

7K Forces	Knowledge, Skills and Understanding
Higher	<p>Compare the way in which force meters and balances that compare masses work</p> <p>Students analyse new situations involving springs</p> <p>Draw lines of best fit on scatter graphs</p> <p>Explain applications of pressure in different situations</p> <p>Explain the effects of balanced and unbalanced forces in unfamiliar situations</p>
Intermediate	<p>Classify forces as contact and noncontact</p> <p>Recall the unit for measuring forces</p> <p>Describe how to use a force meter and a newtonmeter</p> <p>State what is meant by: mass, weight</p> <p>Recall the direction in which gravity acts</p> <p>Identify situations and places where different forces are likely to be found</p> <p>Represent sizes and directions of forces using arrows</p> <p>Explain the difference between mass and weight</p> <p>Describe how the extension of a spring depends on the force applied</p> <p>Explain what is meant by elastic limit, limit of proportionality</p> <p>Recall some effects of frictional forces</p> <p>Explain some ways in which friction can be changed</p> <p>Suggest how and why friction has been reduced or increased in unfamiliar situations</p> <p>Recall some common units for measuring pressures</p> <p>Use the formula relating force, pressure and area</p> <p>Explain why a vehicle needs a force from the engine to keep moving at a constant speed</p> <p>Describe how new evidence changed scientific ideas</p>
Foundation	<p>Describe what a force is</p> <p>Recall the names of simple forces</p> <p>State what is meant by: contact force, non-contact force</p> <p>State what is meant by: friction, air resistance, water resistance</p> <p>Recall the effects of forces on an object</p> <p>Recall the effects of forces on an object</p> <p>Explain how a force has caused certain effects on an object</p> <p>State what is meant by extension, compress, stretch, elastic, plastic</p> <p>State what is meant by friction</p> <p>Describe how friction forces affect movement</p> <p>Describe some ways in which friction can be changed</p> <p>Identify simple situations in which friction is helpful or not helpful</p> <p>State what is meant by: pressure</p> <p>Recall that $1 \text{ Pa} = 1 \text{ N/m}^2$</p> <p>Describe how the pressure depends on force and area</p> <p>Describe the effects of high or low pressure in simple situations.</p> <p>State what is meant by: balanced forces, unbalanced forces</p> <p>Explain the effects of balanced and unbalanced forces in simple situations</p>