



Welton Primary School—Science Knowledge Organiser



Year: 3

Light

Physics

What should I already know?

- I can identify, name, draw and label the basic parts of the human body and say which part to the body is associated with each sense.

Light is a form of energy that make it possible to see.

Light is given off by some objects, for example the sun. Darkness is when there is no light.

Light can reflect off surfaces like mirrors.




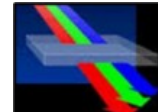
Shadows are formed when light is blocked by an opaque object.



Vocabulary

| | |
|------------------|---|
| light | A brightness that lets you see things. |
| shiny | Reflecting or glowing with light. |
| shadow | A dark shape on a surface that is made when something stands between a light and the surface. |
| mirror | A flat piece of glass which reflects light. You can see yourself in it! |
| sunlight | The light from the sun. |
| dangerous | Likely to cause harm; not safe. |
| light source | Something that emits light by burning, electricity or chemical |
| absence of light | Darkness: there is no light, like a shadow. |
| matt | Dull, lacking shine or lustre. |
| surface | The flat top part of something . |

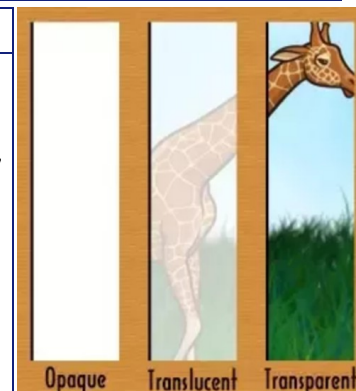
Light

| <u>Dark</u> | <u>Absorption</u> | <u>Reflection</u> | <u>Transmission</u> |
|--|---|--|---|
| <ul style="list-style-type: none"> Darkness is the absence of light. Where there is no light, it is dark! Human vision is unable to see colours when there is high levels of darkness. At night-time, the sky is darker because there is a lack of light from the sun.  | <ul style="list-style-type: none"> When light hits an object, it may be absorbed into the object. This means that it doesn't bounce off or pass through. Some examples of materials that absorb light include wood and stone.  | <ul style="list-style-type: none"> Light may also reflect off the surface of an object. This means that light bounces off the object, sending it in another direction. Some examples of objects that reflect light are mirrors and metal surfaces.  | <ul style="list-style-type: none"> Light can also be transmitted through certain objects. This means that it passes through the object. It can be seen from the other side of the object. Some examples of objects that transmit light include windows and clean water.  |

Transparent, Translucent and Opaque

When light hits an object, it can be absorbed by the object, reflect the object or pass through an object.

- Transparent objects allow all of the light to pass through. This means that we can clearly see through them.
- Translucent objects only allow some light to pass through them. This means that we can partially see through them.
- Opaque objects do not allow any light to pass through them. This means we cannot see through them at all.



Protection from Light



Some types of light, particularly the sun, can be dangerous for our eyes and skin. This is because they contain UV rays that can cause damage. There are several things that we can do to protect ourselves in the sun.

Wearing Sunglasses

Sunglasses reduce the amount of light that reaches our eyes.



Covering up



Clothes can help to block some of the UV rays that can damage our skin.

Sun Cream

This stops our skin from absorbing as many UV rays, protecting it from harm.

