

Science curriculum outline

Intent

The Science curriculum is intended to teach pupils about the incredible world that they live in and how they grow as humans and develop and thrive in the incredible, diverse and ever changing planet we live on. Pupils will gain a range of skills and knowledge throughout their science lessons including teamwork and practical skills when completing scientific experiments and debating and literary techniques when considering the impact of scientific theories and practices.

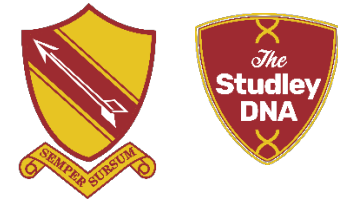
Development of pupils scientific knowledge will be vital to pupils progression and the sciences are separated into Biology, Chemistry and Physics, to ensure pupils are able to fully comprehend the breadth and depth of this awe inspiring subject. The schemes of work have been carefully planned to ensure pupils develop in depth knowledge and understanding of the sciences and are scaffolded to ensure that complex concepts are accessible and are explicitly developed from Key Stage 3 into Key Stage 4.

Practical work is at the heart of the 3 sciences and pupils complete a vast, variety of investigations throughout both Key Stages, to allow pupils to fully immerse themselves into their learning journey. Pupils will have many opportunities to develop their spiritual, moral, ethical, social and cultural understanding and discuss their personal interpretations and ideas, to develop themselves as a well-rounded, scientifically aware citizen of the world.

Implementation

In Science, pupils are taught using a range of learning resources, scientific equipment and modelling practices. Pupils will explore the sciences through practical experimental work, research and independent work using a variety of resources, such as laptops, interactive presentations, whiteboards, online learning experiences and visualisers to model key concepts and examples. Pupils will also experience science in action with regular practical activities, both inside and outside of the classroom, where they can undertake scientific investigations to explain key ideas, develop their understanding and practical skills.

There are regular real-life opportunities of scientific experiences both in the classroom, during lessons, CSI experiences and science clubs, as well as externally at the Big Bang Show and university events. Pupil progress is facilitated through detailed planning of lessons and practical activities, revision classes and scaffolded concepts across the Key Stages. Progression is measured through both formative and summative assessments, including practice papers, teacher questioning, regular feedback, classroom observation and individual discussions.



Impact

The Science department has continued to build upon its successes over the years and many pupils make excellent progress, regardless of their initial starting point. The departments progress 8 scores across both combined and triple sciences are consistently high and key measures such as 4+, 5+ and 7+ percentages place us well above national averages.

Science is a very popular subject at Studley with an average of 60 students a year opting to take our Triple Science provision. We have built a curriculum that supports positive pupil progress and skill development across the Sciences. The practical nature of Science equally allows pupils to develop a range of life skills, such as decision making, evaluating, team working, independent questioning and the ability to work safely and precisely with complex equipment. These transferable skills will be vital in their further education, apprenticeships and the world of work, as well as preparing them for building their own independent lives in their future.

We aim to create learners that are accountable, considerate, compassionate and able to articulate their opinions in a factual and balanced manner, which will not only support their studies at Studley but throughout their adult lives.

Programme of Study, Key Stage 3:

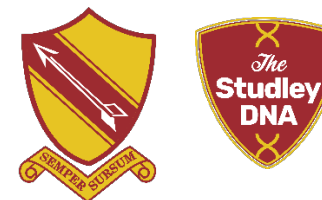
Pupils at KS3 will be assessed throughout the year with formal exam questions and 'How Science Works' investigation to ascertain the grade at which they are working and how they have improved during their studies. The topics they cover are listed under the separate year group headings.

Year 7 Science Topics:

In Year 7 students look at topics covering the full range of sciences, Biology, Chemistry and Physics in an interesting way which links these subjects with day to day life.

Areas covered are:-

- Working in a Lab
- Cells, Reproduction and Photosynthesis
- Energy
- Earth, Structure & Resources
- Electricity
- Environment and Classification








Year 8 Science Topics:

In Year 8 students continue their studies from Year 7 in Biology, Chemistry and Physics. The topics still link the subjects with day to day life and areas covered are:-

- Food and Digestion
- Atoms and Elements
- Energy
- Chemical Reactions
- Waves
- Health and Disease

