

Year 11 Revision Schedule 2023-24

Subject/Course:	GCSE Physics
Student Name:	

T Monday 15 January

				 'Core coverage' – practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk) Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and www.aqa.org.uk BBC Bitesize links for Waves I: https://www.bbc.co.uk/bitesize/guides/zgf97p3/revision/1 https://www.bbc.co.uk/bitesize/guides/zgf97p3/revision/1 https://www.bbc.co.uk/bitesize/guides/zgf97p3/revision/1 https://www.bbc.co.uk/bitesize/guides/z9bw6yc/revision/1
Week 2	Monday 22 January	Student-led approach: Your next two weakest topics / sub-topics on Paper 2 (identified by you as 'red' on your Paper 2 learning checklist) <i>Core coverage</i> : Waves II (4.6.2) – types, properties and uses of EM waves, reflection and refraction, RP9 (refraction), production of radio waves, lenses and optics, colours, emission and absorption of IR, RP10 (Absorption of IR)	 Recall of core knowledge in topic Use and application of core knowledge Waves II: Recall names, typical frequencies and wavelengths of parts of the EM spectrum Know and describe uses and dangers of parts of the EM spectrum Explain why some EM waves are more suitable for communication than others Draw and label ray diagrams for reflection and refraction Draw and label ray diagrams for lenses Describe production and reception of radio waves Understanding of Required Practical set up Describe how waves can be used for detection and sensing Describe how the nature of materials affects its absorption or emission of IR waves 	 'Red' topics – review tasks: Relearn material using new sources, eg revision guide, BBC Bitesize Compile knowledge organiser, using your class notes, revision guides, textbooks, BBC Bitesize (see <u>www.hayestl.com</u> for knowledge organiser tips) Add to your lesson notes using revision guides, textbooks, BBC Bitesize 'Red' topics – practice tasks: Low demand knowledge checking questions from, eg, revision guide or textbooks or the relevant topics from Www.educake.co.uk 'Core coverage' – review tasks: Cornell notes successive summarisation of topics (see <u>www.hayestl.com</u> for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see <u>www.hayestl.com</u> for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize 'Core coverage' – practice tasks:

				 Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk) Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and www.aqa.org.uk BBC Bitesize links for Waves II: https://www.bbc.co.uk/bitesize/guides/zt7srwx/revision/1 https://www.bbc.co.uk/bitesize/guides/zt7srwx/revision/1 https://www.bbc.co.uk/bitesize/guides/zs63k2p/revision/1
Week 3	Monday 29 January	Student-led approach: Your next two weakest topics / sub-topics on Paper 2 (identified by you as 'red' or 'amber' on your Paper 2 learning checklist) <i>Core coverage</i> : Forces I (4.5.1, 4.5.2, 4.5.3, 4.5.6 (part)) – weight, adding and subtracting forces, adding and resolving forces using vector diagrams, free body diagrams, work done by a force, stretching and compression forces, energy stored by elastic material, RP6 (Force and extension), velocity and acceleration, motion graphs	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts Forces I: Recall and use the equation to calculate weight Determine and describe the resultant force acting on an object Draw and interpret free-body force diagrams Use scale vector diagrams to add forces that are not co-linear and determine their resultant Determine the perpendicular components of a force using mathematical and scale drawing methods Recall and use the equation to calculate work done Recall and use the equation to calculate the extension of an object caused by a force 	 'Red' topics - review tasks: Relearn material using new sources, eg revision guide, BBC Bitesize Compile knowledge organiser, using your class notes, revision guides, textbooks, BBC Bitesize (see www.hayestl.com for knowledge organiser tips) Add to your lesson notes using revision guides, textbooks, BBC Bitesize 'Red' topics - practice tasks: Low demand knowledge checking questions from, eg, revision guide or textbooks or the relevant topics from Www.educake.co.uk 'Core coverage' - review tasks: Cornell notes successive summarisation of topics (see www.hayestl.com for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see www.hayestl.com for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize 'Core coverage' - practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk)

