

Summer Week 4 Science Lesson 3

Can I identify mechanisms and how they work?

Fast Five:

Can you think of 2 things you have learnt about forces so far in your science lessons?

If you are really proud of what you've learnt so far, send us an email of what you've learnt or any pictures of your experiments. We'd love to see what you've been up to!

Send them to: year4@monkwickjunior.school



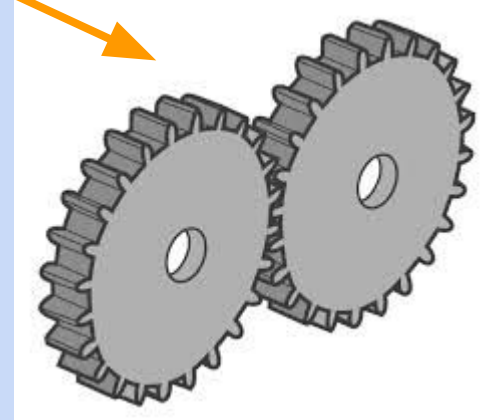
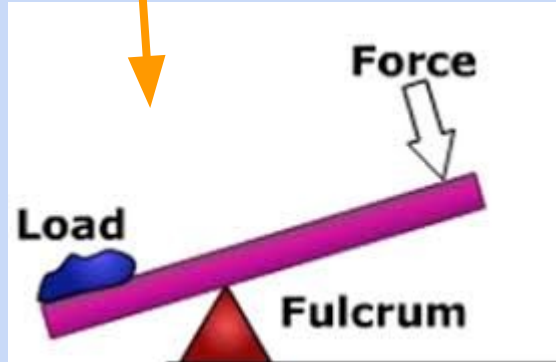
Fast Five - possible answers!

- Forces come in pairs, a push and a pull force.
- Friction is the force between two surfaces that are trying to slide across each other
- An example where friction is useful is car tyres on the road, this helps cars to not skid off the roads.
- An example where friction is not useful is for ice skaters gliding across the ice. They need as little friction as possible to smoothly move on the ice.
- The smoother a surface, the less friction there will be.
- Gravity is the force that pulls everything to the centre of the earth.

Mechanisms

Today we are going to learn about mechanisms.

These are used in **pulleys**, **levers** and **gears**.



What is a mechanism and how do they work?

Mechanisms are simple machines we can use to make work easier, such as moving heavy objects.

This is because they are designed to give out a force much stronger than you put in to them.

The next few slides will tell you more about the different types of mechanisms we can use.



Pulleys:

Pulleys are simple machines that are used to lift heavy loads easily. They are usually made from rope and a special wheel.

Watch this video to find out more:

<https://safeYouTube.net/w/YJEB>

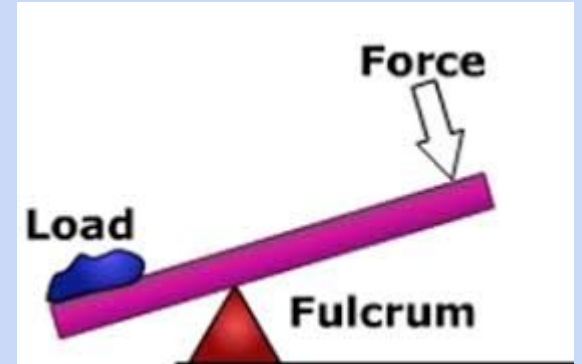


Levers:

Levers are machines that can help lift heavy items. They can look a bit like seesaws you find at the playground.

Watch this video to find out more:

<https://safeYouTube.net/w/gIEB>



Gears:

Gears work by having two or more wheels with teeth around the edge.

When you spin one wheel, the other wheels will move because they are driven by the first 'driver' wheel.

This means that you can create a lot of power, just by spinning one wheel around in a machine that has gears.

Watch this video to find out more!

<https://safeYouTube.net/w/nXJB>

Your activity:

Choose one of the mechanisms we have learnt about today. Re-watch the video for it and then create a poster explaining what it is and how it works.

Red: Sentences for the poster are given on the activity sheet, you need to fill in the gaps with the information you have learnt.

Yellow: There are keywords and questions in a box on the activity sheet that you can use to help you think of information to put on your poster.

Green: Use the information you have learnt to create your own poster. If you get stuck, you can re-watch the videos or do some research of your own!