particles to explain thermal ***energy*** and how it is exchanged within systems. Students then apply their understanding of heat flow to see its role in driving plate tectonics within the Earth system and only after students are firmly thinking about matter as particles do they zoom in and look at the nature of the particles themselves by studying atoms and how their behaviors are categorized into the periodic table. Once students are equipped to model simple chemical reactions, they return to the combustion chemical reaction and consider the impact its reaction product, carbon dioxide, has on the global climate system and students consider more advanced chemical reactions, then applying their understanding of chemical equilibrium to the very real problem of ocean acidification, which is also due to changes in carbon-dioxide concentrations in the atmosphere. In the end, students will have explored the fundamentals of chemistry and essential roles that these processes play in Earth's solid geosphere, its liquid hydrosphere, and its gaseous atmosphere.

2. Course Outline:

Instructional Segment 0 - Science Skills and Engineering Practices

Sample Guiding Questions:

- How do scientists and engineers collect data?
- What skills are necessary to be a scientist or an engineer?

Learning Targets:

- Students will to build upon foundational skills in scientific inquiry and strengthen mathematical skills needed to analyze data, skills to present data, and refine their understanding of engineering principles needed to develop a solution to a problem within given constraints. These skills will be called upon and further developed throughout the course.
- Topics of study and coursework will include engaging in arguments from evidence, systems and system models, accuracy and precision, types of data, mathematical manipulation, recording of results, analyzing raw data, constructing tables, drawing graphs, describing statistics and the spread of data, and engineering principles (define->develop->optimize).

Unit 1: COMBUSTION

In this unit students will work to answer the guiding questions:

- "What is energy, how is it measured, and how does it flow within a system?"
- "What mechanisms allow us to utilize the energy of our foods and fuels?"
- Learning Targets:
- Students investigate the amount of stored chemical potential energy in food. They make observations of material properties at the bulk scale that they will later explain in the atomic scale. The themes of combustion and CO_2 introduced in this unit will tie together several of the units throughout the course.

- Students will begin by examining nutrition labels of different foods where they will find a surprising amount of chemistry and develop and ***ask questions*** about what different items mean, like calories, and why they are included on the label. These questions will drive an investigation using a standard calorimetry experiment to measure the energy output of different foods. Students will ***analyze the data*** from the whole class, notice ***patterns, and*** represent this system with a pictorial ***model*** of the components and interactions including ***energy flows*** and an explanation of the ***cause and effect*** relationships articulating how the energy transfers from one place to another. The experimental results tend to systematically underestimate of the energy of the

food compared to nutrition labels. Students can use their model to speculate about the reasons for the difference.

- Before moving on, students should relate the combustion in this experiment to the real world. They should make a list of all the places that they know where things burn and they will revisit them in unit 5 as they discuss the impact of burning fossil fuels on global climate.

Unit 2: HEAT AND ENERGY IN THE EARTH SYSTEM

In this unit students will work to answer the guiding questions:

- "How is energy transferred and conserved?"
- "How can energy be harnessed to perform useful tasks?"

Learning Targets:

- Students will **develop models** of ***energy*** conservation within ***systems*** and the mechanisms of heat flow. They relate macroscopic heat transport to atomic scale interactions of particles, which they will apply in later units to **construct models** of interactions between atoms. They **use evidence** from Earth's surface to infer the heat transport processes at work in the planet's interior.
- An inquiry-driven investigation to monitor temperatures culminates with a **scientific explanation** resembling the Second Law. Students perform experiments such as measuring the temperature of two bodies of water before and after mixing, and the temperatures of metal blocks and water prior to and following immersion. By repeating these **investigations** with differing quantities of materials, students will apply the concept of ***scale, proportion, and quantity*** to predict temperature ***changes***, equilibrium conditions, and magnitudes of energy transferred.
- Students will explore the 2nd Law of Thermodynamics and relate the processes of conduction, convection, and radiation to the motion of individual particles. Students will **construct an explanation** about why solids are much better at transferring heat by conduction than liquids or gases because of their greater density.
- Students must **develop a model** of Earth's interior and use evidence to **support the claim** that its interior is convicting.
- Students will apply their **model** of density driven flow in rock not only to help understand heat transfer, but also to see how these flows give rise to plate tectonics.

Unit 3: ATOMS, ELEMENTS, AND MOLECULES

In this unit students will work to answer the guiding questions:

- "What is inside atoms and how does this affect how they interact?"
- "What models can we use to predict the outcomes of chemical reactions?"

Learning Targets:

- Students recognize patterns in the properties and behavior of elements, as illustrated on the periodic table. They use these patterns to develop a **model** of the interior structure of atoms and to predict how different atoms will interact based on their electron configurations. They use chemical equations to represent these interactions and begin to make simple stoichiometric calculations.

- Students will build a mental model of how the periodic table is arranged by using a physical model to arrange color chips from a paint store into a matrix based on color and hue. Students will understand the power of such models by predicting the existence of color/hue chips that were removed from the final matrix before the chips were distributed, mirroring the process Mendeleev used to predict the existence of elements not yet known.
- As students **analyze** plots of the properties of the elements as a function of atomic number, they should notice and discuss trends and patterns such as the comparatively low ionization energies of the alkali metals versus the high ionization energies of the noble gasses.

- Students should understand the basis for trends and ***patterns*** in the periodic table, and be able to **explain** the types of chemical reactions and resulting bonds that occur between elements.
- Students will use chemical equations as mathematical models to illustrate the cycle of matter within these chemical systems. Students will apply these basic principles of stoichiometry through laboratory **investigations**, problem solving, and reinforcement with apps and programs.

Unit 4: CHEMICAL REACTIONS

In this unit students will work to answer the guiding questions:

- "What holds atoms together in molecules?"
- "How do chemical reactions absorb and release energy?"

Learning Targets:

- Students compare the strength of different types of bonds and attractions and develop **models** of how ***energy*** is stored and released in chemical reactions.
- When students **conduct an investigation** to measure the conductivity of different solutions (salts, acids, bases, hydrocarbons, and oxides), they gather evidence that there must be some relationship between electricity and material properties and when they **investigate** the boiling points of water with different concentrations of salt and other solutes, they gather evidence that the salt must somehow be 'attracting' the water and preventing it from escaping as a gas. Students also notice patterns in the results of these experiments where materials that conduct electricity when they dissolve have a larger effect on boiling point.
- Students will use this evidence to support a **model** of different types of chemical bonds and attractions and learn how the nucleus of one atom has enough attractive force to pull one, two, or three electrons away from nuclei that does not have the same attractive force on its own electrons. Students will also **investigate** other forms of attraction such as polar attractions and intermolecular forces, **investigate** properties like surface tension and viscosity, and provide a model-based explanation of how these properties relate to microscopic electromagnetic attractions. Students will also develop and **explain models** of covalent, polar covalent, and ionic bonding and build on their model of the ionic bond breaking between sodium and chlorine when salt is dissolved in water.
- Students conduct **investigations** to **collect and analyze data** (both quantitative and descriptive observations) to discover that some reactions appear to release energy to their environment while others absorb it. By comparing the bond energy of the products with the bond energy of the reactants, students will construct mathematical **models** of the ***energy*** in the ***system*** and predict whether or not energy will be absorbed or released. Students observed differences in the relative strength of different types of bonds and attractions and students will **analyze data** about binding energy from published data tables or from their own investigations to look for ***patterns***.

Unit 5: CHEMISTRY OF CLIMATE CHANGE

In this unit students will work to answer the guiding questions:

- "What regulates weather and climate?"
- "What effects are humans having on the climate?"