			 Recall and use the equation to calculate the energy stored in by an elastic object Understanding of Required Practical set up Recall and use the equations to calculate speed, acceleration (the 'suvat' equations) Draw and interpret distance-time graphs and velocity-time graphs Determine the gradient of graphs, including using the tangent method Understanding of Required Practical set up 	 Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and <u>www.aqa.org.uk</u> BBC Bitesize links for Forces I: <u>https://www.bbc.co.uk/bitesize/guides/zpqngdm/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/zyxv97h/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/zgncjty/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/z9v8msg/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/z9v8msg/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/zyv7pbk/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/zyv7pbk/revision/1</u>
Week 4	Monday 5 February	Student-led approach: Your two weakest topics / sub- topics on Paper 1 (identified by you as 'red' on your Paper 1 learning checklist) <i>Core coverage</i> : Energy (4.1.1, 4.1.2, 4.1.3) – energy stores and transfers, conservation of energy, thermal energy transfer, RP1 (specific heat capacity) RP2 (thermal insulation), power, efficiency, energy resources, choices about energy resources	 Recall of core knowledge in topic Use and application of core knowledge Energy: Recall the eight energy stores Recall the four energy pathways Describe energy transfers between objects in terms of systems, stores and pathways Understanding energy transfers in the context of conservation of energy Describe methods for reducing wasted energy transfers Recall and use the equations to calculate efficiency Recall and use the equations to calculate the energy stored in by a moving object Recall and use the equation to calculate the change in energy stored by an object moving vertically in a gravitational field Recall and use the equation to calculate the energy stored in by an elastic object 	 'Red' topics - review tasks: Relearn material using new sources, eg revision guide, BBC Bitesize Compile knowledge organiser, using your class notes, revision guides, textbooks, BBC Bitesize (see <u>www.hayestl.com</u> for knowledge organiser tips) Add to your lesson notes using revision guides, textbooks, BBC Bitesize 'Red' topics - practice tasks: Low demand knowledge checking questions from, eg, revision guide or textbooks or the relevant topics from Www.educake.co.uk 'Core coverage' - review tasks: Cornell notes successive summarisation of topics (see <u>www.hayestl.com</u> for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see <u>www.hayestl.com</u> for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize 'Core coverage' - practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk) Medium demand knowledge and application questions from, eg, revision work books

			 Recall and use the equation to calculate the change in temperature of an object due to a change in the thermal energy stored by the object Understanding of Required Practical set up Identify renewable and non-renewable energy resources Explain choices in use of energy resources by countries 	 High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and www.aqa.org.uk BBC Bitesize links for Energy: https://www.bbc.co.uk/bitesize/guides/z8hsrwx/revision/1 https://www.bbc.co.uk/bitesize/guides/zp8jtv4/revision/1 https://www.bbc.co.uk/bitesize/guides/z2gjtv4/revision/1 https://www.bbc.co.uk/bitesize/guides/z2gjtv4/revision/1 https://www.bbc.co.uk/bitesize/guides/z2gjtv4/revision/1
Week 5	Half Term Monday 12 February	Student-led approach: Your next two weakest topics / sub-topics on Paper 1 (identified by you as 'red' on your Paper 1 learning checklist) <i>Core coverage</i> : Particle Model (4.3.1, 4.3.2, 4.3.3) – density, changes in state, RP5 (Density), internal energy, specific heat, latent heat, cooling / heating curves, gas pressure and temperature, gas pressure and volume	 Recall of core knowledge in topic Use and application of core knowledge Particle Model: Recall and use the equation to calculate density Convert between units of different magnitude Describe states of matter in terms of particle arrangement, energy and properties Describe changes of state in terms of changes in particle energy and attraction Understanding energy transfers in the context of conservation of energy Recall and describe the components of internal energy Understand how the components of energy change during heating and changes of state Sketch, understand and interpret cooling and heating curves Describe and explain how the motion of gas particles gives rise to pressure exerted by a gas 	 'Red' topics - review tasks: Relearn material using new sources, eg revision guide, BBC Bitesize Compile knowledge organiser, using your class notes, revision guides, textbooks, BBC Bitesize (see www.hayestl.com for knowledge organiser tips) Add to your lesson notes using revision guides, textbooks, BBC Bitesize 'Red' topics - practice tasks: Low demand knowledge checking questions from, eg, revision guide or textbooks or the relevant topics from Www.educake.co.uk 'Core coverage' - review tasks: Cornell notes successive summarisation of topics (see www.hayestl.com for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see www.hayestl.com for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guide or textbooks, or the relevant topics from Www.educake.co.uk) 'Core coverage' - practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, BBC Bitesize 'Core coverage' - practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk) Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from, eg, revision workbooks; exam

