

YEAR 7–Curriculum Plan

Science

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AUTUMN		SPRING		SUMMER	
Chemistry Module 1, Biology Module 1, Physics Module 1		Chemistry Module 2, Biology Module 2, Physics Module 2		Chemistry Module 3, Biology Module 3, Physics Module 3	
CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:
<p style="text-align: center;">Chemistry 1</p> <p>In Chemistry 1 we will be looking at particle theory, learning about elements and compounds and introducing acids and alkalis.</p>	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on</p>	<p style="text-align: center;">Chemistry 2</p> <p>In Chemistry 2 we will be looking at change of state, chemical reactions and physical reactions, and finally the composition on air.</p>	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on</p>	<p style="text-align: center;">Chemistry 3</p> <p>In Chemistry 3 we will learn about symbols and word equations, look at neutralisation reactions and finally endo and exothermic reactions.</p>	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on</p>
<p style="text-align: center;">Biology 1</p> <p>In Biology 1 we will using microscopes to observe plant and animal cells, we will look at the role of DNA and study the adaptation of animals to their environments.</p>	<p>Written assessment covering all content taught this year during Assessment week 9/12/19</p>	<p style="text-align: center;">Biology 2</p> <p>In Biology 2 we will study the organisation of organs in the body, sexual reproduction and photosynthesis in plants.</p>	<p>Written assessment covering all content taught this year during Assessment week 4/5/20</p>	<p style="text-align: center;">Biology 3</p> <p>In Biology 3 we will look at asexual reproduction, respiration in plants and animals, evolution and look at relationships in nature in terms of food chains.</p>	<p>Written assessment covering all content taught this year during Assessment week 13/7/20</p>
<p style="text-align: center;">Physics 1</p> <p>In Physics 1 we will be looking at energy stores, forces and introducing electricity.</p>		<p style="text-align: center;">Physics 2</p> <p>In Physics 2 we will be looking at speed and how to calculate it, balanced and unbalanced forces and finally light and sound.</p>		<p style="text-align: center;">Physics 3</p> <p>In Physics 3 we will be looking electric circuits, how electromagnets work, space and renewable energy sources</p>	

YEAR 8–Curriculum Plan for Science

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AUTUMN		SPRING		SUMMER	
Practical Skills, Chemistry Module 1, Physics Module 1		Biology Module 1, Chemistry Module 2, Physics Module 2		Biology Module 2, Physics Module 2, Practical Skills	
CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:
<p style="text-align: center;">Practical Skills</p> <p>In this module we will be looking at variables, Planning an investigation, writing a method and drawing graphs</p> <p style="text-align: center;">Chemistry 1</p> <p>In Chemistry 1 we will be looking at states of matter, metals & non-metals, chemical & physical changes, the periodic table, metal oxides and the reactivity series.</p> <p style="text-align: center;">Physics 1</p> <p>In Physics 1 we will be looking at forces, pressure and speed</p>	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p> <p style="text-align: center;">Written assessment covering all content taught this year during Assessment week 9/12/19</p>	<p style="text-align: center;">Biology 1</p> <p>In Biology 1 we will study respiration, enzymes, balanced diets and breathing</p> <p style="text-align: center;">Chemistry 2</p> <p>In Chemistry 2 we will be looking at Metal Ores, The Carbon Cycle, Recycling and Thermal Decomposition</p> <p style="text-align: center;">Physics 2</p> <p>In Physics 2 we will be commencing at heat losses and electrical circuits</p>	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p> <p style="text-align: center;">Written assessment covering all content taught this year during Assessment week 4/5/20</p>	<p style="text-align: center;">Biology 2</p> <p>In Biology 2 we will study evolution, photosynthesis, genetics, biodiversity</p> <p style="text-align: center;">Physics 2</p> <p>In Physics 2 this term we will be concluding heat losses and electrical circuits.</p> <p style="text-align: center;">Practical Skills</p> <p>In this module we will be looking at practical skills that will be required for the GCSE courses in year 9.</p>	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p> <p style="text-align: center;">Written assessment covering all content taught this year during Assessment week 13/7/20</p>

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Homework

Teachers will set either research based or revision homework.

Learners should use BBC Bitesize website to supplement their in school learning.

