



<p>Vocabulary</p> <p>Force, Aerodynamics, Magnitude, Motion, Gravity, Air resistance, Newton, Water resistance, Newton Metre, Friction, Galileo, Gears, Balanced, Levers, Unbalanced, Pulleys, Accelerate, Mechanism, Decelerate, Stationary</p>	<p>Skills</p> <p><u>Enquiry and working scientifically skills (UKS2)</u></p> <ul style="list-style-type: none"> • plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary • take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate • record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs • parachutes - use test results to make predictions to set up further comparative and fair tests • report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations • identify scientific evidence that has been used to support or refute ideas or arguments. 	<p>What we already know</p> <p>This unit follows Y5 A1 unit (Earth and Space)</p> <ul style="list-style-type: none"> • Earth is a planet ‘in space’ • Gravity is a force that stops things from floating in the air • Space is vast and much is yet to be explored or discovered • Earth is the only planet able to sustain human life <p><u>KS1 – Knowledge</u></p> <p>Y2/Sp1 – What can ‘pushes and pulls’ do?</p> <p>Y2/Sp2 – Mars is a planet – gravity</p> <p><u>KS2 – Knowledge and Skills</u></p> <p>Y3/Sp2 – Forces and Magnets - A force is a push or a pull, friction experiment</p> <p>Y3/Sp2 – Taking accurate measurements, Gather and record data accurately in a variety of ways</p>
<p>Illustration</p>	<p>Application/ Outcomes</p> <ul style="list-style-type: none"> • <i>Outdoor learning - Design a parachute which will maximise a person’s safety when skydiving</i> • -Discussions about the designs of transport such as planes, trains and cars, considering aerodynamics • -Force diagrams to show the magnitude and direction of a force an object • -Research gears, levels and pulleys determine their impact on a force • <i>Outdoor investigation for friction</i> • - Investigate water resistance 	<p>Concepts</p> <ul style="list-style-type: none"> • Forces can make an object, start moving, stop moving, change direction, move faster, move more slowly, change its shape. • Weight is how strongly gravity is pulling an object down. It is measured in newtons (N) • Mass is how much matter is inside an object. It is measured in kilograms (kg) • Gravity acts between objects and the Earth, pulling them towards its centre • Forces can be balanced or unbalanced • Air resistance acts on an object and opposes direction of motion • Pulleys and Levers can be used as a tool where a small force can move or lift a heavier load.
<p>Cross Curricular Links</p> <p>Reading – Isaac Newton Maths – mass – units of measure</p>		<p>SEND Adaptations</p> <p>Word banks, image mats, differentiated worksheets, adult support.</p>