

Y3 Light Dark Reflection

KS2 Science · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Why can't you see your hand in a completely dark room?

Step 1 · What do we need in order to see?

Light

Step 2 · How much light is in a completely dark room?

None at all

Step 3 · So what does 'dark' mean?

Dark is the absence of light

Answer: There is no light, and we need light to see. Dark means there is no light.

Check: Our eyes are still working; there is just no light for them to detect.

2. Now try one with the steps

Is the Moon a light source?

Step 1 · Does the Moon make its own light?

Step 2 · Why does it look bright at night?

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. What do we need in order to see things?

2. Finish the sentence: Dark is the absence of ...

3. Name TWO light sources.

4. Is a mirror a light source?

5. What does 'reflect' mean?

6. Which reflects light better: a shiny spoon or a woolly jumper?

7. Why can we see the Moon at night?

8. Why is it hard to see a cat wearing a black collar at night?

9. Why do cyclists wear high-visibility jackets with reflective strips?

10. Leo says, 'I can see in the dark if I wait long enough.' Is he right in a completely dark room?

11. Why is the word AMBULANCE written backwards on the front of an ambulance?

12. Reflection scores out of 10: foil 9, white card 6, cardboard 3, black felt 1. Which TWO materials scored more than 5?

13. Using the scores in question 12, what is the difference between white card and cardboard?

14. Plan a fair test to find which material is best for a reflective arm band.

4. Before you hand it in

The Moon is a light source.

The Moon reflects light from the Sun.

Shiny things, like a mirror or foil, give out light.

In total darkness you can't see a mirror at all.

Our eyes get used to the dark and then we can see with no light.

With no light at all, nobody can see — dark is the absence of light.

Only mirrors reflect light.

Smooth, shiny, pale surfaces reflect most; dark, dull surfaces reflect least.