Science – Year 3 – Physics
Light

Key Vocabulary

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

Science GOLDEN WORDS:

prediction

measurements

conclusion

explain

classify

Our 'light' knowledge journey:

*this is the first time children will meet this topic.

Key Facts

We need **light** to be able to see things. **Light** travels in a straight line. When light hits an object, it is reflected (bounces off). If the **reflected light** hits our eyes, we can see the object. Some surfaces and materials **reflect light** well. Other materials do not reflect light well. **Reflective** surfaces and materials can be very useful.
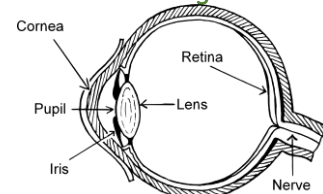
The surfaces that reflect **light** best are smooth, shiny and flat.

Mirrors:

Mirrors **reflect light** very well, so they create a clear image. An image in a mirror appears to be reversed. For example, if you look in a mirror and raise your right hand, the mirror image appears to raise its left hand.
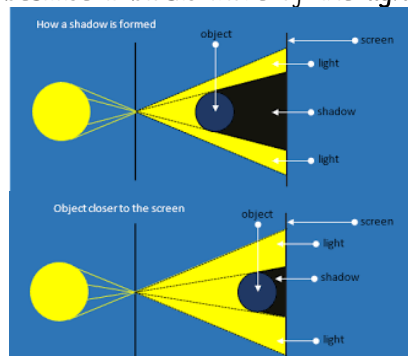
The Eye

The **pupils** control the amount of light entering the eyes. If too much **light** enters, then it can damage the **retina**.

Shadows

A shadow is caused when **light** is blocked by an opaque object. A **shadow** is larger when an object is closer to the **light** source. This is because it blocks more of the **light**.

Shadows

When the **light** source is directly above the object, the **shadow** will be directly underneath.

When a **light** source is to one side of an object, the shadow will appear on the opposite side. The **shadow** will also be longer.

Working Scientifically:

• Ask relevant questions.
• Set up simple, practical enquiries and comparative and fair tests.
• Make accurate observations and take measurements using standard units, using a range of equipment, e.g. thermometers and data loggers.
• Gather, record, classify and present data in a variety of ways to help in answering questions.
• Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables.
• Identify differences, similarities or changes related to simple, scientific ideas and processes.