

# **STEM CAREER** Architect: Building a House on Mars

### **Adventure Description:**

In this adventure, you will think like an architect and design the first house on Mars!

### Activity

### Step 1: Background on Architects (5 minutes)

- Ask students if they know who designs houses. Explain that there are many people who help design houses. One person is called an architect.
- As a class, discuss what architects do.
- Explain to students that before designing a house, architects have to understand what the weather is like in the place the house will be.
- Ask students why it is important for architects to learn about the weather before they build a house.
- Show Handout: Weather and Houses. Discuss why architects must know about weather.

### Step 2: Designing a Home on Mars (15 minutes)

- Explain to students that some architects are designing houses in space! Architects want to figure out the best way to design houses on Mars, a planet that is far away. No one has built a house on Mars before. Show Handout: Mars.
- To build a house on Mars, architects need to know about the weather there. Show Handout: Weather on Mars. As a class, read through what the weather is like on Mars.
- Discuss how it is windy and dusty on Mars! The temperature also changes a lot. It can be hot in the morning and cold at night.

Please contact Allison Bischoff, Director of Teacher Support, at allison@rozzylearningcompany.com or 314-272-2560 with questions.



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- Next, explain to students that architects have come up with an idea for a house on Mars.
- Explain to students that they will need to come up with their own design for a house on Mars.
- Provide students with Handout: Designing a House on Mars.
- As a class, read through the steps. Have students circle the shape that their house will be. As a class, brainstorm ways that a house can be built in a place that is windy, dusty, and has temperature changes.

### Step 3: Building a House on Mars (10–15 minutes)

- Explain to students that they will now build a prototype of their house. A prototype is a small example of what the house will look like.
- Provide students with art supplies and building materials to build their house for Mars.
- Students can work in pairs or individually to build their house.
- When students are finished building, have them present their houses to the class. Have students explain how they designed their house for people who will live on Mars.

#### **Materials List**

#### **Provided online:**

- Handout: Weather and Houses
- Handout: Mars
- Handout: Weather on Mars
- Handout: Designing a House on Mars

### Not provided:

• Art supplies and building materials

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