



Year 3 Light

Science Knowledge Organiser

Knowledge
Skills
Vocabulary



- Knowledge Progression**
- Can I investigate and explain how we need light in order to see things? Can I explain what dark is (the absence of light)?
 - Can I explore how light is reflected from surfaces?
 - Can I investigate how shadows are formed (when the light from a light source is blocked by a solid object)?
 - Can I find patterns in the way that the size of shadows change?
 - Can I investigate and explain the way that the size of shadows change?
 - Can I recognise that light from the sun can be dangerous and that there are ways to protect my eyes?

Curriculum Coverage

Recognise that they need light in order to see things and that dark is the absence of light
 Notice that light is reflected from surfaces
 Recognise that light from the sun can be dangerous and that there are ways to protect their eyes
 Recognise that shadows are formed when the light from a light source is blocked by a solid object
 Find patterns in the way that the sizes of shadows change.

Skills Progression

To ask relevant questions and use different types of scientific enquiries to answer them. To record findings using simple scientific language, drawings, labelled diagrams, keys, tables, bar charts, scatter graphs and tables. To gather, record, classify and present data in a variety of ways to help in answering questions. To report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. To use straightforward scientific evidence to answer questions or to support their findings. To use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

Scientific Enquiry

Can I create a dark den? What's in the box? Where can shadows be found? Which is the darkest shadow? How can we change the size of a shadow? How does the distance between the puppet and the light source affect the size of the shadow created? How can I make different lengths of shadows? How does the angle at which the light source shines on an object affect the length of shadow of that object? How does the length and place of a shadow change over time? How do I make a shadow clock?

Scientific Vocabulary

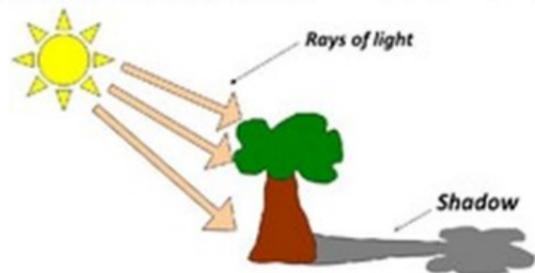
dark, dull, bright, very bright, brighter, duller, and darker, brightest, dimmest, and darkest. opaque, translucent, transparent, shadow, block, absence of light, bounce, mirror, reflection, light source, sunset, sunrise, position



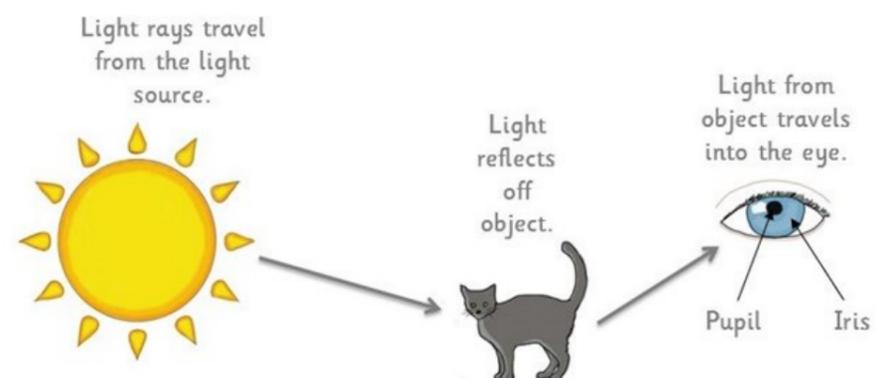
Pattern Seeking

SHADOWS

- How are shadows formed?
- WHEN AN OBJECT BLOCKS THE LIGHT



iris gets bigger to let in as much light as possible. If there is no light at all, we cannot see anything.



Fair Testing