

KEY VOCABULARY

Light – a form of energy that travels from a source

Light source – something that gives off light

Dark – the absence of light

Reflect – to bounce off

Transparent – a material that lets all light through

Translucent – a material that lets some light through

Opaque – a material that lets no light through

Shadow – a dark area on a bright surface formed when light hits a solid object that it cannot go through

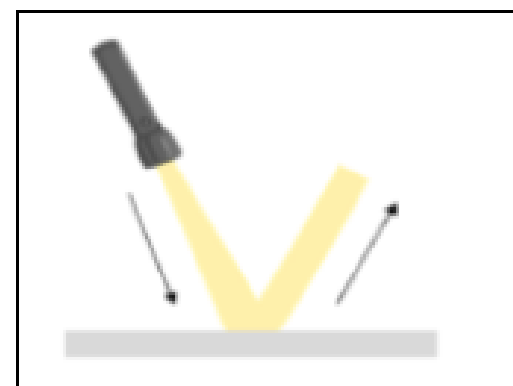
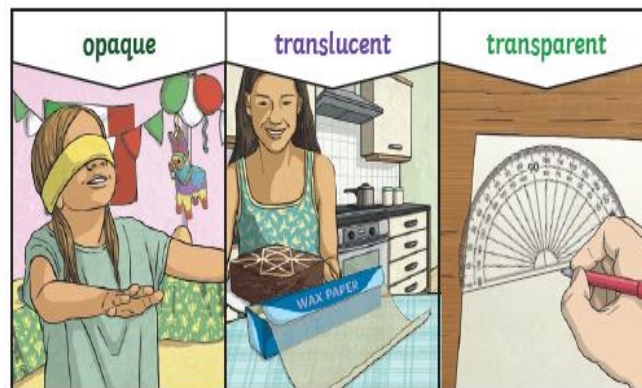
Protect – to keep safe from something

KEY KNOWLEDGE

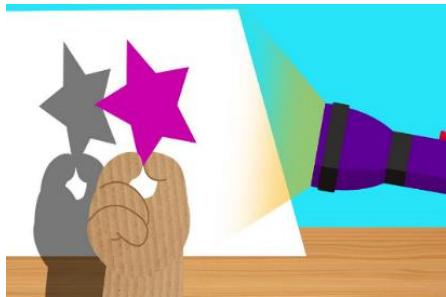
You need light from a light source to see. It is dark when there is no light. Certain materials reflect light well, such as a mirror whereas some materials don't reflect light at all. Surfaces that reflect light best are smooth, shiny and flat. Bumpy surfaces don't usually reflect light well.

When an object blocks light from passing through, a shadow is formed. Shadows are bigger when the object is closer to the light source because the object blocks more of the light and smaller when the object is further away from the light source because the object blocks less of the light. Shadows formed from the sun change depending on the time of the day. When the light source is on the left of the object, the shadow appears on the right. Try it out for yourself!

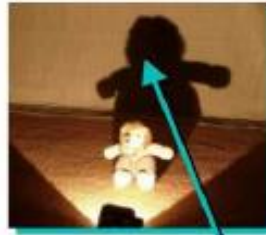
The sun's rays are very powerful and can damage your eyes and skin if you don't protect yourself well. Always be sure to wear sunscreen and use sunglasses when the sun is out.



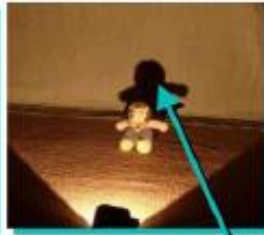
Here are some ideas for your project:



You can even go outside and experiment with your own shadow!



LARGE SHADOW
when the toy is close to the light



SMALLER SHADOW
when the toy is further from the light



TINY SHADOW
when the toy is a long way from the light



HOME LEARNING PROJECT

In order to prepare for this exciting unit of learning, your task is to design a project about light and/or shadows.

To construct your project, we encourage you to use recyclable materials. It can be a poster, booklet, 3D model, PowerPoint presentation, a series of pictures, or anything else you can think of!

Be as creative as you can!