

## Dog Kennel Hill Primary - Science

**Topic: Forces and Magnets**

**Year: 3**

**Strand: Physics**

### What should I already know?

- A force is a push or pull on an object.
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### What will I know by the end of the unit?

How can a force change something?	A force can cause something to <ul style="list-style-type: none"> <li>• speed up</li> <li>• slow down</li> <li>• change shape</li> <li>• change direction</li> </ul>
What is a magnet?	A magnetic force is a natural force. Magnets have two poles – the north pole and the south pole. Same poles repel. Opposite poles attract.
What is friction?	The ice skate moves easily on smooth ice. It takes more force to move on rough ground. When two surfaces slide together, a force called friction makes them stick very slightly together. Smooth surfaces have less friction than bumpy surfaces.
What are natural forces?	There are two types of natural forces that we have around us: magnetic forces and gravity forces.
What is gravity?	Gravity makes things fall down towards the centre of the earth . In space there is hardly any because the earth, stars and other planets are far away. That is why astronauts float in space float

### Vocabulary

Attract	If one object attracts another object, it causes the second object to move towards it. To stick together.
Force	Force is the power or strength which something has.
Repel	When a magnetic pole repels another magnetic pole, it gives out a force that pushes the other pole away. You can also say that two magnetic poles repel each other or that they repel.
Gravity	A natural force that pulls thing towards the centre of the Earth.
Friction	The force when a surface or objects rubs against another.
Upthrust	The force that pushes an object up.
Air resistance	The force that slows things down in the air.
Bar magnet	A magnet in the form of a bar.
Pull	A pull is a strong physical force which causes things to move in a particular direction.
Push	When you push something, you use force to make it move away from you or away from its previous position.
Metal	When you push something, you use force to make it move away from you or away from its previous position.

### Magnets

#### Opposite Poles Repel

If you try to put two magnets together with the same poles pointing towards each other the magnets will push away from each other. We say that they repel each other. See the picture below.

#### Different Poles Attract

If you put two magnets together with different poles pointing towards each other the magnets will pull towards each other. We say that they attract each other.

