

SMARTYPANTS

Mars Rovers



Mars is the 4th planet from the sun. It is the second smallest planet. Mars is a close neighbor to the Earth and can be seen in our night sky. When you look at the planet it is an orange-red color and is called the Red Planet. It looks red because there is no water on the surface of Mars, just soil that is a rusty color. As the sun shines on the soil the light bounces back and what we see are those reflected light rays.

Scientists are very interested in studying Mars for many reasons. One reason is people have always liked to learn how things are made and what they are made of. They also want to know how those things can help humans. Another reason to study the red planet is to see if humans can open mines to get things like iron, gold, silver and more. A third reason is get enough information to see if humans would be able to take a trip and visit the planet. To study Mars, scientists have been sending rovers. A rover is a remote control vehicle driven by people here on Earth.

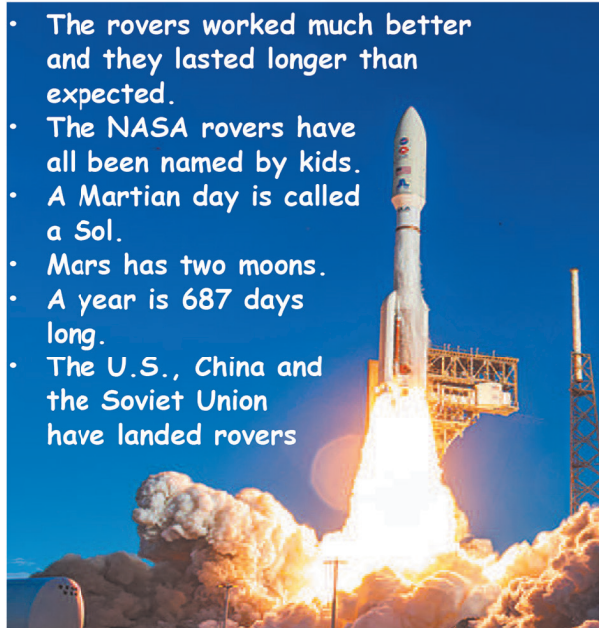
The rover's jobs are to help scientists understand what Mars is made of, what the air and weather is like and map the planet. To do that the rover needs some really special computerized equipment. There is a radar to map what is below the surface. A laser that helps map the surface. Cameras that help scientists see what the rover is seeing. A complete weather station that measures wind speed and temperatures. A spectrometer helps the scientists see what something is made of and what it is shaped like. The rovers have something called an orbiter. The orbiter circles Mars. As the orbiter flies over the place the rover is, the rover sends information to the orbiter. Then the orbiter sends the information to Earth.

Can you unscramble these words?

- RMSA _____
- RROEV _____
- RDARA _____
- EPTLAN _____
- PXROELE _____
- HRGONEBI _____
- CUFAESR _____
- FTEDLREEC _____
- ATEERWH _____
- OIRRETB _____
- EMUAESR _____
- SNITITESC _____

Fun Facts

- The rovers worked much better and they lasted longer than expected.
- The NASA rovers have all been named by kids.
- A Martian day is called a Sol.
- Mars has two moons.
- A year is 687 days long.
- The U.S., China and the Soviet Union have landed rovers



Read more about Rovers!

- Welcome to Mars by Buzz Aldrin
- Curiosity: The Story of the Mars Rover by Markus Motum
- NASA Mars Mission for Kids by Kate Whitcomb


What did Mars say to Saturn?



"Give me a ring sometime."



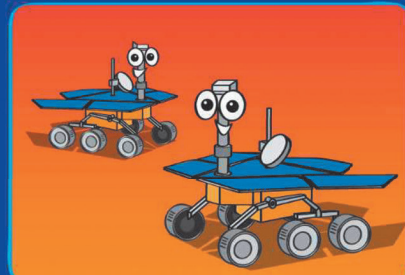
1 Sojourner
Mars Pathfinder Mission



Landed on Mars: July 1997
Specialty: Being the first wheeled robot to rove the Red Planet.

Weight: 23 lbs
Top Speed: 0.02 mph
Toolkit: 2 science instruments

2-3 Spirit & Opportunity
Mars Exploration Rovers Mission



Landed on Mars: January 2004
Specialty: Finding evidence of water on Mars.

Weight: 374 lbs (each)
Top Speed: 0.1 mph
Toolkit: 5 science instruments

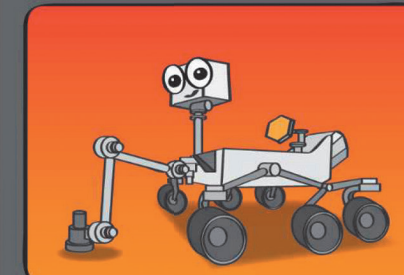
4 Curiosity
Mars Science Laboratory Mission



Landed on Mars: August 2012
Specialty: Finding out if Mars once had what all life needs: lasting water and the right chemical ingredients.

Weight: 1,982 lbs
Top Speed: 0.09 mph
Toolkit: 10 science instruments

5 Perseverance
Mars 2020 Mission



Landed on Mars: February 2021
Specialty: Look for signs of past or present life — and see if humans could one day explore Mars.

Weight: 2,260 lbs
Top Speed: 0.09 mph
Toolkit: 7 science instruments