

Curriculum Sequencing Grid: **Triple Physics Single Award**

Year 10	Term 1	Term 2	Term 3
Unit (Tablet in 39 week plan)	<ul style="list-style-type: none"> P6.2 - Electricity P6.3 - Particle Model 	<ul style="list-style-type: none"> P6.5 Forces 	<ul style="list-style-type: none"> P6.8 Space
Key Retainable Knowledge (Required for Y11/13) <ul style="list-style-type: none"> What... How.... Why.... 	<ul style="list-style-type: none"> Use of symbols Circuits Generating electricity Renewable & non-renewable resources Evaluating skills Potential difference, current and resistance Specific heat capacity Particle motion in gases Required Practical skills 	<ul style="list-style-type: none"> Interaction of forces Distance, speed, velocity formulas Remembering and application of formulas 	<ul style="list-style-type: none"> Solar System Big Bang theory Life cycle of star Red shift
Key Technical Vocabulary (To be modelled and deliberately practiced in context.)	<ul style="list-style-type: none"> Symbol, component, current, resistance, potential difference, renewable and non-renewable Specific heat capacity, gases, density, volume, mass 	<ul style="list-style-type: none"> Force, Newton, gravity, mass, weight, distance, speed, velocity, vector, scalar, extension, resultant force, pressure 	<ul style="list-style-type: none"> Galaxy, Big Bang theory, orbital motion, solar system, star life cycle
Opportunities for Reading	<ul style="list-style-type: none"> The news in terms of recent updates about energy resources Research Iceland as a country for nuclear energy Research regions that only use renewable energy 	<ul style="list-style-type: none"> Researching different types of engineering jobs and how these links to different parts of this topic Newton's Laws 	<ul style="list-style-type: none"> Comparison of sizes of stars, galaxy Professor Brian Cox

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	<ul style="list-style-type: none"> Research Brownian motion and the Smoke Cell Experiment 		
Developing Cultural Capital (exposure to very best- essential knowledge and skills of educated citizens – appreciation of human creativity and achievement.)	<ul style="list-style-type: none"> Job Links = engineer, telecommunications, energy Appreciation of human creativity and achievement = Thomas Edison, Tesla, Faraday, Akon & solar panels, Archimedes, Brownian motion 	<ul style="list-style-type: none"> Job Links = engineering Appreciation of human creativity and achievement = Newton, Hooke, 	<ul style="list-style-type: none"> Job Links = astrophysicist, Appreciation of human creativity and achievement = Doppler
Cross Curricular Links (Authentic Connections)	<ul style="list-style-type: none"> Maths – formula: application of formula and units, rearranging formula Maths – line graphs: drawing and interpreting 	<ul style="list-style-type: none"> Maths – formula: application of formula and units, rearranging formula Maths – line graphs: drawing and interpreting 	<ul style="list-style-type: none"> Maths – formula: application of formula and units, rearranging formula Maths – line graphs: drawing and interpreting
Key Assessment	<ul style="list-style-type: none"> End of Unit Tests 	<ul style="list-style-type: none"> End of Unit Tests 	<ul style="list-style-type: none"> End of Unit Tests End of Year exam
How Science Work Skills in Science	<ul style="list-style-type: none"> These skills will continuously throughout the year, some or all of which will be covered within each topic <ul style="list-style-type: none"> Variables Equipment Risk assessments Writing a method Presenting data (bar charts and line graphs) Interpreting data Types of error (measuring, systematic, random) Equations, calculations and units 		

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	<ul style="list-style-type: none"> ○ Evaluating ○ Models
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Year 11	Term 1	Term 2	Term 3
Unit (Tablet in 39 week plan)	<ul style="list-style-type: none"> • P6.7 Magnets and Electromagnets • P6.6 Waves (part) 	<ul style="list-style-type: none"> • P6.6 (cont) Waves 	<ul style="list-style-type: none"> • Revision
Key Retainable Knowledge (Required for Y11/13) <ul style="list-style-type: none"> • What... How.... Why.... 	<ul style="list-style-type: none"> • Interaction of forces • Remembering and application of formulas • Electromagnetic waves • Required Practical skills 	<ul style="list-style-type: none"> • Remembering and application of formulas / units • Electromagnetic waves • Required Practical skills 	<ul style="list-style-type: none"> • EVERYTHING!
Key Technical Vocabulary (To be modelled and deliberately practiced in context.)	<ul style="list-style-type: none"> • Attract, repel, electromagnet, core, field, solenoid, Flemming's Left Hand Rule, motor effect, generator effect, transformer, potential difference, induced, current, movement • Longitudinal, transverse, wavelength, frequency, wave 	<ul style="list-style-type: none"> • Longitudinal, transverse, wavelength, frequency, wave speed, peak, trough, amplitude, electromagnetic spectrum, infrared radiation 	

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	speed, peak, trough, amplitude, electromagnetic spectrum, infrared radiation		
Opportunities for Reading	<ul style="list-style-type: none"> Researching the National Grid layout and how all the aspects work Uses and dangers of EMS 	<ul style="list-style-type: none"> 	
Developing Cultural Capital (exposure to very best- essential knowledge and skills of educated citizens – appreciation of human creativity and achievement.)	<ul style="list-style-type: none"> Job Links = telecommunications, communications Appreciation of human creativity and achievement = Doppler, 	<ul style="list-style-type: none"> Job Links = telecommunications, communications Appreciation of human creativity and achievement = Doppler 	
Cross Curricular Links (Authentic Connections)	<ul style="list-style-type: none"> Maths – formula: application of formula and units, rearranging formula Maths – line graphs: drawing and interpreting 	<ul style="list-style-type: none"> Maths – formula: application of formula and units, rearranging formula Maths – line graphs: drawing and interpreting 	
Key Assessment	<ul style="list-style-type: none"> End of Unit Tests Paper 1 Y11 Mocks 	<ul style="list-style-type: none"> End of Unit Tests Paper 2 Y11 Mocks 	<ul style="list-style-type: none"> Real Exams!!!
How Science Work Skills in Science	<ul style="list-style-type: none"> These skills will continuously throughout the year, some or all of which will be covered within each topic <ul style="list-style-type: none"> Variables Equipment Risk assessments 		

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| | <ul style="list-style-type: none">○ Writing a method○ Presenting data (bar charts and line graphs)○ Interpreting data○ Types of error (measuring, systematic, random)○ Equations, calculations and units○ Evaluating○ Models |
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