



St Richard Reynolds Catholic High School

SUBJECT: SCIENCE

YEAR GROUP: 9

TOPICS COVERED

Biology: Plants, Breathing, Genetics and evolution

Chemistry: Earth and atmosphere, Reactivity series and chemical equations

Physics: Light, Sound



PROGRAMME OF STUDY

Autumn Term

Plants: Plant cells and plant organs, The structure of the leaf, Testing for starch, Photosynthesis, The factors affecting photosynthesis, Stomata, Gas exchange in plants

Earth and atmosphere: The composition of the atmosphere, The structure of the Earth, Igneous rocks, Metamorphic rocks, Sedimentary rocks, Rock cycle, Recycling, Carbon cycle, Global warming, Composites, Ceramics, Polymers

Light: Type of waves, Superposition, Reflection, Refraction, Dispersion, Colours, The human eye

Sound: Waves, Echo, Reflection and absorption of sound, ultrasound, The ear, Hearing problems, Sound and Light comparison

METHOD OF ASSESSMENT

Practical assessment

End of topic test after each unit

Assessed tasks/models/projects

<p>Spring Term</p> <p>Breathing: The structure of the breathing system, Lung structure and the role of alveoli, Measuring the volume of the lungs, Problems with breathing, Effect of smoking on lungs, Exercise and breathing, Aerobic and Anaerobic respiration</p> <p>Reactivity series and chemical equations: Properties of metals and their uses, Extraction of metals, Chemical formulae, Thermite reaction and extraction of iron, Electrolysis</p> <p>Genetic and Evolution: The nucleus, chromosomes, DNA and genes, Extracting DNA, Variation, Natural selection, Extinction, Evolution</p>	<p>Practical assessment</p> <p>End of topic test after each unit</p> <p>Assessed tasks/models/projects</p>
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<p>Summer Term – GSCE content, exam board AQA</p> <p>Biology: Cells and tissues</p> <p>Chemistry: Atomic structure</p> <p>Physics: Electricity</p>	<p>Practical assessment</p> <p>End of topic test after each unit</p>
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<p>Key Skills:</p> <ul style="list-style-type: none"> ➤ Experimental work ➤ Collecting data ➤ Interpreting, analysing and evaluating data ➤ Research and hypothesising ➤ Predicting and concluding ➤ Evaluating
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