STEM Week

Using magnets to solve problems

Engineers help to solve problems

Engineers help to solve problems

Do you know what an **engineer** is?

Talk about your ideas.

An engineer is a person who invents, **designs** and builds things.

They use their knowledge of maths and science to help them understand how things work.

an engineer

Engineers help to solve problems

Explanation

Engineers design all sorts of important things.

machines

Wuppertal train, Germany

buildings

“The Gherkin”, England

structures

Millau viaduct, France

Can you think of anything else an engineer might design?

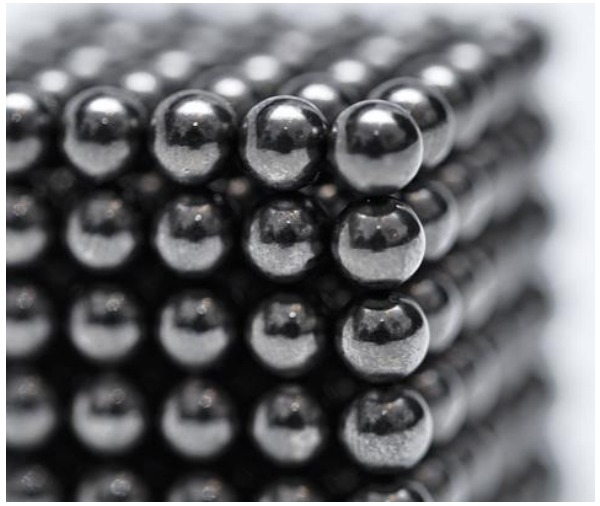
Magnets in our lives

Explanation

Children's games can be **designed** and produced to make use of magnets.

a magnetic fishing game

a magnetic darts game



magnetic balls

Magnets in our lives

Explanation

Many household items have magnets inside them.

Fridge magnets help us organise notes and letters.

Fridge doors have magnets in them to keep them closed.

Some drawers have magnets in them to keep them closed.

Magnets in our lives

Explanation

Many **electronic devices** have small magnets inside to make them work

a microwave

a mobile phone

a speaker

a TV

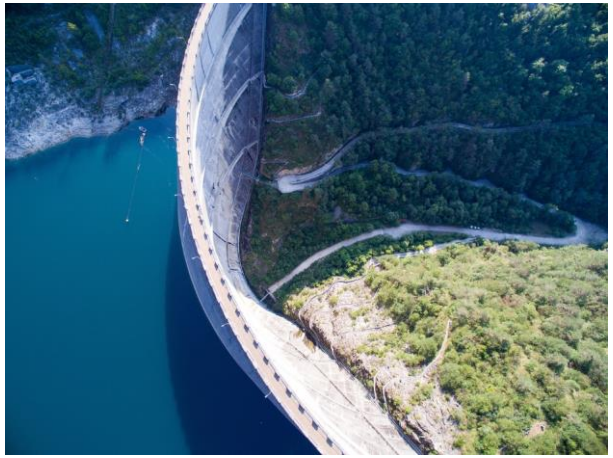
a laptop

All of these contain magnets.

Engineers help to solve problems

Explanation

Men and women become many kinds of **engineers**, to make sure we have clean water, electricity, safe cars and medicines.



