

Determining the Atmospheres of the TRAPPIST-1 Planets

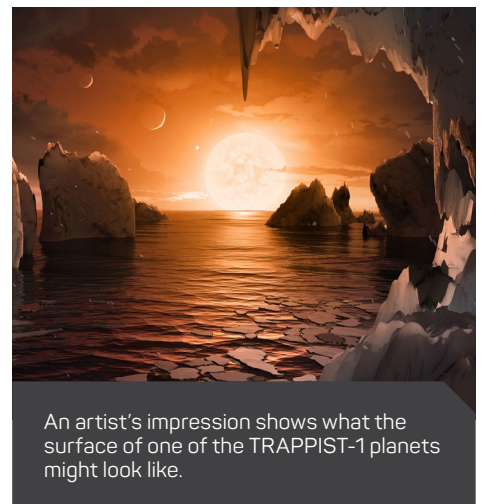
Astronomers will use the James Webb Space Telescope to study the atmospheres of planets beyond our solar system.



The Webb telescope will collect data on the chemical composition of the atmospheres of the TRAPPIST-1 planets.

LEARN MORE:
nasa.gov/feature/goddard/2017/probing-seven-worlds-with-nasas-james-webb-space-telescope

Earth's atmosphere, mostly composed of oxygen and nitrogen gas, allows our planet to support life. Finding exoplanets is important and exciting, but astronomers are also eager to study the atmospheres of these distant planets. This could help reveal whether those worlds might harbor life. NASA's Webb telescope will carry instruments that can look for the chemical signatures of substances such as water vapor, carbon dioxide, and methane in planetary atmospheres. Methane can be produced by geological processes like volcanism, but also by biological processes. Discovering methane on a TRAPPIST-1 planet would help spur more exploration to determine if life is present!



An artist's impression shows what the surface of one of the TRAPPIST-1 planets might look like.