

Night and day



Background knowledge

Earth completes one rotation on its axis every 24 hours. When the part of Earth where you live faces the Sun, it is daytime. Sunrise, also called dawn, occurs when the part of Earth where you are turns just enough for you to see the Sun. At sunset, Earth has turned so that again you can only just see the Sun. When it is night where you are, it is daytime for people living on the other side of Earth.



Science activity

Early one evening, Gus, who lives in London, England, was allowed to phone his uncle who lives in Montreal, Canada. Gus was very surprised to hear that his uncle was just about to have lunch because it was only 1:00 p.m.

What is the explanation for the difference in time?

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Science investigation

Make a model of the Sun and Earth. Use a flashlight to represent the Sun and a basketball to represent Earth. Do this experiment in a darkened room. Place the flashlight on a table so that it shines into the room. Hold the basketball about 1 meter away, and turn it around slowly. The basketball is like Earth turning on its axis. Tape a white circle onto the ball. Spin the ball slowly at a slight angle so it is tilted like Earth. Notice at what part of the spin the circle appears lighted. Move it to other places and repeat. Are there locations that stay lighted longer than others?



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Science activity

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What is the explanation for the difference in time?

Montreal is west of England. Sunrise in Montreal is about
5 hours after England. Therefore, when it is 5:00 p.m. in
England, it is lunchtime in Montreal.

Science investigation

Ask the child to describe what is happening at the circle's place on the model of Earth. This model should help the child understand why when it is day where he or she lives, it is night somewhere else.

