

## Perseverance – the Mars rover – part 2

Choose (one of) the correct tense(s) for each verb in this text:

The NASA \_\_\_\_\_ the Jezero Crater as the landing site for Perseverance because it is a paleolake – an old lake basin. Scientists think that it is possible that bacteria once \_\_\_\_\_ in this place. Paleolakes often contain perchlorates, and some bacteria, which scientists \_\_\_\_\_ on Earth, obtain energy from chemical reactions that reduce perchlorates. If it is true that these bacteria \_\_\_\_\_ millions of years ago in this place, then Perseverance might be able to find some evidence in it.

Before Perseverance \_\_\_\_\_ on Mars in February 2021, however, **Sojourner**, the first Mars rover, \_\_\_\_\_ in July 1997. Sojourner \_\_\_\_\_ the first wheeled vehicle to rove on a planet other than Earth.

Its creators \_\_\_\_\_ the rover with front and rear cameras, and hardware to conduct several scientific experiments. Designed for a mission lasting 7 sols (Martian days), with a possible extension to 30 sols, it \_\_\_\_\_ finally active for 83 sols (85 Earth days). The rover last \_\_\_\_\_ with Earth in October 1997.

**Spirit** and **Opportunity** \_\_\_\_\_ twin rovers. Opportunity \_\_\_\_\_ on Mars on January 25, 2004. Spirit \_\_\_\_\_ on Mars three weeks earlier and it \_\_\_\_\_ the Martian rocks since then. The NASA engineers \_\_\_\_\_ them for an operational life of only three months or so, but Opportunity, which \_\_\_\_\_ solar power to recharge its batteries, \_\_\_\_\_ operational for over 14 years, while Spirit, which \_\_\_\_\_ in 2009, when it \_\_\_\_\_ stuck, \_\_\_\_\_ transmitting in 2010. By June 10, 2018, when Opportunity last \_\_\_\_\_ NASA, the rover \_\_\_\_\_ a distance of 45.16 kilometers.

Finally, **Curiosity**, which \_\_\_\_\_ on Mars in August 2012, \_\_\_\_\_ operational since then, for a total of over 9 years in 2021. The rover's goals include investigating the Martian climate and geology, finding out whether the selected area of study \_\_\_\_\_ environmental conditions favorable for microbial life (including investigation of the role of water), and carrying out planetary habitability studies in preparation for human exploration.

As for **Perseverance**, the rover's goals include identifying ancient Martian environments capable of supporting life, seeking out evidence of former microbial life existing in those environments, collecting rock and soil samples to store on the Martian surface, and testing oxygen production from the Martian atmosphere to prepare for future crewed missions.