

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"> • P6.3 - Particle Model • P6.5 Forces | <ul style="list-style-type: none"> • P6.5 Forces • P6.8 Space | <ul style="list-style-type: none"> • P6.6 Waves |
| Key Retainable Knowledge (Required for Y11/13) <ul style="list-style-type: none"> • What... How.... Why.... | <ul style="list-style-type: none"> • Particle diagrams • Internal energy • Density • Specific heat capacity • Specific latent heat • Particle motion in gases • Required Practical skills • Interaction of forces • Distance, speed, velocity formulas • Remembering and application of formulas | <ul style="list-style-type: none"> • Interaction of forces • Distance, speed, velocity formulas • Remembering and application of formulas • Solar System • Big Bang theory • Life cycle of star • Red shift | <ul style="list-style-type: none"> • Remembering and application of formulas • Electromagnetic waves • Required Practical skills |
| Key Technical Vocabulary (To be modelled and deliberately practiced in context.) | <ul style="list-style-type: none"> • Specific heat capacity, gases, density, volume, mass • Force, Newton, gravity, mass, weight, distance, speed, velocity, vector, scalar, extension, resultant force, pressure | <ul style="list-style-type: none"> • Force, Newton, gravity, mass, weight, distance, speed, velocity, vector, scalar, extension, resultant force, pressure • Galaxy, Big Bang theory, orbital motion, solar system, star life cycle | <ul style="list-style-type: none"> • Longitudinal, transverse, wavelength, frequency, wave speed, peak, trough, amplitude, electromagnetic spectrum, infrared radiation |

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

| | | | |
|---|---|--|---|
| Opportunities for Reading | <ul style="list-style-type: none"> • Research Brownian motion and the Smoke Cell Experiment | <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"> • Uses and dangers of EMS |
| 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 = engineering • Appreciation of human creativity and achievement = Newton, Hooke | <ul style="list-style-type: none"> • Comparison of sizes of stars, galaxy • Professor Brian Cox • Job Links = astrophysicist, • 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 | <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 | | |

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

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

| Year 11 | Term 1 | Term 2 | Term 3 |
|---|--|--|---|
| Unit (Tablet in 39-week plan) | <ul style="list-style-type: none"> ● P6.5 Forces recap ● P6.6 Waves | <ul style="list-style-type: none"> ● P6.7 Magnets | <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"> ● Interaction of magnets ● Earth's magnetic field ● Electromagnetism | <ul style="list-style-type: none"> ● EVERYTHING! |
| Key Technical Vocabulary (To be modelled and deliberately practiced in context.) | <ul style="list-style-type: none"> ● Longitudinal, transverse, wavelength, frequency, wave speed, peak, trough, amplitude, electromagnetic spectrum, infrared radiation | <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 | |

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

| | | | |
|---|--|---|---|
| Opportunities for Reading | <ul style="list-style-type: none"> • Uses and dangers of EMS | <ul style="list-style-type: none"> • How a compass works | |
| 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 = recycling | |
| 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 ○ Writing a method ○ Presenting data (bar charts and line graphs) ○ Interpreting data ○ Types of error (measuring, systematic, random) ○ Equations, calculations, and units | | |

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

| | |
|--|---|
| | <ul style="list-style-type: none">○ Evaluating○ Models |
|--|---|