



# Light

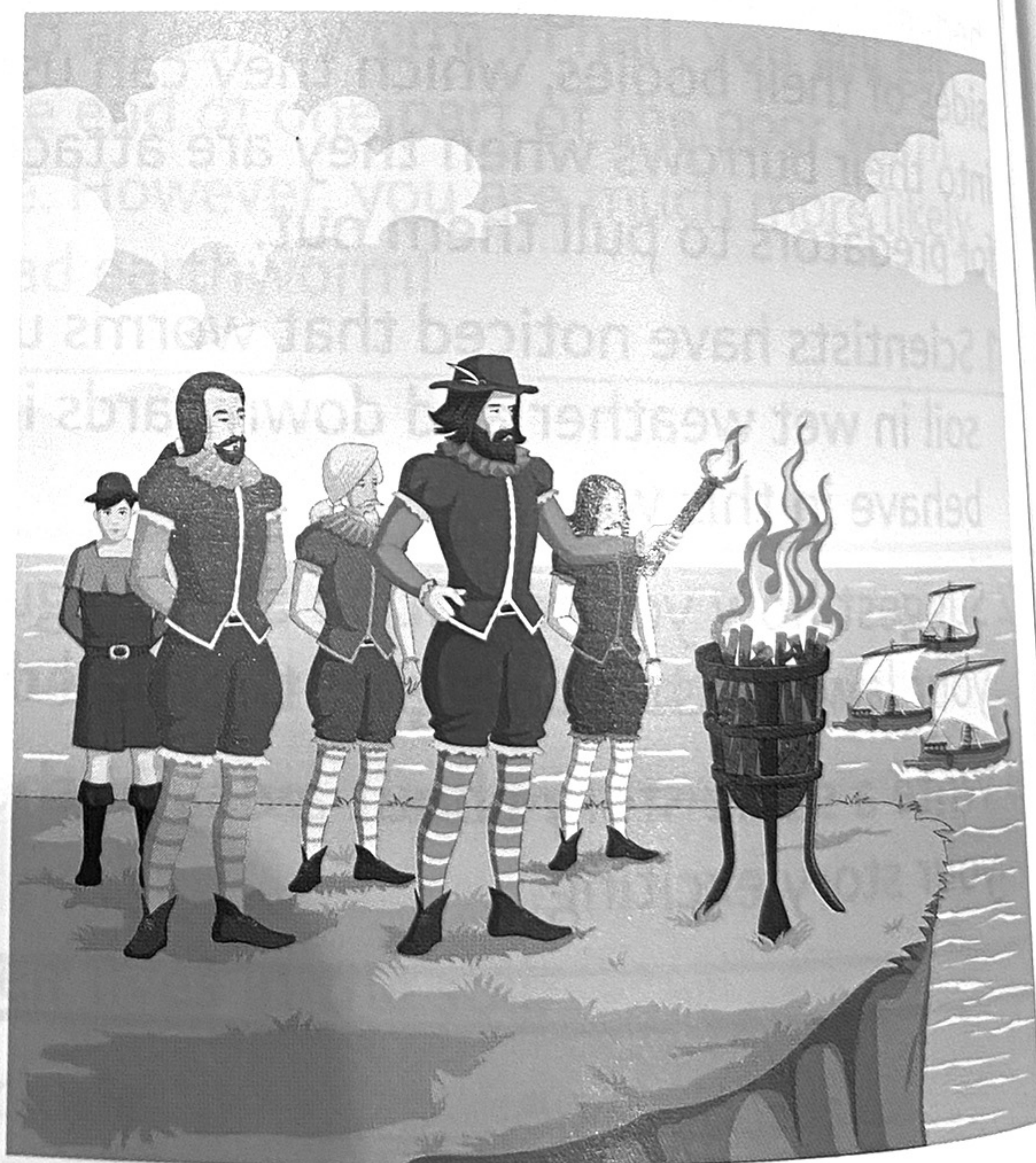
Light is very important to life on Earth. Plants need light to make their food. Without light there would be no food for animals to eat and no oxygen in the air (see Chapter 2). We also need light to see things. You will learn a bit more about this later. Light can help us to communicate, for example traffic lights tell road users when to stop and go. Light can also be fun, for example in a firework display.

