



Nearby Alien World Potentially Habitable: Astronomers' Discovery

Description

Astronomers have found a planet near us that could have the right conditions for life. It's called HD 20794 d and is about 6 times bigger than Earth. It goes around a star like the Sun, where there could be liquid water. This discovery is exciting because it shows that life-friendly planets might be close to us.

Scientists are still not sure if HD 20794 d can support life. But they know that for life to exist, there must be water. This planet is in a place around its star where water could be liquid. This area is called the habitable zone.

The star HD 20794 is like the Sun but a bit smaller and older. In 2011, astronomers found three planets around it, but now they have found HD 20794 d. This planet is about 20 light-years away from us and could be one of the closest planets to Earth. More research is needed to know more about it.

This discovery is very important in our search for other habitable planets in space.

Vocabulary List:

1. **Astronomers** /ə'strɔː.nə.mər/ (noun): Scientists who study celestial bodies and the universe.
2. **Habitable** /'hæb.ɪ.tə.bəl/ (adjective): Suitable for living; capable of supporting life.
3. **Conditions** /kən'dɪʃ.ənz/ (noun): The circumstances affecting the way in which people live or work.
4. **Liquid** /'lɪk.wɪd/ (noun): A state of matter that has a definite volume but no definite shape.
5. **Discovery** /dɪs'kʌv.ər.i/ (noun): The act of finding or learning something for the first time.
6. **Research** /'riː.sɜːrtʃ/ (noun): The systematic investigation into and study of materials and sources.

Comprehension Questions

Multiple Choice

1. What is the name of the planet that astronomers have found near us with potential conditions for life?

Option: HD 20794 a

Option: HD 20794 b

Option: HD 20794 c

Option: HD 20794 d



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2. How many times bigger is HD 20794 d compared to Earth?
- Option: 2 times
 - Option: 4 times
 - Option: 6 times
 - Option: 8 times
3. What is the name of the area around the star where water could be liquid, crucial for life to exist?
- Option: Habitable belt
 - Option: Comfort zone
 - Option: Green zone
 - Option: Habitable zone
4. Approximately how far away is planet HD 20794 d from Earth?
- Option: 10 light-years
 - Option: 15 light-years
 - Option: 20 light-years
 - Option: 25 light-years
5. Which year did astronomers find three planets around the star HD 20794?
- Option: 2005
 - Option: 2008
 - Option: 2011
 - Option: 2014
6. What is the significance of the discovery of planet HD 20794 d in the search for habitable planets?
- Option: It confirms the existence of life on other planets
 - Option: It shows that habitable planets could be closer than thought
 - Option: It proves that all planets around stars like the Sun have liquid water
 - Option: It indicates that HD 20794 d is the only habitable planet

True-False

7. Astronomers are certain that HD 20794 d can support life.
8. The star HD 20794 is smaller and younger than the Sun.
9. HD 20794 d is one of the farthest planets from Earth ever discovered.



10. Life-friendly planets have only been found in farther galaxies so far.
11. The habitable zone is the region where water can exist in liquid form on a planet.
12. Additional research is deemed unnecessary to understand more about planet HD 20794 d.

Gap-Fill

13. How many light-years away is planet HD 20794 d from Earth? Approximately _____ .
14. The star HD 20794 is similar to the Sun but a bit _____ and _____ .
15. Astronomers found three planets around HD 20794 in the year _____ .
16. Scientists are not entirely certain if planet HD 20794 d can _____ life.
17. HD 20794 d being close to Earth is significant in the search for other _____ planets.
18. In the search for habitable planets, the discovery of HD 20794 d is a/an _____ development.

Answer

Multiple Choice: 1. HD 20794 d 2. 6 times 3. Habitable zone 4. 20 light-years 5. 2011 6. It shows that habitable planets could be closer than thought

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

Gap-Fill: 13. 20 14. smaller, older 15. 2011 16. support 17. habitable 18. important

Vocabulary quizzes

Multiple Choice (Select the Correct answer for each question.)

1. Who are scientists who study celestial objects like stars planets and galaxies?
Option: Biologists
Option: Meteorologists



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- Option: Astronomers
Option: Geologists
2. Which state of matter has a definite volume but takes the shape of its container?
Option: Solid
Option: Gas
Option: Liquid
Option: Plasma
3. What are medications used to treat bacterial infections called?
Option: Painkillers
Option: Vitamins
Option: Antibiotics
Option: Antihistamines
4. What force is responsible for keeping planets in orbit around the sun?
Option: Magnetic
Option: Nuclear
Option: Gravitational
Option: Frictional
5. Which type of radiation has a wavelength just shorter than that of visible light?
Option: Infrared
Option: Ultraviolet
Option: X-ray
Option: Gamma-ray
6. The process of growth maturation and change in living organisms is known as what?
Option: Decay
Option: Development
Option: Stagnation
Option: Destruction
7. What is the term for a general decline in mental ability severe enough to interfere with daily life?
Option: Depression
Option: Anxiety
Option: Dementia
Option: Paranoia
8. What product can be applied to the skin to protect it from the harmful effects of the sun?
Option: Body lotion
Option: Sunscreen
Option: Perfume



Option: Makeup

9. What term is used to describe the effect or influence of one thing on another?

- Option: Collision
- Option: Impact
- Option: Avoidance
- Option: Detachment

10. What is the systematic investigation into and study of materials and sources to establish facts and reach new conclusions?

- Option: Guesswork
- Option: Research
- Option: Imagination
- Option: Supposition

Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. A _____ planet is one that has conditions suitable for life to exist.
12. _____ variants can play a role in the development of regulating disorders.
13. Excessive exposure to ultraviolet _____ can cause skin cancer.
14. In case of a gravitational impact it is crucial to have a plan for _____ to minimize risk.
15. A new asteroid was _____ in orbit around Jupiter.
16. Antibiotics are often used to treat bacterial infections that cause _____.
17. People with light sensitivity may benefit from wearing _____ glasses.
18. _____ trials are essential in the development of new vaccines.
19. The asteroid's _____ orbit indicated its potential to come close to Earth.
20. One way to reduce damage from solar radiation is to _____ exposure to the sun.

Matching Sentences (Match each definition to the correct word from the vocabulary list.)

21. Scientists conducted extensive to understand the effects of the new medication.



22. An is a small rocky body that orbits the sun often found in the asteroid belt.
23. The moon stays in orbit around Earth due to the pull between the two celestial bodies.
24. A is a biological preparation that helps develop immunity to a specific disease.
25. Water is a common example of a substance that flows and takes the shape of its container.
26. Doctors prescribe to treat bacterial infections and prevent their spread.
27. Genetic can lead to different expressions of traits within a population.
28. As individuals age the risk of developing and other cognitive disorders increases.
29. Applying before going out in the sun can help protect your skin from UV rays.
30. Swelling redness and pain are common symptoms of caused by infections or injuries.

Answer

Multiple Choice: 1. Astronomers 2. Liquid 3. Antibiotics 4. Gravitational 5. Ultraviolet 6. Development 7. Dementia 8. Sunscreen 9. Impact 10. Research

Gap-Fill: 11. Habitable 12. Genetic 13. Radiation 14. Evacuation 15. Discovered 16. Inflammation 17. Tinted 18. Clinical 19. Astronomical 20. Minimize

Matching sentence: 1. Research 2. Asteroid 3. Gravitational 4. Vaccine 5. Liquid 6. Antibiotics 7. Variants 8. Dementia 9. Sunscreen 10. Inflammation

CATEGORY

1. Health - LEVEL2

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