YEAR 9 Entry Level Certificate Curriculum Plan

Science

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AUTUMN		SPRING		SUMMER	
Elements, mixtures and compounds		The Human Body		Energy and Forces	
CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:
What are atoms? The periodic table. Chemical properties. Forming compounds. Writing word equations. States of matter. Allotropes of carbon Separating mixtures Chromatography Metals & Alloys Polymers	Learners will complete one Teacher devised Assessment (Coursework) and one Externally Set Assessment (exam). These both count towards the final ELC grade. In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.	What is the body made of? How the body works. How the body fights disease How the body is coordinated	Learners will complete one Teacher Devised Assessment (Coursework) and one Externally Set Assessment (exam). These both count towards the final ELC grade. In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.	Energy, energy transfers and energy resources. Forces and work Speed and stopping distances. Atoms and nuclear radiation	Learners will complete one Teacher Devised Assessment (Coursework) and one Externally Set Assessment (exam). These both count towards the final ELC grade. In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.

YEAR 9–Curriculum Plan

Science

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AUTUMN		SPRING		SUMMER	
Year 9 Science 1		Year 9 Science 2		Year 9 Science 3	
CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:
<p>Cell Biology:</p> <ul style="list-style-type: none"> • Animal and plant Cells • Microscopes • Diffusion • Active transport • Chromosomes & DNA <p>Atomic Structure</p> <ul style="list-style-type: none"> • States of matter • Elements & Compounds • Separating mixtures • Structure of an atom • Periodic table <p>Energy:</p> <ul style="list-style-type: none"> • Stores & Pathways • Basic equations • Generating electricity <p>Energy changes in reactions:</p> <ul style="list-style-type: none"> • Exothermic and endothermic Reactions • Reaction profiles <p>Bioenergetics</p> <ul style="list-style-type: none"> • Photosynthesis 	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p>	<p>Electricity:</p> <ul style="list-style-type: none"> • Circuit Symbols • Circuit basics • Mains electricity <p>Chemical changes & Quantitative Chemistry</p> <ul style="list-style-type: none"> • Reactivity series • Neutralisation • Acids & Bases • Salt production • Electrolysis • Balancing equations • Relative formula mass <p>Organisation</p> <ul style="list-style-type: none"> • Digestive system • Blood • Plant Tissues <p>Infection & response:</p> <ul style="list-style-type: none"> • Communicable diseases • The human immune system • Vaccination • Drug development 	<p>Written PPE on all content so far late January</p> <p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p>	<p>Chemistry of the atmosphere</p> <ul style="list-style-type: none"> • Early Earth’s atmosphere • Global warming <p>Bonding:</p> <ul style="list-style-type: none"> • Ionic bonding • Alloys <p>Particle model</p> <ul style="list-style-type: none"> • State changes • Density • Types of ionising radiation <p>Homeostasis</p> <ul style="list-style-type: none"> • Nervous system • Endocrine system <p>Variation & Evolution</p> <ul style="list-style-type: none"> • Variation • Evolution • Resistant bacteria <p>Chemical Change:</p> <ul style="list-style-type: none"> • Factors that affect the rate of a chemical reaction <p>Waves & Radiation</p>	<p>Written PPE on all year 9 content late June.</p> <p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p>

- Respiration
- Effect of exercise

Ecology

- Communities
- Habitats
- Food webs & chains

Forces:

- Speed
- Stopping and braking distances

- Wave properties
- EM spectrum
- Magnetism

YEAR 10–Curriculum Plan

Science

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AUTUMN		SPRING		SUMMER	
Year 10 Science 1		Year 10 Science 2		Year 10 Science 3	
CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:
<p>Organisation:</p> <ul style="list-style-type: none"> Cells Digestive system Blood composition Plant tissues The heart Enzymes <p>Electricity:</p> <ul style="list-style-type: none"> Circuit Symbols Circuit basics Mains electricity <p>Bioenergetics</p> <ul style="list-style-type: none"> Photosynthesis Aerobic respiration Anaerobic respiration Effect of exercise <p>Quantitative Chemistry:</p> <ul style="list-style-type: none"> Balancing equations Relative formula mass <p>Energy changes in reactions:</p> <ul style="list-style-type: none"> Exothermic and endothermic reactions Reaction profiles 	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p>	<p>Infection & response:</p> <ul style="list-style-type: none"> Communicable diseases The human immune system Vaccination Drug development <p>Electricity:</p> <ul style="list-style-type: none"> Charge, current & potential difference Drawing I/V graphs Series & parallel circuits Resistance Energy transfers <p>Forces:</p> <ul style="list-style-type: none"> Speed Stopping and braking distances <p>Chemistry of the atmosphere</p> <ul style="list-style-type: none"> Early Earth's atmosphere Global warming <p>Chemical changes:</p>	<p>Written PPE on all content so far early January</p> <p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p>	<p>Inheritance:</p> <ul style="list-style-type: none"> Variation Evolution Extinction <p>Forces</p> <ul style="list-style-type: none"> Elasticity Hooke's law Pressure in gases <p>Ecology</p> <ul style="list-style-type: none"> Communities Biotic and abiotic factors Biodiversity <p>Homeostasis</p> <ul style="list-style-type: none"> Products and rate of photosynthesis Response to exercise Metabolism <p>Waves & Radiation</p> <ul style="list-style-type: none"> Wave properties EM spectrum Magnetism 	<p>Full PPE's on all 3 paper 1's 22nd June – 3rd July.</p> <p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p>

