



LIGHT

KNOWLEDGE ORGANISER

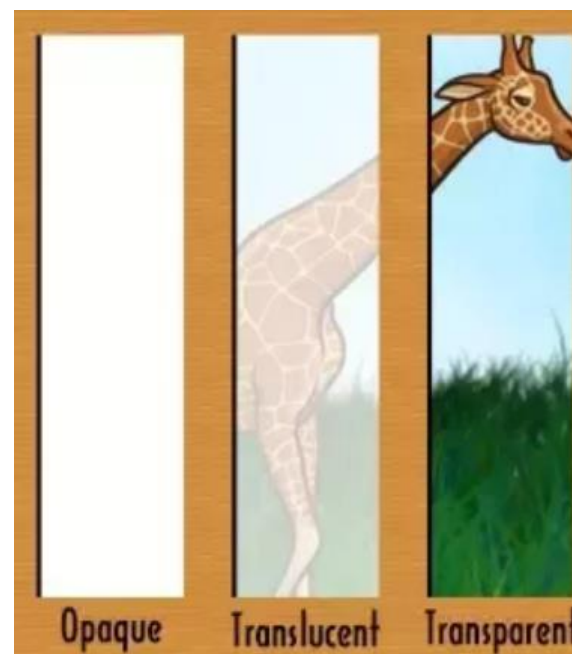


Overview



- Light is a form of energy that makes it possible to see.
- Light is given off some objects (for example the Sun).
- Darkness is when there is no light.
- Light can reflect off surfaces (e.g. mirrors)
- Objects can be labelled as transparent, translucent, or opaque, depending on the amount of light that they let through.
- Shadows are formed when light is blocked by an opaque object.

Transparent, Translucent and Opaque



Transparent – all of the light passes through We can clearly see through them.

Translucent – only some light passes through. We can partially see through them.

Opaque – no light to passes through. We cannot see through them at all.

Light – Key Terms



Dark

- No light.

- Human vision is unable to see colours when there is high levels of darkness (too little light).
- At nighttime, the sky is darker because there is a lack of light from the sun.



Absorption

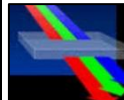
- light is absorbed into the object.

- light doesn't bounce off or pass through the object.
- examples of materials/objects that absorb light include wood, brick and stone.



Reflection

- light bounces off the object, sending it in another direction.
- examples of materials/objects that reflect light include mirrors or polished metal surfaces.



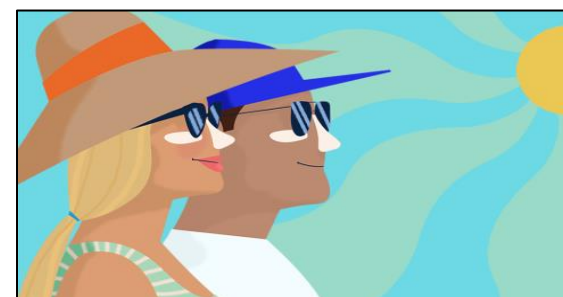
Transmission

- light passes through the object. It can be seen from the other side of the object.

- examples of materials/objects that transmit light include windows and clean water.

Protection from Light

Sunlight can be dangerous for our eyes and skin. The light contains UV rays that can cause damage.



1. Wearing sunglasses – to reduce the amount of light (and also the UV rays) that reaches our eyes.
2. Covering up – clothes block some of the UV rays that can damage our skin.
3. Sun cream –stops our skin from absorbing as many UV rays, protecting it from harm.

Assessment question: How does light reflect off different surfaces?

Transparent Objects

Windows Water

Air

Translucent Objects

Frosted Glass Tracing Paper

Flower Petals Plastic Milk Carton

Opaque Objects

Table

Sofa

Brick