

## **Description of Classes**

### **1. Design an Alien – Art and Science**

Europa Clipper is scheduled for launch on October 10<sup>th</sup>. Europa Clipper's main science goal is to determine whether there are places below the surface of Jupiter's icy moon, Europa, that could support life. Students will learn about the signs of life that scientists look for on other worlds. Next, they will imagine and draw their own alien that can survive with the traits and environmental conditions that come up when they roll a die.

### **2. KAPLA Challenge -Engineering**

KAPLA Challenge stimulates both body and mind: analyze the structures to understand their logic, practice assembly methods, and master the limits of balance. Concentration and perseverance will be required to keep your Challenge model balanced. Students will then design their own structure and challenge each other to build it.

### **3. Soda Straw Rockets – Engineering**

Students will practice the engineering design process. This activity provides students with a template that creates a rocket that can be launched from a soda straw. They are then challenged to modify the design to see how the changes impact the rocket performance. Length, fin shape or angle can be changed – one variable at a time – to see how the rocket launch performs, and compares to the control design

### **4. Rocket Heavy Lifting – Engineering Technology**

NASA's Artemis program will return humans to the Moon by sending the first woman and the first person of color to the lunar surface. A foundational piece of the program is NASA's Space Launch System, or SLS, a rocket that will allow for human exploration beyond Earth's orbit. Students will construct balloon-powered rockets to launch the greatest payload possible. Each student will receive identical parts with which they construct their rockets. The goal is to carry the heaviest payload (paperclips) possible.