a reservoir and dam

an electricity pylon

medicines

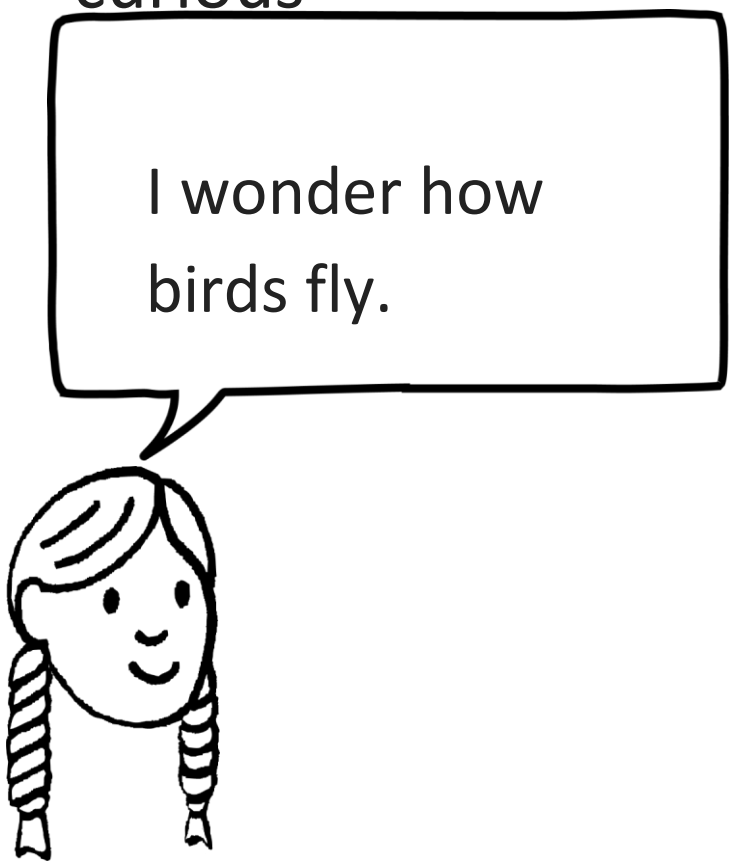
Engineers work all over the world, indoors and outdoors, in labs and in offices.

Engineers help to solve problems

Explanation

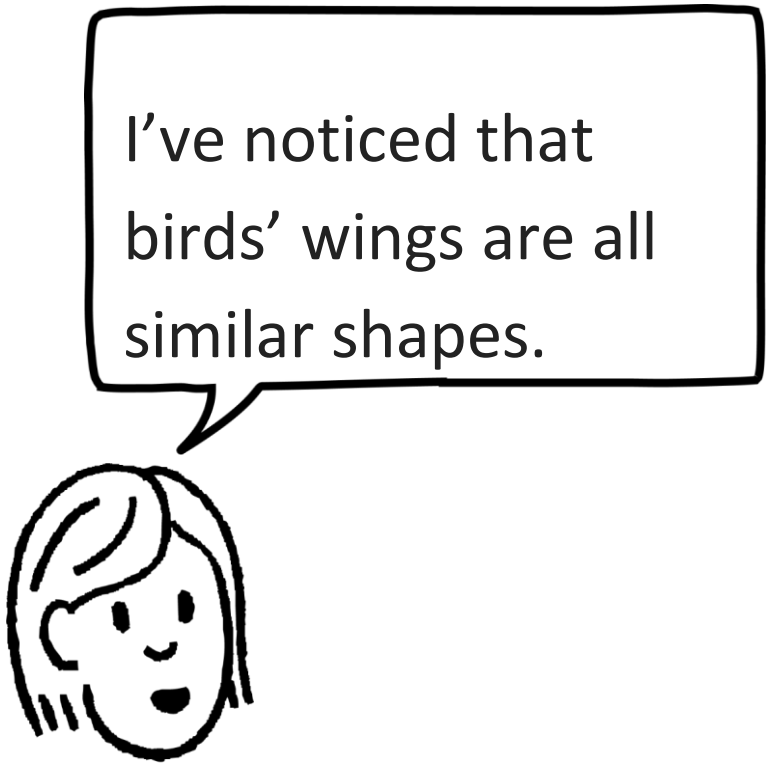
Important skills for **engineers** include being:

curious



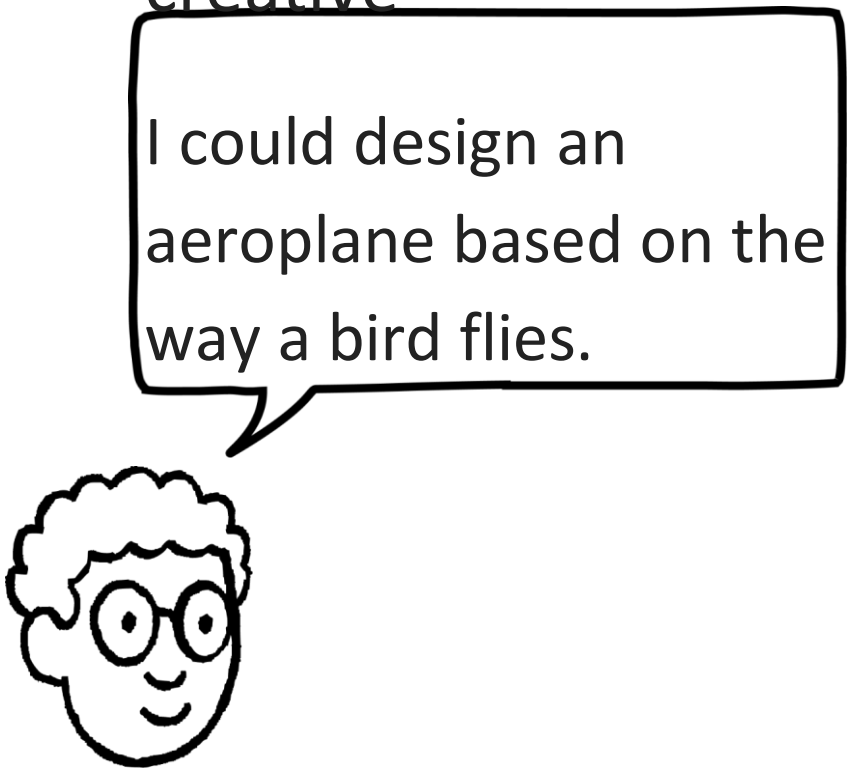
Laura

observant



Sam

creative

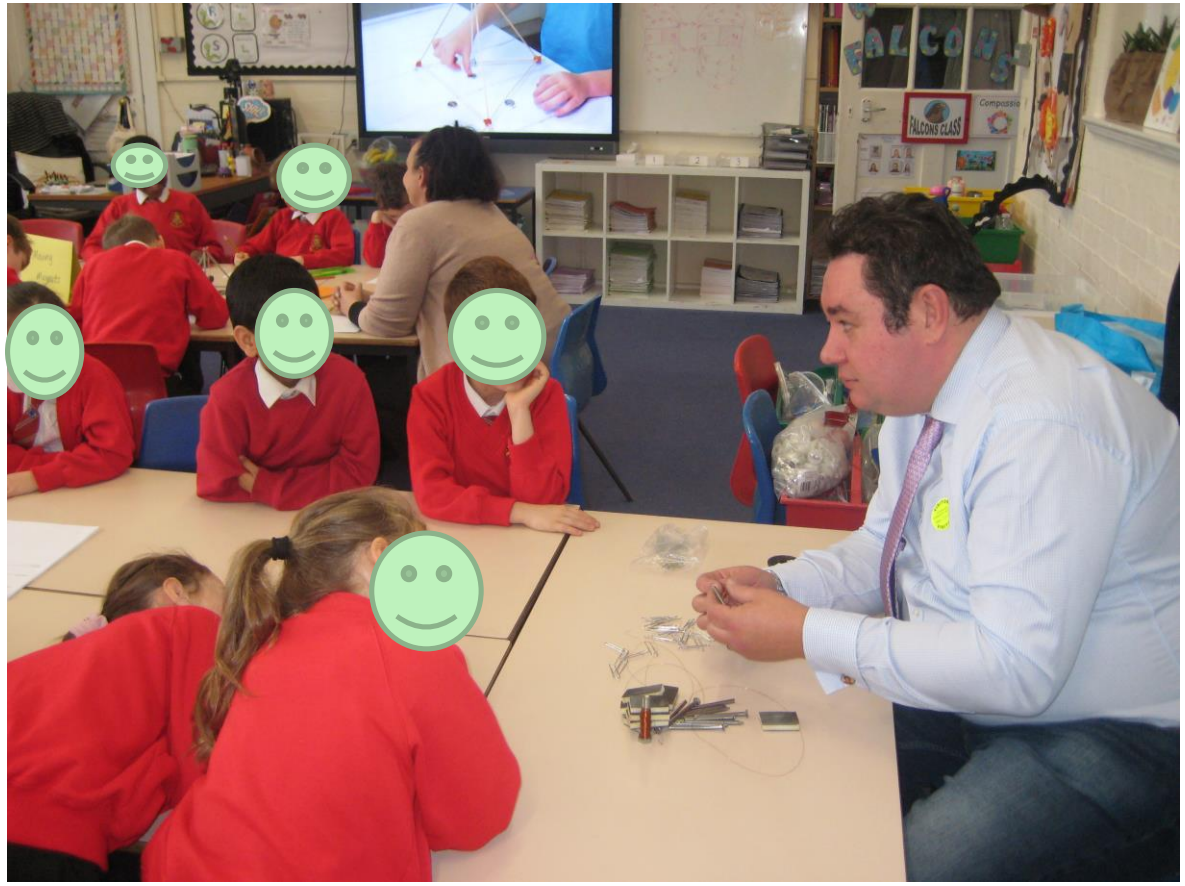


Alex