			•	Describe and explain in terms of particle motion how changes to the volume of a gas affects the pressure it exerts Use data from a graph or table to confirm an indirectly proportional relationship Recall and use the equation linking gas pressure and volume Understanding of Required Practical set up	questions from www.physicsandmathstutor.com and www.aqa.org.uk BBC Bitesize links for Particle Model: https://www.bbc.co.uk/bitesize/guides/zsqngdm/revision/1 https://www.bbc.co.uk/bitesize/guides/zcncjty/revision/1 https://www.bbc.co.uk/bitesize/guides/zqrqh39/revision/1 https://www.bbc.co.uk/bitesize/guides/z33qfcw/revision/1
Week 6	Monday 19 February	Student-led approach: Your next two weakest topics / sub-topics on Paper 1 (identified by you as 'red' on your Paper 1 learning checklist) <i>Core coverage</i> : Electricity I (4.2.1, 4.2.2) – circuit symbols, charge, current, potential difference, resistance, RP3 (Factors affecting resistance), RP4 (Current- potential difference characteristics), series and parallel circuits, circuit rules	• • • • •	Recall of core knowledge in topic Use and application of core knowledge ctricity I: Draw and interpret circuit diagrams using circuit symbols Define current, potential difference, resistance, power Recall and use the equation that links charge, current and time Recall and use the equation that links resistance, potential difference and current Describe and explain how resistance arises in circuit components Describe and explain the factors that affect resistance Identify and describe series and parallel sections of circuits Recall and use the 'circuit rules' to interpret circuit diagrams and make calculations Understanding of Required Practical set up	 <i>Red' topics – review tasks:</i> Relearn material using new sources, eg revision guide, BBC Bitesize Compile knowledge organiser, using your class notes, revision guides, textbooks, BBC Bitesize (see www.hayestl.com for knowledge organiser tips) Add to your lesson notes using revision guides, textbooks, BBC Bitesize <i>Red' topics – practice tasks:</i> Low demand knowledge checking questions from, eg, revision guide or textbooks or the relevant topics from Www.educake.co.uk <i>'Core coverage' – review tasks:</i> Cornell notes successive summarisation of topics (see www.hayestl.com for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see www.hayestl.com for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guide or textbooks, BBC Bitesize <i>'Core coverage' – practice tasks:</i> Low demand knowledge checking questions (eg, from revision guide or textbooks, textbooks, BBC Bitesize <i>'Core coverage' – practice tasks:</i> Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk) Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and www.aqa.org.uk

				BBC Bitesize links for Electricity I: https://www.bbc.co.uk/bitesize/guides/zpdtv9g/revision/1 https://www.bbc.co.uk/bitesize/guides/zx7vw6f/revision/1
Week 7	Monday 26 February	Student-led approach: Your two weakest topics / sub- topics on Paper 2 (identified by you as 'red' on your Paper 2 learning checklist) <i>Core coverage</i> : Waves I (4.6.1) – wave description and terminology, wave properties, wave equation, RP8 (Measurement of waves). Sound waves, methods for measuring speed of sound	 Recall of core knowledge in topic Use and application of core knowledge Waves I: recall and use of wave terminology drawing and labelling diagrams of transverse and longitudinal waves recall, use and application of wave equation understanding of Required Practical set up understanding and description of measurement techniques that reduce uncertainties and errors Knowledge and use of terms – resolution, accuracy, error, uncertainty Describe methods for measuring the speed of sound 	 'Red' topics - review tasks: Relearn material using new sources, eg revision guide, BBC Bitesize Compile knowledge organiser, using your class notes, revision guides, textbooks, BBC Bitesize (see www.hayestl.com for knowledge organiser tips) Add to your lesson notes using revision guides, textbooks, BBC Bitesize 'Red' topics - practice tasks: Low demand knowledge checking questions from, eg, revision guide or textbooks or the relevant topics from Www.educake.co.uk 'Core coverage' - review tasks: Cornell notes successive summarisation of topics (see www.hayestl.com for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see www.hayestl.com for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guide or textbooks, or the relevant topics from Www.educake.co.uk) 'Core coverage' - practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk) Hedium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and www.aqa.org.uk BBC Bitesize links for Waves I: https://www.bbc.co.uk/bitesize/guides/zgf97p3/revision/1

