

Science Overview – Light

Year Three

Spring Term

Key Question: Why was the River Nile so important?

National Curriculum

- 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 size of shadows change.

SUBSTANTIVE KNOWLEDGE

- 1) Know that we need light to be able to see things.
- 2) Know that light travels in a straight line and reflects off objects.
- 3) Know that the surfaces that reflect light best are smooth, shiny and flat.
- 4) Know that the pupils control the amount of light that enters the eye.
- 5) Know that light from the sun can be dangerous and that their eyes should be protected.
- 6) Know how shadows are formed.
- 7) Know that shadows can change depending on the location of the light source.

Key Vocabulary

light, light source, dark, reflection, reflect, reflective, ray, pupil, retina, shadow, opaque, translucent, transparent

Previous year groups key vocabulary:

Light is taught for the first time in Y3- it is repeated again in Y6.

Disciplinary Concepts

- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

Enquiry type to cover and enquiry suggestion

Pattern Seeking (enquiry type)

What happens to shadows when the light source moves?

Identifying, Grouping and Classifying (enquiry type)

Group materials into those that are transparent, translucent and opaque.

Learning Milestones /Assessment

I can...

- identify a light source
- describe how light travels
- explain how the pupil controls light into the eye
- say which surfaces reflect light the best
- explain the dangers of UV light
- explain how a shadow is made