



<b>Unit Overview</b>	Children learn about the forces that act on objects around us and why they are important. Children learn ways in which we can reduce or increase the amount of forces so that things operate effectively.	
<b>Prior Learning/ Links</b>	Y3- Describe and compare how things move on different surfaces. Describe, how magnetic forces can act at a distance and in different ways • Identify that some materials are magnetic while others are not	
<b>Unit Title:</b>	<b>Substantive Knowledge</b>	<b>Disciplinary Knowledge</b>
<p><b>Key Questions:</b></p> <p><b>What materials would be best to make a parachute out of?</b></p> <p><b>How could you slow down a sinking brick?</b></p> <p><b>How does the surface of the road and tyres help to prevent accidents?</b></p>	<ul style="list-style-type: none"> <li>• Know that a force is a push or a pull.</li> <li>• Explain that unsupported objects fall towards the Earth due to gravity.</li> <li>• Knowing that mechanisms such as gears and pulleys allow a great force, so heavier weights can be lifted when using them.</li> <li>• That air resistance slows down moving objects because air slows things down as they move through it.</li> <li>• Know that water slows down moving objects, because water slows things down as they move through it.</li> <li>• Know that friction is a force that slows things down when two surfaces touch each other.</li> <li>• Frictions gives us grip</li> <li>• Children can explain their test and conclude that rough surfaces have better friction than smooth ones.</li> <li>• Children can explain a fari test and the importance of accuracy.</li> <li>• Children can talk about how results are recorded and how to make a test more accurate.</li> </ul>	<p><b>Questioning and Planning</b> Plan an enquiry stating what will work well and why. To plan tests involving the control of variables – stating why this is important in conducting a fair test.</p> <p><b>Observation and Measurement</b> Take accurate measurements and observations, repeating readings in order to achieve accuracy.</p> <p><b>Recording and Presenting</b> Use more complex diagrams, graphs and charts to present findings: tables, keys, bar and line graphs, diagrams with labels. Report and present findings to others using graphs, charts and written explanations.</p> <p><b>Analysing and Evaluating</b> Look for causal relationships between the data and how this supports or refutes the ideas originally thought. Describe the causal relationships between the findings. Discuss the reliability of the results</p>
<b>Vocabulary</b>	<b>Trips/ Visits/Useful Websites/ Resources</b>	<b>Key Misconceptions:</b>
<p><b>Substantive:</b> Gravity Air resistance Buoyancy Drag Grip</p>	<p><a href="#">Year 5: Forces   STEM</a></p>	<p>That gravity makes you float</p>



Science Unit Planner Year:5

Title: Forces

<p>Thrust Streamlined Pivot Lever Pulley Load Mechanism Axis</p> <p><b>Disciplinary:</b> Control Repeat/reliability Causal relationship Support/ refute Enquiry Equipment Accurate Results Fair test variable Diagram Table Chart Conclusion Evaluate evidence</p>	<p><a href="#">Forces - Year 5/6 - P6/7 - Science Collection - Home Learning with BBC Bitesize - BBC Bitesize</a></p> <p><a href="#">Year 5 Forces Investigations - KS2   Outstanding Science</a></p>	
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