

Science



<p>Upper Key Stage 2 Year B Summer Term 1 and 2</p>	<h2>Forces</h2>			<p>Resources</p>
<p>Science skills</p> <p>Developed through:</p> <ul style="list-style-type: none"> Observing over time Identifying, grouping and classifying Pattern seeking Making and developing ideas Comparative and Fair Testing Researching using secondary sources 	<p>Read and spell with confidence - vocabulary: Scientific vocabulary: Recognise, identify, describe, investigate, explore, create, observe, demonstrate, explain, compare, classify, research, Topic-specific vocabulary: Force, gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears</p> <p>What we want children to know:</p> <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>Science skills to be developed:</p> <ul style="list-style-type: none"> Investigate the effect of friction in a range of contexts e.g. trainers, bath mats, mats for a helter-skelter Investigate the effects of water resistance in a range of contexts e.g. dropping shapes through water, pulling shapes e.g. boats along the surface of water Investigate the effects of air resistance in a range of contexts e.g. parachutes, spinners, sails on boats Create a timer that uses gravity to move a ball Research how the work of scientists such as Galileo Galilei and Isaac Newton helped to develop the theory of gravitation Explore how levers, pulleys and gears work Make a product that involves a lever, pulley or gear. 	<p>Possible evidence:</p> <ul style="list-style-type: none"> Can demonstrate the effect of gravity acting on an unsupported object Can give examples of friction, water resistance and air resistance Can give examples of when it is beneficial to have high or low friction, water resistance and air resistance Can explain the results of their investigations in terms of the force, showing a good understanding that as the object tries to move through the water or air or across the surface, the particles in the water, air or on the surface slow it down Can demonstrate how pulleys, levers and gears work Can demonstrate clearly the effects of using levers, pulleys and gears. 	<p>Different materials/surfaces</p> <p>Water tank/container</p> <p>Parachute</p> <p>Timers</p> <p>Levers Pulleys Gears</p> <p>Toys with these mechanisms</p>