Electro Magnet

Explanation

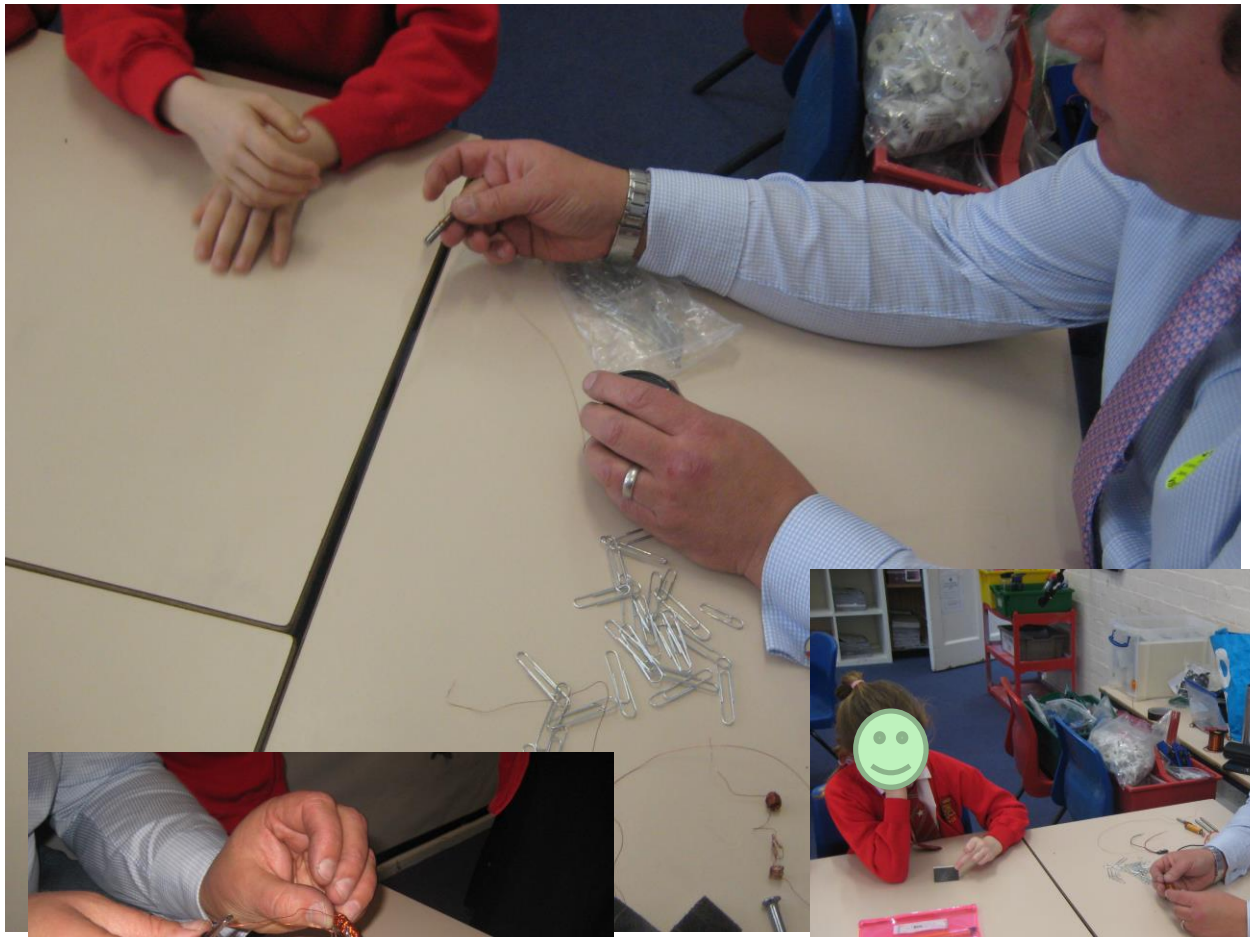
Today we investigated magnets and made our own electro magnet, and compass!