## Did you know?

In the sixteenth century it was thought that Britain might be invaded by ships from France or Spain. Villages in the south of England that were near a hill or cliff often had beacons. These were iron baskets that could hold a fire.

If ships were spotted, the people would light their beacon. This would quickly be seen by people in the next village. They would then light their beacon and so on. In this way signals could be sent very quickly across the country.

There are hills in many places called Beacon Hill. Can you find any other place names that include the word beacon?



■ Beacons were the quickest way to warn people of danger



# ➔ Where does light come from?

Most of our light comes from the Sun. Light also comes from other sources, such as lamps, torches, candles, televisions and computer screens. Objects that give out light are described as **luminous**.

Some other objects seem to give out light but do not really do so. Shiny objects, such as mirrors, bounce light rays off their surfaces. We say that they **reflect** light. Many road signs also reflect light so well that they seem to be luminous. Surfaces that reflect light well are described as **reflective**.



■ Luminous objects give out light

## Did you know?

Have you ever been outside on a moonlit night? If there is a full Moon it can be really bright. The Moon is made of rock. It cannot make its own light, so it is not luminous. It seems to be luminous because it reflects rays of sunlight off its surface and down to Earth.

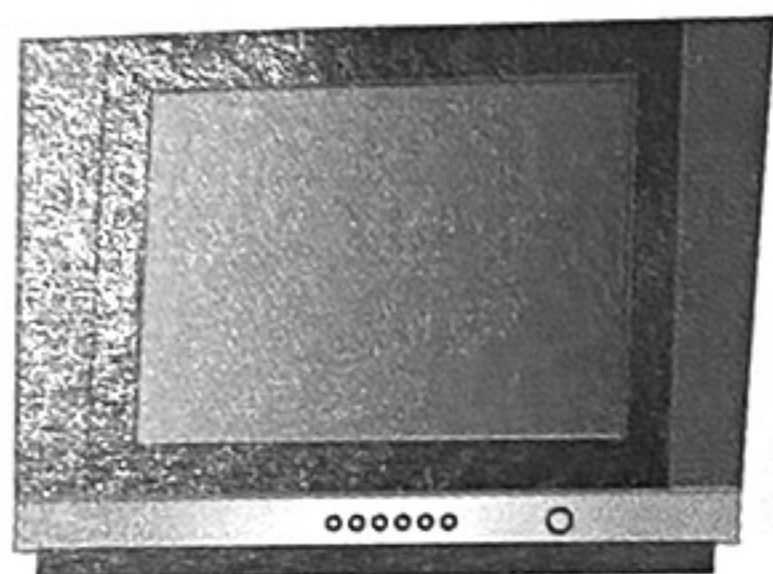


## Exercise 7.1a

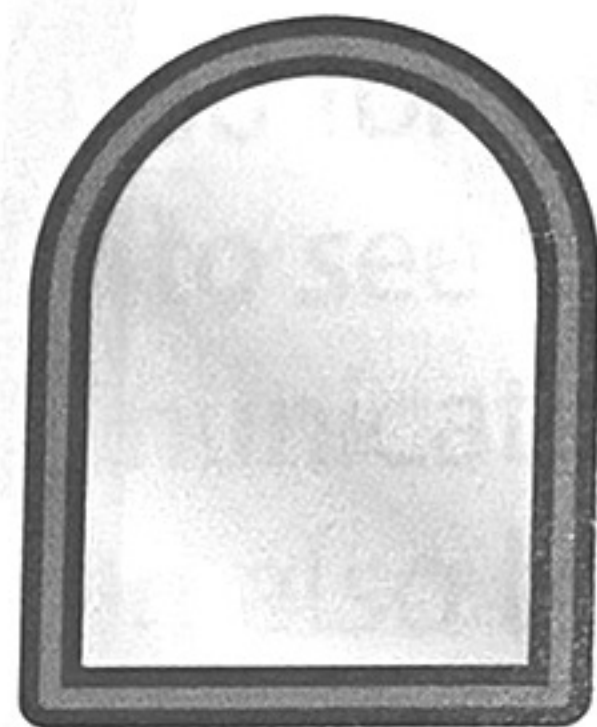
- 1 Why is light important to plants?
- 2 Where does most of our light come from?
- 3 What does the word 'luminous' mean?
- 4 Is the Moon luminous? Explain your answer.
- 5 Look carefully at these pictures of objects. Write down whether each one is luminous or reflective.



