



I Can Statement - Year 7

Forces

Unit/Topic Overview	Pre-taught Vocabulary	
In this topic: Forces are pushes or pulls that cause objects to move, stop, change speed, or change shape. You will learn how forces act in everyday life and how they can be measured using units called newtons. Key scientific insights include that forces can be balanced or unbalanced, that multiple forces can act at the same time, and that the resultant force affects an object's motion. Important forces include gravity, friction, air resistance, and tension. Understanding forces helps explain why objects behave the way they do and how scientists and engineers design safer, more efficient systems.	Force	Gravity
	Upthrust	Air Resistance
	Balanced forces	Non-contact force
	Weight	Mass
	Newton	Tension

RAG Rating:		Start	End
1.	I can distinguish between contact forces (friction, air resistance, upthrust) and non-contact forces (gravity, magnetism, static electricity).		
2.	I can identify the Newton (N) as the unit of force and use a Newton-meter to measure force accurately.		
3.	I can state three things a force can do to an object: change its speed, its direction, or its shape.		
4.	I can draw force arrows where the length represents the size of the force and the arrowhead shows the direction.		
5.	I can calculate the resultant force in one dimension (e.g., 10N right - 4N left = 6N resultant) and predict the resulting motion.		
6.	I can explain that balanced forces mean an object is either stationary or moving at a constant speed, while unbalanced forces cause acceleration or deceleration.		
7.	I can explain the difference between mass (kg) and weight (N) and use the formula $w=mxg$		
8.	I can identify factors that increase or decrease friction and drag (e.g., surface type, lubricants, or streamlining).		
9.	I can describe how stretching a spring or elastic band changes with the force applied (linear relationship).		

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