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# Exoplanets Crumbling in Space: Astonishing New Discovery

## Description

Astronomers discovered two planets orbiting very close to their stars. The stars' heat is causing the planets to break apart and leave behind comet-like debris. These planets are called ultra-short-period planets (USPs) because they orbit quickly. Only three other disintegrating planets are known to astronomers.

USPs orbit very close to their stars and are extremely hot. They are usually small, about the size of two Earths. USPs are still new to science, and researchers are learning more about them. Scientists have many questions about how USPs form, but studying them is tricky because they are so close to their stars.

Recent observations by two research teams have provided more information about these disintegrating USPs. The discoveries are detailed in two papers available online. These studies help astronomers understand more about these unique planets and push the boundaries of our knowledge about other planetary systems.

Astronomers Find Disintegrating Exoplanets Falling Apart in Space

Two very bright stars host these disintegrating planets. Researchers hope to learn more about them with the powerful James Webb Space Telescope (JWST). Studying these planets helps scientists understand what rocky exoplanets are made of.

Astronomers Find Disintegrating Exoplanets Falling Apart in Space

Observing these planets offers a unique opportunity to study planetary interiors and learn more about rocky planets in other solar systems.

This article was originally published by Universe Today. Read the original article [here](#).

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## Vocabulary List:

1. **Astronomers** /ə'strɒn.ə.mərz/ (noun): Scientists who study celestial bodies and the universe.
2. **Disintegrating** /dɪs'ɪn.tɪ.ɡreɪ.tɪŋ/ (verb): Breaking down into smaller parts or pieces.
3. **Observations** /,ɒb.zə'veɪ.jənz/ (noun): The action or process of closely observing something or someone.
4. **Exoplanets** /'ɛk.sə.plæn.ɪts/ (noun): Planets that exist outside our solar system.
5. **Researchers** /rɪ'sɜːr.tʃərz/ (noun): Individuals who conduct a careful or systematic investigation.
6. **Solar Systems** /'səʊ.lər 'sɪs.təmz/ (noun): A collection of celestial bodies including a star and the planets that orbit it.



## Comprehension Questions

### Multiple Choice

1. What are the two planets discovered by astronomers orbiting very close to their stars?  
Option: USPs  
Option: Gas giants  
Option: Dwarf planets  
Option: Satellites
2. Why are the discovered planets named ultra-short-period planets (USPs)?  
Option: Due to their rapid orbit  
Option: Due to their large size  
Option: Due to their distance from Earth  
Option: Due to their habitable conditions
3. How many other disintegrating planets are known to astronomers besides the two USPs?  
Option: 3  
Option: 5  
Option: 7  
Option: 10
4. What type of telescope do researchers hope to use to learn more about the disintegrating planets?  
Option: James Webb Space Telescope (JWST)  
Option: Hubble Space Telescope  
Option: Kepler Space Telescope  
Option: Spitzer Space Telescope
5. What do scientists aim to understand by studying the disintegrating exoplanets?  
Option: What rocky exoplanets are made of  
Option: What gases stars consist of  
Option: How galaxies form  
Option: How black holes evolve
6. What opportunity do these planets offer astronomers when it comes to studying planetary interiors?  
Option: A unique opportunity



- Option: A common chance
- Option: A challenging opportunity
- Option: An unprecedented chance

### True-False

- 7. The two discovered planets are very large in size.
- 8. Scientists have a clear understanding of how ultra-short-period planets form.
- 9. The disintegrating planets are located far away from their host stars.
- 10. A powerful telescope that researchers hope to use is the James Webb Space Telescope (JWST).
- 11. Studying these planets does not help scientists understand the composition of rocky exoplanets.
- 12. Observing these planets does not provide any unique opportunities for studying planetary interiors.

### Gap-Fill

- 13. Researchers are still learning more about ultra-short-period planets (USPs) because they are \_\_\_\_\_ to study due to their close proximity to their stars.
- 14. Only \_\_\_\_\_ disintegrating planets are currently known to astronomers besides the two recently discovered USPs.
- 15. Recent observations by two research teams have provided more information about these \_\_\_\_\_ USPs.
- 16. The powerful James Webb Space Telescope (JWST) may help researchers learn more about these disintegrating planets hosted by two \_\_\_\_\_ stars.



