

Y4 Science: Earth and Space

Lesson 4

Watch this video about '[Day and Night](#)', followed by this one which explains more about '[Day, Night and Shadows](#)'. Then, have a go at the gap fill activity and colour in the picture of the Earth to show daytime and night-time. You could even try making your own sundial to investigate changing shadows!

Day and Night

1. Use the words to complete each sentence explaining why we have day and night.

rotates

night-time

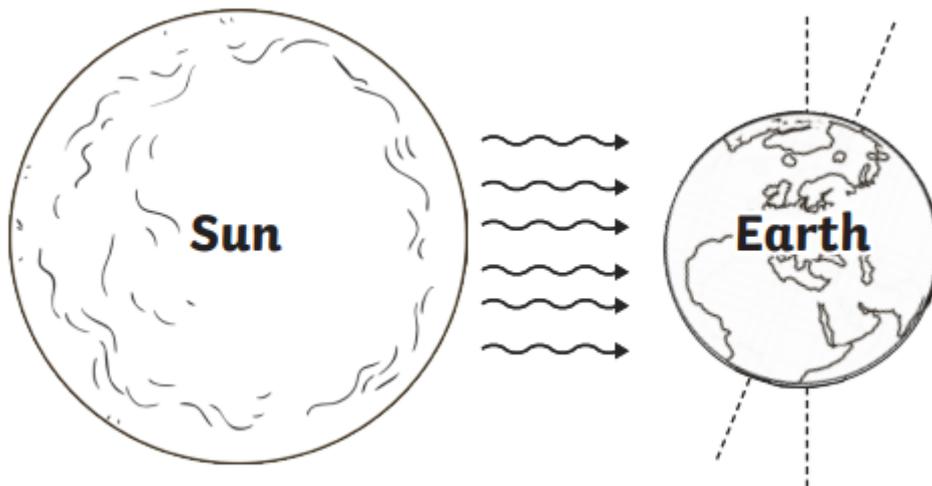
daytime

Sun

Earth

We live on the planet _____. Light comes from the _____.
The Earth _____ on its axis once each day. When the Sun shines on our part of the Earth, we are in _____. When our part of the Earth spins away from the Sun we are in _____.

2. Colour in the picture to show which part of the Earth is in daytime and which part is in night-time.



Sundials

Before we had **clocks** and watches people used sundials to mark the passing of time. A **sundial** measures time by the position of the sun and usually has markings for each hour of sunlight. Sundials have something in the centre which casts a **shadow** over the markings showing what the time is.

Have a go at making a simple sundial using the instructions on the next page.

How to Make a Simple Sundial

Equipment:

- A sunny spot
- Pen or chalk
- Straw or Stick
- Plasticine or blue tack



Method:

1. Take your plasticine or blue tack and stick it onto the end of your straw or stick.



2. Place the plasticine stick in a sunny spot inside the house or in the garden. If you are using pen to draw with, place your stick on a large piece of paper.
3. Each hour of the day, draw a line to show where the shadow is on the ground or piece of paper and label it.

