



KEY VOCABULARY

**mechanism**

a **system of component parts** working together in a **machine**

**component part**

**part** of a mechanism

**Archimedes' screw**

a mechanism which **transports water uphill** which the Greek scientist, Archimedes, wrote about

**pulley**

a mechanism which **helps to lift a load more easily**

**axle**

a **rod** that passes through the **centre of a wheel**

**prototype**

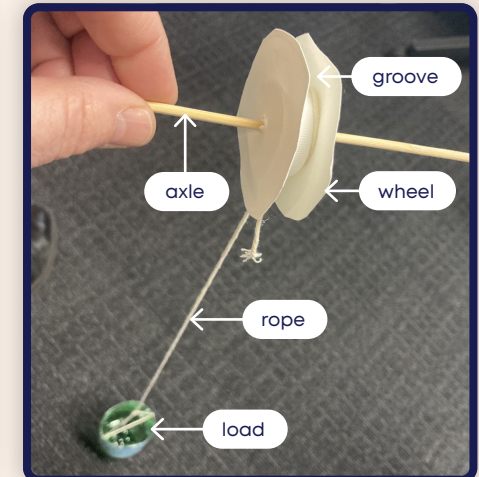
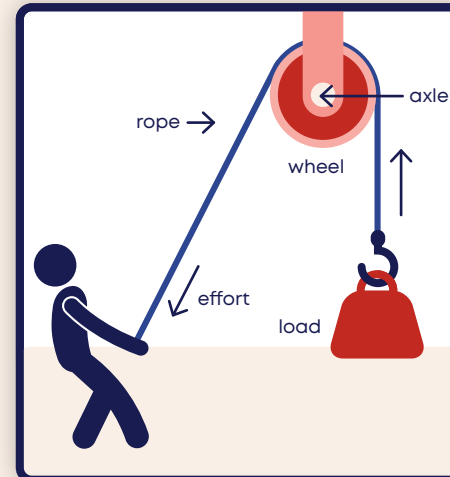
a **model** to try out a product – making prototypes can be part of the **design process**

**engineer**

a **person** who is trained to **invent, design, build** and **test** machines, structures and materials

a pulley

the component parts of a pulley are the axle, wheel, groove and rope – everyday examples of pulleys include a well and a weights machine in the gym



example  
water wall



design criteria

**user**  
who is the product for?

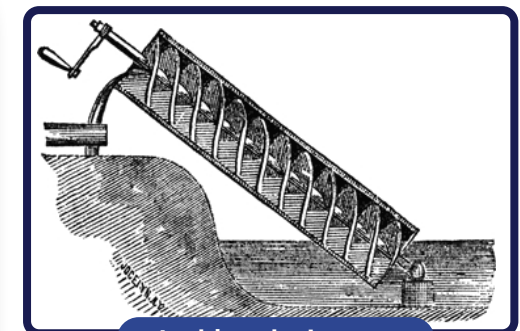
**purpose or function**  
what is the product for?

**aesthetic appeal**  
how is the design of the product pleasing to look at?



Nav Sawhney

an engineer who designed a washing machine which doesn't use electricity



Archimedes' screw