



YEAR 3

LIGHT

KNOWLEDGE ORGANISER



Overview



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

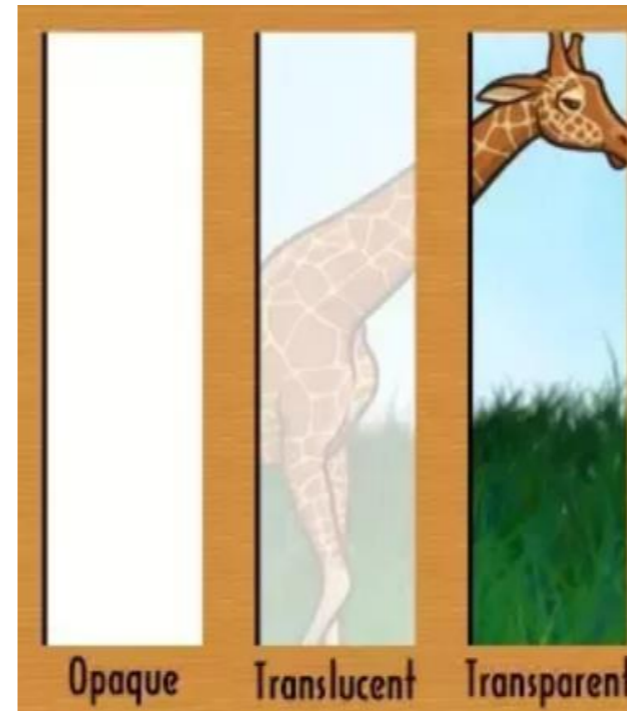
Light is given off some objects (for example the Sun). Darkness is when there is no light.

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



When light hits an object, it can be **absorbed** by the object, **reflect** (bounce off) the object, or (transmit) **pass through** an object.

Transparent – Transparent objects allow all of the light to pass through them. This means that we can clearly see through them.

Translucent – Translucent objects only allow some light to pass through them. This means that we can partially see through them.

Opaque – Opaque objects do not allow any light to pass through them. This means we cannot see through them at all.

Light – Key Terms

Dark



- Darkness is the absence of light. In other words, where there is no light, it is dark!

-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



-When light hits an object, it may be absorbed into the object.

-This means that it doesn't bounce off or pass through the object.

-Some examples of materials/objects that absorb light include wood, brick and stone.

Reflection

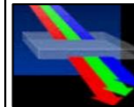


-Light may also reflect off the surface of an object.

-This means that light bounces off the object, sending it in another direction.

-Some examples of materials/objects that reflect light include mirrors or polished metal surfaces.

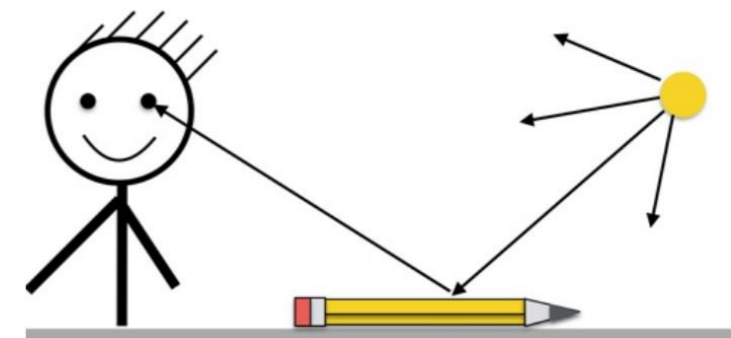
Transmission



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



Transparent Objects

Translucent Objects

Opaque Objects

Windows

Water

Air

Frosted

Tracing

Flower

Plastic Milk

Table

Sofa

Brick



Knowledge Organiser (Explore) – YEAR 3

LIGHT

Key Vocabulary

angle	the direction from which you look at something	shadow	a dark shape on a surface that is made when something stands between a light and the surface
bright	a colour that is strong and noticeable, and not dark	source	where something comes from
dark	the absence of light	sunglasses	glasses with dark lenses which you wear to protect your eyes from bright sunlight
dim	light that is not bright	surface	the flat top part of something or the outside of it
light	a brightness that lets you see things	torch	a small electric light which is powered by batteries and which you can carry
opaque	if an object or substance is opaque, you cannot see through it	translucent	if a material is translucent, some light can pass through it - you can see some of the object behind it
reflects	sent back from the surface and not pass through it	transparent	If an object or substance is transparent, you can see through it



Reading Recommendations