The Rotten Romans
Why is light so important?

1. Why is light important?

Dark is the absence of light.

If there is no light from a light source, it will be dark **so we need light to see**.

2. Where does light come from?

A light source is an object that produces light. e.g. a torch or candle, the sun.

Some objects are reflectors and reflect the light made by other objects. e.g. the moon or a mirror.

Dangers of Sunlight

Even though the sun produces light, it can be dangerous for our skin and eyes. The sun can cause:

Sun burn   Skin cancer

Damaged eyes   Wrinkles

6 LIFE, SURVIVAL AND DEVELOPMENT

To protect our eyes and skin we can wear: sun glasses, that have UV filter, a hat and sun cream.
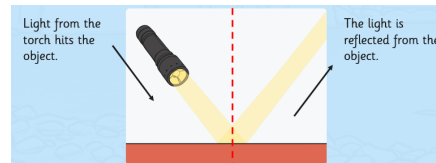
Significant Person

Jean Rosenthal was a pioneer theatrical lighting designer. Rosenthal helped make the lighting designer a member of the design team.

3. What happens when I shine a light on different surfaces?

Light travels in a straight line.

When light hits an object, it is reflected (bounces off).

If the reflected light hits our eyes, we can see the object.

Light from the torch hits the object.
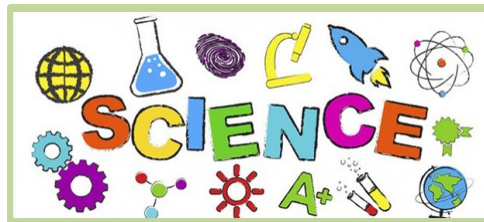
The light is reflected from the object.

Smooth, shiny surfaces such as mirrors and polished metals reflect light well.

Dull and dark surfaces such as dark fabrics do not reflect light well.

Applying Past Knowledge

This learning links with the previous learning you did in Years 1 and 2 when you learnt about materials and their properties.

SCIENCE A+

Key Vocabulary

Light Source	anything that makes light e.g. torch, the sun, mobile phone.
Darkness	the absences of light
Reflect	the return of light from a surface
Shadow	a dark area on a light surface. It is caused by something blocking the light source.
Direct	going from one source to another without being blocked.
Transparent	a material that lets the light travel through.
Opaque	a material that blocks the light travelling through it.
Translucent	letting only some light through so that what can be seen on the other side is not clear

4. How is a shadow formed?

A **shadow** is a dark shape made when light is stopped or blocked by an object or a person.

5. Why are shadows different sizes?

The closer to the light source an object is, the bigger the shadow will be. This is **because the object blocks more of the light**.