Year 6

Science

All children – regardless of gender, starting point or background – will have the opportunity to engage with a high-quality science education. They will be equipped with the knowledge, skills and vocabulary to understand how science can be used to explain what is occurring, predict how things will behave and analyse caused. We intend to inspire a sense of enjoyment and curiosity about science.

Light

Spring 1

Prior Knowledge

- 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.
- Wearing a sun hat will help protect our heads and faces from the sun.
- Recognise that shadows are formed when the light from a light source is blocked by an opaque object.

Key Vocabulary:

- Waves
- Light ray
- Beam

New Knowledge:

- 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.
- Light appears to travel in straight lines, and we see objects when light from them goes into our eyes.
- The light may come directly from light sources, but for other objects some light must be reflected from the object into our eyes for the object to be seen.
- A reflection is light bouncing off a surface and changing direction.
- 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.
- We see things because light travels in a straight line directly from a light source to our eye or light travels in a straight line from a light source and is reflected off an object to our eyes.
- This is why we cannot see things with an absence of light (darkness)
- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
- Objects that block light will cause shadows.
- The shape of the shadow will be the same as the outline shape of the object because light travels in straight lines so cannot travel around the object blocking the light.