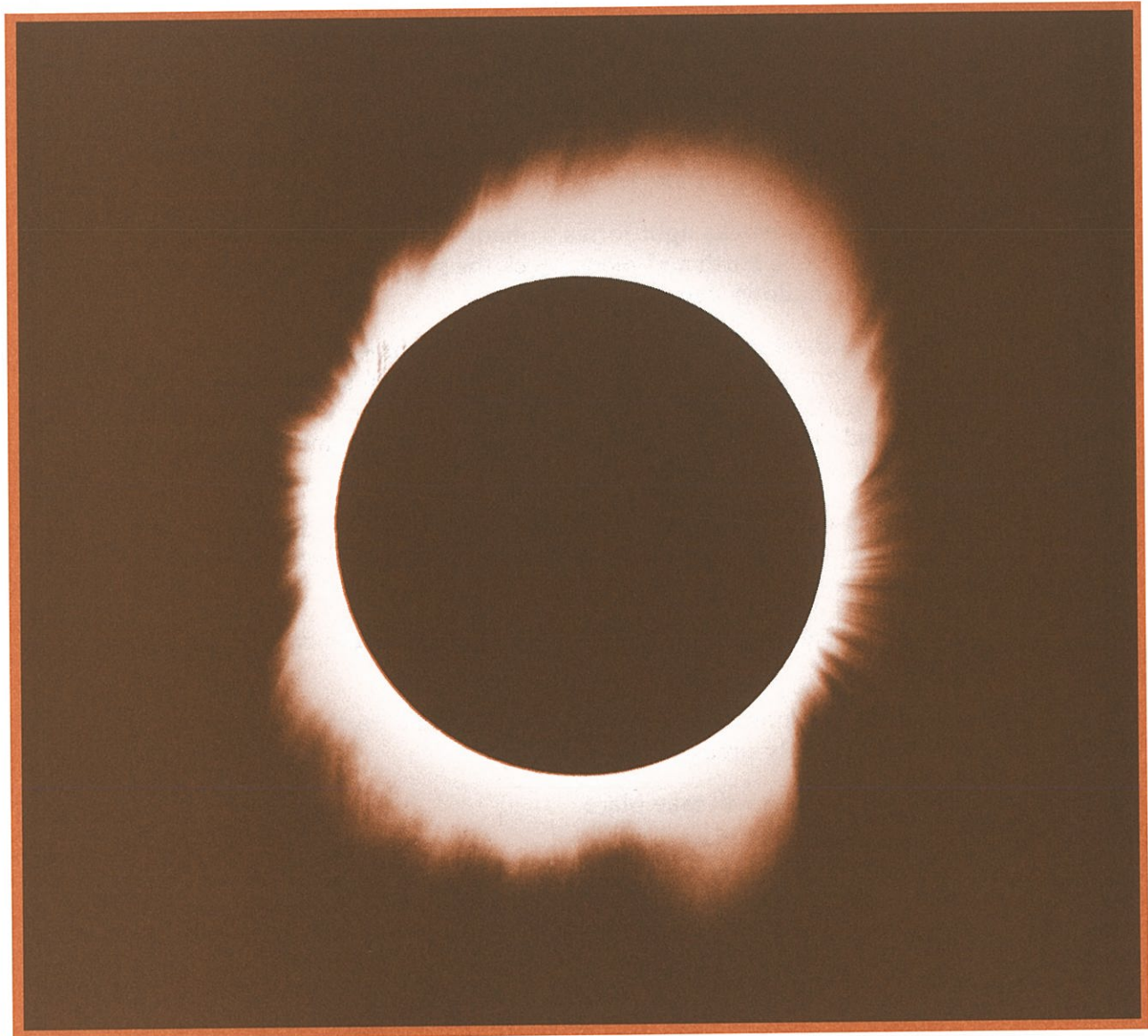


What is a solar eclipse?