Learning Targets:

- Students develop **models** of energy flow in Earth's climate as they revisit combustion reactions from Unit 1 to focus on emissions from fossil fuel energy sources. They apply **models** of the structures of molecules to explain how different molecules trap heat in the atmosphere and then **evaluate** different chemical engineering solutions that can reduce the impacts of climate change.
- Students will make a **conceptual model** of Earth's energy budget using accessible analogies like the line for a ride at an amusement park and the constant stream of eager visitors arriving at the end of the line represents solar radiation.

- Students will research the recent major Methane leak in southern California and **ask questions** about how gases other than CO_2 interact with infrared energy. Students will begin to develop **models** of how greenhouse gases absorb infrared energy with a basic computer simulation showing how molecules can absorb energy as the atoms in the bond vibrate towards and away from one another. Students will then use **evidence** from the simulator to construct an **argument** about why methane, water vapor, and carbon dioxide are strong greenhouse gases while oxygen and nitrogen are not.
- Students next **analyze** the past data related to earth's climate including atmospheric composition, average temperature, solar cycles, and Milankovitch cycles to refine and inform their models of energy flow in Earth's Climate system.
- Students will **evaluate** the scientific arguments made in media sources using a checklist called the Science Toolkit, discuss the content and graphs from different sources and construct an **argument** about which graph contains stronger **evidence**. To conclude the lesson, students write letters articulating their arguments about the claims in the articles to the editors of the media sources**.**

Unit: 6 THE DYNAMICS OF CHEMICAL REACTIONS AND OCEAN ACIDIFICATION

In this unit students will work to answer the guiding questions:

- "How can you alter chemical equilibrium and reaction rates?"
- "How can you predict the relative quantities of products in a chemical reaction?"

Learning Targets:

- Students will investigate the effects of fossil fuel combustion on ocean chemistry, develop models of equilibrium in chemical reactions, and design systems that can shift the equilibrium. During this unit, students conduct original research on the interaction between ocean water and shell-building organisms.
- Throughout the unit, students will gather evidence to construct a **scientific explanation** about what ***causes*** these variations in the rates of chemical changes in the ocean and **investigate** the response of reaction rates to varying temperatures and concentrations of reactants.
- Once students understand the ***effect*** of changing the concentration of reactants and products on reaction rates, they are ready to apply their understanding to novel situations. By applying *Le Chatlier's principle*, students can predict ways to increase the amount of product in a chemical reaction and refine the design of a chemical system by first measuring the output and then testing the effectiveness of changing the temperature and relative concentrations of reactants and products.
- Students will examine data showing trends in CO_2 concentrations in the ocean and atmosphere as evidence of a balancing feedback between two of Earth's ***systems*** that slows the rate of climate change and then design a simple **investigation** to generate CO_2 (gas released by a baking soda/vinegar reaction, a combusting candle, or yeast foaming) and measure the resulting pH. Students will also investigate the ***effect*** that temperature and salinity have on the ability of CO_2 to dissolve into the water and then apply their **models** of chemical equilibrium to predict the impacts of changing CO_2 levels in the ocean on these organisms.
- As students apply their **model** of equilibrium reactions from Le Chatelier's principle, they see that as the concentration of CO_2 increases, the ***system*** compensates by producing more products on the right side. Students will observe these effects themselves by planning an **investigation** to measure the rate of shell dissolution at different pH levels and they will obtain **information** on the health of coral reefs and coral bleaching, due in part to these pH changes.

3. Key Assignments:

- Various labs including; Measurement lab, Density lab, and Burning the Candle lab
- Using a simple calorimeter, students light a nut or other high Calorie snack food on fire below a metal can containing a measured amount of water. By measuring the temperature increase in the water and change in mass of the food item, students calculate the amount of ***energy*** transferred, which can be measured in the familiar unit of Calories, pool and analyze their class data, and represent their understanding of energy transfer

in a pictorial model with labels.

- Warm Embrace – Students explore how life has become more convenient as the fundamentals of thermochemistry are used to make instant hot and cold packs; along with which particular chemical process is most economically viable.
- Students dehydrate copper sulfate pentahydrate ($CuSO_4$-$5H_2O$) into the anhydrous salt ($CuSO_4$) by heating, and measure the mass of the resulting copper sulfate and water.
    - Students will present their observations, describe trends, construct explanations, and argue from evidence about the ratio of the mass of the resulting copper sulfate (dry mass) to water (the mass lost in dehydration). Students will have to defend with evidence and reasoning the claim that because the ratio of the component molecules in such a dehydration reaction remains constant, then the ratio of component elements must also remain constant. By **applying mathematical thinking**, students learn to balance chemical reactions and predict relative quantities of products.
- Students **plan and conduct investigations** to continuously monitor the temperature change accompanying the following reactions:

    1. $CaO(s) + H_2O(l) \rightarrow Ca(OH)_2(s)$ (lime + water)
    2. $NH_4NO_3(s) + H_2O\ (l) \rightarrow NH_4^+(aq) + NO_3(aq)$ (ionization of ammonium nitrate, a fertilizer)
    3. $HCl(dilute) + NaOH(dilute) \rightarrow H_2O(l) + NaCl$ (neutralization)
    4. $NaCl(s) + H_2O(l) \rightarrow Na^+(aq) + Cl^-(aq)$ (dissolving table salt)
    5. $CaCl_2(s) + H_2O \rightarrow Ca+(aq) + 2Cl^-(aq)$ (de-icing roads)
    6. $NaHCO_3(s) + HCl(aq) \rightarrow H_2O(l) + CO_2(g) + NaCl(aq)$ (neutralization)
    7. $CH_3COOH(aq) + NaHCO_3(s) \rightarrow CH_3COONa(aq) + H_2O(l) + CO_2(g)$ (baking soda& vinegar)
    8. $C_{12}H_{22}O_{11} + H_2O$ (in 0.5M HCl) $\rightarrow C_6H_{12}O_6$ (glucose) + $C_6H_{12}O_6$ (fructose)(decomposing table sugar)
    9. $KCl(s) + H_2O(l) \rightarrow K^+(aq) + Cl^-(aq)$ (dissolving potassium chloride)
    10. $NaCl(s) + CH_3COOH(aq) \rightarrow Na^+(aq) + CH_3COO^-(aq) + HCl$ (preparing HCl to clean tarnished metals)
    11. $2H_2O_2 \rightarrow 2H_2O + O_2$ (Decomposition Reaction using a catalyst)

    - Students take screen captures of the temperature plots, classify each reaction as endothermic or exothermic, and represent it using two or more of the specified model-types, or an additional model type that they develop on their own. When writing their lab reports, students apply scientific principles and evidence to construct explanations for the thermal ***changes*** that they have observed in each reaction.
- Students will plot historic climate data provided by the teacher on chart paper and display their posters around the classroom. Students will next **analyze** the past data and draw a graph predicting the next 5 years, extrapolating both the long-term trend of increasing CO_2 and the annual variation and then **calculate** the year in which atmospheric CO_2 will reach 540 ppm (approximately double the pre-industrial CO_2 levels), assuming that current trends continue. Students will compare their predictions and discuss assumptions they made

about how quickly the CO_2 would increase.

- By mixing baking soda (sodium bicarbonate, $NaHCO_3$) and vinegar (acetic acid, CH_3COOH) in sealed sandwich bags, students will gauge the speed and degree of reaction by the rate and amount of CO_2 gas produced as indicated by the swelling of the bag measured by volume of water displacement: $NaHCO_3$ (aq) + CH_3COOH (aq) ---> CO_2 (g) + H_2O (l) + CH_3COONa (aq). Students **investigate** the role of the quantity of molecular collisions by repeating the activity with differing concentrations of vinegar and then **investigate** the role of temperature by warming or cooling the reactants while keeping their concentrations constant. By observing the swelling of the bags in response to varying temperatures and concentrations, students will discover that those factors that increase the number and ***energy*** of molecular collisions (increased concentration and temperature of reactants) result in increased reaction rates. Combining a **conceptual model** with experimental evidence, students will then write reasoned **explanations** for factors influencing chemical reaction rates.

