

Year 10 Combined Science	T1	T2	Т3	T4	Т5	Т6
Content / Topic for Term	Year 9 content recap Atomic structure	Forces 1	Waves	Forces 2	Forces 2 (cont)	Recap, revise and EOY tests
Key Knowledge for acquisition, recall and application in assessment or exam	Recap Year 9 content • first three weeks review and recap key Year 9 content Atomic structure • the size & mass of atoms • history of the atom • discovery of the atom • radioactive decay and nuclear equations • half-life • radioactive contamination and irradiation	Forces 1 • scalars and vectors • contact and noncontact forces • gravity • resultant forces • resolving forces	Forces 1 (cont) • work done • forces and elasticity Waves • transverse and longitudinal waves • properties of waves • wave equation • electromagnetic waves	Waves (cont) • properties of electromagnetic waves • radiation and absorption Forces 2 • speed and velocity • distance-time graphs • acceleration • velocity-time graphs • uniformed acceleration	Forces 2 Newton's Laws inertia and mass terminal velocity stopping distance momentum conservation of momentum	Revision of topics so far

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Key skills to apply in assessment or exam	 Use scientific vocabulary, terminology and definitions. Explain every day and technological applications of science; evaluate associated personal, social, economic and environmental implications; and make decisions based 	 Use scientific vocabulary, terminology and definitions. Interconvert units. Interpreting observations and other data (presented in verbal, diagrammatic, graphical, symbolic or numerical form), including identifying 	 Use scientific vocabulary, terminology and definitions. Use a variety of models such as representational, spatial, descriptive, computational and mathematical to solve problems, make predictions and to develop scientific explanations. 	 Use scientific vocabulary, terminology and definitions. Carrying out and represent mathematical and statistical analysis. Interpreting observations and other data (presented in verbal, diagrammatic, graphical, symbolic or 	 Use scientific vocabulary, terminology and definitions. Carrying out and represent mathematical and statistical analysis. Use a variety of models such as representational, spatial, descriptive, computational and mathematical to solve
	science;	other data	descriptive,	analysis.	analysis.
	•	(presented in	' '		
	associated	**	•		
	personal, social,	diagrammatic,	to solve	other data	representational,
	economic and	graphical,	problems, make	(presented in	spatial,
	environmental	symbolic or	predictions and	verbal,	descriptive,
	implications;	numerical form),	to develop	diagrammatic,	computational
	and make	including	scientific	graphical,	and mathematical
	decisions based	identifying	explanations.	_	to solve
	on the	patterns and	• Plan experiments	numerical form),	problems, make
	evaluation of	trends, making	or devise	including	predictions and
	evidence and	inferences and	procedures to	identifying	to develop
	arguments.	drawing	make	patterns and	scientific
	Evaluate risks	conclusions.	observations,	trends, making	explanations and
	both in practical		produce or	inferences and	understanding of
	science and the		characterise a	drawing	familiar and
	wider societal		substance, test	conclusions.	unfamiliar facts.
	context,		hypotheses,		
	including		check data or		
	perception of		explore		
	risk in relation		phenomena.		

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	to data and consequences.		 Presenting observations and other data using appropriate methods. 			
Title of Knowledge Organiser	Atomic structure	• Forces 1	• Waves	• Forces 2	• Forces 2	All previous KOs

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Year 10 Separate Science	T1	T2	Т3	T4	T5	Т6
Content / Topic for Term Key	Year 9 content recap Atomic structure Recap Year 9	Forces 1	Forces 1 (cont)	Waves	Waves	Forces 2
Knowledge for acquisition, recall and application in assessment or exam	content	• scalars and vectors	 moments, levers and gears pressure in fluids atmospheric pressure 	vvaves		 speed and velocity distance-time graphs acceleration velocity-time graphs uniformed acceleration

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	 background radiation and intensity uses of radiation nuclear fission and nuclear fusion 				
Key skills to apply in assessment or exam	 Use scientific vocabulary, terminology and definitions. Explain every day and technological applications of science; evaluate associated personal, social, economic and environmental implications; and make decisions based on the evaluation of evidence and arguments. Evaluate risks both in practical 	 Use scientific vocabulary, terminology and definitions. Interconvert units. Interpreting observations and other data (presented in verbal, diagrammatic, graphical, symbolic or numerical form), including identifying patterns and trends, making inferences and drawing conclusions. 	 Use scientific vocabulary, terminology and definitions. Use SI units (eg kg, g, mg, km, m, mm, kJ, J) and IUPAC chemical nomenclature unless inappropriate. Use prefixes and powers of ten for orders of magnitude (eg tera, giga, mega, kilo, centi, milli, micro and nano). Interconvert units. Use an appropriate number of 		 Use scientific vocabulary, terminology and definitions. Carrying out and represent mathematical and statistical analysis. Interpreting observations and other data (presented in verbal, diagrammatic, graphical, symbolic or numerical form), including identifying patterns and trends, making inferences and

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	science and the		significant figures			drawing
	wider societal		in calculation.			conclusions.
	context,					
	including					
	perception of					
	risk in relation					
	to data and					
	consequences.					
Title of Knowledge	Atomic structure	• Forces 1	• Forces 1	• Waves	• Waves	• Forces 2
Organiser						

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