

Light Experiments

Can you see in the dark?

Can you make shadows?

Many of us think we can see in the dark because there is always some light around us -light from a clock, television or streetlights.

Task 1

Can you see in the dark?

What you will need.

A reading book

Torch

A dark room or cupboard

What to do.

Take your reading book and torch into the cupboard. Do not switch on the torch! Close the door and try to read your book. What happened? Switch the torch on. Does it become easier to read your book?

Conclusion

Can your eyes see without a light switched on?

Why?

Task 2

Can you make shadows?

What you will need

Torch or other source of light,

Paper screen or wall

Objects made of different materials

What to do

Find out what kind of materials block the light to make a shadow. Shine the torch at your screen or wall. Place an object between the torch and your screen. Does it create a shadow? Write about the experiment and draw a labelled diagram.

Conclusion.

Some of the objects will have formed shadows and some not. Can you sort the objects into these categories or groups ;opaque, transparent, translucent? Put your results in a table .

Task 3

Make a dark box and challenge someone to see in the dark

What you need.

A shoebox or a box with a lid

Coloured pencils or pens

Tin foil Scissors

What you need to do.

Make a very small hole in the side of the box with the scissors. Take a coloured pencil and draw 2 or 3 small shapes on the inside of the box. Put the lid on firmly. Now give the box to your partner, tell them to look through the hole in the side of the box. Can they tell you which shapes you have drawn? Try again but small pieces of tin foil instead of drawing shapes- is this easier to see?

Result

Which was easier to see - drawings or tin foil in the dark box?

Why?

What would happen if you cut another hole in the box?