				https://www.bbc.co.uk/bitesize/guides/z2dtv9q/revision/1 https://www.bbc.co.uk/bitesize/guides/z9khcj6/revision/1
Week 8	Monday 4 March	Student-led approach: Your next two weakest topics / sub-topics on Paper 2 (identified by you as 'red' on your Paper 2 learning checklist) <i>Core coverage</i> : Waves II (4.6.2) – types, properties and uses of EM waves, reflection and refraction, RP9 (refraction), production of radio waves, lenses and optics, colours, emission and absorption of IR, RP10 (Absorption of IR)	 Recall of core knowledge in topic Use and application of core knowledge Waves II: Recall names, typical frequencies and wavelengths of parts of the EM spectrum Know and describe uses and dangers of parts of the EM spectrum Explain why some EM waves are more suitable for communication than others Draw and label ray diagrams for reflection and refraction Draw and label ray diagrams for lenses Describe production and reception of radio waves Understanding of Required Practical set up Describe how waves can be used for detection and sensing Describe how the nature of materials affects its absorption or emission of IR waves 	 'Red' topics - review tasks: Relearn material using new sources, eg revision guide, BBC Bitesize Compile knowledge organiser, using your class notes, revision guides, textbooks, BBC Bitesize (see www.hayestl.com for knowledge organiser tips) Add to your lesson notes using revision guides, textbooks, BBC Bitesize 'Red' topics - practice tasks: Low demand knowledge checking questions from, eg, revision guide or textbooks or the relevant topics from Www.educake.co.uk 'Core coverage' - review tasks: Cornell notes successive summarisation of topics (see www.hayestl.com for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see www.hayestl.com for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guide or textbooks, or the relevant topics from Www.educake.co.uk) 'Core coverage' - practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk) Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from www.physicsandmathstutor.com and www.aqa.org.uk BBC Bitesize links for Waves II: https://www.bbc.co.uk/bitesize/guides/zt7srwx/revision/1 https://www.bbc.co.uk/bitesize/guides/zt7srwx/revision/1

				https://www.bbc.co.uk/bitesize/guides/z9khcj6/revision/1
		Student-led approach:		'Red' topics – review tasks:
	Monday 11 March Your next two weakest topics /	Your next two weakest topics / sub-topics on Paper 2	 Recall of core knowledge in topic Use and application of core knowledge 	 Relearn material using new sources, eg revision guide, BBC Bitesize
		(identified by you as 'red' on		Compile knowledge organiser, using your class notes,
		your Paper 2 learning checklist)		revision guides, textbooks, BBC Bitesize (see www.havestl.com for knowledge organiser tips)
		Core coverage:		Add to your lesson notes using revision guides,
		Forces I (4.5.1, 4.5.2, 4.5.3, 4.5.6 (part)) – weight, adding	 Forces I: Recall and use the equation to calculate 	textbooks, BBC Bitesize
		and subtracting forces, adding	weight	'Red' topics – practice tasks:
		vector diagrams, free body	Determine and describe the resultant force acting on an object	• Low demand knowledge checking questions from, eg, revision guide or textbooks or the relevant topics
		diagrams, work done by a force,	Draw and interpret free-body force	from Www.educake.co.uk
		forces, energy stored by elastic	 Use scale vector diagrams to add forces 	'Core coverage' – review tasks:
		material, RP6 (Force and	that are not co-linear and determine their	 Cornell notes successive summarisation of topics (see www.bayestl.com for Cornell notes tins)
6		acceleration, motion graphs	Determine the perpendicular components	 Mind maps linking concepts and knowledge within the
eek			of a force using mathematical and scale drawing methods	topic and with other topics (see <u>www.hayestl.com</u> for mind mapping tips)
≥			Recall and use the equation to calculate	Elaboration and extension of notes, using other
			 Work done Recall and use the equation to calculate 	sources, eg, revision guides, textbooks, BBC Bitesize
			the extension of an object caused by a	'Core coverage' – practice tasks:
			 Recall and use the equation to calculate 	• Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics
			the energy stored in by an elastic object	from Www.educake.co.uk)
			up	from, eg, revision work books
			 Recall and use the equations to calculate speed, acceleration (the `suvat' 	 High demand knowledge, application and analysis questions from eq. revision workbooks: exam
			equations)	questions from www.physicsandmathstutor.com and
			 Draw and interpret distance-time graphs and velocity-time graphs 	www.aqa.org.uk
			 Determine the gradient of graphs, 	BBC Bitesize links for Forces I:
			 including using the tangent method Understanding of Required Practical set 	https://www.bbc.co.uk/bitesize/guides/zpqngdm/revision/1 https://www.bbc.co.uk/bitesize/guides/zvxy97b/revision/1
			up	https://www.bbc.co.uk/bitesize/guides/zgncjty/revision/1

