Coley Primary School – Knowledge Organiser

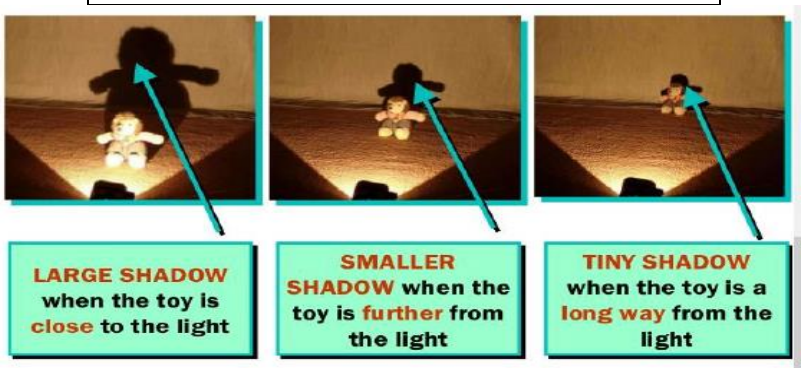
SUBJECT FOCUS: Physics	Science: Light	YEAR 3	TERM 2

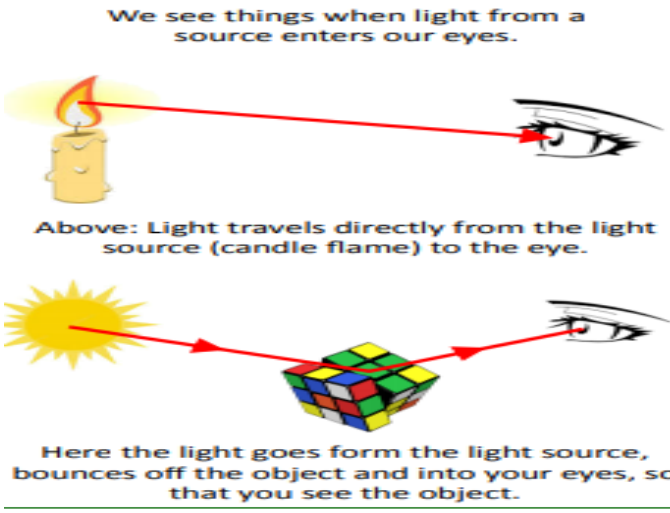
WHAT? – Key Knowledge

- 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
- 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.
- Use scientific language: say, read and spell scientific vocabulary.

Working Scientifically Challenge:

- Explain the difference between transparent, translucent and opaque.
- Compare the brightness and colour of lights
- Explain how bulbs work in an electrical circuit.
- Explain how shadows are formed.





I wonder…

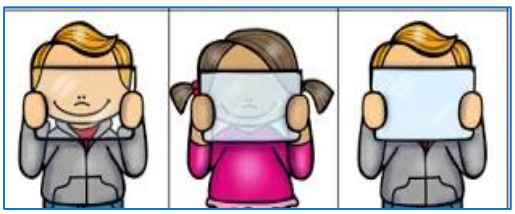
Can they…

- explain why lights need to be bright or dimmer according to need?
- make a bulb go on and off?
- say what happens to the electricity when more batteries are added?
- explain why their shadow changes when the light source is moved closer or further from the object?

WHAT? – Key vocabulary

Reflection	• Light bounces off some materials better than others. • Shiny objects reflect light well.
Common sources of light	The sun, the star, flames, electric lights, some animal (fireflies and glow warm make their own light)
Light source	A light source is something that makes its own light.
Things that are not light sources.	• The moon • A mirror • Shiny object

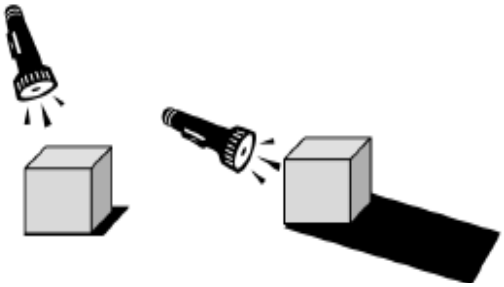
Opaque	A material which does not allow light to pass.
Transparent	Objects behind can be seen clearly.
Translucent	A material which allows light to pass through but is not clear.



Transparant **Transluscent** **Opaque**

Diagrams and symbols

As the light source moves higher in relation to the object, the shadow gets shorter. As the light source moves lower, the shadow gets longer.



Possible experiences: Curious minds…

- ***3, 2, 1, Action*:** Shadow puppets theatres with size of shadow changes for bigger characters.
- **Light and Sound: (Essential Physical Science)** by Louise Spilsbury, Richard Spilsbury