



NASA's Parker Solar Probe Makes Record Sun Flyby Christmas Eve

Description

A NASA spacecraft is on track to provide astronomers with a remarkable early Christmas gift with the closest-ever flyby of the sun on December 24. The Parker Solar Probe, a NASA spacecraft, is set to make history with a record-setting close encounter with the sun on Christmas Eve. It will pass through the star's outer atmosphere at 6:53 a.m. EST (1153 GMT) and come within 3.8 million miles (6.1 million kilometers) of the sun's surface. This flyby is the final test for the Parker Solar Probe, which has conducted a series of increasingly closer approaches to the sun as part of its mission to unravel the mysteries of our closest star.

Nick Pinkine, the Parker Solar Probe mission operations manager at the Johns Hopkins Applied Physics Laboratory (JHUAPL) in Maryland, expressed excitement about the upcoming mission. He stated, "No human-made object has ever passed this close to a star, so Parker will truly be returning data from uncharted territory. We're eager to receive the spacecraft's data upon its return."

The closest approach of the Parker Solar Probe to the sun will take place on Tuesday, December 24, at 6:53 a.m. EST (1153 GMT). During this time, the spacecraft will reach its nearest distance ever to the sun at 3.8 million miles. This flyby will mark the 22nd close encounter between Parker and the sun since its launch in 2018, with the spacecraft traveling at an astounding speed of about 430,000 mph (692,000 kph).

Despite the extreme temperatures of up to 1,800 degrees Fahrenheit (980 degrees Celsius) that the Parker Solar Probe will experience during the flyby, its specially designed heat shield can withstand these conditions. Additionally, detailed updates on the spacecraft's progress can be found on NASA's official Parker Solar Probe mission blog, website, and JHUAPL's Parker Solar Probe site.

Vocabulary List:

1. **Remarkable** /rɪ'mɑːrkəbl/ (adjective): Worthy of attention; extraordinary.
2. **Encounter** /ɪn'kaʊntər/ (noun): An unexpected or casual meeting.
3. **Mysteries** /'mɪstərɪz/ (noun): Things that are difficult or impossible to understand or explain.
4. **Astounding** /ə'staʊndɪŋ/ (adjective): Surprisingly impressive or notable.
5. **Withstand** /wɪθ'stænd/ (verb): To remain undamaged or unaffected by; to resist.
6. **Extreme** /ɪk'striːm/ (adjective): Very large in amount or degree; farthest from the center or a given point.

Vocabulary quizzes



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

1. Which word describes something that introduces new ideas or methods?

- Option: Anticipation
- Option: Substantial
- Option: Captivating
- Option: Innovative

2. Which word means worthy of attention or striking?

- Option: Encounter
- Option: Mysteries
- Option: Remarkable
- Option: Astounding

3. Which word means expected or looked forward to?

- Option: Withstand
- Option: Extreme
- Option: Introduce
- Option: Anticipated

4. Which word refers to a significant stage or event in development?

- Option: Allegedly
- Option: Milestone
- Option: Unforeseen
- Option: Mishap

5. Which word means strict or precise?

- Option: Jurisdiction
- Option: Stringent
- Option: Connectivity
- Option: Optimization

6. Which word is used to describe an extreme and sudden failure?

- Option: Resolved
- Option: Eliminated
- Option: Unresponsiveness
- Option: Crashes

7. Which word means an improvement or upgrade?

- Option: Substantial
- Option: Significant
- Option: Innovation



Option: Enhancement

8. Which word is used to describe something revolutionary or pioneering?

Option: Groundbreaking

Option: Anticipation

Option: Innovative

Option: Encounter

9. Which word means settled or concluded?

Option: Mysteries

Option: Resolved

Option: Epitomizes

Option: Astounding

10. Which word refers to the state of being connected or interconnected?

Option: Withstand

Option: Extreme

Option: Connectivity

Option: Introduction

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

11. Despite thorough planning the project encountered several _____ challenges.

12. The new discovery has a _____ impact on the field of medicine.

13. Continuous monitoring and adjustments are essential for the _____ of the system.

14. Through effective measures the risk of errors was _____.

15. The team faced a minor _____ during the experiment but it did not affect the overall results.

16. The court has the _____ to rule on matters of law.

17. The artist presented a _____ performance that held the audience's attention.

18. The magician's tricks were truly _____ leaving the spectators in awe.

19. The structure was built to _____ strong winds and harsh weather conditions.



20. Continuous _____ drives progress and development in various industries.

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

21. The explorers were thrilled to a rare species of bird during their expedition.
22. After lengthy discussions the committee finally the dispute.
23. The defendant committed the crime but there was insufficient evidence.
24. The iconic building modern architectural design.
25. The company made a investment in research and development.
26. The new software enhances between different devices.
27. The team faced an setback but quickly adapted to the new situation.
28. The artist's talent was truly drawing admiration from all who saw the exhibit.
29. The novel had an plot that kept readers guessing until the very end.
30. The new update provides a significant to the user experience.

Answer

Multiple Choice: 1. Innovative 2. Remarkable 3. Anticipated 4. Milestone 5. Stringent 6. Crashes
7. Enhancement 8. Groundbreaking 9. Resolved 10. Connectivity

Gap-Fill: 11. unforeseen 12. significant 13. optimization 14. eliminated 15. mishap 16. jurisdiction
17. captivating 18. astounding 19. withstand 20. innovation

Matching sentence: 1. encounter 2. resolved 3. allegedly 4. epitomizes 5. substantial 6. connectivity
7. unexpected 8. remarkable 9. intriguing 10. enhancement

CATEGORY

1. Sci/Tech - LEVEL6

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