

Beyond the Workshop: Mars Lander Challenge

In our Mars Lander Challenge workshop, you learned about the different methods scientists and engineers use to successfully land rovers on Mars. But what happens after touch down?

Explore

Use this website to explore how the design of Mars rovers has evolved over time:

[Science News: Mars Rovers](#)



Guide your exploration

1. How have the energy sources of rovers changed over time?
2. How does changing an energy source allow for further exploration?
3. Opportunity was the first rover to find proof that there was once liquid water on Mars. Why were scientists eager to learn this? Why is water of such interest?
4. With every new rover on Mars, scientists add more equipment to allow for data collection. What type of information would you want to seek out using a rover? What type of instrument would you design in order to

Explore

Watch this video to learn more about the engineering of the Perseverance rover:

[YouTube: Perseverance Rover](#)



Guide your exploration:

1. What is the heat source in the Perseverance rover? How is that heat converted into electricity?
2. Perseverance was accompanied by a drone called Ingenuity, which allowed for the first powered flight on a planet other than Earth. What difference in Mars' atmosphere makes flight difficult? What adjustments were made to Ingenuity to compensate for atmospheric differences?

Engage

Create a cardboard rover that can move out of household items:

[NASA: Make a Cardboard Rover](#)

