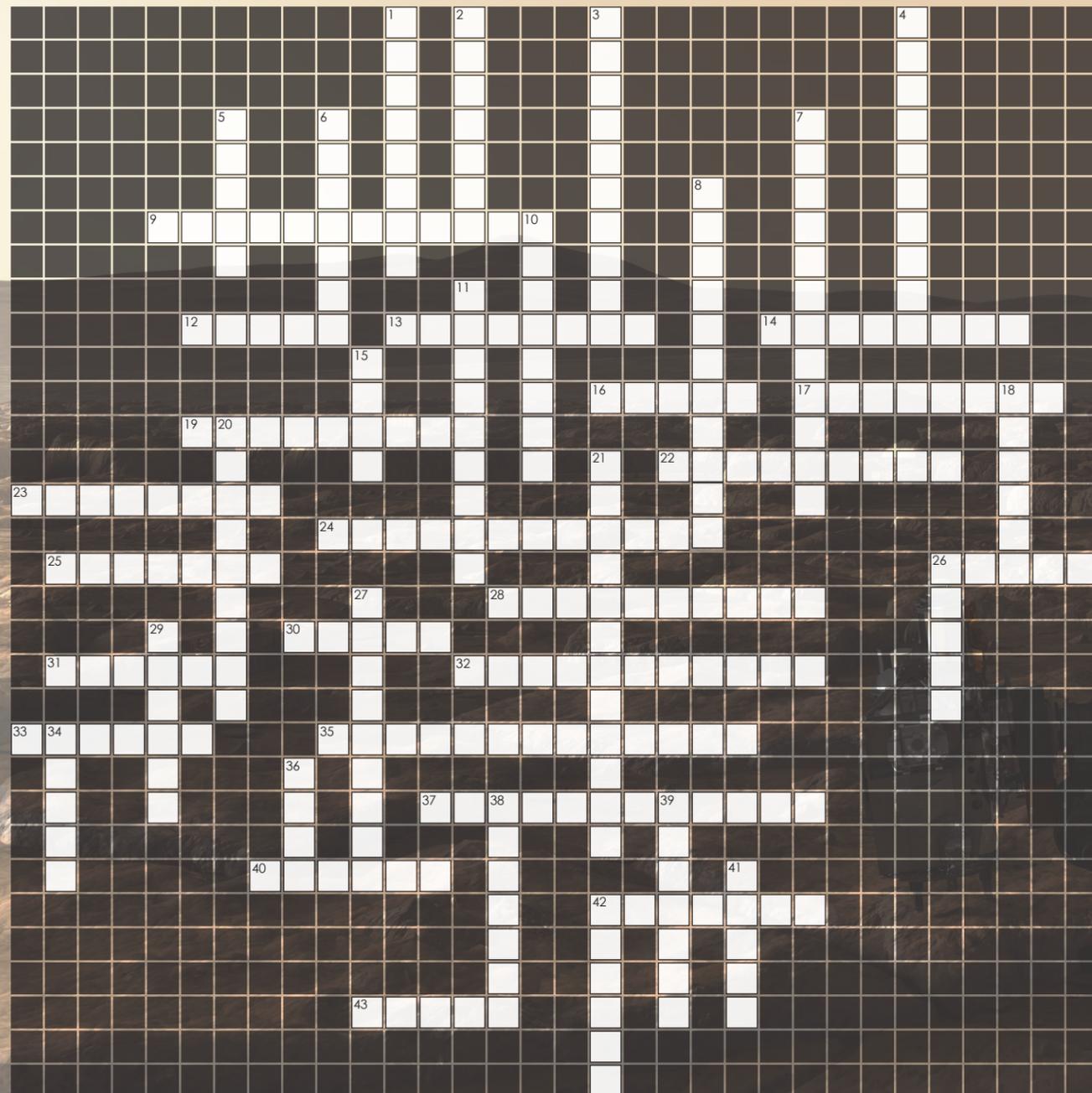


Mission to Mars 2020 **CROSSWORD**

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Mars 2020 is a NASA rover mission with a targeted launch date of July 17, 2020. The rover and its companion helicopter drone are set to land within a Martian crater on February 18, 2021. The mission will investigate the possibility of past life having existed on Mars. The rover will cache sample containers along its route for a potential future Mars sample-return mission.



DOWN:

1. The electronics used to control planes, helicopters, drones, and other flying mechanisms.
2. Microorganism. Generally microscopic.
3. A chemical used to create force to move a rocket in a direction.
4. The ability for a robot to act without direct input from a human. The Mars 2020 helicopter will fly itself.
5. Acronym for Multi-Mission Radioisotope Thermoelectric Generator. Used to power the Mars 2020 rover.
6. Resistance of a body to change velocity.
7. Name of the Mars 2020 rover. Tenacity, unwillingness to give up.
8. To pollute areas or surfaces with debris or microorganisms.
10. A rocket powered raft system that will provide the last, gentle landing stage of the Mars 2020 rover.
11. A manufacturing environment free from dust and other contaminants. A room in which the Mars 2020 rover will be assembled.

ACROSS:

15. The fourth planet in the solar system.
18. Identify the presence of something
20. Name of the helicopter riding along with the Mars 2020 rover. A quality of being clever and inventive.
21. Studies the potential for life existing and developing on planets other than Earth.
26. A detection system. Uses high-frequency waves to detect location, movement, and speed of an object.
27. An environment that life can exist or survive in. Begins with "H".
29. A synthetic fiber with high tensile strength and often used in bullet-proof vests and parachutes.
34. A Greek titan. The name of the rocket type that will launch the Mars 2020 rover.
36. Related to geology. A sample taken by boring into soil and taking a cylindrical piece for analysis.
38. A rock type typically green in color on Earth's surface. A silicate mineral that weathers easily.
39. A protective outer surface of a spacecraft to protect it from the heat of atmospheric re-entry.
41. Open source operating system. Used for the Mars 2020 helicopter computer.
42. Large bowl shaped cavity typically caused by an explosion or meteorite impact.
9. A rocket providing thrust opposite of the motion of vehicle.
12. Geography - triangular tract of land deposited at the mouth of river. Useful for finding biosignatures.
13. Distance gained over time in one direction. Speed.
14. Makes up ~41% of Earth's crust and is a sign of volcanism on Mars' surface. Begins with "F".
16. Acronym for Mars Oxygen ISRU Experiment, also a word for determination or nerve.
17. The height of an object relative to the ground.
19. The number of bacteria on a surface that hasn't been sterilized.
22. A cloth canopy used to slow the descent of body from free-fall.
23. Tendency of a mineral to break along planar surfaces determined by its crystal lattice.
24. An isotope that emits radiation as it decays.
25. Very old. The distant past. Life may have existed on Mars in _____ times.
26. Helicopter component. A rotating axis of radiating airfoils horizontal to the lifted body.
28. An envelope of gases surrounding a planet. Mars has a very thin one.
30. Soft, stratified sedimentary rock that can be split easily into fragile slabs. Common on Mars surface.
31. The act of a rocket moving up through the air.
32. A type of feldspar mineral that is typically transparent, glassy, and brittle. A silicate.
33. A dark, fine grained volcanic mineral. The Martian crust consists mainly of this mineral.
35. A layered rock created by cyanobacteria. Theorized to be near the Mars 2020 landing site.
37. AKA chemical or molecular fossil. Can provide scientific evidence of past or present life on a surface.
40. The crater landing site for the Mars 2020 rover. Named for a town in Bosnia and Herzegovina.
42. Along the same axis.
43. A collection of items in a secure place. The Mars 2020 rover will place samples in this.