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Solar Eclipse

Solar eclipses, one of nature's most impressive sights, have fascinated people for thousands of years. How much do you know about solar eclipses? Answer these questions to find out!

First, go to **www.worldbookonline.com**
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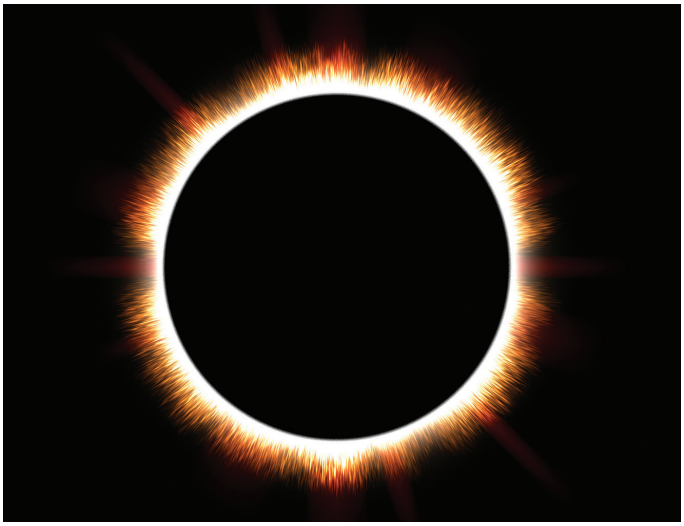

Find It!

Find the answers to the questions below by using the "Search" tool. Since this activity is about solar eclipses, you can start by searching the key word "eclipse."

Write the answers on the lines provided or below the question.

1. A solar eclipse takes place when the sun appears to become dark as the _____ passes between the sun and Earth.

2. A _____ eclipse occurs when the moon darkens as it passes through Earth's shadow.

3. During a solar eclipse the moon's shadow usually moves from west to east across Earth at a speed of about _____ miles (_____ kilometers) per hour.

4. What is the average time the sun is totally darkened during a total solar eclipse?

5. A total solar eclipse can be seen only in certain parts of the world, which lie in the _____.

***Users of the *Advanced* database can find extension activities at the end of this webquest.**

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6. What is the minimum number of solar eclipses that may be seen each year from various places on Earth?

7. Where would you need to be to see the Dec. 4, 2021 total solar eclipse? (Hint: For this question see the "Total solar eclipses, 1995-2023" table.)

8. Photographs taken during a 1919 total solar eclipse strongly supported which theory of Albert Einstein?

Identify the Solar Eclipse

In the line provided, write which type of solar eclipse is being referred to.

_____ 9. Type of solar eclipse that occurs if the moon completely blots out the sun.

_____ 10. Type of solar eclipse in which the moon darkens only the middle of the sun, leaving a bright ring around the edges.

_____ 11. Type of solar eclipse that occurs if the moon covers only part of the sun.

True or False

Write "True" if the statement about viewing solar eclipses is correct. If the statement is not correct, write "False" and correct the statement in the space below.

_____ 12. It is safe to view a partial solar eclipse while wearing sunglasses or smoked glasses.

_____ 13. During a partial solar eclipse, it is OK to view the sun indirectly with a pinhole projector.

_____ 14. It is always safe to view a total solar eclipse without protection.

15. What are Baily's beads? (Hint: For this question see the "Baily's beads" article.)

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16. What is the sun's corona, and when is the only time it is visible to the unaided eye? (Hint: For this question see the "Corona" article.)

17. In which U.S. state would you have needed to be in on September 10, 1923, to see a total solar eclipse? (Hint: For this question see the "Astronomy [1923]" Back In Time article.)

18. What was notable about the June 20, 1955 total solar eclipse that was visible in Ceylon (Now Sri Lanka)? (Hint: For this question see the "Astronomy [1955]" Back In Time article.

Watch It!

In the "Eclipse" article (and in the tab titled "Images, Videos, and Audios") there are a number of media. Find the video titled "Eclipses" and answer the following questions.

19. List the five kinds of eclipses that can occur.

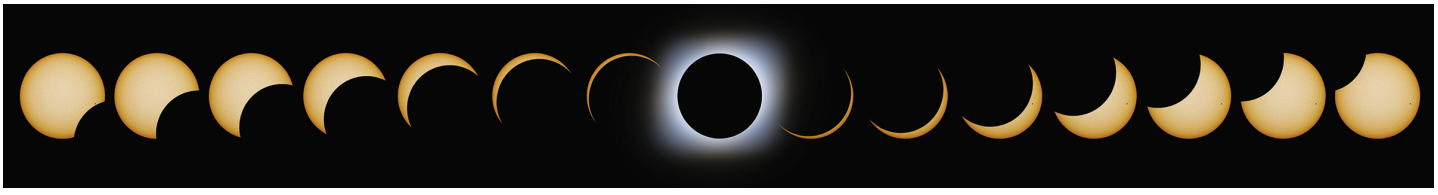
1. _____

2. _____

3. _____

4. _____

5. _____



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20. What are two reasons that eclipses do not occur very often?

1.

2.

Extension Activity

Draw a diagram or construct a model showing the relationship of the sun, moon, moon's shadow, and Earth during a total solar eclipse.

World Book has many eBooks about stars, planets, and outer space.

Read more about the sun here:

The Sun and Other Stars. Chicago: World Book, 2013. Explore the Solar System. *World eBook.* Web. 13 July 2017.

<http://www.worldbookonline.com/wb/ebooks/mall/instt/catalog/urn:ISBN:978-0-7166-1892-8/detail.do>.

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