

Light and Shadow

Year 3 – Summer Term

Prior knowledge

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.

Pupils should explore what happens when light reflects off a mirror or other reflective surfaces, including playing mirror games to help them to answer questions about how light behaves. They should think about why it is important to protect their eyes from bright lights. They should look for, and measure, shadows, and find out how they are formed and what might cause the shadows to change.



Key questions.

What is a light source? A light source can be natural (such as the sun) or man-made (such as a torch or light bulb). It provides light so that we are able to see things. Objects are easier to see if there is more light. The sun can damage our eyes if we look directly at it so we should never do this.

How are shadows formed? Shadows are formed on a surface when an opaque or translucent object is between a light source and the surface, blocking some of the light.

How do shadows change? The size of the shadow depends on the position of the source, the object and the surface. When the light source hits the object at an angle, the shadow will be longer.

Cross curricular links:

Key Vocabulary

light - The brightness that makes you see things

light source - Something that provides light

dark - Dark is the absence of light. We cannot see anything in complete darkness

transparent - A material that allows things to be clearly seen through it

translucent - A material which allows some light to pass through but things cannot be clearly seen

opaque - A material that does not allow things to be seen through it. Light cannot pass through

shiny - A smooth surface that reflects light easily

matt - A surface that is dull or flat without any shine

surface - The outside part or layer of something

shadow - A dark area or shape caused by an opaque object blocking the light

reflect - When light is thrown back from an object without absorbing it

mirror - A surface which reflects a clear image

sunlight - The light source that come from the sun
- never look directly at the sun as this is dangerous