 Links to prior learning

	AUTUMN 7.5 WEEKS	7AUTUMN 7 WEEKS	SPRING 6 WEEKS	SPRING 6 WEEKS	SUMMER 6 WEEKS	SUMMER 7 WEEKS
YEAR 7 3 LESSONS EACH WEEK	WORKING IN A LAB	CELLS, REPRODUCTION & PHOTOSYNTHESI S	ENERGY	EARTH STRUCTURE AND RESOURCES	ELECTRICITY	ENVIRONMENT & CLASSIFICATION
	ASSESSMENT POINT: 1 HSW- DISSOLVING JELLY 2 END OF TOPIC TEST	ASSESSMENT POINT: 1 HSW- GROWING CRESS SEEDS 2 CELLS COMPETITION 3 END OF TOPIC TEST	ASSESSMENT POINT: 1 HSW- INSULATION 2 END OF TOPIC TEST	ASSESSMENT POINT: 1 HSW- ACIDS AND CARBONATES 2 END OF TOPIC TEST	ASSESSMENT POINT: 1-HSW- CONDUCTORS 2 END OF TOPIC TEST	ASSESSMENT POINT: 1 HSW- QUADRATS 2 END OF TOPIC TEST
	SKILLS FOCUS- CONTENT PRACTICAL WORK AND LAB SAFETY LITERACY	SKILLS FOCUS- CONTENT IMAGINATION LITERACY PRACTICAL WORK AND LAB SAFETY 	SKILLS FOCUS- CONTENT CITIZENSHIP PRACTICAL WORK NUMERACY 	SKILLS FOCUS- CONTENT PRACTICAL WORK DATA ANALYSIS EVALUATION NUMERACY 	SKILLS FOCUS- CONTENT PRACTICAL WORK DATA ANALYSIS EVALUATION 	SKILLS FOCUS- CONTENT CITIZENSHIP ENVIRONMENTAL VALUES INDEPENDENT LEARNING 



YEAR 8 3 LESSONS EACH WEEK	FOOD AND DIGESTION	ATOMS & ELEMENTS	WAVES & ENERGY	CHEMICAL REACTIONS	WAVES	HEALTH & DISEASES
	ASSESSMENT POINT: 1 HSW- ENERGY IN CRISPS 2 END OF TOPIC TEST	ASSESSMENT POINT: 1 HSW- MAKING SALTS CARBONATES 2 END OF TOPIC TEST	ASSESSMENT POINT: 1 HSW- INSULATION 2 END OF TOPIC TEST	ASSESSMENT POINT: 1 HSW- TITRATIONS 2 END OF TOPIC TEST	ASSESSMENT POINT: 1 HSW- LIGHT & FILTERS 2 END OF TOPIC TEST	ASSESSMENT POINT: 1 HSW- DISINFECTANT (MICROBES) 2 END OF TOPIC TEST
	SKILLS FOCUS-CONTENT LITERACY CALCULATIONS GRAPHS	SKILLS FOCUS-CONTENT DATA COLLECTION GRAPHS ANALYSIS PRACTICAL WORK AND LAB SAFETY	SKILLS FOCUS-CONTENT ANALYSIS CITIZENSHIP	SKILLS FOCUS-CONTENT DATA COLLECTION PRACTICAL WORK AND LAB SAFETY ANALYSIS	SKILLS FOCUS-CONTENT CITIZENSHIP NUMERACY IMAGINATION	SKILLS FOCUS-CONTENT CITIZENSHIP MORAL VALUES

Year 9 Lessons

	AUTUMN 7.5 WEEKS	AUTUMN 7 WEEKS	SPRING 6 WEEKS	SPRING 6 WEEKS	SUMMER 6 WEEKS	SUMMER 7 WEEKS
YEAR 9 PHYSICS 3 LESSONS EACH FORTNIGHT	Electricity Foundation	Magnetism and Electromagnets	Energy Costs	The Universe	GCSE Energy	GCSE Electricity
	Assessment: HSW Hookes Law Formal Knowledge Assessment	Assessment: HSW Speed Formal Knowledge Assessment	Assessment: HSW Conduction Formal Knowledge Assessment	Assessment: HSW Reflection and Refraction Formal Knowledge Assessment	ASSESSMENT: Required practical on SHC & Investigating	ASSESSMENT: Required practical on SHC & Investigating ways of reducing energy loss.



