

# FIELD TRIP WORKSHOPS

## 2019-20

| WORKSHOP TITLES BY GRADE LEVEL | K | 1 | 2 | 3 | 4 | 5 | 6 | 7-8 | 9-12 |
|--------------------------------|---|---|---|---|---|---|---|-----|------|
| Our Amazing Moon               | х | х | х | х |   |   |   |     |      |
| Wacky Weather                  | х | х | х | х |   |   |   |     |      |
| Astronaut Training             | х | х | х | х | х | х |   |     |      |
| Our Solar System               |   |   |   | х | х | х | х | х   |      |
| Mars Lander Challenge          |   |   |   | х | х | х | х | х   |      |
| Surviving in Space             |   |   |   | х | х | х | х | х   |      |
| Climate Change                 |   |   |   |   | х | х | х | х   |      |
| Voyage to Mars (CLC)           |   |   |   |   |   | х | х | х   | х    |

### WORKSHOP DESCRIPTIONS

#### Astronaut Training

Grades: K-5

What do astronauts do to prepare for a mission to outer space? Do you have what it takes? In this workshop, students will test their ability to survive and work in space. Through their training, they will encounter different challengers and collaborate in teams to solve them, just like NASA astronauts do!

#### **Climate Change**

Grades: 4-8

How is Earth's climate changing? In this workshop, junior environmentalists will investigate global climate trends and interpret their findings to make predictions about the future. Students will analyze and evaluate their ideas - looking at what this means for global weather patterns, the oceans, and life on Earth - then work together to come up with practical solutions.

#### Mars Lander Challenge

Grades: 3-8

Did you know NASA is planning to send a rover to Mars this summer? How will it land when it reaches the Red Planet in 2021? Young engineers will start with an interactive briefing about Mars and its challenging landing conditions. Then, they will collaborate to design, construct, and test multiple solutions to meet the criteria for a successful Mars landing.

#### **Our Amazing Moon**

Grades: K-3

When you gaze into the night sky, you can see Earth's only natural satellite, the moon. In this workshop, young astronomers will explore the moon by modeling asteroid impacts, investigating craters, and discovering what makes our moon special.

#### Our Solar System

Grades: 3-8

Are we really just a speck in the great big Universe? In this workshop, young astronomers will quest deep into our galaxy and explore the eight planets in our solar system. Along the way, students will create models to understand the size and scale of the planets and the universe beyond.

#### Surviving in Space

Grades: 3-8

How can humans live in space? In this workshop, young engineers will explore the factors that affect survival on other planets. Students will collaborate to plan, sketch, and build their designs. Then, they will test their habitats against the extreme conditions of outer space.

## Wacky Weather

What causes weather? How is it studied? First, junior meteorologists will use tools to interpret and analyze weather observations. Then, they will investigate the three elements that make up our weather and study how they interact.

## Voyage to Mars Challenger Learning Center (CLC)

Grades: 5-12

Fasten your seatbelts for an action-packed and immersive adventure to Mars! Using imagination, wit and drama, students will engage in hands-on experiments, research, analysis while solving emergencies on a realistic simulated space mission.

The CLC uses space-themed activities and roleplaying to bring STEM classroom studies to life. The experience cultivates the confidence and skills essential to future success, including problemsolving, critical thinking, communication and teamwork. Teachers will be given pedagogical materials to both prepare students for their mission and help them debrief afterward.