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| | | <ul style="list-style-type: none">• Effect of pressure on the rate of a reaction | | | |
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YEAR 10 Entry Level Certificate Curriculum Plan

Science

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AUTUMN		SPRING		SUMMER	
Elements, mixtures and compounds		Chemistry in our world		Environment & evolution	
CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:
What are atoms? The periodic table. Chemical properties. Forming compounds. Writing word equations. States of matter. Allotropes of carbon Separating mixtures Chromatography Metals & Alloys Polymers	Learners will complete one Teacher Devised Assessment (Coursework) and one Externally Set Assessment (exam). These both count towards the final ELC grade. In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.	Reactions of acids Energy and rate of reaction Earth's atmosphere Fuel and human impacts on the atmosphere Water for drinking	Learners will complete one Teacher Devised Assessment (Coursework) and one Externally Set Assessment (exam). These both count towards the final ELC grade. In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.	Feeding relationships between organisms. What effects where species live? How life has developed on Earth	Learners will complete one Teacher Devised Assessment (Coursework) and one Externally Set Assessment (exam). These both count towards the final ELC grade. In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.

YEAR 11 Entry Level Certificate Curriculum Plan

Science

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AUTUMN		SPRING		SUMMER	
Elements, mixtures and compounds		ELC to GCSE 1		ELC to GCSE 2	
CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:
What are atoms? The periodic table. Chemical properties. Forming compounds. Writing word equations. States of matter. Allotropes of carbon Separating mixtures Chromatography Metals & Alloys Polymers	Learners will complete one Teacher Devised Assessment (Coursework) and one Externally Set Assessment (exam). These both count towards the final ELC grade. In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.	Cell Biology Organisation Infection & response Atomic Structure Bonding Forces Energy	GCSE PPE exams in Biology, Chemistry and Physics. In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.	Final GCSE revision	External final GCSE assessments. In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.

YEAR 11 combined science GCSE Curriculum Plan

Science

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AUTUMN		SPRING		SUMMER	
AQA trilogy. B2, C2 and P2		AQA trilogy. B2, C2 and P2		AQA trilogy, P1, P2, B1,B2 and C1,C2	
CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:	CONTENT:	ASSESSMENT:
<p>The factors that speed up a chemical reaction.</p> <p>Crude oil</p> <p>Fractional Distillation</p> <p>Alkenes and alkanes</p> <p>Homeostasis</p> <p>Control of blood sugar</p> <p>Type 1 and 2 diabetes</p> <p>Types of waves</p> <p>Magnets and magnetic fields</p> <p>Impact of deforestation</p> <p>Global warming</p> <p>Biodiversity and the impact of humans</p>	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p> <p>Learners will complete one PPE's in November which will provide information on their progress in their GCSE so far.</p> <p>In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.</p>	<p>DNA and Genetic inheritance</p> <p>Potable water</p> <p>Composition of the atmosphere</p> <p>Life cycle assessments</p> <p>Carbon footprint</p> <p>Reducing the use of finite resources</p> <p>Evolution of the atmosphere</p> <p>Sexual and asexual reproduction</p> <p>Forces</p> <p>Forces and motion</p>	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p> <p>GCSE PPE exams in Biology 2 and Chemistry 2 units.</p> <p>In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.</p>	<p>Final GCSE revision. This term will be spent revising key concepts and practicing exam technique across all three Science specialisms.</p>	<p>Ongoing teacher assessment on the Science success criteria at least once every 8 lessons. Written feedback will be provided on these assessments which the learner will be expected to feedback on.</p> <p>External final GCSE assessments.</p> <p>In addition learners will have in class assessments where teachers will provide feedback and learners will be expected to feed back.</p>

