



## Cool Career

### Planetary Scientist

Pascal Lee

Mars Institute/SETI Institute

### Ready, Set, Go!

Pascal Lee has high hopes of sending you to Mars. That's right. Pascal and his team are preparing a future mission—the first human mission to Mars. It will be the biggest achievement ever in space exploration history. One thing on Pascal's to-do list is learning how to drive rovers on the Red Planet. They're not real rovers, but souped-up Humvees. And they're not on the real Mars, but on an Arctic island that looks like Mars. "It's like a gigantic Hollywood set—a *real* Mars park," Pascal says.



### Mars Mimic

The island is a rocky and cold desert, with no roads or trees. Perfect—just like Mars! Pascal experiments with different techniques and technologies for exploring the real Mars. How to navigate the tough terrain, and other lessons Pascal learns, will help future astronauts be better Mars explorers.

### Life on Mars?

Astronauts will drive rovers long distances across the Red Planet to gather clues. What mystery will they try to solve? Whether Mars ever was—or still is—wet enough to support primitive life. Investigating that question and preparing for human exploration of Mars are just two of Pascal's passions. He has also explored Mars-like terrain at the other end of Earth—Antarctica—where Pascal searched for meteorites. How cool!

**A planetary scientist** studies the planets, their moons and rings, and other objects in our solar system. Pascal studies the history of water on Mars—and whether life could have developed there. Other **planetary scientists**

- > study the atmosphere of other planets.
- > analyze the makeup of rocky asteroids and icy comets.
- > search for pockets of liquid water below the surface of Jupiter's moons.



Pascal tests a space suit in his giant outdoor lab—Devon Island in the Arctic.

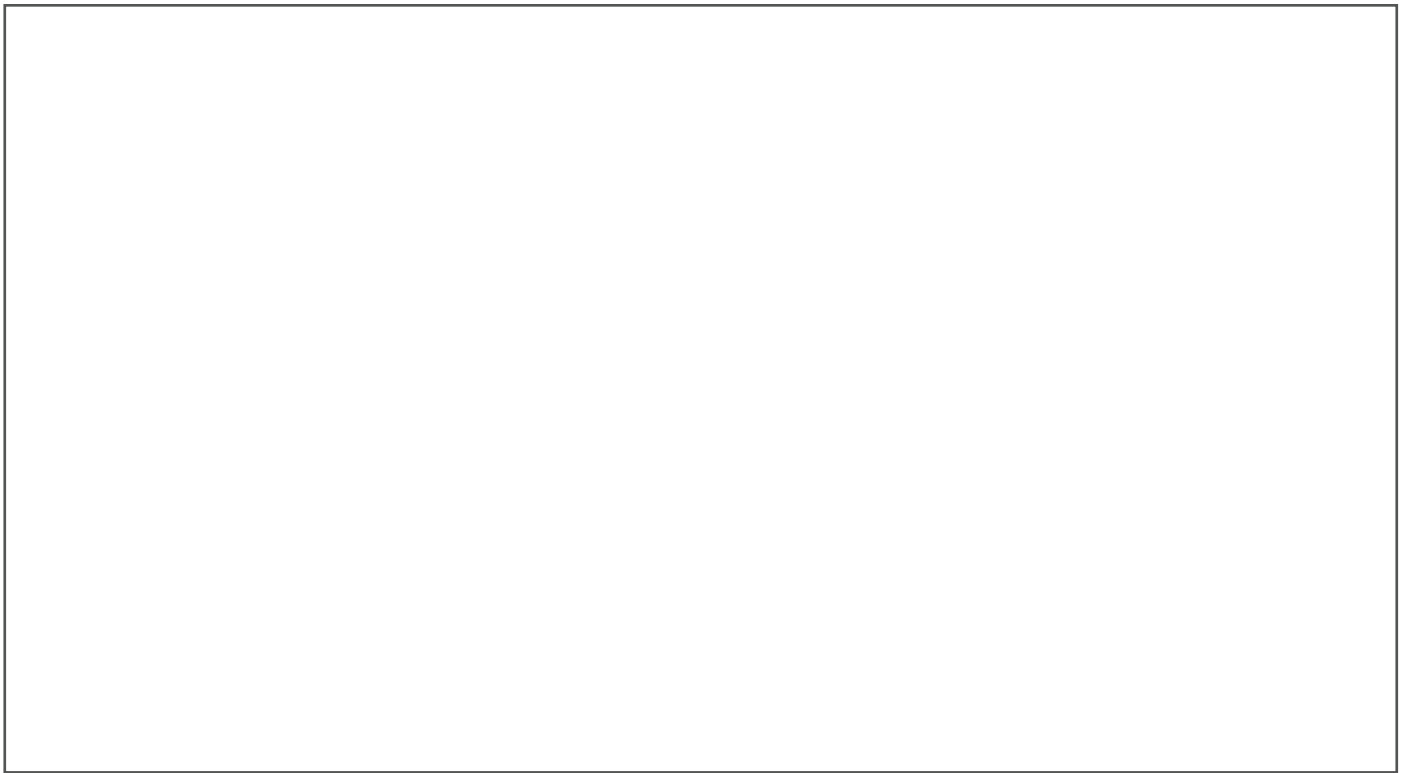
After you read about Pascal Lee, do these activities.

## Roving Mars

Robotic rovers exploring Mars are operated remotely by scientists back on Earth. The rovers usually have a main body to hold a computer; a camera to snap pictures; instruments to analyze the air, soil, and rocks; and solar panels to generate electricity to run on. Someday, astronauts will explore Mars. Imagine you're an engineer. Get to work and design a rover to carry astronauts. Label its parts and include a caption that describes what it does. Here are some things to think about. The rover must:

- > go over rocks, into craters, and through deep sand.
- > withstand below-freezing temperatures.
- > support heavy weight.
- > send data back to Earth.
- > store food, water, oxygen, and other supplies.
- > use renewable energy.

### Draw your design here



**Caption:** \_\_\_\_\_

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### If You Can Dream It . . .

When Pascal was a young boy in Hong Kong, he dreamed of space travel and exploration. He worked to make his dream come true. What are some things you can do today and the rest of the year to make your dream come true? Write down at least three ideas.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_