

Year 3 – Light – Can You See Me?

What it looked like last year (Year 1 – as part of animals inc humans)

- Identify, name, draw and label the basic parts of the human body.

(Light is also covered in Year 4, in Design and Technology, where pupils make battery operated lights.)

What it looks like next year (Year 6)

- Recognise that light appears to travel in straight lines
- Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye.
- Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes.
- Use the idea that light travels in straight lines to explain why shadows have the same shape as the object that casts them.

Vocabulary (definitions)

transparent – it is clear, light passes through.

translucent – light travels through it but the object on the other side cannot be seen.

opaque – light cannot pass through.

light shiny sunlight light source matt

dark surface shadow

reflect mirror

Sequence of Learning

1. Understand that light is needed to see things
2. Investigate how different surfaces reflect light.
3. How can we see things in the dark?
4. Investigate how light reflects off a mirror.
5. Explore, make and look for patterns in shadows.
6. Plan, test and make a pair of sunglasses.

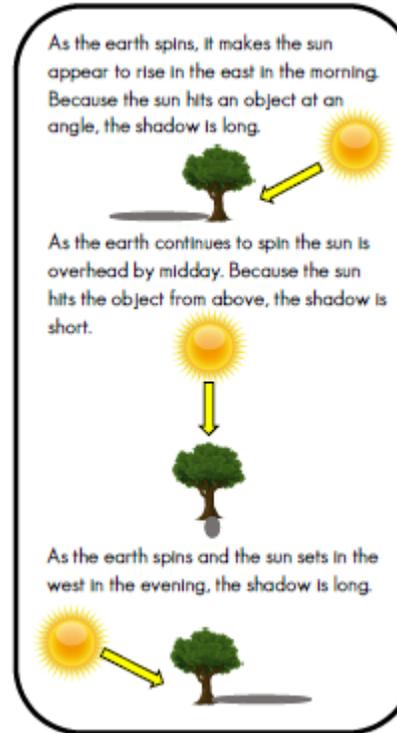
Cultural Capital

- To be able to recognise that they need light in order to see things and that dark is the absence of light.
- To be able to notice that light is reflected from surfaces.
- To be able to recognise that light from the sun can be dangerous and that there are ways to protect their eyes.
- To be able to recognise that shadows are formed when the light from a light source is blocked by an opaque object.
- To be able to find patterns in the size of shadow changes.
- The real life knowledge that links is: grouping and classifying, looking & noticing patterns and carrying out simple comparative and fair tests.
- The jobs it can be used in are: Ophthalmologist, Lighting Designer, Lighting Technician, Lighting Director.

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Principles of Teaching Science.

- E**xploring – when we look at how things work in the world
- Q**uestioning – when we question what will happen
- U**nderstanding – when we use scientific language to explain
- I**nvestigating – when we can explore and are hands on
- P**redicting – when we use our previous knowledge to say what we think will happen.



- 1.) We can see objects because light reflects off them and into our eyes.
- 2.) Light reflects off most objects, especially colours like white and yellow.
- 3.) If there is no light at all (pitch-black), then there is no light to reflect and we can't see anything at all.
- 4.) At night you can still see a bit in the dark because the moon is reflecting light.