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| What? (Key Knowledge) |
| What is a force? | Forces are pushes and pulls in a particular direction. |
| What is friction? | This is a force that acts between two surfaces or objects, that are moving or trying to move across each other. Friction always slows a moving object down. For example, when you try to push a book along the floor, friction makes it difficult. The amount of friction depends on the materials from which the two surfaces are made. |
| What is a magnet? | This is an object which produces a magnetic force that pulls certain objects towards it. |
| Are all materials magnetic? | The objects that are attracted to a magnet are magnetic, such as metals containing iron, nickel or cobalt. For example, paperclips. Objects that contain wood, plastic or fabric would be non-magnetic. |
| What is a magnetic field? | This is the area surrounding a magnet where the force is acting on another magnet or magnetic material. It can be observed using a compass placed at different points around a bar magnet. |
| Possible Experiences |
| Work scientifically to compare how different things move on different surfaces.Sort and classify magnetic and non-magnetic materials. Design, make and evaluate a magnetic game.Explore how magnetic forces can act at a distance. |
| What? (Key Vocabulary) |
| Spelling | Definition/ Sentence |
| Motion | Moving from one place to another. |
| Surface | The top layer of something. |
| Accelerate | Speeding up. |
| Decelerate | Slowing down. |
| Balanced Force | When two forces are equal and there is no motion. |
| Attract | The force of one object pulling another object towards it. |
| Repel | The force of one object pushing another object away from it. |
| Poles | North and South poles are found at the different ends of a magnet. |
| Compass | A tool for finding direction. It contains a magnetic needle, which can spin freely. The needle always points North and will react to nearby magnetic fields. A compass works because Earth is a huge magnet.  |
| **Diagrams and Symbols** |
|  **Examples of a push force****Examples of a pull force**  |
| Year 3/4 Spelling Words linked to the unit of work. |
| Different, difficult, experiment, extreme, forward, group, increase, material, notice, opposite, particular, position, pressure, strength, weight. |