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| Year 5 Science – Forces – Autumn 2 |
| What should I already know? | What am I going to learn in this unit? | Vocabulary I need to know |
| * I can sort scientific evidence that has been used to support or refute ideas.
* I can record information using scientific diagrams and labels
* I can observe how magnets attracts or repel each other and attach some materials and not others
* Notice that some forces need contact between objects, but magnetic forces can act at a distance
* Compare how things move on different surfaces
* I can predict whether two magnets will attract or repel each other, depending on which poles are facing
* I can compare and group a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials
* I can explore the natural world around me
* I can find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
 | * I can explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object
* I can identify the effects of air resistance, water resistance and friction, that act between moving surfaces
* I can recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect
* I can research how scientists (Galileo Galilei and Isaac Newton) helped to develop the theory of gravitation
* I can ask questions about the effects of air resistance
* I can observe the effects of friction and forces that make things begin to move, get faster or slow down
* I can gather and record data from my experiments
 | Forces | Pushes or pulls |
| Gravity | A pulling force exerted by the Earth. |
| Earth’s Gravitational PullGravity is Your Posture's Friend! - Alexander Technique Online | The pull that Earth exerts on an object, pulling it towards Earth’s centre. |
| Upthrust | A force that pushes objects up, usually in water. |
| Air Resistance | A type of friction caused by air pushing against a moving object.  |
| Water Resistance | A type of friction caused by water pushing against a moving object. |