KEY TERMS

corona: outer layer of the sun's atmosphere

solar eclipse: passing of the moon between the Earth and the sun

UNDERSTANDING A SOLAR ECLIPSE

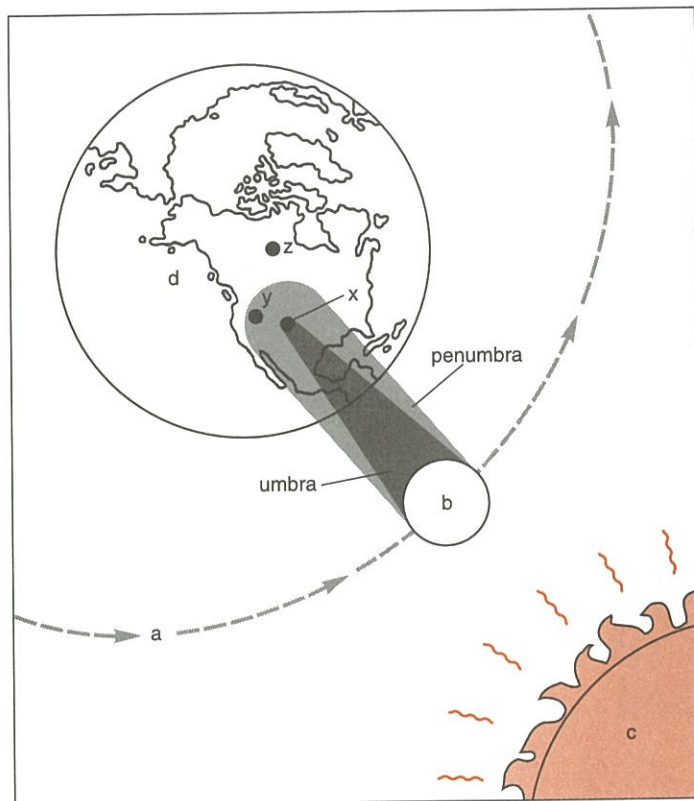


Figure A

Figure A shows a solar eclipse. Study it and answer the questions.

Identify the following by letter.

- _____ 1. sun
- _____ 2. Earth
- _____ 3. moon
- _____ 4. moon's orbit

A shadow has a dark middle part, and a lighter outer part.

- 5. What do we call the darker middle part? _____
- 6. What do we call the lighter outer part? _____
- 7. Which part of the shadow covers a wider area?

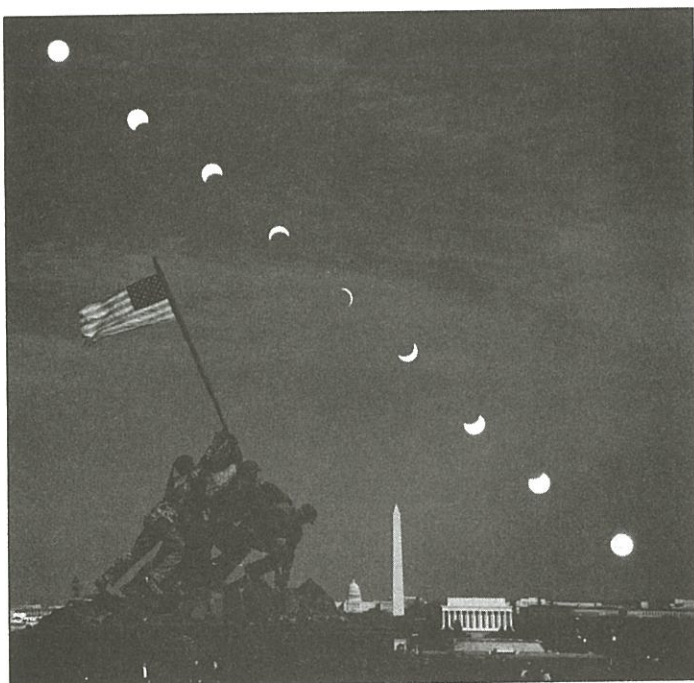


Figure B

Figure B shows a multiple exposure of a solar eclipse.

The top left shows the sun before the moon moves in front of it.

In the following images, the moon appears to cover up more and more of the sun.

The sun then reappears at the bottom right.

