### **WORKSHOPS**

# Mars Lander Challenge (30 – 60 minutes)

Did you know that NASA's Rover, Perseverance, is on its way to Mars right now? How will it land when it reaches the Red Planet in the spring of 2021? In this virtual workshop video, young engineers will discuss Mars' unique characteristics and its challenging landing conditions. Then, they will follow along in a hands-on activity to design, construct, and test multiple solutions to meet the criteria for successful Mars landing.

# Our Amazing Moon (30 – 60 minutes)

Explore all there is to know about the Moon! In this virtual workshop video, young astronomers will observe the Moon's unique features and discover how they were formed. They will create a model revealing how the Moon changes phase and use critical thinking to explain the phenomena involved. Then, they will learn about the future of moon explorations and long-term life in space!

### **PLANETARIUM SHOW**

## Passport to the Solar System (45 minutes)

Take a trip through our Solar System in this virtual planetarium experience! Follow along as we discover the different elements that make up a solar system and what makes ours unique. Learn about the different worlds that exist, from planet to planet, and how their position in our Solar System determines almost everything about them.

### **SCIENCE SHOWS**

### Rocket Fuel Lab (20 – 45 minutes)

Are you ready for launch? In this virtual science show, young aerospace engineers will discover what it takes to reach the stars! They will learn about historic rockets, their accomplishments, and their aerodynamic design. Then, in a series of explosive demonstrations, they will analyze the different types of fuel that can be used to power rockets and discuss how engineers select the right kind for a mission to space.

# The Chill Zone (20 – 45 minutes)

Journey to the chill zone of outer space where extreme ice exists! In this virtual science show, young scientists will observe the characteristics of three different types of ice and learn about the physical conditions necessary for their formation. In a series of demonstrations, they will predict and explain what happens to everyday objects exposed to the extremely cold ices and discuss where these icy conditions can, and cannot, be found in our Solar System!