				https://www.bbc.co.uk/bitesize/guides/z9v8msg/revision/1 https://www.bbc.co.uk/bitesize/guides/zwc7pbk/revision/1 https://www.bbc.co.uk/bitesize/guides/zgrm3k7/revision/1
Week 10	Monday 18 March	Student-led approach: Your next two weakest topics / sub-topics on Paper 1 (identified by you as 'amber' on your Paper 1 learning checklist) <i>Core coverage</i> : Electricity II (4.2.3, 4.2.4, 4.2.5) – direct and alternating current, safety in mains electricity systems, electric power and energy transfers in circuits, National Grid, static charge, electric fields	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts Electricity II: Describe differences between direct and alternating current Draw and label the connections in a UK mains plug Describe the operation of a fuse and a circuit breaker Identify safety measures in UK electricity supplies Define electric power Recall and use the equation that links power, current and potential difference Recall and use the equation that links power, current and resistance Describe the heating effect of current Describe the main features of the National Grid Explain the function of step-up and step- down transformers within the National Grid Understand and describe how a static charge can form Describe some uses and dangers of static 	 'Amber' topics - review tasks: Blank page retrieval, followed by supplementary notes and links (see www.hayestl.com for blank page retrieval tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize Cornell notes successive summarisation of topics, including 'flash card' summary (see www.hayestl.com for Cornell notes tips) Dual coding of key ideas or diagrams (see www.hayestl.com for dual coding tips) 'Amber' topics - practice tasks: Medium demand knowledge and application questions from, eg, revision work books Exam questions completed to time Exam paper and test paper question analysis (TEEPEE model) 'Core coverage' - review tasks: Cornell notes successive summarisation of topics (see www.hayestl.com for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see www.hayestl.com for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize 'Core coverage' - practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www educake co uk)
			 Describe some uses and dangers of statte charge Understand that a potential difference within a conducting circuit will cause a current Describe the electric field around a charged object 	 Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and <u>www.aqa.org.uk</u>

			Describe electrostatic forces, repulsion and attraction	BBC Bitesize links for Electricity II: <u>https://www.bbc.co.uk/bitesize/guides/z3xv97h/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/z9s4qhv/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/zx7vw6f/revision/1</u>
	Monday 25 March	Student-led approach: Your next two weakest topics / sub-topics on Paper 1 (identified by you as 'amber' on your Paper 1 learning checklist) Core coverage: Atomic Structure (4.4.1,	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts Atomic structure:	 Amber' topics - review tasks: Blank page retrieval, followed by supplementary notes and links (see www.hayestl.com for blank page retrieval tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize Cornell notes successive summarisation of topics, including 'flash card' summary (see www.hayestl.com for Cornell notes tips) Dual coding of key ideas or diagrams (see www.hayestl.com for dual coding tips)
Week 11		4.4.2, 4.4.3) – structure of the atom, development of atomic model, properties of nuclear radiation, nuclear decay equations, determining half-life, background radiation, contamination and irradiation, nuclear fission, nuclear fusion	 Draw and label a diagram of an atom Describe the properties of electrons, protons and neutrons Describe the main points in the development of the atomic model Describe the plum pudding model, the 'gold foil scattering experiment' and why the latter caused a change our model of the atom Understand and describe the properties of alpha, beta and gamma radiation, particularly penetration and ionising power Draw and interpret half life graphs and data tables Determine half life from a graph Describe causes and consequences of background radiation, contamination and irradiation, and safety precautions when using radioactive materials Describe the process of nuclear fission Describe the process of nuclear power stations, and the pros and cons of their use 	 www.hayestl.com for dual coding tips) 'Amber' topics – practice tasks: Medium demand knowledge and application questions from, eg, revision work books Exam questions completed to time Exam paper and test paper question analysis (TEEPEE model) 'Core coverage' – review tasks: Cornell notes successive summarisation of topics (see www.hayestl.com for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see www.hayestl.com for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize 'Core coverage' – practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk) Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from, eg, revision workbooks; exam