					ways of reducing energy loss.	
	SKILLS FOCUS-CONTENT PRACTICAL WORK AND LAB SAFETY LITERACY	SKILLS FOCUS-CONTENT IMAGINATION LITERACY PRACTICAL WORK AND LAB SAFETY	SKILLS FOCUS-CONTENT CITIZENSHIP PRACTICAL WORK NUMERACY	SKILLS FOCUS-CONTENT PRACTICAL WORK DATA ANALYSIS EVALUATION NUMERACY	SKILLS FOCUS: Numeracy Content Practical Work	SKILLS FOCUS: Numeracy Content Practical Work
YEAR 9 BIOLOGY 3 LESSONS EACH FORTNIGHT	Cells and Diffusion	Heart, Blood, Lungs, Respiration, Digestion and Enzymes	Digestion Photosynthesis	Human Reproduction and Hormones	OSMOSIS ACTIVE TRANSPORT ENZYMES	DISEASES
	Assessment: HSW Diffusion Formal Knowledge Assessment	Assessment: HSW Enzymes Formal Knowledge Assessment	Assessment: HSW Rates of Photosynthesis is Formal Knowledge Assessment	Assessment: Formal Knowledge Assessment	ASSESSMENT POINT: Required Practical 2- Osmosis Required Practical 3- Food Tests	ASSESSMENT POINT CLASS PRACTICALS ON AGAR PLATES
	SKILLS FOCUS-CONTENT LITERACY CALCULATIONS GRAPHS	SKILLS FOCUS-CONTENT DATA COLLECTION GRAPHS ANALYSIS PRACTICAL WORK AND LAB SAFETY	SKILLS FOCUS-CONTENT CITIZENSHIP MORAL VALUES	SKILLS FOCUS-CONTENT DATA COLLECTION PRACTICAL WORK AND LAB SAFETY ANALYSIS	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK ANALYSIS CITIZENSHIP MORAL ETHICS



YEAR 9 CHEMISTRY 3 LESSONS EACH WEEK	Bonding	Rates of Reaction	Structure of the Earth	The Earth's resources	Atomic Structure and the periodic table	Electronic Structures
	Assessment: HSW Crystal Formation Formal Knowledge Assessment	Assessment: HSW Rates Formal Knowledge Assessment	Assessment: Formal Knowledge Assessment	Assessment: HSW Fuels Knowledge Assessment	ASSESSMENT: History of the periodic table and atomic composition Formal Knowledge Assessment	ASSESSMENT: Formal Knowledge Assessment
	SKILLS FOCUS-CONTENT LITERACY CALCULATIONS GRAPHS 	SKILLS FOCUS-CONTENT DATA COLLECTION GRAPHS ANALYSIS PRACTICAL WORK AND LAB SAFETY 	SKILLS FOCUS-CONTENT CITIZENSHIP MORAL VALUES 	SKILLS FOCUS-CONTENT DATA COLLECTION PRACTICAL WORK AND LAB SAFETY ANALYSIS 	SKILLS FOCUS: Content Numeracy Analysis Application Research 	SKILLS FOCUS: Content Numeracy Analysis Application Research

Programme of Study for Key Stage 4:

At Key Stage 4 Science can be studied in 2 ways depending on how deeply students wish to pursue the subject at 16+. All pupils will follow AQA specifications.

Pupils take their options in Year 9.

Pupils in Year 10 will start the KS4 AQA Specification. Pupils will have opted for either Triple Award Science or Combined Science.

There are two Options:



1) Triple Award = Separate Sciences, GCSE Biology, GCSE Chemistry and GCSE Physics.

Therefore pupils will be awarded 3 GCSEs grades 9 to 1.

2) Combined Science “Trilogy” = this double award is equivalent to two GCSEs. Pupils will study some Biology, some Chemistry and some Physics. Pupils will then be awarded Two GCSEs grades 9 to 1.

Triple Award




This is great preparation for those pupils wanting to study any science at AS and A level. Pupils will cover more content than GCSE Combined Sciences.

Pupils need to be working at a Grade 4 or above.

Each week pupils will have lessons of Biology, Chemistry and Physics. These will be taught by specialist teachers. Lessons will cover the new AQA specification and will cover subject content supported by integrated practical work.

At the end of Year 11 pupils sit 2 Biology papers, 2 Chemistry papers and 2 Physics Papers. Each paper is 1 hour 45 minutes long. Pupils can sit foundation or higher tier. Each paper is 100 marks. All papers will assess Knowledge and understanding as well as scientific ability.