4. Instructional Methods and/or Strategies:

- Lab-based learning (skills based labs as well as student designed and implemented labs)
- Cross Cutting Concepts (Patterns, Similarity & Diversity; Cause & Effect; Scale, Proportion & Quantity; Systems & Systems Models; Energy & Matter; Structure & Function; Stability & Change)
- Science & Engineering Practices (Asking Questions & Defining Problems; Developing & Using Models; Planning & Carrying out Investigations; Analyzing & Interpreting Data; Using Mathematics, Information & Computer Technology & Computational Thinking; Constructing Explanations & Designing Solutions; Engaging in Argument from Evidence; Obtaining, Evaluating & Communication Information)
- Four Corners discussions (Agree, Strongly Agree, Disagree, Strongly Disagree)
- Data interpretation and predictions
- Jigsaw research projects (students or student groups research different aspects of a topic and report their learning back to the whole class, e.g. different types of invasive species or genetic disorders)
- Computer based research projects: individual students or groups research
- Evidence based data interpretation (Claim, Evidence and Reasoning writing from labs or research projects)
- Student centered and created activities (e.g. Evolution Island where students determine changes over time to organisms (e.g. rats) on islands with different ecosystems)
- Scientific article reading, annotation and/or class report/presentation
- Using CER (claims, evidence, and reasoning) graphic organizer
- Project Based Learning
- Argument Driven Instruction
- "5 E" Lessons (Engage, Explore, Explain, Elaborate & Evaluate)
- Phenomena

5. Assessment Including Methods and/or Tools:

The evaluation of student progress and evaluation will be based on the following criteria outlined in Board Policy:

- Assessments: 60-75% of the final grade
- Assignments and class discussions: 25-40% of the final grade

CHINO VALLEY UNIFIED SCHOOL DISTRICT
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support
Julian Rodriguez, Ed.D., Director, Secondary Curriculum

SUBJECT: **NEW COURSE: CHEMISTRY IN THE EARTH SYSTEM HONORS**

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BACKGROUND

The Chino Valley Unified School District routinely revises curriculum guides and develops new courses in accordance with State Content Standards, State Frameworks, and student need. Accordingly, the revision and development of curriculum guides are the results of a collaborative effort of teachers in the related academic areas.

Chemistry in the Earth System Honors is part of the high school three course model that is aligned to the Next Generation Science Standards. The course explains how chemical processes help drive the earth's system. The honors course emphasizes the following instructional segments with depth and complexity: combustion, heat and energy in the earth's system; atoms, elements, and molecules; chemical reactions; chemistry of climate change; and dynamics of chemical reactions and ocean acidifications.

This course was presented to the Curriculum Council and A.C.T. has been consulted.

Consideration of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education receive for information the new course Chemistry in the Earth System Honors.

FISCAL IMPACT

None.

WMJ:GP:JR:lar

A. CONTACTS	
1. School/District Information:	School/District: Chino Valley Unified School District Street Address: 5130 Riverside Dr., Chino, CA 91710 Phone: (909) 628-1201 Web Site: chino.k12.ca.us
2. Course Contact:	Teacher Contact: Office of Secondary Curriculum Position/Title: Director of Secondary Curriculum Site: District Office Phone: (909) 628-1201 X1630
B. COVER PAGE - COURSE ID	
1. Course Title:	Chemistry in the Earth System Honors
2. Transcript Title/Abbreviation:	Chem Earth Sys H
3. Transcript Course Code/Number:	
4. Seeking Honors Distinction:	Yes
5. Subject Area/Category:	Meets UC/CSU "d" Laboratory Science requirement
6. Grade Level(s):	9-12
7. Unit Value:	5 credits per semester/ 10 credits total
8. Course Previously Approved by UC:	No
9. Classified as a Career Technical Education Course:	No
10. Modeled after an UC-approved course:	Yes
11. Repeatable for Credit:	No
12. Date of Board Approval:	
13. Brief Course Description: Chemistry in the Earth Systems Honors entails the advanced understanding of the nature of matter and its transformations when they study atomic and molecular structure, the effects of electron interaction, chemical bonds, and stoichiometry. Additionally, the course offers the study of the properties of gases, acids and bases, solutions, and organic and inorganic compounds and an exploration of chemical systems through reactions and nuclear processes.	
14. Prerequisites:	Biology; Co-requisite: Integrated Math 1 or Higher
15. Context for Course: Chemistry in the Earth System Honors is one of three courses in California's three-course model for high schools implementing the Next Generation Science Standards (NGSS). To highlight the nature of Earth and space sciences (ESS) as an interdisciplinary pursuit with crucial importance in California, the course presents an integration of ESS and Chemistry. The honors course in Chemistry is distinguished by the depth and scope of work required to show mastery of the skills with increased rigor and complexity beyond the scope of a general course.	
16. History of Course Development: The course was developed to meet the 2013 state adopted NGSS standards for the advanced learner. It is one course from a three-course model that combines all high school performance expectations into three courses.	
17. Textbooks:	Wilbraham, A. C., & Prentice-Hall, Inc. (2007). Prentice Hall Chemistry. Upper Saddle River, NJ: Prentice Hall.
18. Supplemental Instructional Materials:	Teacher-created materials as needed
C. COURSE CONTENT	
1. Course Purpose:	

This course is a laboratory science course designed for the college-bound student that emphasizes students' ability to demonstrate their knowledge of chemistry within the context of the Science and Engineering Practices delineated in the Next Generation Science Standards. This course specifically examines the role of chemical properties and processes in driving the Earth system.

The sequence of this course is based on a specific storyline about climate change modeled in the CA State Science Framework. It begins with a tangible example of combustion and food calorimetry, and indeed the combustion of fossil fuels and release of heat, carbon dioxide, and water is a fundamental thread that ties together most of the sections of the course and ensures that chemistry concepts are able to be placed in the context of Earth's systems.

While many chemistry courses begin with the study of the atom, this course begins with macroscopic observations of a familiar phenomenon (combustion) and then zooms into the microscopic, but begins with simple interactions between particles to explain thermal energy and how it is exchanged within systems. Students then apply their understanding of heat flow to see its role in driving plate tectonics within the Earth system and only after students are firmly thinking about matter as particles do they zoom in and look at the nature of the particles themselves by studying atoms and how their behaviors are categorized into the periodic table. Once students are equipped to model simple chemical reactions, they return to the combustion chemical reaction and consider the impact its reaction product, carbon dioxide, has on the global climate system and students consider more advanced chemical reactions, then applying their understanding of chemical equilibrium to the very real problem of ocean acidification, which is also due to changes in carbon-dioxide concentrations in the atmosphere. In the end, students will have explored the fundamentals of chemistry and essential roles that these processes play in Earth's solid geosphere, its liquid hydrosphere, and its gaseous atmosphere.

2. Course Outline:

Unit 0: Science and Engineering Practices

In this introductory unit, students will get reacquainted with the science and engineering practices from prior science and/or engineering classes. In this unit students will design a small experiment, and in doing so will learn the following important scientific skills: safety procedures and policies, research background information and prior findings, design an experiment, identify independent and dependent variables, conduct experiment, read measuring instruments (temperature, length, weight/mass), log data into notebook, organize data into tables, convert data tables into graphs, analyze and evaluate results, account for experimental error, and communicate results using CLAIM, EVIDENCE, and REASON and through a FORMAL LAB REPORT.

