Year 3 Blue Spring 1: Are Robots More Intelligent Than Us?

Sticky Knowledge

Robots are usually machines controlled by a computer program or electronic circuitry. They may be directly controlled by humans. They may be designed to look like humans, in which case their behaviour may suggest intelligence or thought.
Robots have many uses. Many factories use robots to do hard work quickly and without many mistakes. They do not look like people, because they are made to do things. These are 'industrial' robots
A few robots do surgery in places inside the body where a human hand is too big
Planet rovers are robots for exploring distant planets. Because it takes a long time to send a radio signal from Earth to another planet, the robots do much of their work alone, without commands from Earth.
The Earth is a very big magnet. Its North and South poles are highly magnetic.
A magnet always has north and south poles. Cutting a magnet in half makes two magnets, each with two poles
Magnets only attract certain types of metals, other materials such as glass, plastic and wood aren't attracted.
Different surfaces create different amounts of friction. The amount of friction created by an object moving over a surface depends on the roughness of the surface or object and the force between them.
A magnetic field is invisible. You can see it though if you place a magnet with iron filings as the filings will create the shape.

Key Text

Topic Vocabulary

Algorithm	A procedure or step-by-step guide to solve a problem or achieve a goal
Debug	Find and correct errors in a computer program
Simulation	Using a computer to model real-world or imaginary systems
Variables	A way in which computer programs can store, retrieve or change simple data, such as a score, time left or username.
Attract and repel	A magnetic field is the area around the magnet where it can attract or repel things. When you bring two magnets together they will either attract or repel.
Force	Pushes or pulls that change the motion of an object.
Magnetic poles	North and south poles are found at different ends of a magnet
Friction	A force that acts between two surfaces or objects that are moving, or trying to move, across each other.
Surface	The top layer of something
Magnetic Field	The area around a magnet where there is a magnetic force which will pull magnetic objects towards a magnet.