				questions from www.physicsandmathstutor.com and
				www.aqa.org.uk
				BBC Bitesize links for Atomic structure:
				https://www.bbc.co.uk/bitesize/guides/zxkxfcw/revision/1
				https://www.bbc.co.uk/bitesize/guides/zpjpb82/revision/1
				https://www.bbc.co.uk/bitesize/guides/z3tb8mn/revision/1
				https://www.bbc.co.uk/bitesize/guides/z83dxfr/revision/1
				https://www.bbc.co.uk/bitesize/guides/zx86y4j/revision/1
				https://www.bbc.co.uk/bitesize/guides/zxxg7p3/revision/1
		Student-led approach.		Amber' topics – review tasks:
	Easter	Your next two weakest topics /	Recall of core knowledge in topic	Blank page retrieval, followed by supplementary notes
	Monday 1 April	sub-topics on Paper 2	Use and application of core knowledge	and links (see <u>www.hayestl.com</u> for blank page
		(identified by you as 'amber' on	Application of knowledge to novel	retrieval tips)
		your Paper 2 learning checklist)	contexts	Elaboration and extension of notes, using other
			Analysis of novel contexts	sources, eg, revision guides, textbooks, BBC Bitesize
				Cornell notes successive summarisation of topics,
		C		Including Tiash card' summary (see <u>www.nayesti.com</u>
			Forest II.	for Cornell notes tips)
		Forces II (4.5.4, 4.5.5, 4.5.0 (part) 4 E 7) moments	Forces II:	Dual couling of key ideas of diagrams (see
		(part), 4.5.7) – moments,	Describe the effect of turning forces Calculate memorie and use the principle	www.nayesu.com for dual coding lips)
		of motion RB7 (force and	Calculate moments and use the principle of moments to determine quantities in	'Ambor' topics practice tacks
		acceleration) braking	situations of equilibrium	 Medium demand knowledge and application questions
		momentum and conservation of	Describe the operation of levers and	from eq. revision work books
2		momentum	gears in terms of moments	 Evam questions completed to time
(1		momentali	Describe how changes to height or depth	 Exam paper and test paper question analysis (TEEPEE)
se l			in a fluid result in changes in pressure	model)
Š			Recall and use the equation to calculate	
			pressure in a fluid	'Core coverage' – review tasks:
			Recall and use Newton's laws of motion	Cornell notes successive summarisation of topics (see
			to describe scenarios involving forces	www.hayestl.com for Cornell notes tips)
			Define and use inertia	• Mind maps linking concepts and knowledge within the
			Calculate braking distances and use	topic and with other topics (see <u>www.hayestl.com</u> for
			concept of work to determine braking	mind mapping tips)
			distances	Elaboration and extension of notes, using other
			Interpret stopping distance and thinking	sources, eg, revision guides, textbooks, BBC Bitesize
			distance graphs and data tables	
			Define momentum and conservation of	'Core coverage' – practice tasks:
			momentum	Low demand knowledge checking questions (eg,
			Recall and use equation to calculate	trom revision guide or textbooks, or the relevant topics
			momentum	trom Www.educake.co.uk)
			Calculate unknown quantities using	Medium demand knowledge and application questions
			conservation of momentum	from, eg, revision work books

			 Describe safety features that utilise changes in momentum Understanding of Required Practical set up 	 High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and www.aqa.org.uk BBC Bitesize links for Forces I: https://www.bbc.co.uk/bitesize/guides/ztjpb82/revision/1 https://www.bbc.co.uk/bitesize/guides/z93dxfr/revision/1 https://www.bbc.co.uk/bitesize/guides/zp2fcj6/revision/1 https://www.bbc.co.uk/bitesize/guides/zytb8mn/revision/1 https://www.bbc.co.uk/bitesize/guides/zytb8mn/revision/1
	Monday 8 April	Student-led approach: Your next two weakest topics / sub-topics on Paper 2 (identified by you as 'amber' on your Paper 2 learning checklist)	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts 	 Amber' topics - review tasks: Blank page retrieval, followed by supplementary notes and links (see www.hayestl.com for blank page retrieval tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize Cornell notes successive summarisation of topics, including 'flash card' summary (see www.hayestl.com for Cornell notes tips)
Week 13		Space Physics (4.8.1, 4.8.2) – the solar system, life cycle of stars, circular motion, red shift, the Big Bang	 Space physics: Describe the formation of solar systems Recall the main features of our solar system Understand the central role that gravity has played in the evolution of the universe, our galaxy and our solar system Describe in detail the stages of the life cycle of a star Describe the factors that affect circular motion and relate these to the orbits of stars and planets Describe red-shift and blue-shift and how 	 Dual coding of key ideas or diagrams (see <u>www.hayestl.com</u> for dual coding tips) <i>'Amber' topics – practice tasks:</i> Medium demand knowledge and application questions from, eg, revision work books Exam questions completed to time Exam paper and test paper question analysis (TEEPEE model) <i>'Core coverage' – review tasks:</i> Cornell notes successive summarisation of topics (see <u>www.hayestl.com</u> for Cornell notes tips) Mind maps linking concepts and knowledge within the
			 because real state and black of the and how they arise Interpret graphs and data tables relating to red-shift Describe the origin of the cosmic microwave background radiation Explain how red shift and CMBR provide evidence for the Big Bang theory Describe possible futures for the universe 	 topic and with other topics (see <u>www.hayestl.com</u> for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize 'Core coverage' – practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk)