The scientific process allows scientists to be able to study natural phenomena by following a collective series of steps, in which observations lead to questions, questions to possible hypotheses, then testing of the hypothesis by only changing one variable, analyzing the results, and drawing conclusions to determine the validity of both the data (experiment) and the hypothesis. Experiments may not yield the desired results, and that is complete normal. Most experiments completed by scientist do not lead to a positive hypothesis. However, the data collected from the experiment can tell us a lot about the natural world. A negative hypothesis can tell us just as much as a positive hypothesis. Eventually, in the scientific community, if a hypothesis has obtained substantial evidence, then it can become a theory. On the other hand, a law is a statement (can be mathematical) that describes (not explains) natural phenomena.

When conducting an experiment, it is important to note the quality of the data. There will always be human error, and this should always be noted in the discussion part of a lab report. It is important to be both accurate AND precise. (Accuracy is how close you are to the true value, and precise is how exact your measurement is.) Significant figures will be used to reflect the exactness of such measurements. Significant figures are important because they indicate the "certain" versus the "uncertain" values that you obtain from a measuring tool. In addition, percent error is used to calculate the accuracy of the data, how close you are to the actual value. The formula for percent error is the following:

% Error = ((Theoretical Value - Experimental Value)/Theoretical Value) x 100
It is important to understand how to read instruments in science, especially in Chemistry where things are read at a smaller scale. The ability to read and collect data both accurately and precisely will determine the quality of the data. Chemistry studies matter and its properties, which can be measured in multiple ways. The volume (the amount of space an object occupies) matter takes up can be determined by using several measuring tools, (beaker, erlenmeyer flask, graduated cylinder, pipette, burette, etc. Matter can also be measured by determining its mass, which is different than the weight. Mass is the amount of matter/substance, while weight is how the gravitational force acts on the matter. A balance is used to determine the mass of a substance (electronic balance, triple-beam balance, etc).

Chemistry uses the SI units: meter for length, kilogram for mass, second for time, kelvin for temperature, and mole for amount of substance. It also uses prefixes to easily convert between a large unit and a small unit. Some of the prefixes are as follow: Kilo- (k) is for 1000, centi- (c) is for 1/100, and milli- (m) is for 1/1000. Some units are derived, meaning they come from a combination of units. Volume is one of these units: 1L = 1000 ml = 1000cm3.

Unit 1: Combustion
The focus of this unit will be nutrition and combustion. Students will start by looking at the nutrition facts of different "groups" of food: lipids, carbohydrates, and protein. Students will use explore how each different type of macromolecule provides energy to the body. This exploratory assignment is to determine students' current understanding of nutrition, specifically calories, what chemical components of food actually gives us energy. Students will explore questions like: What are Calories? and How do we measure Calories?

Guiding Questions:

- What is energy, how is it measured, and how does it flow within a system?
- What mechanisms allow us to utilize the energy of our foods and fuels?

Learning Targets:

- Students will use the questions they obtain from this engagement assignment to construct their own calorimetry experiment.
- Students will be asked to analyze the data from their experiment and to determine temperature and mass patterns, and eventually come up with the conclusion that 'large mass = more energy.'
- Students will investigate what happens to mass during combustion, while learning about conservation of mass.
- Students will also develop a model to represent to flow of energy in the system to understand where the unaccounted for mass/energy went, and prompted to ask questions that will lead them to ask about how changing their experimental design can change their results. Will a different can cause different increases in temperature (specific heat capacity)? Will using something other than water cause a different change in temperature (specific heat capacity and thermal conductivity)?
- This sub-section will end by having students revise their design and repeat their experiment using one of their new questions to discover more information about specific heat capacity and combustion.

NGSS Standards:

- HS-PS1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.
- HS-PS1-4. Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.
- HS-PS1-7. Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.

- HS-PS3-1. Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.

Unit 2: Heat and Energy in the Earth System

This unit's focus in on the laws of thermodynamics at the atomic scale, but also a system as large as the Earth. Students will start to investigate the different forms of energy, and classify them as either potential or kinetic. Students will also connect energy to motion, motion of atoms (microscale) and the motion of the planet (macroscale). The amount of energy can be measured using temperature. Students will conduct a last Calorimetry experiment in which they will use the temperature to calculate the total amount of energy that transferred from one system into another. Temperature is the measurement of the average kinetic energy. Molecules are constantly moving, and the more energy they have, the more they move. But also, as such molecules collide, they can interact. Also, energy is always moving from an area of high energy, into an area of low energy, until both (closed) systems have reached equilibrium. The energy is transferred through the collision of the molecules. Yet, no energy is created nor destroyed, it is only transformed from one form into another.

This unit will allow students to connect the chemistry to the earth science. Students will understand that the First Law of Thermodynamics applies to all earth systems, and systems in the universe. Energy comes into the biosphere as solar energy, which is then converted into chemical energy by photosynthetic organisms, it can then be transferred between one living organism into another. Also, such energy can cause the movement of wind and ocean currents.

The Second Law of Thermodynamics states that the amount of entropy in the universe (energy equilibrium and energy unavailability) is constantly increasing. Entropy is the driving force for diffusion and equilibrium. A system at equilibrium has no energy. However, two systems with different energy distributions have available energy. Students will use their knowledge to expand on their Energy Flow Model from unit 1.

NGSS Standards:

- HS-PS3-1. Create a computational model to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known.
- HS-PS3-2. Develop and use models to illustrate that energy at the macroscopic scale can be accounted for as either motions of particles or energy stored in fields.
- HS-PS3-4. Plan and conduct an investigation to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics).
- HS-ESS2-3. Develop a model based on evidence of Earth's interior to describe the cycling of matter by thermal convection.
- HS-ESS2-2. Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth's systems.
- HS-ESS2-3. Develop a model based on evidence of Earth's interior to describe the cycling of matter by thermal convection.
- HS-ETS1-4. Use a computer simulation to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem.

Guiding Questions:

- How is energy transferred and conserved?
- How can energy be harnessed to perform useful tasks?

Learning Targets:

- Students will spend a good amount of time in this section taking a look at the macroscopic scale (the earth systems). The Second Law of Thermodynamics is the driving force for conduction, convection, and radiation. Because of the constant input of energy from either the Sun or radiation, the Earth system is constantly trying to reach equilibrium, but will never do unless all internal and external energy sources are depleted.
- To better understand convection, students will complete a simple convection lab, with water at different temperatures. Students will use this to develop a model that illustrates how convection affects the Earth's interior. These constant convections of the earth's mantle can cause seismic waves. The path of seismic waves can be determined based on the data from different parts of the world.
- Students will analyze such data to determine the epicenter of seismic activity.
- Students will finish this unit by connecting the motion of plate tectonics to energy flow, and the changes that occur to the Earth over both short and long periods of time.

Unit 3: Atoms, Elements, and Molecules

In this unit, students will finally take a look at the particles and properties of particles that account for the microscopic change in energy in the previous unit. They will start by exploring the development of the periodic table and the atomic model. Demitri Mendeleeve was one of the scientists that looked at the patterns of both physical and chemical properties of elements, and used it to re-organize the periodic table by placing them into columns and rows. Students will be given similar information as Mendeleeve. Students will be given cards with several pieces of information, asked to sort and categorize them, and lastly organize them in a way that makes sense. Students should be able to point out the repeating patterns: atomic mass, chemical properties, radius of atom, etc. Students will use their models, along with research they have conducted on their own, to connect the patterns to the atom's structure: protons, neutrons, and electrons.

