



6 Heart Health Supplements to Avoid Now

Description

Scientists have made an exciting discovery about planets beyond our solar system, called exoplanets. They have found something special in the atmosphere of an exoplanet named K2-18 b, which is about 120 light-years away from Earth. This planet is interesting to scientists because it is in an area around its star where it isn't too hot or too cold. This means there might be liquid water on it, which is important for life.

Using a powerful telescope in space, the James Webb Space Telescope, scientists looked at K2-18 b closely. They found signs of a gas called dimethyl sulfide (DMS) in the planet's atmosphere. On Earth, DMS is only made by living things, like plankton in the ocean. This finding makes scientists wonder if there could be life on K2-18 b.

The telescope also found other gases, like methane and carbon dioxide, in K2-18 b's atmosphere. These gases suggest that the planet might have oceans. However, scientists are careful and say that more research is needed to be sure about these findings. The study of K2-18 b helps scientists learn more about exoplanets and which ones might have conditions for life.

While this discovery is exciting, it doesn't mean scientists have found life on K2-18 b yet. It does, however, give them hope and direction for future research. They plan to keep observing the planet and maybe find more signs of life. As technology improves, scientists believe they will learn even more about these faraway worlds and the possibilities they hold.

Vocabulary List:

1. **Exoplanets** /'ɛk.səʊ.plæn.ɛts/ (noun): Planets that exist outside our solar system.
2. **Atmosphere** /'æt.məs.fɪr/ (noun): The envelope of gases surrounding the Earth or another planet.
3. **Sign** /saɪn/ (noun): An indication of something.
4. **Suggest** /sə'dʒest/ (verb): To put forward for consideration.
5. **Discovery** /dɪs'kʌv.ər.i/ (noun): The act of finding or learning something for the first time.
6. **Conditions** /kən'dɪʃ.ənz/ (noun): The circumstances affecting the way in which people live or work.

Comprehension Questions



Multiple Choice

1. How far away from Earth is the exoplanet K2-18 b?
Option: 50 light-years
Option: 120 light-years
Option: 200 light-years
Option: 300 light-years
2. What type of telescope was used to observe exoplanet K2-18 b?
Option: Hubble Space Telescope
Option: James Webb Space Telescope
Option: Kepler Space Telescope
Option: Spitzer Space Telescope
3. What gas was found in the atmosphere of K2-18 b that is typically produced by living organisms on Earth?
Option: Methane
Option: Carbon Dioxide
Option: Dimethyl Sulfide (DMS)
Option: Oxygen
4. Which of the following gases suggests the possibility of oceans on K2-18 b?
Option: Nitrogen
Option: Oxygen
Option: Methane
Option: Carbon Dioxide
5. What is the main reason why K2-18 b is of interest to scientists?
Option: Extreme temperatures
Option: Possibility of liquid water
Option: High radiation levels
Option: Lack of atmosphere
6. What does the discovery of DMS in the atmosphere of K2-18 b lead scientists to speculate about?
Option: Possibility of methane oceans
Option: Existence of intelligent life
Option: Potential for plankton-like organisms
Option: Extreme temperatures



True-False

7. K2-18 b is located in a region where it is either too hot or too cold for life to exist.
8. The James Webb Space Telescope was used to observe exoplanet K2-18 b.
9. The discovery of DMS in the atmosphere of K2-18 b definitively confirms the presence of life on the planet.
10. Exoplanet K2-18 b is located within our solar system.
11. The study of K2-18 b helps scientists understand more about exoplanets with potential conditions for life.
12. The possibility of oceans on K2-18 b is suggested by the presence of methane in its atmosphere.

Gap-Fill

13. K2-18 b is approximately _____ light-years away from Earth.
14. The gas dimethyl sulfide (DMS) found in the atmosphere of K2-18 b is typically produced by _____ on Earth.
15. Scientists hope that future research will provide more concrete evidence about the presence of _____ on K2-18 b.
16. The James Webb Space Telescope is a powerful tool for observing _____ in space.
17. The presence of _____ in K2-18 b's atmosphere raises the possibility of oceans on the planet.
18. K2-18 b is situated in an area where the conditions may support the existence of _____.



Answer

Multiple Choice: 1. 120 light-years 2. James Webb Space Telescope 3. Dimethyl Sulfide (DMS) 4. Carbon Dioxide 5. Possibility of liquid water 6. Potential for plankton-like organisms

True-False: 7. False 8. True 9. False 10. False 11. True 12. False

Gap-Fill: 13. 120 14. living things 15. life 16. planets 17. carbon dioxide 18. liquid water

Answer

CATEGORY

1. Health - LEVEL3

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