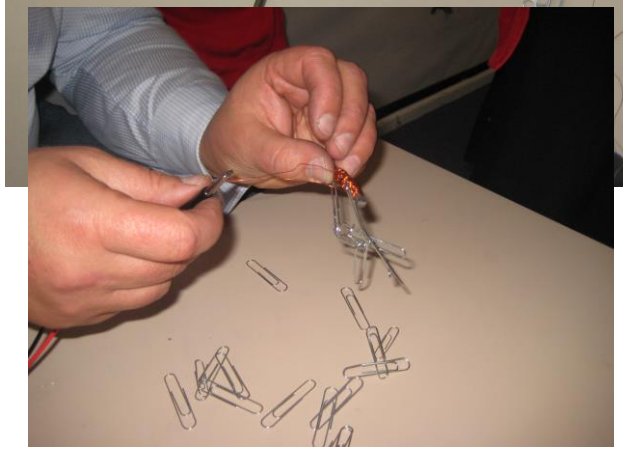


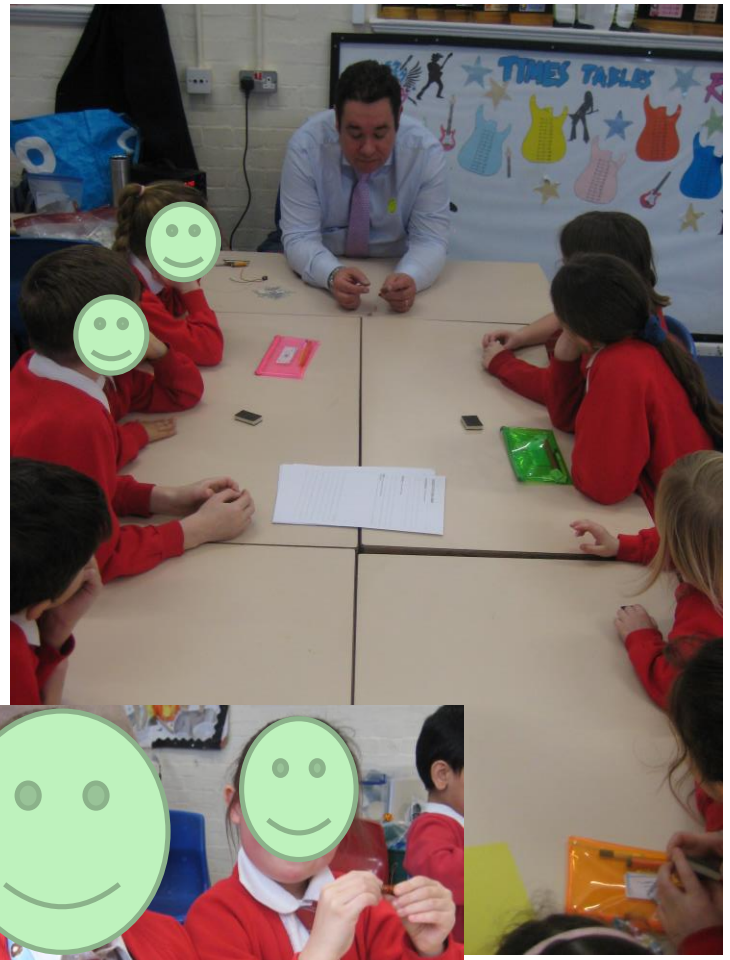
Ralph, an aviation engineer, came today in and showed us how to make electro magnets with a steel nail and copper wire – we even got to take it home!

