

EMPOWERED LEARNING LESSON PLAN

•**Grade:** 4th

•**Unit:** Astronomy

Standards:

4.E.3A.1 Develop and use models of Earth's solar system to exemplify the location and order of the planets as they orbit the Sun and the main composition (rock or gas) of the planets.

4.E.3A.3 Construct scientific arguments to support claims about the importance of astronomy in navigation and exploration (including the use of telescopes, astrolabes, compasses, and sextants).

Ignite Curiosity

Present **videos** about NASA's plans to visit and research Mars, and pose a **problem-solving** scenario that will task students with **creating** parachutes for landing on Mars.

Investigate

Students will **research** the characteristics of Mars and parachutes to **design** a parachute appropriate for the Martian atmosphere.

Groups will rotate through stations to **investigate** various resources and record their findings, as well as sources.

Invite Connections

Independently, students use their findings to **design** parachutes to meet the given criteria. Once designed, students can **share ideas** with partners or small groups to get **feedback**.