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| Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 |
| WALT understand the forces acting on objects and to show the direction of force with arrows  Practical situations in classroom and outside. Photograph, consolidate with worksheets. WALT understand that some forces need contact between two objects (Beginning to understand) | WALT use scientific skills to investigate exploring how things move on different surfaces and from different heights  WALT understand that some forces need contact between two objects  Ramp investigation | WALT understand there are different types of magnets and to describe the scientific meaning of 'attract' and 'repel'  Handling magnets | WALT use scientific skills to investigate the strength of different magnets  Paperclip investigation  Create a compass | WALT understand that not all metals are magnetic  Predict and then test basket of objects, record results systematically. | WALT use scientific skills to investigate whether materials are magnetic  Which material is best for making a board game with magnetic pieces? |
| Key Vocabulary | | | | | |
| Force, propel, balanced, unbalanced, friction, pull, push, attract, repel, magnet, magnetic, magnetic field, horseshoe magnet, iron filings, bar magnet, surface, contact, North pole, South pole, bend, stretch, twist, squash, direction, arrow, stop, slower, faster, iron, nickel, cobalt, attraction, repulsion, like, opposite.  In this unit, the children will learn about friction, forces and magnetic attraction. They will learn about forces in the context of pushing and pulling. The children will investigate friction by exploring the movement of a toy car over different surfaces and heights. They will explore the way magnetic poles can attract and repel; predicting first and find out how magnets can act at a distance. They will work together scientifically to investigate and record the strength of different magnets in the paper clip challenge. They will have the opportunity to make their own compass and use it to find hidden objects. They will sort materials into magnetic and non-magnetic through a challenge to create a board game for a Summer Fayre. | | | | | |
| Milestone Indicator | | | | | |
| • Compare how things move on different surfaces. Week 2  • Notice that some forces need contact between two objects Week 1 but magnetic forces can act at a distance. Week 2  • Observe how magnets attract or repel each other and attract some materials and not others. Week 3, 5 and 6  • Compare and group together a variety of everyday materials based on whether they are attracted to a magnet, and identify some magnetic materials. Week 5 and 6  • Describe magnets as having two poles. Week 3  • Predict whether two magnets will attract or repel each other, depending on which poles are facing. Week 3  **Work Scientifically**  Ask relevant questions.  Set up simple, practical enquiries and comparative and fair tests.  Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers.  Gather, record, classify and present data in a variety of ways to help in answering questions.  Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables.  Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.  Use results to draw simple conclusions and suggest improvements, new questions and predictions for setting up further tests.  Identify differences, similarities or changes related to simple, scientific ideas and processes.  Use straightforward, scientific evidence to answer questions or to support their findings. | | | | | |

 