NGSS Standards:

- HS-PS1-1. Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.
- HS-PS1-2. Construct and revise an explanation for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.
- HS-PS1-7. Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.

Guiding Questions:

- What is inside atoms and how does this affect how they interact?
- What models can we use to predict the outcomes of chemical reactions?

Learning Targets:

- Students will take a look at the noble gases to determine the best electron configuration.
- Students will determine that atoms need a total of 8 valence electrons to be stable. Electrons that do not have such a configuration can either share electrons, or steal or lose electrons to obtain similar configurations to that of noble gasses. Such information can be used to predict which atoms are most likely to lose or gain electrons, and/or which atoms are most likely to create bonds by looking at the element's position within the periodic table.
- Students will connect electronegativity to the type of bond that it will make: non-polar covalent, polar covalent, ionic bond.

- Students will also look at metallic bonding and its special properties. There will be a greater emphasis on students using both SEP 6 and SEP 7, to construct explanations and argue from evidence, as they understand and recognize patterns that can be used to explain both physical and chemical properties of elements.
- Students will also take a look at the conservation of matter and the Law of Definite proportions.
- Students will study what the mole is, and how to use the periodic table to calculate the amount of moles of a substance.
- Students will eventually use stoichiometry to show proof of the law of conservation of mass, from understanding how ratios (molar ratios) can be used to calculate and predict the total amount of products from the total amount of reactants obtained.

Unit 4: Chemical Reactions

In this unit, students will focus on chemical energy. At this point, students should know that both mass and energy are conserved. And they will also determine that the same is true for a chemical reaction. So where is such energy stored? Students will start with an activity in which they will measure the conductivity of a solution of salts, acids, bases, hydrocarbons and oxides. They will take a look at the different boiling points to determine what is preventing gas from escaping. Students will also take a look at the different states of matter, and connect this to kinetic energy. Using Coulomb's Law, students will apply the principles of electrostatic attraction to predict the attraction occurs due to ionic bonds. Students will investigate the different forms of attractions. There are different types of intermolecular forces, these forces are what causes surface tension and viscosity.

NGSS Standards:

- HS-PS1-3. Plan and conduct an investigation to gather evidence to compare the structure of substances at the bulk scale to infer the strength of electrical forces between particles.
- HS-PS1-4. Develop a model to illustrate that the release or absorption of energy from a chemical reaction system depends upon the changes in total bond energy.
- HS-PS2-4. Use mathematical representations of Newton's Law of Gravitation and Coulomb's Law to describe and predict the gravitational and electrostatic forces between objects.
- HS-PS3–5. Develop and use a model of two objects interacting through electric or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction.
- HS-PS1-5. Apply scientific principles and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs.
- HS-PS1-7. Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.

Guiding Questions:

- What holds atoms together in molecules?
- How do chemical reactions absorb and release energy?

Learning Targets:

- Students will take a look at endothermic and exothermic chemical reactions.
- Students will use the information they gather from the experiment to form a model that explains why there was an energy increase in one and an energy decrease in another.
- Students will form a model that shows the amount of energy in the system over time, by obtaining the temperature as such reactions happen over time.
- After students have looked at the different types of bonds and attractions, they will try to connect this to the amount of energy that is stored in the different types of forces (and bonds).

- Students will analyze data from their investigation, along with data provided to them from other investigations.
- Students will use the information they that have obtained so far to make calculations.
- Students will calculate the total amount of energy in chemical bonds, or predict the amount of energy that will be release in the form of heat.

Unit 5: Chemistry of Climate Change

This unit is extremely heavy on the Earth Science NGSS standards. In this unit, students will use all the understanding they have gathered about energy, combustion, chemical reactions, convection, etc. to get a better understanding of Climate Change. After taking a look at chemical reactions, students will take a look at combustion and the amount of energy and matter it gives off. However, combustion can occur in many types of material, not just in burning wood or the breaking down of carbohydrates. Today, most of the energy comes from hydrocarbon fuels. For example, cars use internal combustion to cause small pistons in the engine to move, which in turn moves the tires, and therefore the car. Combustion releases both carbon dioxide and water vapor. Due to the increase in hydrocarbon consumption in the world, the amount of carbon dioxide in the atmosphere is increasing. Because carbon dioxide is a greenhouse gas, combustion has a great impact on the Earth's climate. The greenhouse gases disrupt the flow of energy, entrapping energy in the atmosphere.

NGSS Standards:

- HS-ESS2-2. Analyze geoscience data to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth's systems.
- HS-ESS2-4. Use a model to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate.
- HS-ESS2-6. Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.
- HS-ESS3-2. Evaluate competing design solutions for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.*
- HS-ESS3-5. Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth systems.
- HS-ESS3-6. Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.

Guiding Questions:

- What regulates weather and climate?
- What effects are humans having on the climate?

Learning Targets:

- Students will take a look at different forms of data to determine the effects of combustion on the environment. Where is most of the Earth's energy coming from? Once that energy comes in, where does it go? How does it circulate the earth? How do small changes to the atmosphere affect the earth's climate?
- Students will look at the change in the amount of greenhouse gases over the years and correlate this to the change in the atmosphere, hydrosphere, and biosphere.
- Students will investigate feedback loops, and look at cause and effects. There will be a major focus on the Earth's increasing temperature and its effect on the climate. For example, the amount of ice on our planet is shrinking, seawater is rising, but the concentration of salinity in the oceans is also decreasing. Also, the constant energy input is increasing the temperature of the ocean and the ocean is absorbing more carbon

dioxide, making it more acidic. This has caused mass coral bleaching, and is also responsible for endangerment of species, such as those of the Great Barrier Reef.

- Students will conduct a research study in which they will investigate the magnitude of how human activity has harmed the earth. The increase in temperature also has caused more ocean water evaporation, which eventually precipitates back into the earth in the form of heavy rain, storms, snow and snowstorms, and most recently tropical storms and hurricanes (cyclones).
- Students will focus on how feedback loops can intensify over the years, but also, how the earth is a extremely dynamic system.
- Students will also research and build devices that use alternative energy, and how technology in general can help or harm the environment.
- Students will connect Le Chatelier's principle to the increase of carbon dioxide in the atmosphere, and its absorption into the ocean.

Unit 6: The Dynamics of Chemical Reactions and Ocean Acidification

This unit will have students focusing on the ocean systems and chemical equilibrium. Previously, students looked at how an increase in energy means an increase in ocean water temperature. Students will dive in deeper into the topic to fully understand how feedback loops (positive and negative) contribute to the changes we are now experiencing in our ocean.

Not all reactions reach completion, but just as the forward reaction is happening, so is the reverse reaction. When the rate of the forward reaction is equal to that of the reverse reaction, it is said that the system has reached dynamic equilibrium. Our oceans for many years have been able to maintain dynamic equilibrium. However, there has been more disruption to the system, and is unable to maintain equilibrium.

NGSS Standards:

- HS-PS1-5. Apply scientific principles and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs.
- HS-PS1-6. Refine the design of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium.*
- HS-PS1-7. Use mathematical representations to support the claim that atoms, and therefore mass, are conserved during a chemical reaction.
- HS-ESS2-2. Analyze geoscience data to make the claim that one change to Earth’s surface can create feedbacks that cause changes to other Earth’s systems.
- HS-ESS2-6. Develop a quantitative model to describe the cycling of carbon among the hydrosphere, atmosphere, geosphere, and biosphere.

Guiding Questions:

- How can you alter chemical equilibrium and reaction rates?
- How can you predict the relative quantities of products in a chemical reaction?