				 Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and <u>www.aqa.org.uk</u> BBC Bitesize links for Space physics: <u>https://www.bbc.co.uk/bitesize/guides/zt2fcj6/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/zt2fcj6/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/zt2fcj6/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/zt2fcj6/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/zt2fcj6/revision/1</u> <u>https://www.bbc.co.uk/bitesize/guides/zt2fcj6/revision/1</u>
	Monday 15 April	Student-led approach: Your next two weakest topics / sub-topics on Paper 1 (identified by you as 'green' on your Paper 1 learning checklist) <i>Core coverage</i> : Electricity I & II (4.2.1, 4.2.2,	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts Linking and synthesis of knowledge between topics 	 'Green' topics - review tasks: Blank page retrieval, followed by supplementary notes and links (see www.hayestl.com for blank page retrieval tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize Cornell notes successive summarisation of topics, including 'flash card' summary (see www.hayestl.com for Cornell notes tips) Dual coding of key ideas or diagrams (see www.hayestl.com for dual coding tips)
Week 14		4.2.3, 4.2.4, 4.2.5) – circuit symbols, charge, current, potential difference, resistance, RP3 (Factors affecting resistance), RP4 (Current- potential difference characteristics), series and parallel circuits, circuit rules, direct and alternating current, safety in mains electricity systems, electric power and energy transfers in circuits, National Grid, static charge, electric fields	 Draw and interpret circuit diagrams using circuit symbols Define current, potential difference, resistance, power Recall and use the equation that links charge, current and time Recall and use the equation that links resistance, potential difference and current Describe and explain how resistance arises in circuit components Describe and explain the factors that affect resistance Identify and describe series and parallel sections of circuits Recall and use the 'circuit rules' to interpret circuit diagrams and make calculations 	 'Green' topics – practice tasks: High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and www.aqa.org.uk Exam questions completed to time Exam paper and test paper question analysis (TEEPEE model) 'Core coverage' – review tasks: Cornell notes successive summarisation of topics (see www.hayestl.com for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see www.hayestl.com for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize

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			 Understanding of Required Practical set up Describe differences between direct and alternating current Draw and label the connections in a UK mains plug Describe the operation of a fuse and a circuit breaker Identify safety measures in UK electricity supplies Define electric power Recall and use the equation that links power, current and potential difference Recall and use the equation that links power, current and resistance Describe the heating effect of current Describe the main features of the National Grid Explain the function of step-up and step-down transformers within the National Grid Understand and describe how a static charge can form Describe the electric field around a charged object Describe electrostatic forces, repulsion and attraction 	 Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk) Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from, eg, revision workbooks; exam questions from www.physicsandmathstutor.com and www.aqa.org.uk BBC Bitesize links for Electricity I & II: https://www.bbc.co.uk/bitesize/guides/zpdtv9q/revision/1 https://www.bbc.co.uk/bitesize/guides/z3xv97h/revision/1 https://www.bbc.co.uk/bitesize/guides/z9s4qhv/revision/1 https://www.bbc.co.uk/bitesize/guides/zx7vw6f/revision/1
Week 15	Monday 22 April	<i>Student-led approach</i> : Your next two weakest topics / sub-topics on Paper 2 (identified by you as 'green' on your Paper 2 learning checklist)	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts Linking and synthesis of knowledge between topics 	 'Green' topics - review tasks: Blank page retrieval, followed by supplementary notes and links (see www.hayestl.com for blank page retrieval tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize Cornell notes successive summarisation of topics, including 'flash card' summary (see www.hayestl.com for Cornell notes tips)

