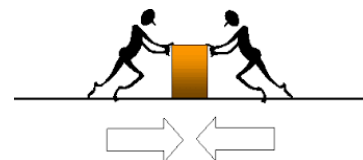


**Triple**

**Unit Overview – Forces**

**Target grade for tests: .....**



**You will learn about:**

- To calculate forces on, and the energy transfers between, objects and their surroundings.
- How and why things move and be able to predict movement in a system.

**You will be able to:**

- Describe acceleration and the conditions for it to occur.
- Use Hooke’s law to understand the properties of springs.

Key learning points					Key Words	
Resultant forces					<b>Force, Vector, Scalar, Newton, Gravity, Weight, Gravitational field, resultant, equilibrium, falling, component, magnitude, direction, work done, Joule, Energy, transfer, friction, potential, change, stretch, deform, elastic, shape, extension, proportionality, constant, acting, stored, raise, limit, turning, moment, define, clockwise, perpendicular, parallel, pivot, lever, gear, rotation, pressure, fluid, surface, area, depth, Pascal’s, liquid, buoyancy, up thrust, volume, density, atmosphere, collision, speed, velocity, braking, stopping, thinking, distance, acceleration, motion, uniform, load, reaction, momentum, inertia, mass, conservation, safety</b>	
Gravity						
Hooke’s Law and elasticity						
Speed and velocity						
Acceleration equations and their uses						
V-T, D-T graphs						
Falling and Newton’s Laws						
Stopping distances						
Momentum						
Moments, levers and gears						
Pressure						
<b>Links to other subjects:</b> <b>SMSC</b> <ul style="list-style-type: none"> <li>• Explain every day and technological applications of science; evaluate associated personal, social, economic and environmental implications; and make decisions based on the evaluation of evidence and arguments.</li> <li>• Appreciate the power and limitations of science and consider any ethical issues which may arise.</li> </ul> <b>Numeracy</b> <ul style="list-style-type: none"> <li>• Algebra skill, substitution, rearranging and solving.</li> <li>• Make estimates and explain why they may be important.</li> <li>• Convert numbers from decimal to standard form, and vice versa.</li> </ul> <b>Literacy</b> <ul style="list-style-type: none"> <li>• Use scientific vocabulary, terminology and definitions.</li> <li>• Make and record observations.</li> <li>• Present reasoned explanations including relating data to hypotheses.</li> </ul>						
Research	Note-making	Group work & discussion	Memorisation	Precision & accuracy	Independence	Reflection