Learning Targets:

- Students will gather evidence and construct a scientific explanation to determine what causes the speed variations.
- Students will form a model that shows what is happening at the microscopic level, including atomic collision and bond formation.
- Students will conduct a lab in which they will take a look at what factors affect the rate of reaction: temperature, concentration, and surface area.

- Students will then take a look at Le Chatelier's principle to predict a reaction at equilibrium will respond to changes. Will products increase; will reactants increase? What happens when the temperature of the reactants increase? Does it speed up the reaction, or does it slow it down? And how is this explained by Le Chatelier's principle? What effects does increased carbon dioxide have on the ocean?
- Students will take a look at how increase in carbon dioxide in the ocean increases carbonic acid. Increase in carbonic acid means that shells, which are made of calcium carbonate, will dissolve.
- Students will also study current and future carbon dioxide projections to determine the extent to which humans have been dramatically changing the climate, and harming and destroying important ecosystems.

3. Key Assignments:

Unit 0:

Where in the World is Carbon Dioxide? Assignment

- Major Focus Question: How does water's adhesive and cohesive properties affect its ability to travel through a string?
- Assignment Overview: Students will be taking a look at the amount of carbon dioxide that is released from different sources. Now that students are aware that carbon dioxide is a greenhouse gas that is a major cause for today's climate change, they will be able to determine where most of the carbon dioxide is coming from. Using a balloon, students (or teacher) will collect carbon dioxide from breathing (cellular respiration), fossil fuels (car exhaust), and outside air. They will determine the amount of carbon dioxide in each solution using Bromothymol Blue solution, in which CO2 reacts.

Unit 1:

Combustion Machines Research (Machine Efficiency) Assignment

- Major Focus Question: What is internal-combustion? How do car engines work, and why is gasoline a very inefficient way of making a car move?
- Assignment Overview: In this assignment, students will work in groups to research different combustion machines. Students will pick one of the following combustion machines: automobile, steam engine, coal facility plant, ships, motorcycles, water vehicles, airplanes, etc. Students will research the efficiency of obtaining the energy from each engine. They will take a look at how much energy is lost to the environment within the system. Students will create PPT to present their findings to their classmates. As students present, students not presenting will be required to obtain the information presented to further their research and make adjustments to existing designs. Their goal is to make sure their adjustments increase the machine efficiency with water to form carbonic acid, and the carbonic acid will change the color of the solution from blue to green and then to yellow. Students will use this information to identify the pH of the solution, and therefore the amount of carbon dioxide in each of the tested variables. Students will be placing their data in a designated bound notebook. Student will need to submit a finalized lab report on their findings. In addition, students will research the current carbon dioxide levels are for Los Angeles, have heavily populated cities and compare it to rural cities. Students will also look at whether the amount of carbon dioxide has increased throughout the years.

Calorimetry Lab Part 1

- Major Focus Question: Where does the mass of the food go after combustion?
- Lab Overview: Students will be working on the Calorimetry experiment twice this semester, especially because there is now a greater emphasis on combustion this year. During this initial Calorimetry experiment, students will be comparing reactions such as combustion to food digestion and cellular respiration. Students will also focus on where both energy and mass goes after combustion. Students will conduct the calorimetry lab to explore where the energy stored in food goes. Students will draw a model that illustrates the flow of energy within the system. The goal is for students to recognize that energy never created or destroyed, but that it is transferred from one system to another. From the food into the water. Students will only be collecting initial

mass of food, final mass of food, initial temperature of water, and final temperature of water. They should note that the temperature of water has increased, so therefore the calories in food has been transferred to the water. Some more advanced students might also note that the mass has decreased, and after being prompted to research, also determine that the mass did not disappear but has been released in the form of gas.

Unit 2:

POGIL- Gas Variables Assignment

- Major Focus Question: How does energy disperse within a container?
- Assignment Overview: As students are taking a look at conventions, they will also take a look at the properties of gas. What can cause implosion, explosion within reactions? What causes the movement of the earth's mantle? What causes ocean currents or wind currents? This activity will help students understand and determine the gas laws that govern the earth. Students will work in groups to analyze different models in which they will determine the role in which factors such as volume, pressure, and temperature play on each other and molecular collisions. This assignment will also help students identify independent, dependent and controlled variables. In model 1, students will look at the gases in a non-flexible container. In model 2, students will look at gas inside a flexible (balloon) container. Using the models, students will work together to determine the relationships between the pressure and temperature, temperature and volume, and volume and pressure. Students will also be able to identify the Ideal Gas Law (from a list of several, all but one correct) that correctly indicates the relationship between all the three variables. Lastly, students will draw their own model to predict what happens if all three given examples were to cool down.

Calorimetry Lab Part -2

- Major Focus Question: Which types of fuels are the most efficient?
- Lab Overview: Students will once again explore Calorimetry, but this time using different types of biodiesel fuels, and now also calculate the total number of joules (calories) in each of the different types. Students will also be given the opportunity to design their experiment and to change their soda can with something else, or the water inside of the soda can with something else. This in turn will prompt students to think about specific heat capacity of metals and water. Nonetheless, they should notice that using the Specific Heat Capacity Formula will still heed similar results. Some substances students might want to test are: vegetable oil, olive oil, rubbing alcohol, ethanol, etc. Lastly, students will share and compare their group results to the rest of the class to evaluate the data obtained from the experiment from the expected outcome (what the research says) to determine where the rest of the energy escaped. Students will be placing their data in a designated bound notebook. Student will need to submit a finalized lab report on their findings.

Epicenters and Magnitude Lab Activity

- Major Focus Question: Where Did the Earthquake Originate?
- Lab Overview: After learning about conventions, students will dive deeper into the flow of energy within the earth systems. In this activity, student will use their gained knowledge to analyze seismogram measurements to determine the epicenter of two earthquakes, and determine the magnitude of the earthquakes according to Richter and Mercalli scales. In this lab, students will identify the p-wave and s-wave data, and determine the lag time for each seismogram. Students will also determine the distance using the Earthquake P-wave and S-wave travel time graph. Lastly, students will create a model that represents how the flow of energy in the earth systems can cause the movement of the tectonic plates. Students will not be required to turn in a finalized lab report, instead, they will be graded on the lab practices (including their bound notebook).

Unit 3:

POGIL- Bond Enthalpies Assignment

- Major Focus Question: Where is the energy in chemicals stored?
- Assignment Overview: The purpose of this activity is to help students relate the breaking or forming of bond with the absorption of energy (endothermic) or a release of energy (exothermic), define fond energy as energy needed to break ONE mole of bonds of a particular type, and calculate the approximate enthalpy change for a reaction using a table of average bond enthalpies. Students will look at several models. In model 1, students will compare two tables (bond breaking and bond forming) to conclude that these reactions are exact opposites of each other. The amount of energy that is needed to break a bond the amount of energy need to make a bond of the same but reverse reaction. Students will also connect bond making to exothermic reactions and bond forming to endothermic reactions. Students will also be able to compare the bond enthalpies of single to double to triple bonds. Students will be able to work together to determine that the bond enthalpy for a double bond is NOT simply double that of a single bond, but that in fact, it has a tested enthalpy of it's own. Lastly, students will use their knowledge to learn how to calculate the net energy change of a reaction, and compare this to a single versus double carbon bond.

3D Molecule Activity Assignment

- Major Focus Question: How can simple elements make large three-dimensional molecules?
- Assignment Overview: Students will have the opportunity to pick an organic molecule to research and build three-dimensionally. Students will conduct this activity after looking at Lewis Dot Structures and completing an assignment that will help them understand hybridization of orbitals. Students will be able to use online technology, along with molecular kits to determine the shape of their molecule. All molecules must have a minimum of 15 atoms. In addition, they will need to make sure that the atoms in the molecule have the correct color and hybridization (bond angles). They will need to research the following: a description, a picture of it's current use, history, the structure, the chemical formula, the scientific name, the function it has on the human body (or other functions), fun facts, and citations. Students will complete their assignment on a poster and present their molecule and their findings to the rest of the class. Students will be graded based on their peers for the presentation and by the teacher for their poster and molecule design.

