



Light and Shadows – Class 3

KNOWLEDGE ORGANISER

Our focus will to look at how people lived and how this has helped or changed over time.

Key vocabulary and definitions

- **see**
Perceive with the eyes.
- **light**
The natural agent that makes things visible.
- **torch**
A portable lamp.
- **shadow**
A dark area or shape produced by a body coming between rays of light and a surface.
- **Reflection**
The throwing back by a body or surface of light.
- **Reflective**
Capable of reflecting light.
- **Mirror**
A surface, typically made of glass, which reflects a clear image.

LIGHT AND SHADOWS

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1. WHAT DO YOU ALREADY KNOW ABOUT 'LIGHT/LIGHT SOURCES'?

Light helps us to see things.
A light source makes its own light.
Some examples of light sources:

The Sun Light bulb Candle
Torch Fire Stars

Without light, it would be very dark and we would not be able to see.

2. HOW MUCH LIGHT PASSES THROUGH DIFFERENT OBJECTS?

Some materials let a lot of light pass through them. Some let a little bit through. Some do not let any light through.

Type of Material	How much light can pass through it?	Example
Transparent	Lots of light passes through. We can see clearly.	clear glass
Translucent	Some light passes through. We cannot see clearly.	frosted plastic
Opaque	No light passes through. We cannot see at all.	book

Remember: The more light that passes through an object, the easier it is to see through it.

3. HOW CAN YOU MAKE DIFFERENT LENGTHS OF SHADOWS?

You can change the length of a shadow by moving the light source.

What to do	What happens to the shadow
Move the light source closer to the object.	The shadow gets LONGER.
Move the light source further away from the object.	The shadow gets SHORTER.

★ The position of the light source changes the size of the shadow.

4. HOW DOES THE SIZE OF A SHADOW CHANGE WHEN AN OBJECT MOVES NEARER TO THE LIGHT SOURCE?

If the object moves nearer to the light source, the shadow gets bigger.
If the object moves further away from the light source, the shadow gets smaller.

Distance from the light	Near	Middle	Far
Size of shadow	Big	Medium	Small

☁ The nearer the object is to the light source, the bigger the shadow.

5. HOW CAN WE PROTECT OURSELVES FROM THE SUN?

The Sun is very important, but it can also be harmful to our skin and eyes.
We need to protect ourselves, especially on hot, sunny days.

Wear a hat

A wide-brimmed hat shades your face, head and neck.

Wear sunglasses

Sunglasses protect your eyes from bright sun.

Use sunscreen

Sunscreen protects your skin. Use SPF 30 or higher.

Wear suitable clothing

Long sleeves and light, loose clothing help to protect your skin.

Stay in the shade

Shade from trees, umbrellas or buildings keeps you cooler and safer.

Remember: "Slip, Slop, Slap, Seek, Slide!"
Slip on clothing, Slop on sunscreen, Slap on a hat, Seek shade, Slide on sunglasses.