



What should I already know?	What will I know at the end of the unit?
<ul style="list-style-type: none"> <li>• That some forces need contact between two objects but magnetic forces can act at a distance.</li> <li>• Know that magnets attract some objects but not others.</li> <li>• The strength of the force determines how far and fast an object moves.</li> <li>• Friction is the resistance of motion when there is contact between two surfaces.</li> </ul>	<ul style="list-style-type: none"> <li>• I can explain what gravity is and that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</li> <li>• I can identify and investigate the effects of air resistance (friction) on different surface areas.</li> <li>• I can identify and can explain the effects of water resistance (friction) on a shape.</li> <li>• I can identify and explain friction on different surfaces by using a Newton force meter.</li> <li>• I can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</li> </ul>

Knowledge Vocabulary	Working Scientific Vocabulary
gravity resistance friction streamlined Newton surface mechanism – gears, pulleys, levers	classify compare - similarities - differences observe gather record suggest investigate average reliable

Recommended Reads	Inventor/ Scientist
 	Sir Isaac Newton  The Newton Meter

Suggested Investigations
Comparative and fair testing: How does the surface area of an object affect air resistance? Pattern Seeking: Which shape parachute takes the longest to fall? Comparative Testing: How does the surface area of a container affect how long it takes to sink?