Physics Year 11

Intent : Science curriculum intent: As a school our curriculum inspires students to want to know more, understand more and be able to do more. In science we intend to harness the innate desire in young people to want to know more about the world and use this to help them understand how the strands of science learning fit into the big picture. We intend to help the students develop into learners who can see a problem and work both independently and together to find a solution. We recognise that all young people are scientists, and we aim to enable them to develop these skills. By year 11 students will have covered all the "paper one" topics for each science and will aim to finish the course in time for their final mock. They will then consolidate their learning and revise key areas before their final GCSE exams in the summer.

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 11 combined Physics units	CP 7 & 8 energy & forces	CP9 electricity	CP10 & Cp11 magnetism and the motor effect Cp11 electromagnetic induction CP12 & CP13 particle model and forces and matter	Mock two revision	Exams and revision	Exams and revision
Key Content	**CP 7 & 8 energy & forces** Work done, power, efficiency, and energy calculations. Covers contact and non-contact forces, vector diagrams, and reducing energy transfer.	**CP9 electricity** Includes circuit components, current, voltage, resistance, power, and domestic electricity.	**CP10 & Cp11 magnetism and the motor effect Cp11 electromagnetic induction** Magnetic fields, electromagnets, motor effect, and Fleming's left-hand rule. Transformers, induced currents, and the national grid. **CP12 & CP13 particle model and forces and matter** Density, specific heat capacity, latent heat, and gas pressure. Elasticity, spring constants, work done, and energy stored in stretched materials.	All the content for GCSE combined science can be found here, in the exam specification.		
Literacy	Key word sheets – CP 7 & 8	Key word sheets – CP9	Key word sheets – CP10,11,12 and 13	All previous key word sheets are relevant for revision		
Knowledge organiser	Knowledge organiser – CP 7 & 8	Knowledge organiser – CP 9	Knowledge organiser – CP10,11,12 and 13	All previous knowledge organisers are relevant for revision.		
Assessment		Mock 2 will cover all the content from "paper 1" in physics.		Mock three will cover all the content from "paper 2" in physics.		

GCSE AO Link (or other) if applicable	In science the assessment objectives are: AO1 Demonstrate knowledge and understanding. AO2 Apply knowledge and understanding. AO3 Analyse information and ideas. These are all covered in each block of three modules.				
Homework	One piece of homework, set on Seneca, each week. This will form an important part of the student's revision and should take around 30 minutes.				
CEIAG – STEM careers that relate to these topics.	• Civil Engineer • Construction Manager • Power Systems Engineer	• Electrical Engineer • Electronics Technician • Circuit Designer	CP10 – Magnetism and the Motor Effect •Electromechanical Engineer •Motor Design Specialist •MRI Technician CP11 – Electromagnetic Induction •Power Grid Engineer •Transformer Technician •Renewable Energy Specialist CP12 – Particle Model Thermodynamics Specialist HVAC Engineer Materials Physicist CP13 – Forces and Matter Materials Engineer Biomechanics Expert Product Designer		

Enrichment	