GCSE Checklist – Forces and their Effects (Combined Science)

	Got it?	Page(s)
State the differences between vector and scalar quantities; give examples of each		
Understand how to represent vector quantities on diagrams; represent forces on diagrams of interacting objects		
Describe the difference between contact and non-contact forces; give examples of each		
Define weight and describe how to measure it; recall and use $W = mg$; define all terms and units		
Describe the relationship between weight and mass; describe what is meant by 'centre of mass'		
Define resultant force and calculate the resultant of two forces that act in a straight line		
HT ONLY Use free body diagrams to show how multiple forces on an object lead to a resultant force		
HT ONLY Resolve a force into two components acting at right angles to each other		
HT ONLY Use scale vector diagrams to; show the resolution of forces; demonstrate equilibrium situations; determine the resultant of two forces		

Recall and use $W = Fs$; define all symbols and units; convert between newton-metres and joules		
Describe the energy transfer involved when work is done; including how work done against friction causes a rise in temperature of the object		
Explain why more than one force has to be applied to change the shape of a stationary object		
Describe the difference between elastic and inelastic deformation		
Describe the relationship between the extension of an elastic object and the force applied to it (providing the limit of proportionality is not exceeded)		
Recall and use $F = ke$; define all terms and units		
Use $E = \frac{1}{2}ke^2$; define all terms and units		
Required practical 18: Investigating relationship between force and extension		