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# Astronomers Discover Largest Known Collection of Planet Building Materials Orbiting Young Star

## Description

Researchers have made an exciting discovery in space, finding a massive disk of gas and dust swirling around a young star. This disk, located 1,000 light-years away, is an impressive 3,300 times the distance between Earth and the sun. Scientists believe that this disk contains the necessary ingredients to form large planets in distant orbits.

First observed in 2016, the disk was recently confirmed to be a hotspot for new planet formation through observations made by telescopes in Hawaii. Lead researcher Kristina Monsch from the Harvard-Smithsonian Center for Astrophysics is thrilled by the potential to study the birth and evolution of planets beyond our solar system.

The disk, known as IRAS 23077, is double the size of any previously discovered disks, making it a record-breaking find. Scientists hope that NASA's Hubble and Webb space telescopes will reveal whether Jupiter-sized planets are forming within this disk.

This groundbreaking discovery opens up new possibilities for understanding the formation of planets and solar systems. As researchers continue to explore the cosmos, they are eager to uncover more secrets about the universe beyond our own.

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## Vocabulary List:

1. **Discovery** // (noun): The act of finding something that was previously unknown.
2. **Disk** // (noun): A thin flat circular object often used to refer to celestial bodies like stars and planets.
3. **Swirling** // (verb): Moving around in a twisting or spiraling manner.
4. **Orbits** // (noun): The curved path followed by a celestial body or spacecraft around a star.
5. **Formation** // (noun): The process of something coming into existence.
6. **Evolution** // (noun): The gradual development and change of something over time.

## Vocabulary quizzes

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

1. What term is used to describe the curved path of a celestial object around a star?

Option: Swirling



- Option: Orbit
- Option: Congestion
- Option: Deorbiting

2. What is defined as the beliefs or opinions that are generally held about someone or something?

- Option: Formation
- Option: Reputation
- Option: Insights
- Option: Alignment

3. What term is used to describe the process of converting information into a code to prevent unauthorized access?

- Option: Victim
- Option: Encrypt
- Option: Flexibility
- Option: Mitigate

4. What is the gradual development of something especially from a simple to a more complex form?

- Option: Orbital
- Option: Evolution
- Option: Lessened
- Option: Remediation

5. In cybersecurity what does the term "endpoint" refer to?

- Option: Exploit
- Option: Ransomware
- Option: Endpoint
- Option: Disk

6. What is the ability to adapt or be adapted to changing circumstances?

- Option: Spectators
- Option: Cost-effective
- Option: Flexibility
- Option: Commitment

7. Who are individuals watching an event or performance called?

- Option: Conferencing
- Option: Spectators
- Option: Attendance
- Option: Insights

8. What term is used to describe the overcrowding or blockage of something?

- Option: Congestion

Option: Vulnerable  
Option: Iconic  
Option: Cost-effective

9. What is the term used to describe the action of reducing the severity or seriousness of something?

Option: Orbital debris  
Option: Mitigate  
Option: Orbital  
Option: Attendance

10. What term is used to describe the arrangement in a straight line or in correct relative positions?

Option: Alignment  
Option: Formation  
Option: Remediation  
Option: Discovery

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

11. \_\_\_\_\_ is a storage device used for storing and retrieving digital information.

12. The impact of the new regulations significantly \_\_\_\_\_ the company's profitability.

13. The \_\_\_\_\_ at the concert was much higher than expected.

14. The Eiffel Tower is considered to be one of the most \_\_\_\_\_ landmarks in the world.

15. Prompt \_\_\_\_\_ of the security breach helped prevent further data loss.

16. The \_\_\_\_\_ of the new government brought hope for positive change.

17. The company implemented a \_\_\_\_\_ solution to reduce operational expenses.

18. Market research provided valuable \_\_\_\_\_ into consumer preferences.

19. Efforts to clean up \_\_\_\_\_ in space are crucial to prevent collisions with satellites.

20. The satellite was intentionally maneuvered for \_\_\_\_\_ to ensure it would burn up in the atmosphere.

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

21. The of the new planet was a result of cosmic processes over millions of years.
22. Without the latest security updates your computer may be to cyber attacks.
23. His long-term to the project earned him the respect of his colleagues.
24. The team would in their victory after a hard-fought game.
25. The high at the conference indicated widespread interest in the topic.
26. is a type of malicious software that blocks access to a computer system until a sum of money is paid.
27. Cybercriminals often vulnerabilities in software to gain unauthorized access to systems.
28. Unusual network activity could be one of the of a potential security breach.
29. Using open-source software can be a solution for small businesses with limited budgets.
30. The team worked in perfect to achieve their common goal.

## **Answer**

**Multiple Choice:** 1. Orbit 2. Reputation 3. Encrypt 4. Evolution 5. Endpoint 6. Flexibility 7. Spectators  
8. Congestion 9. Mitigate 10. Alignment

**Gap-Fill:** 11. Disk 12. Lessened 13. Attendance 14. Iconic 15. Remediation 16. Formation 17. Cost-effective  
18. Insights 19. Orbital debris 20. Deorbiting

**Matching sentence:** 1. Formation 2. Vulnerable 3. Commitment 4. Rejoice 5. Attendance 6. Ransomware  
7. Exploit 8. Indicators 9. Cost-effective 10. Alignment

## **CATEGORY**

1. Sci/Tech - LEVEL3

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