



GRADES 4-5

## Our Solar System

Explore the many worlds—planets, moons, dwarf planets, comets, and asteroids—that orbit the Sun. Our Solar System is much more than a star and eight planets; it is home to a set of diverse and amazing objects that we are only beginning to understand.

### Guide Overview

This guide includes suggestions for how to engage your students and facilitate an age-appropriate learning experience in the **Our Solar System** exhibit.

## Highlights & Related Questions



- FIND** Have the students find and investigate the information panel about their favorite planet.
- DO** Encourage the students to interact with the iPad, seeing the planet and its moons up close. Have the students compare and contrast the planet they chose to Earth.
- ASK** List some things you didn't know about this planet before. Describe features of the planet that are similar to or different from Earth.



- FIND** Have the students find the large meteorite on the table near the café.
- DO** Encourage the students to touch the meteorite sample. It's from space!
- ASK** What is a meteorite? **A piece of rock or metal from space that has fallen to Earth. This one likely originated from the Asteroid Belt between Mars and Jupiter.** Can you use context clues to guess what it's made of? **Metal, mostly iron and nickel.**



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- FIND** Direct the students to find the Make an Impact station near the meteorite.
- DO** Have them wait for the countdown to reach zero, then press the red button. Beware! The sound is loud!
- ASK** What happened when you pushed the button? **Something shot at the flour.** What do you see in the white powder? **You can see a crater, or hole that results from an impact.** What do you think the event represents? **It represents a meteorite impact event.** Can you spot a nearby image of a crater on the Earth? Can you spot a crater on another planet?



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- FIND** Have the students locate the model of the Mars Rover. Explain that this is a model of the Spirit and Opportunity rovers that have been on Mars since 2004, investigating the surface and sending back information to Earth.
- DO** The rover moves at about 1 centimeter a second. A centimeter is about the size of an M&M candy. Have the students move 1 centimeter a second for 10 seconds.
- ASK** Did you move fast or slowly? Why do you think the rover moves so slow? **Answers can include time to receive and send signals, so that the rover doesn't crash, the rover is taking scientific measurements.** Which parts of the rover can you identify? **Answers can include wheels, camera, solar panels.** What might they be used for? **Wheels to move around, a camera to take pictures, solar panels for energy.** What sorts of things would we want to learn about Mars by going there? **We want to learn about the climate and geologic history, including if there was ever liquid water on the surface.** What do you think it would be like to visit Mars? **Answers could include cold, dusty, rocky.**