Electro Magnet

Explanation

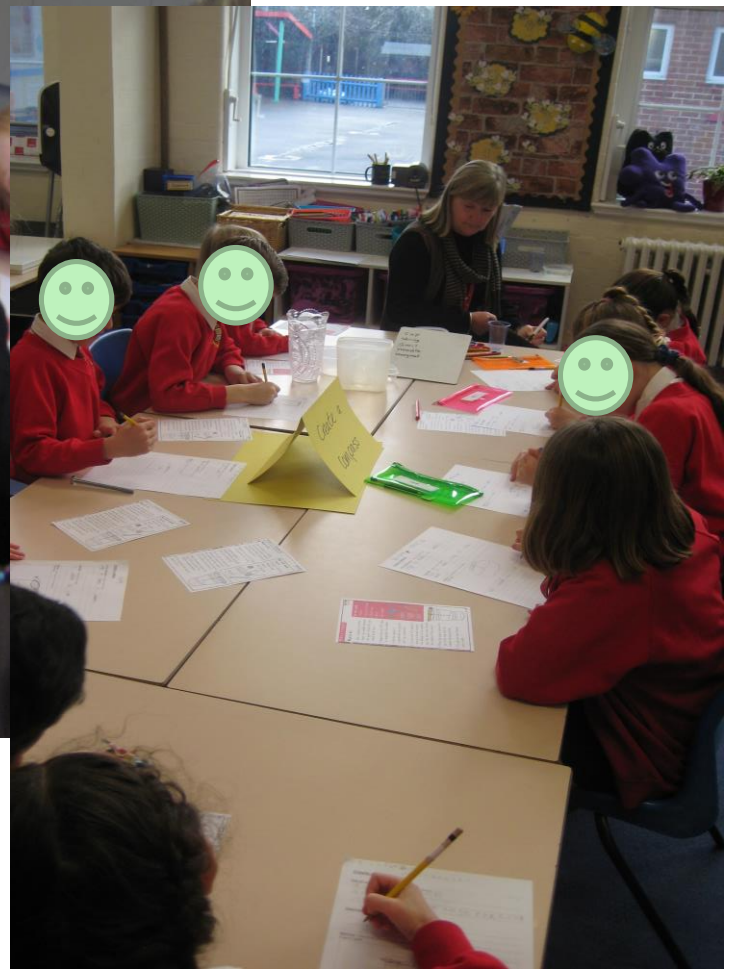




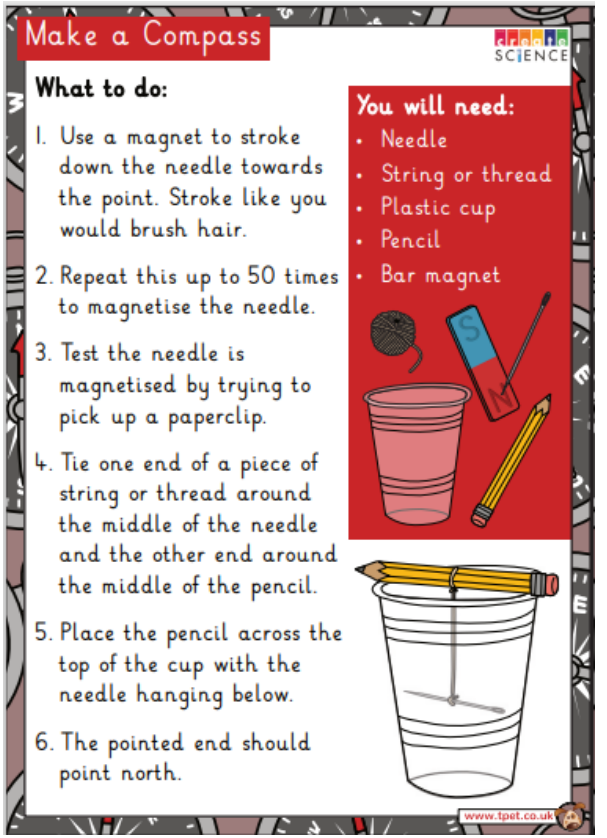


Compass

Explanation

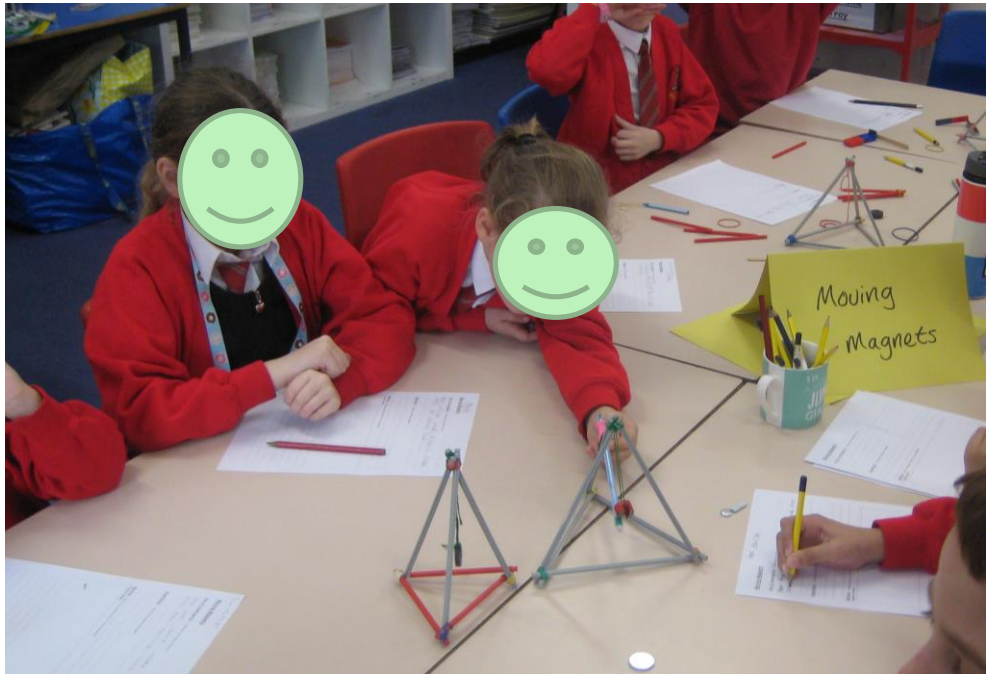


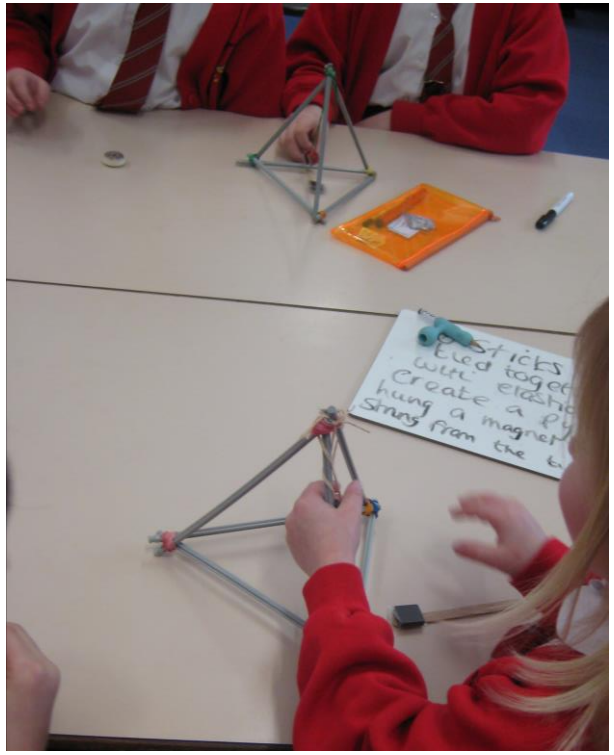
We made Compasses by rubbing needles with magnets

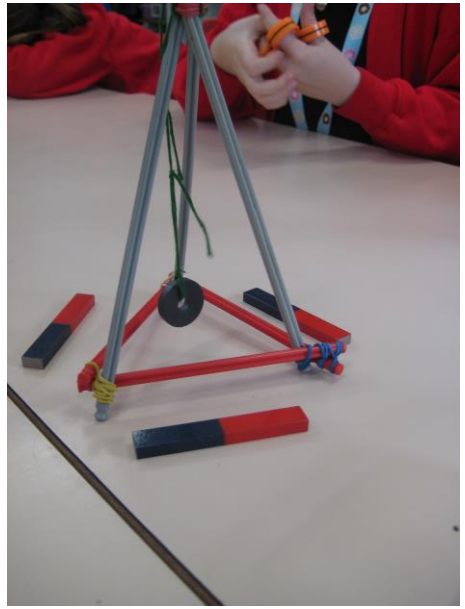


Magnetic forces in action

Explanation







We investigated magnets and how they can move through the forces of repel and attract