

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.