Pupils will be awarded 3 grades 9 to 1

Biology Content 	Chemistry Content 	Physics Content 
<ul style="list-style-type: none">● Cell Biology● Organisation● Infection and response● Bioenergetics● Homeostasis and response● Inheritance, variation and	<ul style="list-style-type: none">● Atomic structure and the periodic table● Bonding, structure and the properties of matter● Quantitative chemistry● Chemical changes	<ul style="list-style-type: none">● Energy● Electricity● Particle model of matter● Atomic structure● Forces● Waves



evolution	<ul style="list-style-type: none">● Energy Changes● The rate and extent of chemical change● Organic chemistry● Chemical Analysis● Chemistry of the Atmosphere● Using resources.	<ul style="list-style-type: none">● Magnetism and electromagnetism● Space physics
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Combined Science

This double award is equivalent to two GCSEs similar to the current core and additional science which many families are familiar with.

Each week pupils will have 2 lessons of Biology, Chemistry and Physics. These will be taught by specialist teachers. Lessons will cover the new AQA specification and will cover subject content supported by integrated practical work.







At the end of Year 11 pupils sit 2 Biology papers, 2 Chemistry papers and 2 Physics Papers. Each paper is 1 hour 15 minutes long. Pupils can sit foundation or higher tier. All papers will assess Knowledge and understanding as well as scientific ability.

Each paper is worth 70 marks with a range of questions including questions accessible to the lowest ability students.




Pupils will be awarded 2 grades 9 to 1 e.g. 9-9, 9-8 through to 2-1,1-1.

Biology Content 	Chemistry Content 	Physics Content 
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	FORMAL KNOWLEDGE ASSESSMENT	FORMAL KNOWLEDGE ASSESSMENT	REQUIRED PRACTICAL 6 RULER DROP		REQUIRED PRACTICAL 7 QUADRATS	CLASS PRACTICALS ON AGAR PLATES
	SKILLS FOCUS: CONTENT CONTENT NUMERACY GRAPHS PRACTICAL WORK ANALYSIS 	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK ANALYSIS 	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK 	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK 	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK 	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK ANALYSIS CITIZENSHIP MORAL ETHICS 
YEAR 10 TRIPLE 4 LESSONS A FORTNIGHT. TWO SUBJECTS WILL GET 5	DISEASES	DIGESTION	HEART & BLOOD	PHOTOSYNTHESIS	HOMEOSTASIS NERVOUS SYSTEM ENDOCRINE SYSTEM	FEMALE HORMONES CONTRACEPTION FERTILITY
	ASSESSMENT POINT: FORMAL KNOWLEDGE ASSESSMENT	ASSESSMENT POINT:REQUIRED PRACTICAL 7 RULER DROP	ASSESSMENT POINT:	ASSESSMENT POINT:	ASSESSMENT POINT REQUIRED RULER DROP	ASSESSMENT POINT: REQUIRED PRACTICAL 2 ZONES OF INHIBITION ON



















					REQUIRED PRACTICAL10 LIPASE DECAY	BACTERIAL AGAR PLATES
	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK ANALYSIS	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK ANALYSIS	SKILLS FOCUS: CONTENT	SKILLS FOCUS: CONTENT	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK ANALYSIS	SKILLS FOCUS: CONTENT NUMERACY GRAPHS PRACTICAL WORK ANALYSIS CITIZENSHIP MORAL ETHICS
YEAR 11 COMBINED 3 LESSONS A FORTNIGHT. ONE SUBJECT WILL GET 4	MITOSIS/MEIOSIS DNA GENOME VARIATION SEXUAL REPRODUCTION SELECTIVE BREEDING 	MENDEL INHERITED DISORDERS STEM CELLS	GM GENETIC ENGINEERING 4.7 ADAPTATION, ENVIRONMENT 	THEORY OF EVOLUTION CLASSIFICATION SPECIATION FOSSILS 		
	ASSESSMENT POINT:	ASSESSMENT POINT:	ASSESSMENT POINT: REQUIRED PRACICAL 7 QUADRATS	ASSESSMENT POINT:	ASSESSMENT POINT:	ASSESSMENT POINT:



	FORMAL KNOWLEDGE ASSESSMENT	FORMAL KNOWLEDGE ASSESSMENT		FORMAL KNOWLEDGE ASSESSMENT		
	SKILLS FOCUS CONTENT	SKILLS FOCUS CONTENT	SKILLS FOCUS CONTENT NUMERACY	SKILLS FOCUS CONTENT	SKILLS FOCUS	SKILLS FOCUS
YEAR 11 TRIPLE 4 LESSONS A FORTNIGHT. TWO SUBJECTS WILL GET 5	MITOSIS/MEIOSIS DNA GENOME VARIATION SEXUAL REPRODUCTION SELECTIVE BREEDING 	CLONNING MENDEL INHERITED DISORDERS STEM CELLS	GM GENETIC ENGINEERING 4.7 ADAPTATION, ENVIRONMENT 	THEORY OF EVOLUTION CLASSIFICATION SPECIATION FOSSILS EXTINCTION 	PLANT HORMONES AND GROWTH	
	ASSESSMENT POINT: FORMAL KNOWLEDGE ASSESSMENT	ASSESSMENT POINT: FORMAL KNOWLEDGE ASSESSMENT	ASSESSMENT POINT: REQUIRED PRACICAL 9 QUADRATS REQUIRED PRACTICAL10 LIPASE DECAY	ASSESSMENT POINT: FORMAL KNOWLEDGE ASSESSMENT	ASSESSMENT POINT: Required Practical 8 Auxin	ASSESSMENT POINT:
	SKILLS FOCUS CONTENT	SKILLS FOCUS CONTENT	SKILLS FOCUS CONTENT NUMERACY	SKILLS FOCUS CONTENT	SKILLS FOCUS	SKILLS FOCUS



YEAR 10 TRIPLE 4 LESSONS A FORTNIGHT. TWO SUBJECTS WILL GET 5	The Periodic Table 	Bonding 	Chemical Changes 	Quantitative Chemistry 	Energy Changes 	Rate and Extent of Chemical Change 
	ASSESSMENT: Knowledge Assessment	ASSESSMENT: Knowledge Assessment	ASSESSMENT: Required Practical – Making Salts & Electrolysis	ASSESSMENT: Required Practical Titrations	ASSESSMENT: Required Practical Temperature Changes	ASSESSMENT: MOCKS
	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work 	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work 	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work 	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work 	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work 	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work 
YEAR 11 CORE 3 LESSONS A FORTNIGHT. ONE	The Rate and extent of chemical change 	Organic Chemistry	Chemical Analysis 	Chemistry of the Atmosphere (Recap) 	Using Resources 	Revision









SUBJECT WILL GET 4						
	ASSESSMENT: Required Practical 11- Concentration affecting rates of reaction	ASSESSMENT: Alkanes and Alkenes	ASSESSMENT: Required Practical 12- Chromatography	ASSESSMENT: MOCKS	ASSESSMENT: Required Practical 8- Water Sample Analysis	ASSESSMENT: GCSE Exams
	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work	SKILLS FOCUS: Content Numeracy Analysis Application	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work	SKILLS FOCUS: Content Numeracy Analysis Application
YEAR 11 TRIPLE 4 LESSONS A FORTNIGHT. TWO SUBJECTS WILL GET 5	The Rate and extent of chemical change	Organic Chemistry	Chemical Analysis	Chemistry of the Atmosphere (Recap)	Using Resources	Revision
	ASSESSMENT: Required Practical 11- Concentration	ASSESSMENT: Alkanes and Alkenes	ASSESSMENT: Required	ASSESSMENT: MOCKS	ASSESSMENT: Required Practical	ASSESSMENT: GCSE Exams














	affecting rates of reaction		Practical 12- Chromatography		8- Water Sample Analysis	
	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work	SKILLS FOCUS: Content Numeracy Analysis Application	SKILLS FOCUS: Content Numeracy Analysis Application Practical Work	SKILLS FOCUS: Content Numeracy Analysis Application











Physics Delivery Grid

YEAR 10 CORE 3 LESSONS A FORTNIGHT. ONE SUBJECT WILL GET 4	Energy Retrieval Electricity 	Particle Model of Matter 	Atomic Structure 	Forces 	Forces 	Forces 
	ASSESSMENT: Content tests about radiation and atomic structure.	ASSESSMENT: Content tests about radiation and atomic structure.	ASSESSMENT: Required Practical - Spring Constant, $F=ma$ (Newtons Laws),	ASSESSMENT: Required Practical - Spring Constant, $F=ma$ (Newtons Laws),	ASSESSMENT Required Practical - Calculating Wave speed, Frequency, wavelength (Ripple Tank)	ASSESSMENT Required Practical - Calculating Wave speed, Frequency, wavelength (Ripple Tank)