Atomic Theory Lab

- Major Focus Question: How were scientists able to determine the structure of the atom without being able to directly observe it?
- Lab Overview: In this activity, students will follow in the footsteps of major scientists that helped develop today's atomic theory. There are three parts to this lab, each part exploring a subatomic particle that was discovered. Students will explore negative and positive charges using tape and balloon. Students will conclude that depending on the treatment of the tape, it will either be neutral (does not attract nor repel), negative or positive. In addition, students will determine whether like things or dislike things repel or attract. In turn, they will use this information to see how JJ Thompson determined that there must have been an electron in the atom. In the second activity, students will be trying to determine the shape of Styrofoam hidden under a board. The only way they can determine the shape is by tossing small marbles and tracking its path along the sand. Students will use this to understand how significant it was for Rutherford to see alpha particles both going through the gold foil and bouncing back. What did this say about the structure of the atom? Lastly, students will look at the nucleus. They will take a look at containers that are opened versus similar containers that are closed. The open containers represent what scientists knew; they knew that there were protons. However, the closed containers represent what scientists encountered. The mass that they expected was never the one that they obtained. Students will also have to hypothesize what makes the mass different.

Interpreting the Periodic Table Lab

- Major Focus Question: How can the periodic table be used to make useful predictions?

- Lab Overview: Students will explore the most important properties of the periodic table through the following four activities. During Activity 1, students will rotate around the room in stations to gather information about the physical properties of certain specific elements. They will use their information to determine if any of the elements share properties. In Activity 2, students will explore the Halide Family. Students will add drops of Silver Nitrate into medicine cups with NaCl, KBr, and KI. These three compounds have elements from the Halide family that will react in a similar way (they will get cloudy), but also differently (different colors). Students should be able to conclude that elements from the same family react in a similar way. In Activity 3, students will explore the reactivity of several metals. They will explore reactivity of calcium, copper, magnesium, and zinc. Three of these metals are in the same period, and two of the metals are in the same group. Students will gather information about the overall reactivity of the metals to predict where the most reactive metals are on the periodic table. Students should conclude reactivity increases going down the periodic table and decreasing moving from left to right on the periodic table. Students will later investigate their predictions to see if they were close the expected outcome. The last activity, 4, students will be given several cards which are color coded, have the first ionization energy, electronegativity, atomic radius, atomic mass, and reactions with oxygen and chlorine. They will need to find a way to organize the cards so that it displays the physical and chemical properties in a categorical order. The ideal outcome would be one in which students organize the data using ALL of the properties and come up with a table similar to that of the modern periodic table. Students will be placing their data in a designated bound notebook. Student will need to submit a finalized lab report on their findings.

Unit 4:

Chemical Reactions Calculator Assignment

- Major Focus Question: Which products will come out of a chemical reaction?
- Assignment Overview: Students will be asked to be able to make simple predictions using the periodic table about possible chemical reactions. Students will work together to predict the products given the reactants. They will use a slide-chart from Flinn Scientific to determine the type of reaction that will occur when two substances are mixed. Students will be using their findings of this assignment to make predictions for the labs of the same unit.

Stoichiometric Predictions Assignment

- Major Focus Question: How many products will there be? What are molar ratios? How are moles used to calculate the outcome? How is the estimated outcome compared to the experimental outcome?
- Assignment Overview: This assignment will help students practice their fundamental skills in stoichiometry. It will be the last assignment for this unit, and will have students using all gained knowledge to apply their understanding to different scenarios. In this activity, students will need to 1) balance an unbalanced equation, 2) use the periodic table to calculate the molar mass of a substance, 3) find the limiting reagent in the reaction 4) predict the amount of product that will come out of a reaction. Students will use these steps, for example, to determine what happens to all the excess carbon dioxide that is not being absorbed by plants through the photosynthetic process. Students will research and make a proposition on how measures needed increase the net process of photosynthesis. (Most students will determine that it is necessary to plant trees, create roof gardens, etc.) Students will share their findings in a Socratic-circle.

Balancing Chemical Equations Lab

- Major Focus Question: How does chemical reaction affect matter?
- Lab Overview: Students have already looked the conservation of mass. However, students will now take a look at it through the representation of a chemical reaction. Students will analyze different types of chemical reactions and work in groups to determine the products that are formed. Students will use the data that they gather from the reactions to determine possible chemical equations that account for both reactant and

product mass. They will use this information to add coefficients to the formulas and classify the type of chemical reaction observed. At the end of the activity, students should be able to observe and record chemical changes in substances, determine the product(s) of a chemical reaction, write and balance a chemical equation, and design and conduct an experiment to determine the type of reaction that is being observed. Students will not be required to turn in a finalized lab report, instead, they will be graded on the lab practices (including their bound notebook).

Stoichiometry and Limiting Reactants Lab

- Major Focus Question: What is a Limiting reactant and how does it affect the chemical reaction?
- Lab Overview: In this activity, students will observe and record data for different types of chemical reactions. They will learn about the mole ratio and how it can be used to calculate the expected chemical reaction outcome. To do this, students will have 0.10 M of CaCl2, Na2C2O4, and Na3PO4. Students will take a look at the amount of reactants that turn into products to determine the perfect combination of drops of reactant 1 to reactant 2 ratio. At the end of this, students will be able to understand what limiting reactants are, determine the combining ratios of calcium chloride and sodium oxalate and sodium phosphate, and write balance equations for each reaction. Students will be placing their data in a designated bound notebook. Student will need to submit a finalized lab report on their findings.

Unit 5:

Veganism vs. Vegetarianism vs. Omnivorism Assignment

- Major Focus Question: Do the choice of the human diet affect the environment?
- Assignment Overview: As students take a look at the different types of diets, students will research the carbon footprint that each diet has. Students will first of all examine their own carbon footprint and their impact on the environment. Students will research the pros and cons for each of the different diets to prepare for class debate. Students will need to be well informed about each of the diets, and so will be placed in groups to prepare. Students will be notified of which group they will support on the day before the debate. Students will need to be able to support their data with information by giving RELEVANT and strong evidence for or against a particular diet.

Climate Change Debate Assignment

- Major Focus Question: Is climate change happening? Or we just misinterpreting data? What type of human activity may be causing the climate change we see today?
- Assignment Overview: Students will investigate the current evidence for climate change. Students will be given different sources of data and different viewpoints to determine where or not humans have been causing the climate change we see today, and whether or not climate change is happening. The purpose of this activity is to get students acquainted with the environmental impact that humans have on the environment. In the second part of the activity, students will investigate alternative energy options that are not as harmful for the environment, and propose them as solutions to their classmates.

Carbon Cycle Lab (Combustion Part 2)

- Major Focus Question: Where does all the carbon go? Where is the extra carbon (from carbon dioxide and monoxide) end up?
- Lab Overview: This lab will help students take a closer look at combustion and the extra carbon dioxide that is being produced. Students will look at the carbon cycle by going around to different carbon cycle stations. Each cycle station will have students explore the mechanisms in which carbon is using to move through the earth. Students will also explore which human factors increase the amount of carbon into the environment.

Greenhouse Effect and Global Warming Lab (Combustion Part 3)

- Major Focus Question: What is the greenhouse effect and how do greenhouse gases contribute to global warming?

