

Science - Year 3 - Autumn 1 Light

Basic Skills

Key Language & Vocabulary	Source	Natural
Man-made	Reflect	Translucent
Transparent	Opaque	Shadow
mirror	Shiny	Matt
Dark/absence of light	Surface	Sunlight

Values

Honesty

Rich Learning Experiences

Key Learning Objectives

Recognise that they need light to see and that dark is the absence of light

Notice that light is reflected from surfaces

Recognise that light from the sun can be dangerous.

Recognise that shadows are formed when the light from a light source is blocked by a solid object.

Use different ideas and suggest how to find something out

Plan a fair test and explain why it was fair

Measure using different equipment and units of measure

Cross-curricular Links

Art:

Puppets—drawing and templates/pattern pieces. Textiles—running stitch. Shadow puppets

Key Knowledge and Skills

To identify different sources of light.

Understand why they need light to see and why they can't see in the dark.

Explore what happens when light reflects off a mirror or other reflective surfaces and be able to answer questions about how light behaves.

- Light travels in straight lines
- To understand the properties and materials that allow light to reflect off of them.

Think why it is important to protect eyes from bright lights and how we can protect our eyes.

Look for and measure shadows. Find out how they formed and what might cause the shadows to change.

Looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.

Enrichment Opportunities ('Learning in Action')

Use torches to investigate materials and reflective properties. Spend time in a black out tent.

Make/design sunglasses. Play shadow it

Learnacy and the Y Factor

Concentrating

How are shadows made? How are shadows different over the course of a day? How can you make the longest shadow?

If you were in a completely dark room, would it be easier to see a white cat or a black cat?

Can you get different coloured shadows?

Which materials reflect the most light?

Do all shadows touch the object that made them?

How can I measure a shadow?

How can I make my test fair?