

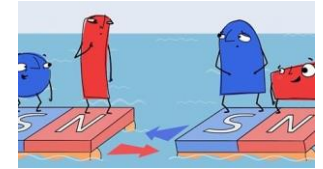


Year 3 Forces and Magnets Knowledge Organiser

Knowledge

Skills

Vocabulary



Curriculum Coverage

- * Compare how things move on different surfaces
- * Notice that some forces need contact between two objects, but magnetic forces can act at a distance
- * Observe how magnets attract or repel each other and attract some materials and not others
- * Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
- * Describe magnets as having two poles
- * Predict whether two magnets will attract or repel each other, depending on which poles are facing

Knowledge and Skills Progression

How can I compare how things move on different surfaces?

To be able to set up a simple fair test.

To be able to record findings in a bar chart.

To be able to identify changes related to scientific ideas.

Which materials are attracted to magnets? How can I find and sort items that are/are not magnetic?

To be able to use results to draw simple conclusions.

To be able to compare and group together everyday materials.

Which materials can magnets attract through?

To be able to provide an oral explanation of findings.

To be able to compare and group together everyday materials.

Which magnet is strongest? Can I identify that magnetic forces can act at a distance?

To be able to make systematic and careful observations.

How can I predict whether two magnets will attract or repel each other? How can I explore magnetic poles?

To be able to make systematic and careful observations.

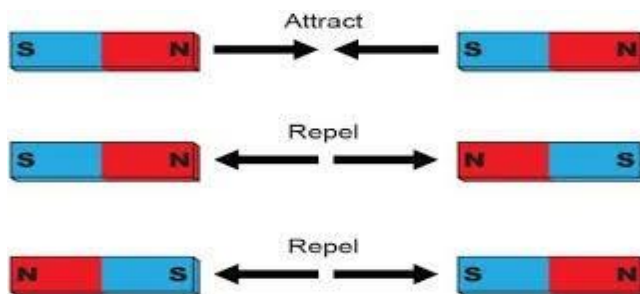
To be able to provide an explanation of findings

Scientific vocabulary

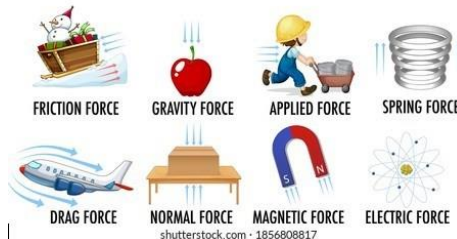
Magnets, bar magnet, horseshoe magnet, attract, repel, north pole, south pole, magnetic, magnetic field, surface, friction, steel, metal, iron, nickel, cobalt

Scientific enquiry

What is a magnet? How can we identify them? Where are they in the real world? Do we use them in everyday life? What is a force? How can we explain friction? What is a magnetic force? How can we demonstrate our understanding?



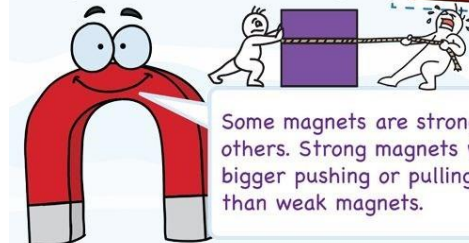
TYPES OF FORCE



MAGNETS

When two magnets are close, they create pushing or pulling forces on one another. These forces are strongest at the ends of the magnets.

A magnet has two ends: the north pole and the south pole.



Some magnets are stronger than others. Strong magnets will create bigger pushing or pulling forces than weak magnets.