Year 11 Revision Schedule 2024-25

Subject/Course:	GCSE Physics
Student Name:	

		Topic	Key knowledge/skills/questions	Resources/activities/links
Week 1	**Monday 20th January**	*Student-led approach*: Your two weakest topics / sub-topics on **Paper 2** (identified by you as 'red' on your Paper 2 learning checklist) *Core coverage*: **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, RP9 (Reflection of waves)	• 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 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 I: https://www.bbc.co.uk/bitesize/guides/zgf97p3/revision/1 https://www.bbc.co.uk/bitesize/guides/z9bw6yc/revision/1 https://www.bbc.co.uk/bitesize/guides/z2dtv9q/revision/1 https://www.bbc.co.uk/bitesize/guides/z9khcj6/revision/1
Week 2	**Monday 27th 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) *Core coverage*: **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 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/zw42ng8/revision/1 https://www.bbc.co.uk/bitesize/guides/zt7srwx/revision/1 https://www.bbc.co.uk/bitesize/guides/zs63k2p/revision/1 https://www.bbc.co.uk/bitesize/guides/z9khcj6/revision/1
Week 3	**Monday 3rd February**	*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) *Core coverage*: **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 www.aqa.org.uk BBC Bitesize links for Forces I: https://www.bbc.co.uk/bitesize/guides/zpqngdm/revision/1 https://www.bbc.co.uk/bitesize/guides/zyxv97h/revision/1 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 4	**Monday 10th February**	*Student-led approach*: Your two weakest topics / sub-topics on **Paper 1** (identified by you as 'red' on your Paper 1 learning checklist) *Core coverage*: **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 power • Recall and use the equation 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 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) • 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/z2qjtv4/revision/1 https://www.bbc.co.uk/bitesize/guides/zchgdxs/revision/1 https://www.bbc.co.uk/bitesize/guides/z3nktv4/revision/1
Week 5	**Half Term Monday 17th 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) *Core coverage*: **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 • Describe and explain in terms of particle motion how changes to the temperature of a gas affects the pressure it exerts	*'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) • 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 24th 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) *Core coverage*: **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 **Electricity 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	*'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) • 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/zpdtv9q/revision/1 https://www.bbc.co.uk/bitesize/guides/zx7vw6f/revision/1
Week 7	**Monday 3rd March**	*Student-led approach*: Your two weakest topics / sub-topics on **Paper 2** (identified by you as 'red' on your Paper 2 learning checklist) *Core coverage*: **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 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 I: https://www.bbc.co.uk/bitesize/guides/zgf97p3/revision/1 https://www.bbc.co.uk/bitesize/guides/z9bw6yc/revision/1

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Week 8	**Monday 10th 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) *Core coverage*: **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 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/zw42ng8/revision/1 https://www.bbc.co.uk/bitesize/guides/zt7srwx/revision/1 https://www.bbc.co.uk/bitesize/guides/zs63k2p/revision/1

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Week 9	**Monday 17th 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) *Core coverage*: **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 **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 • 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	*'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) • 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 Forces I: https://www.bbc.co.uk/bitesize/guides/zpqngdm/revision/1 https://www.bbc.co.uk/bitesize/guides/zyxv97h/revision/1 https://www.bbc.co.uk/bitesize/guides/zgncjty/revision/1

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Week 10	**Monday 24th 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*: **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 charge • Understand that a potential difference within a conducting circuit will cause a current • Describe the electric field around a charged object	*'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) • 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

			• Describe electrostatic forces, repulsion and attraction	BBC Bitesize links for Electricity II: 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 11	**Monday 31st 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, 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	• Recall of core knowledge in topic • Use and application of core knowledge • Application of knowledge to novel contexts • Analysis of novel contexts **Atomic structure:** • 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 fusion • Describe safety features in nuclear power stations, and the pros and cons of their use	*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) • 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
Week 12	**Easter** **Monday 7th 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) *Core coverage*: **Forces II** (4.5.4, 4.5.5, 4.5.6 (part), 4.5.7) – moments, gears, pressure, Newton's laws of motion, RP7 (force and acceleration), braking, momentum and conservation of momentum	• Recall of core knowledge in topic • Use and application of core knowledge • Application of knowledge to novel contexts • Analysis of novel contexts **Forces II:** • Describe the effect of turning forces • Calculate moments and use the principle of moments to determine quantities in situations of equilibrium • Describe the operation of levers and gears in terms of moments • Describe how changes to height or depth in a fluid result in changes in pressure • Recall and use the equation to calculate pressure in a fluid • Recall and use Newton's laws of motion to describe scenarios involving forces • Define and use inertia • Calculate braking distances and use concept of work to determine braking distances • Interpret stopping distance and thinking distance graphs and data tables • Define momentum and conservation of momentum • Recall and use equation to calculate momentum • Calculate unknown quantities using conservation of momentum	*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) • Medium demand knowledge and application questions 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/zgrm3k7/revision/1
Week 13	**Monday 14th 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) *Core coverage*: **Space Physics** (4.8.1, 4.8.2) – the solar system, life cycle of stars, circular motion, red shift, the Big Bang	• Recall of core knowledge in topic • Use and application of core knowledge • Application of knowledge to novel contexts • Analysis of novel contexts **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 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	*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)

				• 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 Space physics: https://www.bbc.co.uk/bitesize/guides/zt2fcj6/revision/1 https://www.bbc.co.uk/bitesize/guides/zpxv97h/revision/1 https://www.bbc.co.uk/bitesize/guides/zstb8mn/revision/1 https://www.bbc.co.uk/bitesize/guides/zth4xfr/revision/1
Week 14	**Monday 21st 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) *Core coverage*: **Electricity I & II** (4.2.1, 4.2.2, 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	• 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 **Electricity I & II:** • 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 – 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) *'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 *'Core coverage' – practice tasks:*

			• 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 some uses and dangers of static charge • Understand that a potential difference within a conducting circuit will cause a current • 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 28th April**	*Student-led approach*: 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 & 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	**Magnetism & electromagnetism:** • 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 right-hand 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 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	• Dual coding of key ideas or diagrams (see www.hayestl.com for dual coding tips) *'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 *'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 Magnetism and electromagnetism: https://www.bbc.co.uk/bitesize/guides/z3s4qhv/revision/1 https://www.bbc.co.uk/bitesize/guides/zc3dxfr/revision/1 https://www.bbc.co.uk/bitesize/guides/z8c7pbk/revision/1 https://www.bbc.co.uk/bitesize/guides/z2wh3k7/revision/1 https://www.bbc.co.uk/bitesize/guides/zq7vw6f/revision/1

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 5th May**	*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 18	**Monday 12th May**	*Student-led approach*: 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 19th May**	**Thursday 22nd May, am - Paper 1 exam**		Q&A flash cards on **Paper 1** topics (to promote accurate and consistent recall)
Week 20	**Half-term Monday 26th May**	*Student-led approach*: 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 2nd June**	*Student-led approach*: 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 21	**Monday 9th June**	*Student-led approach*: 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 23	**Monday 16th June**	**Monday 16th June, am - Paper 2 exam**		