

**Year 5
Spring 1
Forces**

Week	NC objectives	REMEMBER (prior knowledge)	KNOW (new knowledge)
1 2 3 4 5 6	<ul style="list-style-type: none"> • explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object • identify the effects of air resistance, water resistance and friction, that act between moving surfaces • recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect • 	<p>Compare how things move on different surfaces. (Y3 - Forces and magnets)</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance. (Y3 - Forces and magnets)</p> <p>Observe how magnets attract or repel each other and attract some materials and not others. (Y3 - Forces and magnets)</p> <p>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. (Y3 - Forces and magnets)</p>	<p>To know and identify that objects moving have a range of forces acting upon them.</p> <p>To know that-</p> <p>Friction- acts between two surfaces or objects that are moving, or trying to move, across each other.</p> <p>Air-resistance- A type of friction caused by air pushing against any moving object</p>

		<p>Describe magnets as having two poles. (Y3 - Forces and magnets)</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing. (Y3 - Forces and magnets)</p>	<p>Water resistance- type of friction caused by water pushing against any moving object.</p>
			<p>To know that gravity is pulling force exerted by the Earth</p> <p>(or anything else which has mass).</p>
			<p>To know that the Earth's gravitational pull is a pull that Earth exerts on an object, pulling it towards Earth's centre.</p>
			<p>To know that pulleys can be used to</p> <p>make a small force lift</p> <p>a heavier load. The more</p> <p>wheels in a pulley, the</p>

			less force is needed to lift a weight.
			To know that levers can be used to make a small force lift a heavier load. A lever always rests on a pivot.
			To know that gears or cogs can be used to change the speed, force or direction of a motion. When two gears are connected, they always turn in the opposite direction to each other.
Vocabulary	<u>Prior knowledge vocabulary</u> force, contact, surface, magnetic, attract, repel, poles		<u>New vocabulary</u> air resistance, water resistance, friction, gravity, lever, gear, pulley, Newtons