



We are Designers...

Structures and Mechanisms

We are curious, we are unique, we are together, we are Whiteshill!

Design – to plan something before it is made.

Make – create a product.

Evaluate – to judge how a product meets the design criteria.

Design criteria – list of things the product should do.

Audience – who are we making the product for.

Purpose – what is the product used for.

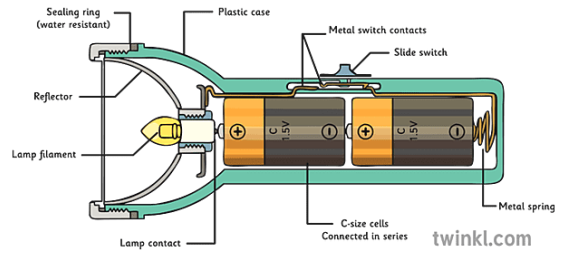
Product – something that is made by humans.

Material – what the product is made of.

Idea – what you think you should make.

Feedback – what do people think of your product.

Cross-sectional Diagrams

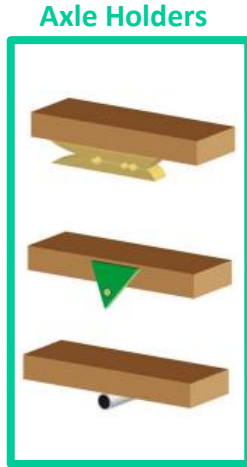
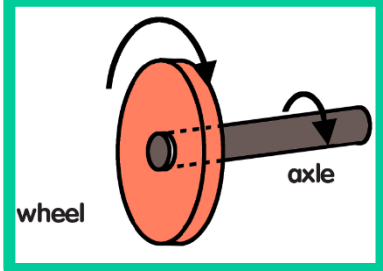


Structure – a building or object constructed from several parts.
Constructed – built
Strengthen and Reinforce – stiffen or support with extra material.
Strong and stable – won't break if used too much.

Strengthen with triangles



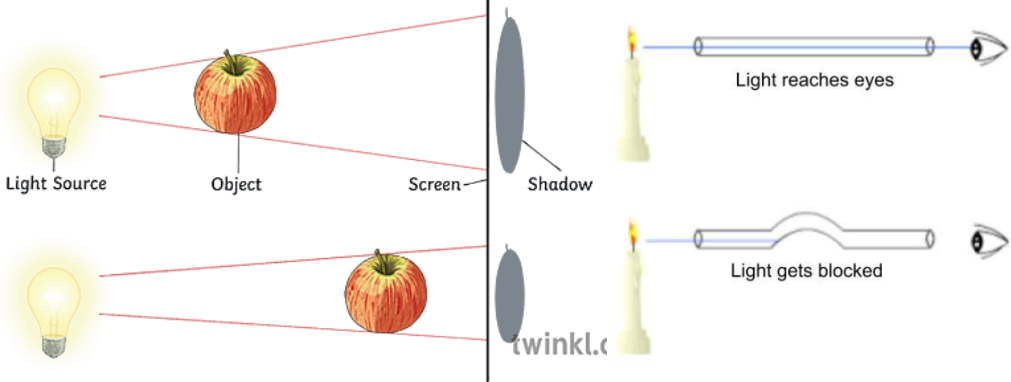
Mechanism - parts working together in a machine.
Axle – a rod that enables a wheel to rotate. The wheel can rotate freely on the axle or be fixed to, and turn with, the axle.
Axle holder – the component through which an axle fits and rotates.
Chassis – the frame or base on which a vehicle is built.



Levers and Linkages

- Fixed pivot
- Loose pivot

When you push the card strip (input movement), the two levers move (output movement).



Light and Shadows
Darkness – absence of light (no light).
Shadows - formed when light from a light source is blocked by a solid object.
Shadows get smaller when you move them further away from the light source and bigger closer to it.