	Required practical's on investigating the density of regular and irregular objects	Required practical's on investigating the density of regular and irregular objects				
	SKILLS FOCUS:  Numeracy Graphs - Half life Content Some practical work with Geiger Counters	SKILLS FOCUS:  Numeracy Graphs - Half life Content Some practical work with Geiger Counters	SKILLS FOCUS:  Numeracy Graphs - Speed, Velocity, Acceleration Content Practical work	SKILLS FOCUS: Numeracy Graphs - Speed, Velocity, Acceleration Content Practical work	SKILLS FOCUS  Numeracy - Equations Content Graphs Practical work	SKILLS FOCUS  Numeracy - Equations Content Graphs Practical work
YEAR 10 TRIPLE 4 LESSONS A FORTNIGHT. TWO SUBJECTS WILL GET 5	Energy Retrieval Electricity 	Particle Model of Matter 	Atomic Structure 	Forces 	Forces 	Forces 
	ASSESSMENT: Content tests about radiation and atomic structure.	ASSESSMENT: Content tests about radiation and atomic structure.	ASSESSMENT: Numeracy	ASSESSMENT: Numeracy	ASSESSMENT: Required Practical - Calculating Wave speed, Frequency,	ASSESSMENT: Required Practical - Calculating Wave speed, Frequency,









	Required practical's on investigating the density of regular and irregular objects	Required practical's on investigating the density of regular and irregular objects	Graphs - Speed, Velocity, Acceleration Content & Practical work	Graphs - Speed, Velocity, Acceleration Content & Practical work	wavelength (Ripple Tank)	wavelength (Ripple Tank)
	SKILLS FOCUS:  Numeracy Graphs - Half life Content Some practical work with Geiger Counters	SKILLS FOCUS:  Numeracy Graphs - Half life Content Some practical work with Geiger Counters	SKILLS FOCUS:  Numeracy Graphs - Speed, Velocity, Acceleration Content Practical work	SKILLS FOCUS:  Numeracy Graphs - Speed, Velocity, Acceleration Content Practical work	SKILLS FOCUS:  Numeracy - Equations Content Practical work	SKILLS FOCUS:  Numeracy - Equations Content Practical work
YEAR 11 COMBINED 3 LESSONS A FORTNIGHT. ONE SUBJECT WILL GET 4	Waves & Forces 	Waves & Forces 	Electromagnets 	Electromagnets 	Revision & recap of all required practicals	Revision & recap of all required practicals
	ASSESSMENT: Required Practical - Calculating Wave speed, Frequency,	ASSESSMENT: Required Practical - Calculating Wave speed, Frequency,	ASSESSMENT: Required Practical - Making an electromagnet	ASSESSMENT: Required Practical - Making an electromagnet	ASSESSMENT: Recap of Required Practical's	ASSESSMENT: Recap of Required Practical's



	wavelength (Ripple Tank) Required Practical - $F=ma$ (Newtons Laws),	wavelength (Ripple Tank) Required Practical - $F=ma$ (Newtons Laws),				
	SKILLS FOCUS: Numeracy - equations Graphs Content Practical work with ripple tank	SKILLS FOCUS: Numeracy - equations Graphs Content Practical work with ripple tank	SKILLS FOCUS: Numeracy - equations Content Graphs Equations Practical work	SKILLS FOCUS: Numeracy - equations Content Graphs Equations Practical work	SKILLS FOCUS: Numeracy - equations Content Graphs Equations Practical work	SKILLS FOCUS: Numeracy - equations Content Graphs Equations Practical work
YEAR 11 TRIPLE 4 LESSONS A FORTNIGHT. TWO SUBJECTS WILL GET 5	Waves & Forces 	Waves & Forces 	Electromagnets 	Electromagnets 	Space	Revision & recap of all required practical's
	ASSESSMENT: Required Practical - Calculating Wave speed, Frequency,	ASSESSMENT: Required Practical - Calculating Wave speed, Frequency,	ASSESSMENT: Required Practical - Making an electromagnet,	ASSESSMENT: Required Practical - Making an electromagnet,	ASSESSMENT: Content Tests	ASSESSMENT: Recap of Required Practical's



	wavelength (Ripple Tank) Required Practical - $F=ma$ (Newton's Laws)	wavelength (Ripple Tank) Required Practical - $F=ma$ (Newton's Laws)	Electric motors	Electric motors		
	SKILLS FOCUS: Numeracy  Graphs Content Practical work with ripple tank	SKILLS FOCUS: Numeracy  Graphs Content Practical work with ripple tank	SKILLS FOCUS: Numeracy  Content Graphs Equations Practical work	SKILLS FOCUS: Numeracy  Content Graphs Equations Practical work	SKILLS FOCUS: Numeracy  Content Graphs Equations Practical work	SKILLS FOCUS: Numeracy - equations  Content Graphs Equations Practical work