

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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