- Lab Overview: Students will take a look at the lasting effects of greenhouse gases on global warming. During the first part of the lab, students will take a look at what happens when a bottle that is covered with black paper is exposed to light. The temperature of a clear and half-covered bottle will be compared to that of a full covered bottle. In part two, students will collect carbon dioxide samples from different sources. (Unlike the first activity, students will be asked to pick different everyday carbon dioxide releasers than the ones they used in Unit 1.) Students will use their understanding of the carbon cycle to complete a titration lab in which students will determine the amount of solution needed to be added to the solution (carbonic acid solution) that will return the solution back to its original color. Students will be placing their data in a designated bound notebook. Student will need to submit a finalized lab report on their findings.

Unit 6:

Acid Rain Assignment

- Major Focus Question: How is pollution affecting our freshwater?
- Assignment Overview: Students will research the effect of pollution on rainwater (and other freshwater sources). Students will explore significant historical structures and the effects of acid rain. Students will write a 4-5 page research paper in which they explore possible solutions to improve the rainwater.

Ocean Acidification Assignment

- Major Focus Question: How do higher temperature and extra carbon dioxide harm the coral reefs?
- Assignment Overview: In this assignment, students will be taking a look at the toll climate change is having on the ocean ecosystems. Students will research what coral bleaching is, how it is impacting the species, what chemicals causes coral bleaching, and what can be done to reverse the effects? Students will present their unique solutions to the class. Students will grade each other with the evaluation rubric.

Alka-Seltzer Reaction Time Lab

- Major Focus Question: What factors can speed up chemical reactions?
- Lab Overview: As students are learning about the environment, and human influence on the environment, they will also take a look at the factors that can speed up or slow down chemical reactions. There are many chemical reactions happening around the globe at all times, however, some chemical reactions are happening because of chemical exposure caused by man-made products. Some countries have restrictions, while other countries do not. Students will take a look at different factors that can affect a chemical reaction: temperature, concentration, pressure, and surface area. Students will plan and conduct their own experiment to test which factors can speed up chemical reactions and which factors can slow down chemical reactions by using Alka-Seltzer tablets. Students will be placing the tablets into film canisters to test the time it takes for the canister to increase in pressure and explode into the air. Students will be placing their data in a designated bound notebook. Students will need to submit a finalized lab report on their findings.

Ocean Acidification Red Cabbage pH Indicator Lab

- Major Focus Question: How does natural selection work?
- Lab Overview: This experiment will help students learn about alkalinity, which helps seawater resist changes in pH. Students will test different waters (just as they did for the air) to their own made Red Cabbage pH indicator. The larger emphasis is on Le Chatelier's principle about what happens to a system at equilibrium that encounters stress. Students will look at the pH as a way to determine how well a body of water has been able to resist stress. There will be a greater focus on carbonic acid, and its forward and reverse reaction. The major types of water students will be testing are: seawater, tap water, distilled water, and Alka-Seltzer Water.

Students will rank the fluids based how much alkalinity they believe the water has. Students will then test the water using the red cabbage indicator to determine its true alkalinity. Students will be placing their data in a designated bound notebook. Student will need to submit a finalized lab report on their findings.

4. Instructional Methods and/or Strategies:

- Lab-based learning (skills based labs as well as student designed and implemented labs)
- Cross Cutting Concepts (Patterns, Similarity & Diversity; Cause & Effect; Scale, Proportion & Quantity; Systems & Systems Models; Energy & Matter; Structure & Function; Stability & Change)
- Science & Engineering Practices (Asking Questions & Defining Problems; Developing & Using Models; Planning & Carrying out Investigations; Analyzing & Interpreting Data; Using Mathematics, Information & Computer
- Technology & Computational Thinking; Constructing Explanations & Designing Solutions; Engaging in Argument from Evidence; Obtaining, Evaluating & Communication Information)
- Four Corners discussions (Agree, Strongly Agree, Disagree, Strongly Disagree)
- Data interpretation and predictions
- Jigsaw research projects (students or student groups research different aspects of a topic and report their learning back to the whole class, e.g. different types of invasive species or genetic disorders)
- Computer based research projects: individual students or groups research
- Evidence based data interpretation (Claim, Evidence and Reasoning writing from labs or research projects)
- Student centered and created activities (e.g. Evolution Island where students determine changes over time to organisms (e.g. rats) on islands with different ecosystems)
- Scientific article reading, annotation and/or class report/presentation
- Using CER (claims, evidence, and reasoning) graphic organizer
- Project Based Learning
- Argument Driven Instruction
- "5 E" Lessons (Engage, Explore, Explain, Elaborate & Evaluate)
- Phenomena

5. Assessment Including Methods and/or Tools:

The fall final exam will cover the first three units and will assess students' understanding through the use of multiple choice questioning, short answer responses, and long answer responses.

The spring final exam will be a cumulative exam, consisting of all six units and all concepts covered. Students will be assessed through multiple choice, short answer responses, and long answer responses. Both mathematical and conceptual concepts will be assessed, with the long answer responses focusing primarily on the application of mathematics and the integration of various chemistry concepts. Additionally, students will also be assessed through a laboratory final, which will assess students' ability as it applies to hands on performance. The laboratory final will be drawn from one of the last five units and will likely cover titrations, calorimetry, and/or galvanic/voltaic cells. Students will be assessed not only on their performance in the lab, but also on post-lab questions that delve into the core mathematical and conceptual concepts at hand. Students will submit a written final report that will serve as a portion of their final examination grade.

Assessment Method: Evaluation Rubric

The evaluation of student progress and evaluation will be based on the following criteria outlined in Board Policy:

- Assessments: 60-75% of the final grade
- Assignments and class discussions: 25-40% of the final grade

Chino Valley Unified School District
Our Motto:
Student Achievement • Safe Schools • Positive School Climate
Humility • Civility • Service

DATE: April 19, 2018

TO: Members, Board of Education

FROM: Wayne M. Joseph, Superintendent

PREPARED BY: Grace Park, Ed.D., Assistant Superintendent, Curriculum, Instruction, Innovation, and Support

SUBJECT: **WILLIAMS SETTLEMENT LEGISLATION QUARTERLY UNIFORM COMPLAINT REPORT SUMMARY FOR JANUARY THROUGH MARCH 2018**

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BACKGROUND

In accordance with the Williams settlement legislation, Education Code 35186 states that the Superintendent or designee shall report summarized data on the nature and resolution of all Williams related complaints to the Board of Education and the San Bernardino County Superintendent of Schools on a quarterly basis. Williams related complaints are complaints specific to 1) insufficiency of instructional materials, 2) unsafe facilities, or 3) teacher vacancy or misassignment. The report shall include the number of complaints by general subject area with the number of resolved and unresolved complaints. These summaries shall be publicly reported on a quarterly basis at a regularly scheduled board meeting.

Consideration of this item supports the goals identified within the District's Strategic Plan.

RECOMMENDATION

It is recommended the Board of Education receive for information the Williams Settlement Legislation Quarterly Uniform Complaint Report Summary for January through March 2018.

FISCAL IMPACT

None.

WMJ:GP:rtr

Williams Settlement Legislation
Quarterly Uniform Complaint Report Summary
For submission to school district governing board and county office of education

District Name: Chino Valley Unified School District

Quarter covered by this report: January 2018 – March 2018

Please fill in the following table. Enter 0 in any cell that does not apply.

	Number of complaints received in quarter	Number of complaints resolved	Number of complaints unresolved
Instructional Materials	0	0	0
Facilities	0	0	0
Teacher Vacancy and Misassignments	0	0	0
Totals	0	0	0

Submitted by: Grace Park, Ed.D.

Title: Assistant Superintendent, Curriculum, Instruction, Innovation, and Support