



Read the space science story carefully. Then answer each question below in a full sentence.

Look for the cause — the discovery or event — and trace each effect it produced. Space events can have surprising effects right here on Earth!

Mars Rover's Big Discoveries

"Can you believe we're getting rocks from another planet?" asked Leo, pointing at the news. In February 2021, NASA's Perseverance Rover successfully landed on Mars, beginning its mission to explore the Jezero Crater. This robotic explorer, roughly the size of a car, was designed to search for signs of ancient microbial life and collect precious rock and soil samples. Its landing was a huge step forward in space exploration .



Over the next few months, Perseverance diligently gathered samples, sealing them in special tubes. Scientists on Earth eagerly awaited data, and early findings suggested the crater once held a lake. More excitingly, the rover detected organic molecules, which are the building blocks of life. These discoveries sparked immense excitement among astrobiologists and planetary scientists .



The evidence of ancient water and organic molecules significantly boosted plans for the Mars Sample Return mission. This ambitious project aims to bring Perseverance's collected samples back to Earth for detailed study in advanced laboratories. Engineers immediately began designing new spacecraft and containment systems to ensure the samples could be safely transported and analyzed without contamination .



A fourth-grade student named Maya watched a documentary about Perseverance. Inspired by the idea of life beyond Earth, she started a



school project on astrobiology, learning about extremophiles and the conditions for life. Her project quickly became the most popular in her class, showing how discoveries far away can spark big dreams right here on Earth .



COMPREHENSION QUESTIONS

- (1) **What was one of the main goals of the Perseverance Rover's mission on Mars?** 📡
- (A) To build a new colony for humans.
 - (B) To search for signs of ancient microbial life.
 - (C) To plant trees on the Martian surface.
 - (D) To race against other rovers.

- (2) **Complete the sentence: Because the Perseverance Rover found evidence of ancient water and organic molecules, _____** 💧 .

— continue writing on the lines below

- (3) **What did engineers start designing after the initial discoveries by Perseverance?** ⚙️

- (4) **Describe how the Perseverance Rover's initial findings led to new engineering designs and inspired a student.** 👨🏫



(5) What might have happened if the Perseverance Rover had NOT found signs of ancient water or organic molecules? Explain. ?

(6) How did the Perseverance Rover's landing contribute to space exploration? ✨

