
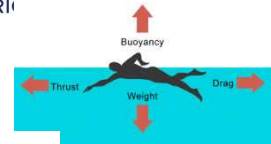

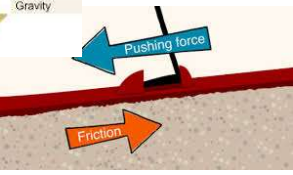



# Crown Planner - Year Five Physics – Forces

Year group: 5	Subject: Science (Physics)	Term: Spring 1
<p><b>WOW/Starting Question: What did Isaac Newton discover under the apple tree?</b></p>		
<p><b>Key vocabulary:</b></p>		
<p><b>Gravity (noun)</b></p>	<p>Gravity is the force which causes things to drop to the ground.</p>	
<p><b>Air resistance (noun)</b></p>	<p>Air resistance is a type of friction between air and another material.</p>	
<p><b>Water resistance (noun)</b></p>	<p>Water resistance is the friction of water that stops things moving through it quickly.</p>	
<p><b>Friction (noun)</b></p>	<p>Friction is the force that makes it difficult for things to move freely when they are touching each other.</p>	
<p><b>Force (noun)</b></p>	<p>In physics, a force is the pulling or pushing effect that something has on something else.</p>	
<p><b>Accelerate (verb)</b></p>	<p>If something accelerates it, it gets faster and faster.</p>	
<p><b>Decelerate (verb)</b></p>	<p>If something decelerates the speed is reduced.</p>	
<p><b>Mechanism (noun)</b></p>	<p>In a machine or piece of equipment, a mechanism is a part, often consisting of a set of smaller parts, which performs a particular function.</p>	
<p><b>Pulley (noun)</b></p>	<p>A pulley is a device consisting of a wheel over which a rope or chain is pulled in order to lift heavy objects.</p>	
	<div style="text-align: center;">  </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;"> <p><b>Water resistance</b></p>  </div> <div style="text-align: center;">  </div> <div style="text-align: center;">  </div> </div> <div style="margin-top: 20px; text-align: center;"> <p><b>Friction</b></p>  </div> <p style="background-color: yellow; margin-top: 10px;"><b>Assessment outcomes / Science Investigations:</b> Investigations of the following: gravity, friction, air/water resistance, pulleys/levers.</p>	
	<p style="text-align: right;"><b>Hours: 5 hours teaching time</b></p> <p><b>Key Knowledge</b></p> <ul style="list-style-type: none"> <li>• I can identify and explain the effect of air resistance.</li> <li>• I can identify and explain the effect of friction.</li> <li>• I can explain how levers, pulleys and gears allow a smaller force to have a greater effect.</li> <li>• I can identify and explain the effect of water resistance.</li> <li>• I can explain what gravity is and its impact on our lives.</li> <li>✚ Gravity is the pulling force acting between the Earth and a falling object, for example when you drop something. Any kind of force is really just a push or a pull.</li> <li>✚ Air resistance affects how fast or slowly objects move through the air.</li> <li>✚ Water resistance is the force on objects floating on or moving in water.</li> <li>✚ Magnetic force is an invisible force created by electrons. Magnetic force controls magnetism and electricity.</li> </ul> <p style="text-align: right; color: red;"><b>Prior learning: Y3 – forces and magnets</b></p>	