Key Concepts	Forces		Electromagnets	Energy Changes	Energy	Waves
National Curriculum Knowledge & Understanding	* Forces measured in newtons, measurements of stretch or compression as force is changed * Forces associated with deforming o!"ects# stretching and s$uashing % springs# with ru!!ing and friction !etween surfaces, with pushing things out of the way# resistance to motion of air and water * Force& e'tension linear relation# (oo)e*s +aw as a special case * , oment as the turning e-ect of a force					

	* Wor) done and energy changes on deformation				to energy	

	!efore they start this topic to ensure they can apply their e'isting)nowledge to this new content and conte't1 /upils should now have the mathematical s)ills needed to plot a graph and identify the proportional relationship !etween force and e'tension1 Understanding relationships !etween forces will prepare pupils for further investigation of motion, such as acceleration and circular motion in year B and K7C1	is important to !uild upon these fundamentals and provide pupils with the)nowledge and s)ills to investigate and deseri!e pressure in 0uids1 /upils should have the appropriate mathematical s)ills to carry out calculations using given formula and record and o!serve 2ndings from investigations1	!uild upon their e'isting understanding in this unit and apply principles of magnetism and electricity to electromagnetis m1 /upils should have the appropriate scienti2c s)ills at this age to use plotting compasses correctly and use the e$uipment needed to produce an electromagnet safely1 /upils should have the scienti2c s)ills to plan, o!serve and ma)e conclusions and predictions !ased on outcomes1	)nowledge to the concepts of energy transfers and pathways1 /upils should have appropriate mathematical s)ills in year A to calculate wor) done and energy1	particles1 9t is also important that this unit is taught after particle theory is taught in year ? and year A Chemistry1	vital àssg2•

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