THE PATH OF A SOLAR ECLIPSE

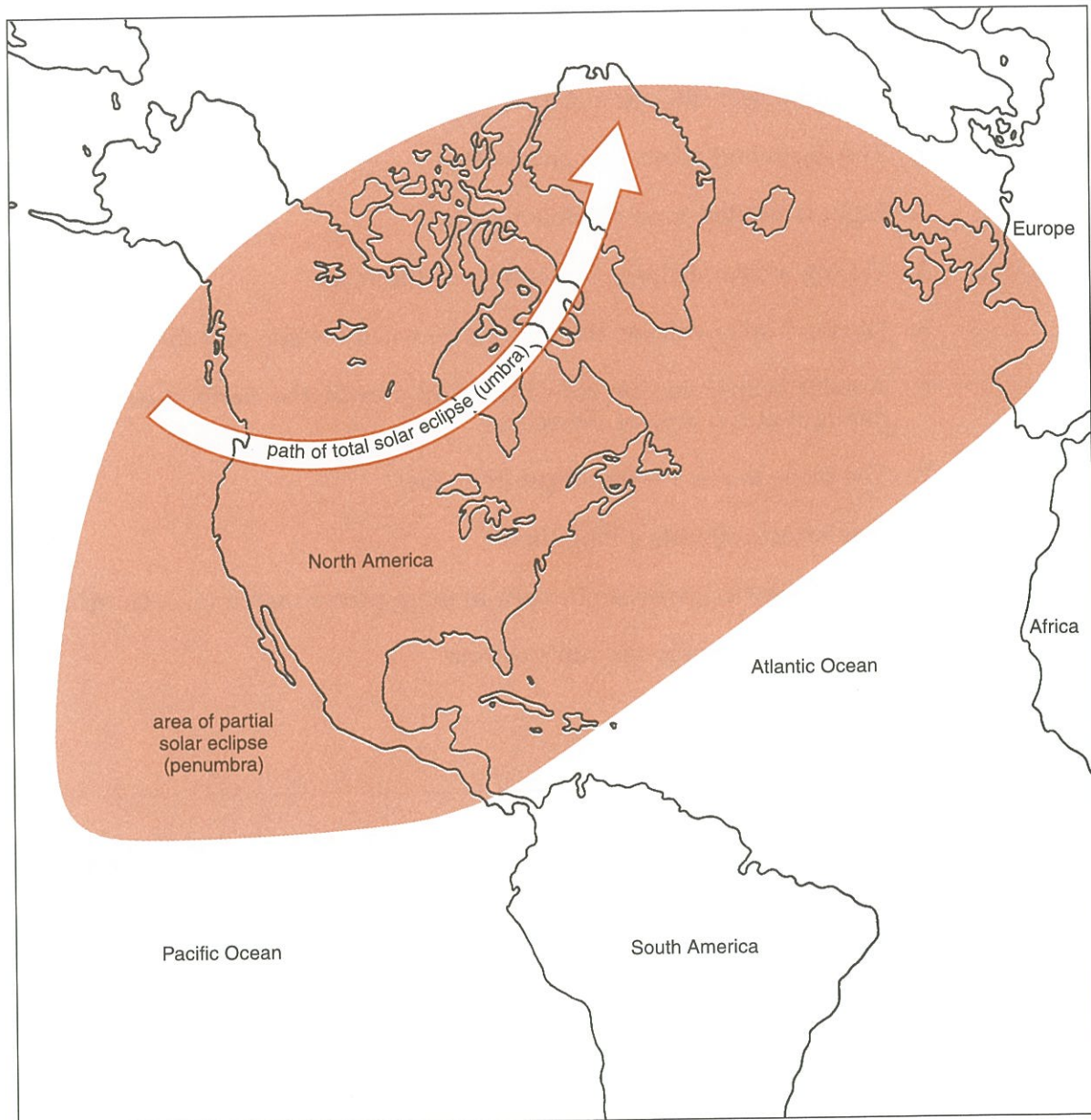


Figure E

During an eclipse, the moon moves in its orbit around the Earth and the Earth rotates. Therefore, the place on the surface of the Earth that is in the moon's shadow changes. As the eclipse moves slowly across the Earth, different people in different places see it at different times. Figure E shows the path of the total solar eclipse of February 26, 1979. The next such eclipse that can be seen from North America will be in the year 2017.

FILL IN THE BLANK

Complete each statement using a term or terms from the list below. Write your answers in the spaces provided. Some words may be used more than once.

solar eclipse	sun	total
Earth	eclipse	darkness
partial	moves	moon
shadows	blocks	corona

1. A shadow is an area of _____ .
2. A shadow forms when an object _____ light.
3. The _____ and _____ block the sun's light. They cast long, cone-shaped _____ .
4. Sometimes the shadow of a heavenly body blocks out another heavenly body. This is called an _____ .
5. The blocking out of the sun by the moon's shadow is called a _____ .
6. A solar eclipse occurs when the _____ is between the _____ and the _____ .
7. When the moon blocks out all of the sun, we have a _____ solar eclipse.
8. When the moon blocks out a part of the sun, we have a _____ solar eclipse.
9. During a total eclipse, we can see only the sun's rim. This is called the _____ .
10. The place where you can see a solar eclipse _____ across part of the Earth's surface.

REACHING OUT

A solar eclipse can take place only during one moon phase. Which phase is it? Why?
