

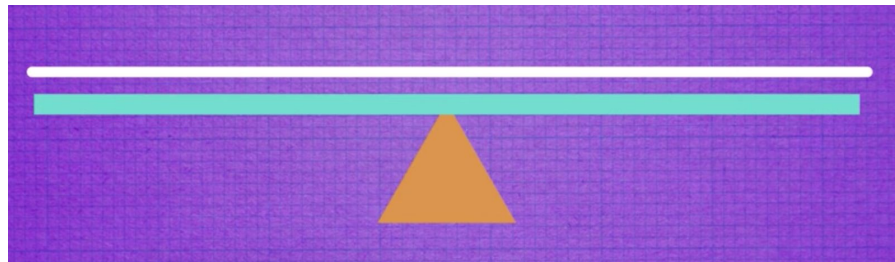
Red

Pulley

- Pulleys are used to help lift heavy objects
- Simple machines make it easier for us to do work, a pulley is an example of a simple machine.
- The object being lifted is called the **load**.
- A pulley has two main parts: a string or rope, and a wheel.
- The rope fits into the groove of the wheel.
- You pull on the rope to lift the object, rather than lifting the object itself.
- As the rope is being pulled down, the rope turns the wheel, and the heavy object is lifted up.
- An example of a pulley is a crane used to build tall buildings.
- Inside lifts there is also a pulley that controls the lift moving up or down inside the tall building.
- A smaller version of a pulley is using the string to open the blind, or to raise a flag on a flagpole



Levers



- Simple machines make it easier for us to do work, a lever is an example of a simple machine.
- Levers help flip heavy objects.
- A lever is a long bar that is balanced on something that is underneath (fulcrum).
- By pushing down on one end of the lever, the fulcrum makes the other end go up.
- A lever is just like a seesaw at the park!
- Levers help us lift things that would be too heavy to lift on our own.
- Levers are everywhere, but they often don't look like a seesaw.
- Did you know, a wheelbarrow acts as a type of lever?

Gears



- Gears are wheels with teeth on the edges that fit together.
- These wheels move power from one part of the machine, to another part.
- In a bike, they take the power from the pedals to the back wheel.
- Gear trains form when teeth interlock.
- Driver gear is the gear that you turn, and the follower gear gets turned.
- Less force is created in exchange for a greater speed.

Yellow/Green

Pulley

What type of machine is a pulley and what is the purpose of this type of machine?

Simple machines make it easier for us to do work.

What are pulleys used for? **Pulleys are used to lift heavy objects that we wouldn't be able to lift ourselves.**

What are the two main parts of a pulley? **The rope and the wheel.**

Can you describe how a pulley operates? **The rope slots into the groove of the wheel. One end of the rope is tied to the heavy object, when you pull the other end of the rope, the heavy object is lifted.**

What is an example of a pulley? **A crane, inside lifts, lifting a flag on the flagpole.**

Key words:

- The load
- Rope
- Wheel
- Simple machine

Levers

What type of machine is a lever and what is the purpose of this type of machine?

Levers are a simple machine and these make it easier for us to do work.

What are levers used for? Levers are used to flip heavy objects.

What are the main parts of a lever? The main parts of a lever are the long bar, and the fulcrum (the object the long bar is balanced on).

How does a lever operate? The lever operates by putting heavy pressure on one side of the long bar, the other side lifts.

What equipment in a play park is a lever like? Like a seesaw

What everyday objects have levers? Wheelbarrow

Key words:

- Fulcrum
- Long bar
- Balanced
- Flip

Gears

What are gears? Gears are wheels that turn and slot together with other gears.

Gears are wheels with...? 'teeth'

Gears move power from one part of the machine to another.

What type of vehicle might you find gears? A bike, a car

What is it called when the teeth in gears interlock? Gear trains

The gear that you turn is called the...? Driver gear

The follower gear is the gear that gets...? Turned.