

## KS1 Science Quiz - Energy - Light and Shadows (Questions)

This quiz addresses the requirements of the National Curriculum KS1 Science for children aged 5 and 6 in years 1 and 2. Specifically this quiz is aimed at the section dealing with light energy and investigating how shadows are formed.

Have you got a shadow? When does it appear? When does it go away? We all have a shadow sometimes. When studying energy in science at school you will have investigated shadows. When a ray of light energy is blocked, there is a shadow. The shadow is darker, because there is less light. Let's investigate shadows a bit more.

1. What do we call lots of rays of light?



- A shadow
- A wedge
- A door
- A beam

2. There is a shadow on the field. What is up in the air?



- Bale of straw
- Grass
- Hot air balloon
- Helicopter

3. What do we call lines of sunlight?



- Shadows
- Rulers
- Rays
- Clouds

4. Look at the picture carefully. What can you see?



- Two people beside a wall
- The shadows of two people
- One real person and one shadow
- A mirror on the wall

5. Gareth is standing looking at his shadow. Which direction is the Sun?



- To the right
- To the left
- Straight above Gareth's head
- Under Gareth's feet

6. The light is being blocked by Gareth. The light cannot go through Gareth. Gareth is \_\_\_\_\_.



- Transparent
- Elastic
- Plastic
- Opaque

7. What is this shadow puppet?



- A rabbit
- A cow
- A sheep
- A fox

8. Sarah is asleep in bed. The light is on. Sarah casts a shadow on the pillow. Sarah's Mum comes in and quietly turns off the light. What happens to Sarah's shadow?



- Sarah's shadow gets darker
- Sarah's shadow disappears
- Sarah's shadow gets bigger
- Sarah's shadow gets smaller

9. This is a picture under a leaf. The frog is casting a shadow. Where is the frog?



- Under the leaf
- On top of the leaf
- Inside the leaf
- Nowhere near the leaf

10. Look at this picture. These are shadows of a family in a park. There is a pram, a man and a child. The shadows are:



- Longer than the real things
- Shorter than the real things
- Brightly coloured
- Brighter than the grass

## KS1 Science Quiz - Energy - Light and Shadows (Answers)

1. What do we call lots of rays of light?



- A shadow
- A wedge
- A door
- A beam

A torch makes a beam of light

2. There is a shadow on the field. What is up in the air?



- Bale of straw
- Grass
- Hot air balloon
- Helicopter

Shadows don't have to touch the thing that makes them

3. What do we call lines of sunlight?



- Shadows
- Rulers
- Rays
- Clouds

The rays of the sun go in straight lines

4. Look at the picture carefully. What can you see?



- Two people beside a wall
- The shadows of two people
- One real person and one shadow
- A mirror on the wall

When do you have a shadow?

5. Gareth is standing looking at his shadow. Which direction is the Sun?



- To the right
- To the left
- Straight above Gareth's head
- Under Gareth's feet

Gareth is blocking the sunlight. That's why he has a shadow

6. The light is being blocked by Gareth. The light cannot go through Gareth. Gareth is \_\_\_\_\_.



- Transparent
- Elastic
- Plastic
- Opaque

Gareth is casting a shadow

7. What is this shadow puppet?



- A rabbit
- A cow
- A sheep
- A fox

Can you make shadow puppets?

8. Sarah is asleep in bed. The light is on. Sarah casts a shadow on the pillow. Sarah's Mum comes in and quietly turns off the light. What happens to Sarah's shadow?



- Sarah's shadow gets darker
- Sarah's shadow disappears
- Sarah's shadow gets bigger
- Sarah's shadow gets smaller

If there is no light, there are no shadows

9. This is a picture under a leaf. The frog is casting a shadow. Where is the frog?



- Under the leaf
- On top of the leaf
- Inside the leaf
- Nowhere near the leaf

This is a tree frog in South America

10. Look at this picture. These are shadows of a family in a park. There is a pram, a man and a child. The shadows are:



- Longer than the real things
- Shorter than the real things
- Brightly coloured
- Brighter than the grass

These shadows are very long. But your shadow can be longer or shorter than you really are