A. Star



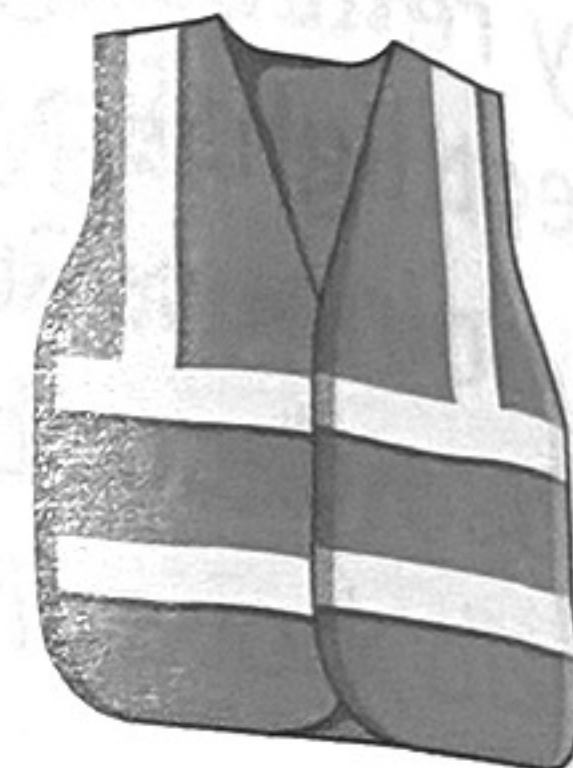
B. Television



C. Mirror



D. Diamond ring



E. Fluorescent vest



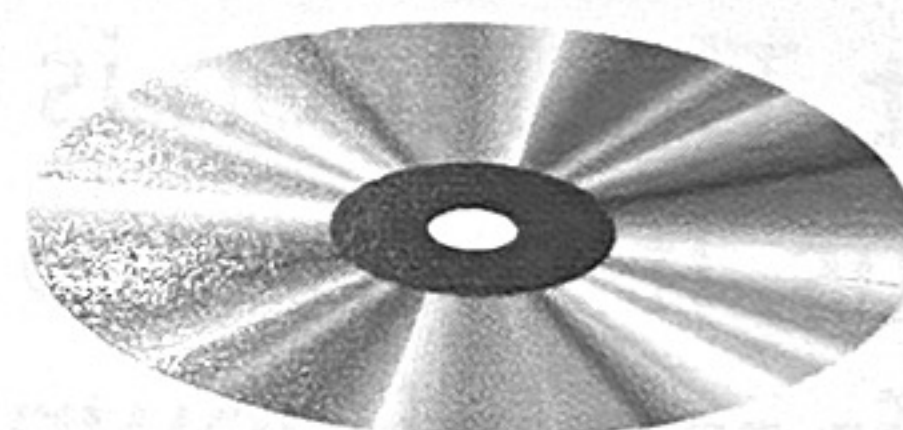
F. Candle



I. Firework



G. Moon



J. Compact disc



H. Desk lamp

## Exercise 7.1b

Use the following words to help you to fill in the gaps in these sentences.

**food luminous Moon reflective see Sun**

- 1 We need light to help us to \_\_\_\_\_.
- 2 Plants use light to help them to make \_\_\_\_\_.
- 3 Objects that give out light are \_\_\_\_\_.
- 4 \_\_\_\_\_ objects bounce rays of light from their surfaces.
- 5 The \_\_\_\_\_ is a luminous object but the \_\_\_\_\_ reflects light to Earth.