

SP9 Forces and their effects

Personal learning checklist | 1 of 2

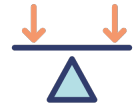
GCSE Edexcel Separate Sciences | Physics Paper 2

Name _____ Class _____ Date _____

Tick one box for each statement. Red: need help. Amber: partly confident.
Green: can do independently.

I can	Red	Amber	Green
Interactions and fields			
Describe contact forces, including normal force, friction, tension, drag and upthrust.	☐	☐	☐
Describe gravitational, electrostatic and magnetic fields and their attraction or repulsion rules.	☐	☐	☐
Describe paired forces between interacting objects and distinguish pairs from forces balancing on one object.	☐	☐	☐
Distinguish vector and scalar quantities and explain why force directions affect resultants.	☐	☐	☐
Force diagrams			
Draw labelled free-body diagrams with correct directions and relative arrow sizes (Higher).	☐	☐	☐
Explain balanced and unbalanced resultants, including rest, constant velocity and multiple force directions (Higher).	☐	☐	☐
Explain angled-string equilibrium through balancing horizontal and vertical components (Higher).	☐	☐	☐

My next revision priority _____



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I can	Red	Amber	Green
Vector construction (Higher)			
Construct scaled head-to-tail or parallelogram diagrams and measure resultant magnitude and direction (Higher).	☐	☐	☐
Resolve forces into perpendicular components and explain why component magnitudes do not simply add (Higher).	☐	☐	☐
Represent equilibrium using closed force polygons and equal opposite equilibrants (Higher).	☐	☐	☐
Reducing energy loss			
Explain how lubrication reduces friction and unwanted thermal energy transfer.	☐	☐	☐
Moments and machines			
Calculate moments using perpendicular distances and explain zero-moment cases.	☐	☐	☐
Apply balanced moments and distinguish rotational from complete static equilibrium.	☐	☐	☐
Explain how levers and gears change force, turning speed and direction.	☐	☐	☐

My next revision priority _____