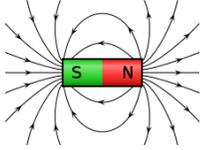


Year 3: Forces and Magnets

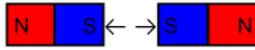
A force is a push or pull on an object.

A force can cause something to:

- speed up
- slow down
- change shape
- change direction



The ends of a **magnet** are called its **poles**. One end is called the **north pole** and the other end is called the **south pole**.

Scientific Vocabulary	
Friction	is when two surfaces slide together, a force called friction makes them stick very slightly together. Smooth surfaces have less friction than bumpy surfaces.
Magnets	are objects that pull or push things with an invisible force called magnetism, which has the ability to attract some metals such as iron and nickel. Magnets cannot pull anything made of wood or plastic, or metals such as copper or gold. Objects that are pulled by magnets are said to be magnetic. Objects that are not pulled by magnets are said to be non-magnetic.
Surface	the outer layer of an object.
Magnetic poles	The ends of a magnet are called its poles. One end is called the north pole and the other end is called the south pole.
Attract	To pull towards.  Opposite poles attract
Repel	To push away  Same poles repel

You can set up a practical enquiry.

Which surface would you use to build a ramp for your new toy car?

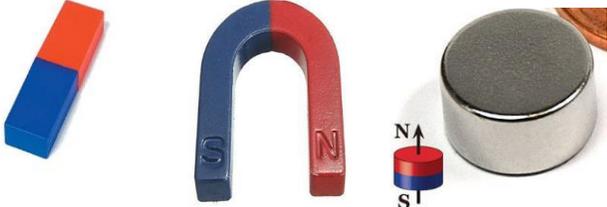
1. Collect a car.
2. Collect your surfaces
3. Attach one surface on the ramp.
4. Release the car from the top of the ramp.
5. Measure the distance the car travels from the bottom of the ramp.



Did the cars all travel the same distance?
Why do you think this happened?
Can you explain this using the word friction?

You can set up a fair test

Which of these magnets do you think will be the strongest?



Bar Horseshoe Disc

How could you test this?
What will you measure?
What will you keep the same?

Newton's First Law of Motion	
First law	An object will continue in the state it is in (rest or motion) unless a force acts on it.