17. Studying these disintegrating planets helps scientists understand the composition of \_\_\_\_\_ exoplanets.

18. Observing these planets offers a unique opportunity to study planetary \_\_\_\_\_ and learn more about rocky planets in other solar systems.

## Answer

**Multiple Choice:** 1. USPs 2. Due to their rapid orbit 3. 3 4. James Webb Space Telescope (JWST) 5. What rocky exoplanets are made of 6. A unique opportunity

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

**Gap-Fill:** 13. tricky 14. three 15. disintegrating 16. bright 17. rocky 18. interiors

## Vocabulary quizzes

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

1. What are the structures that contain genetic information in a cell?

Option: Proteins

Option: Chromosomes

Option: Enzymes

Option: Lipids

2. Which term refers to planets that orbit stars outside our solar system?

Option: Galaxy

Option: Exoplanets

Option: Plasma

Option: Cephalopods

3. What term describes the variety of different species in an ecosystem?

Option: Predators

Option: Complex

Option: Diversity

Option: Intermuscular

4. What is the body's response to injury or infection characterized by redness and swelling?

Option: Symptoms



- Option: Inflammation
- Option: Resistance
- Option: Ecosystem

5. What term refers to new findings or revelations?

- Option: Discoveries
- Option: Astronomers
- Option: Solar Systems
- Option: Researchers

6. Which term describes something from a long time ago?

- Option: Evolved
- Option: Ancient
- Option: Puzzling
- Option: Plasma

7. What term describes the gradual development or change of something over time?

- Option: Astronomers
- Option: Galaxy
- Option: Evolved
- Option: Ecosystem

8. Who are the individuals who conduct experiments and studies to advance knowledge in a particular field?

- Option: Paleontologists
- Option: Galaxy
- Option: Plasma
- Option: Researchers

9. What is the ability to withstand or oppose something?

- Option: Inflammation
- Option: Symptoms
- Option: Resistance
- Option: Evolving

10. Which term refers to animals that hunt and feed on other animals?

- Option: Intermuscular
- Option: Discover
- Option: Predators
- Option: Plasma

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



11. A collection of an organism's complete set of \_\_\_\_\_ is called a genome.
12. Patients should report any unusual \_\_\_\_\_ to their healthcare provider.
13. Scientists make careful \_\_\_\_\_ to collect data for their research.
14. Technology is constantly \_\_\_\_\_ to meet the changing needs of society.
15. The study results were \_\_\_\_\_ in a scientific journal.
16. The mysterious disappearance of the artifact left archaeologists \_\_\_\_\_ over its whereabouts.
17. Squid and octopus are examples of \_\_\_\_\_.
18. The fourth state of matter after solid liquid and gas is \_\_\_\_\_.
19. Our planetary system is an example of a \_\_\_\_\_.
20. \_\_\_\_\_ study celestial bodies like stars planets and galaxies.

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

21. Athletes focus on building strength in their muscles including those that are .
22. Scientists are always eager to new insights into the mysteries of the universe.
23. use powerful telescopes to observe and analyze distant celestial objects.
24. Our solar system is located in the Milky Way a vast collection of stars and planets.
25. The Amazon rainforest is home to a multitude of plant and animal species forming a complex .
26. study ancient life forms by examining fossils and geological records.
27. The coral reef ecosystem contains a wide of marine organisms in various shapes and colors.
28. Neural networks are powerful tools used to solve problems that traditional algorithms struggle with.
29. Researchers gain valuable into human behavior through psychology studies.



30. In the sun's core hydrogen undergoes fusion to form the hot ionized gas known as .

## Answer

**Multiple Choice:** 1. Chromosomes 2. Exoplanets 3. Diversity 4. Inflammation 5. Discoveries 6. Ancient 7. Evolved 8. Researchers 9. Resistance 10. Predators

**Gap-Fill:** 11. Genomes 12. Symptoms 13. Observations 14. Evolving 15. Published 16. Puzzling 17. Cephalopods 18. Plasma 19. Solar Systems 20. Astronomers

**Matching sentence:** 1. Intermuscular 2. Discover 3. Astronomers 4. Galaxy 5. Ecosystem 6. Paleontologists 7. Diversity 8. Complex 9. Insights 10. Plasma

## CATEGORY

1. Health - LEVEL2

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