

In this unit: Pupils will explore dark tombs and consider why nothing can be seen without light, and use mirrors to help soldiers guarding a tomb to see around corners. Pupils will also investigate how to make large, scary shadows to warn off tomb raiders.

Children should know:

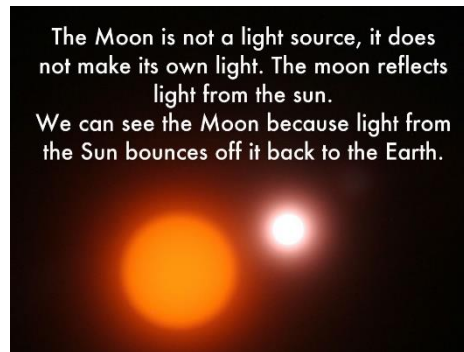
- that certain things produce light, usually by burning (e.g. the Sun) or electricity (e.g. lights).
- shiny materials do not make light but do reflect it.
- shadows are caused when certain materials block light.

By the end of this unit, children will know:

- that a light source is something that emits light.
- that we must never look directly at the sun or a bright light source as it can be harmful to our eyes.
- that we need light to be able to see in the dark because dark is the absence of light.
- that the moon is not a source of light, even though we can see it at night.
- the moon reflects the sun's light making it appear as if it emits light.
- that light travels in straight lines and when it is blocked by an opaque object a dark shadow is formed.

Pupils could investigate:

- the brightness of torches.
- why lights seem brighter in the dark.
- which objects form shadows.
- can the size and shape of a shadow be changed when using the same object.
- what happens when light reflects off different surfaces.



Key Vocabulary

bright	a colour that is strong and noticeable, not dark
dark	the absence of light
dim	light that is not bright
emit	produces and gives out light
light	a brightness that let you see things
light source	where light comes from
mirror	a flat piece of glass which reflects light, so that when you look at it, you can see yourself reflected in it
reflected	sent back from the surface and not pass through it
shadow	a dark shape on a surface that is made when something stands between light and a surface
sunglasses	glasses with dark lenses which are worn to protect your eyes from the bright and potentially dangerous sunlight
surface	the flat part of something or the outside of it
torch	a small electric light which is powered by batteries and can be carried

Key Questions:

- where does light come from?
- does the moon emit light?
- which objects reflect light?
- what is a light source?
- why do we need light?
- why can we only see stars at night?
- how are shadows formed?
- how can shadows be changed?

