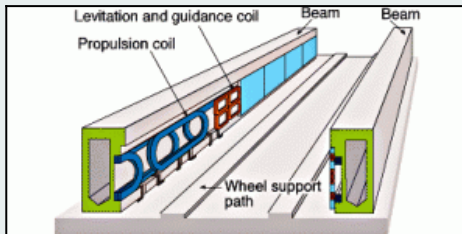


## Movement

Electromagnets are electric powered magnets. It is capable of turning off unlike ordinary magnets. The stronger the current is the stronger the magnet becomes. If you use a magnetic material for the core of your electromagnet it will become even stronger. An example of a commonly used electromagnet is cranes with magnets for the pick up system. The magnets will have to be electromagnets otherwise the crane will only ever be able to pick up something, not drop or let go of somethings. Maglev Trains are another use for electromagnets. There is less friction in maglev trains than there are in normal trains because they are powered by electromagnets. They are better because they can be remotely controlled by people than having drivers in the train. As shown below there is an electromagnets for keeping the train hovering and another to propel it forward.



## The magnetic field



The compass is placed around a magnet and this is the diagram that shows it. The needle point of a compass is magnetic and therefore the north pole will be repelled from north pole of the magnet making the needle point, point north. The same goes for the south pole of the magnet. The North needle point is attracted to the South pole making it point north.

YOUR LOGO  
HERE

## Future Move Brochure

Roshan Downey



## Magnets

Magnets are made from materials such as iron, nickel or cobalt. There are two sides of a magnet, the north pole and the south pole. As shown above the earth's north and south pole are also magnetic. In compasses, the north pole of the magnet inside will point north because it is being affected by the magnetic pull of the earth's poles. North poles of magnets will be attracted to the south pole of another magnet. The same goes for the other way round. North pole magnets will repel other North pole magnets. Magnets cannot pick up metals like steel or gold. Magnets can be used to hold somethings together, they are used as the needle point in compasses and they are also the way that people keep fridge and freezer doors shut.

## Movement

Movement happens when the forward force is larger than the resisting force. If the forces are the same then the objects will move at a steady pace. There are two types of resistance when it comes to force. They are air resistance and water resistance. Air resistance is more commonly referred to as drag. Drag is caused by air particles hitting against a moving object and bouncing off that object. This slows the moving object down for example a car. The faster the car gets the more drag there is. The car can only move forward because the force from the engines is larger than the drag. The larger an object is the more resistance there is. This is why car companies are now trying to create more streamlined shaped cars because there will be less resistance on the car and therefore it won't use up as much fuel as it might if it wasn't streamlined.



Streamlined car



Not streamlined car

## PRESSURE

Pressure is the amount of force that pushes on a certain point or area. There are two types of pressure. High pressure and low pressure. The smaller the point or object the higher the pressure is. For example; a sharp knife is on lying on a piece of bread. The blade is a small area and so there is a large pressure on the knife and the knife cuts the bread. However if I was to put my thumb on to the bread my thumb would do less damage than the knife because my thumb has a larger area than the knife and therefore it has a low pressure.



## Levers

Levers can multiply the distance or force on an object. A force multiplier can increase the force at a certain point. A distance multiplier can increase the distance that force travels