Core coverage: Magnetism &	Magnetism & electromagnetism:	 Dual coding of key ideas or diagrams (see www.hayestl.com for dual coding tips)
electromagnetism (4.7.1, 4.7.2, 4.7.3) – magnetic fields and forces, electromagnetism, force on a conductor, the motor effect, induced potential, microphones, transformers	 Understand permanent and induced magnetism Draw, describe and interpret magnetic field diagrams Describe magnetic forces, repulsion and attraction Describe how an electromagnet can be built and controlled Know some uses for electromagnets Describe the magnetic field around a current carrying wire, using the righthand grip rule Understand and describe using Fleming's left hand rule how the interaction of current carrying wire and a permanent magnetic field may result in a force and motion Use the equation which links force, current, magnetic field strength and wire length Describe the motor effect and the operation of simple electric motors and loudspeakers Understand and describe how the interaction and the operation of a conductor within a moving magnetic field may result in an induced potential difference and current Understand the generator effect in the context of electricity generation and the operation of microphones and transformers Describe the operation of transformers, and their role within the National Grid Use the equation which links potential difference and number of turns of wire on the primary and secondary limbs of a transformer 	 'Green' topics – practice tasks: High demand knowledge, application and analysis questions from www.physicsandmathstutor.com and www.aqa.org.uk Exam questions completed to time Exam paper and test paper question analysis (TEEPEE model) 'Core coverage' – review tasks: Cornell notes successive summarisation of topics (see www.hayestl.com for Cornell notes tips) Mind maps linking concepts and knowledge within the topic and with other topics (see www.hayestl.com for mind mapping tips) Elaboration and extension of notes, using other sources, eg, revision guides, textbooks, BBC Bitesize 'Core coverage' – practice tasks: Low demand knowledge checking questions (eg, from revision guide or textbooks, or the relevant topics from Www.educake.co.uk) Medium demand knowledge and application questions from, eg, revision work books High demand knowledge, application and analysis questions from ey, revision workbooks; exam questions from www.physicsandmathstutor.com and www.aqa.org.uk

Week 16	Monday 29 April	Student-led approach: Revisit all topics / sub-topics on Paper 1 , focusing on accuracy and consistency of recall, and improving technique	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts Linking and synthesis of knowledge between topics Exam technique 	 2 x whole Paper 1 exam paper practice (in conditions similar to exam room), exam papers from https://www.aqa.org.uk/subjects/science/gcse/physics-8463/assessment-resources?f.Resource+type%7C6=Question+papers Mark papers and analyse (use TEEPEE model) Diagnose further improvement tasks Complete improvement tasks Q&A flash cards on Paper 1 topics (to promote accurate and consistent recall)
Week 17	Monday 6 May	<i>Student-led approach</i> : Revisit all topics / sub-topics on Paper 1 , focusing on accuracy and consistency of recall, and improving technique	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts Linking and synthesis of knowledge between topics Exam technique 	 2 x whole Paper 1 exam paper practice (in conditions similar to exam room), exam papers from https://www.aqa.org.uk/subjects/science/gcse/physics-8463/assessment-resources?f.Resource+type%7C6=Question+papers Mark papers and analyse (use TEEPEE model) Diagnose further improvement tasks Complete improvement tasks Q&A flash cards on Paper 1 topics (to promote accurate and consistent recall)
Week 18	Monday 13 May	<i>Student-led approach</i> : Revisit all topics / sub-topics on Paper 2 , focusing on accuracy and consistency of recall, and improving technique	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts Linking and synthesis of knowledge between topics Exam technique 	 2 x whole Paper 2 exam paper practice (in conditions similar to exam room), exam papers from https://www.aqa.org.uk/subjects/science/gcse/physics-8463/assessment-resources?f.Resource+type%7C6=Question+papers Mark papers and analyse (use TEEPEE model) Diagnose further improvement tasks Complete improvement tasks Q&A flash cards on Paper 2 topics (to promote accurate and consistent recall)
Week 19	Monday 20 May	Wednesday 22 nd May, am - Paper 1 exam		Q&A flash cards on Paper 1 topics (to promote accurate and consistent recall)
Week 20	Half-term Monday 27 May	<i>Student-led approach</i> : Revisit all topics / sub-topics on Paper 2 , focusing on accuracy and consistency of recall, and improving technique	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts 	 2 x whole Paper 2 exam paper practice (in conditions similar to exam room), exam papers from https://www.aqa.org.uk/subjects/science/gcse/physics-8463/assessment-resources?f.Resource+type%7C6=Question+papers Mark papers and analyse (use TEEPEE model) Diagnose further improvement tasks

			Linking and synthesis of knowledge between topics Exam technique	 Complete improvement tasks Q&A flash cards on Paper 2 topics (to promote accurate and consistent recall)
Week 21	Monday 3 June	<i>Student-led approach</i> : Revisit all topics / sub-topics on Paper 2 , focusing on accuracy and consistency of recall, and improving technique	 Recall of core knowledge in topic Use and application of core knowledge Application of knowledge to novel contexts Analysis of novel contexts Linking and synthesis of knowledge between topics Exam technique 	 Q&A flash cards on Paper 2 topics (to promote accurate and consistent recall) Go on holiday after the last exam
Week 22	Monday 10 June	Thursday 14 th June, pm - Paper 2 exam		