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| Vocabulary | |
| Force | The scientific word for the pulling and pushing effect. |
| Friction | The force that makes it difficult for things to move when they touch each other. |
| Gravity | Gravity is a force which tries to pull two objects towards each other. |
| Balanced force | When two forces are equal. |
| Magnet | A piece of iron or other material which attracts some metals towards it. |
| Magnetic | Something that acts like a magnet. |
| Pole | North and South ends of a magnet. |
| Attract | The force of one object pulling another object towards it. |
| Repel | The force of one object pushing another object away from it. |

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| Sticky knowledge |
| Objects move differently on rough and smooth surfaces; objects resist movement more on rough surfaces because there is higher friction as the object moves. |
| Forces act in opposite directions to each other. When an object moves across a surface, friction acts as an opposite force. |
| Magnets have two poles called north and south. |
| Like poles (south-south and north-north) of two magnets repel each other and opposite poles of two magnets (north-south) attract each other. |
| Some materials are magnetic, meaning that they are attracted to a magnet, while other materials are non-magnetic. |
| There are also non-contact forces that can act between objects without them touching and magnetism is an example of a non-contact force. |
| Magnetic materials are always made of metal, but not all metals are magnetic. |

Objectives

-compare how things move on different surfaces

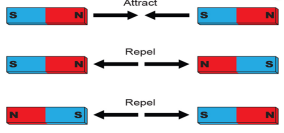
-notice that some forces need contact between two objects, but magnetic forces can act at a distance

-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



Which of these materials are magnetic?

Iron gold aluminium plastic wood rock steel