

# FORCES

Mark on how confident you are with each topic and what you need to do, use this as a checklist for your revision notes and then to keep track of the topics you have revised. Tick and date once you have completed the tasks.

Topic	How confident am I?			KNOWLEDGE Definitions and Equations	I have made my revision notes on this topic	I have revised this topic	I am confident on this topic	Evidence
								
	I could teach	I would need to look at my notes	I can't remember					
<b>Forces 1 – Forces in balance</b>								
Vectors and scalars				Vector, scalar				
Forces								
Resultant forces								
Centre of mass				Line of action, symmetry				
Moments, levers and gears				Moment = Force x distance Force multiplier				
Moments and equilibrium								
Vector addition (HT)				Parallelogram of forces				
Resolution of forces (HT)								
<b>Forces 2 - Motion</b>								
Distance and displacement, Speed and velocity				Distance, displacement Speed, velocity,				
Distance-time graphs and Velocity-time graphs				Speed = distance/ time				
Acceleration calculations, terminal velocity and Newton's 3 <sup>rd</sup> Law				Acceleration = change in velocity/ time Force = mass x acceleration				
Acceleration from velocity time graphs				Area under V-T graph = distance travelled				

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Time independent acceleration				$v^2 = u^2 + 2as$				
<b>Forces 3 – Forces and motion</b>								
Newton's laws								
Practical 7 – Force and acceleration								
Weight & gravitational field strength				Weight = mass x gravitational field strength				
Terminal velocity								
Stopping distance				Thinking distance, stopping distance, braking distance				
Momentum (HT)				Momentum = mass x velocity				
Conservation of momentum (HT)								
Impact Forces (HT)				Force = mass x change in velocity / time taken				
Car Safety (HT)								
Forces & elasticity				Force on a spring = spring constant (k) x extension				
Practical 6 – Hooke's law								
<b>Forces 4 – Force and Pressure</b>								
Pressure				Pressure = Force/ area				
Pressure in liquids at rest (HT)				Pressure = height x density x g				
Atmospheric pressure				Pressure = height x density x g (HT)				
Upthrust and floatation (HT)				Upthrust, density				