

## Year 6



### Review:

## What should I already know?

- I can list some different sources of light.
- I know light is reflected from surfaces
- I can recognise that shadows are formed when the light from a light source is blocked by an opaque object.

# **Essential knowledge**

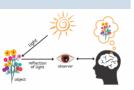
• Light travels in straight lines until it hits an object that will reflect it.

#### **HOW DOES THE EYE DETECT LIGHT?**

Light travels in straight lines. When light hits an object,

it is reflected (bounces off) and enters our eyes.

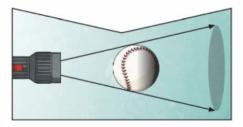
This is how we see the object.



#### HOW DO SHADOWS GET THEIR SHAPE?

Shadows are made by blocking light.

Light rays travel from a source in straight lines. If an opaque object gets in the way, it stops light rays from travelling through. The shape of the object blocking the light creates the shape of the shadow.



| Vocabulary                |   |  |
|---------------------------|---|--|
| Physics                   | is all about Earth and space and how<br>they work.                    |  |
| Working<br>Scientifically | is all about working like a scientist to answer scientific questions. |  |

| Light        | A source of energy that allows you to see.  |  |  |
|--------------|---|--|--|
| Dark         | The absence of light.   |  |  |
| Light Source | An object that makes its own light.   |  |  |
| Reflection   | When light bounces off of a surface and changes the direction of the ray of light.      |  |  |
| Refraction   | When light bends or changes direction as a result of passing through a medium (object). |  |  |



### Significant Scientist

Isaac Newton was the first to understand the rainbow. In 1672 he refracted white light with a prism, resolving it into its component colours: red, orange, yellow, green, blue and violet.





| Our enquiry focus:                |                    |   |                 |          |  |  |
|-----------------------------------|--------------------|---|-----------------|----------|--|--|
| Observing<br>Changes<br>Over Time | Pattern<br>Seeking | Identifying,<br>Grouping &<br>Classifying | Fair<br>Testing | Research |  |  |

## Skills I will need:

- I will set up an enquiry to investigate the shape of shadows.
- I will record my findings about what happens when the source of light is moved.
- I will measure the size of shadows and observe the source of light is moved.
- I will record my data using tables.
- I will interpret my data and report my findings.

