



Curriculum Map- Science

Below is a curriculum map, showing what is taught at each stage of the year.

| | Term 1 | Term 2 | Term 3 |
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| Year 7 | <ul style="list-style-type: none"> ● Introduction to science ● Energy-Energy stores and transfers ● Particle model- states of matter and changes of state ● Interdependence- feeding relationships,classification and adaptation ● Forces 1-contact and non contact forces.Newtons 1st and 2nd law. | <ul style="list-style-type: none"> ● Elements and the periodic Table- elements and the properties and arrangement in the periodic table ● Organisation 1- tissues,organs and systems ● Electricity and magnetism-charge current and circuit diagrams ● Compounds- How elements combine to form new compounds in a chemical reaction. | <ul style="list-style-type: none"> ● The Cell- cells,organelles and specialisation ● Mixtures- separation techniques ● Organisation 2- Reproductive system and gestation ● Space- The solar system,days,seasons and eclipses |
| Year 8 | <ul style="list-style-type: none"> ● Bioenergetics- Respiration in cells ● Current- current,series and parallel circuits ● Atomic structure- the structure of the atom and the introduction to bonding and ions. ● Transport- how the reactants and products of respiration are transported | <ul style="list-style-type: none"> ● Particle Theory-density , pressure and energy transfers ● Metals and ions- ionic bonding and chemical equations ● Waves- properties of waves. light , colour and sound. | <ul style="list-style-type: none"> ● Health+Disease- communicable and non-communicable disease. ● Speed-Resultant forces,motion and acceleration ● Biodiversity-Biodiversity and its importance to ecosystems |
| Year 9 | <ul style="list-style-type: none"> ● Metals- Properties of metals and their chemical reactions. ● Voltage-Energy transfers in a circuit ● Bonding Structure and Properties-How properties of substances relates to their bonding. ● Applied Forces- pressure and elasticity ● Inheritance -Inheritance of genetic traits ,selective breeding and natural selection | <ul style="list-style-type: none"> ● Botany- Plant science, plant transport systems and photosynthesis ● Chemistry of the Atmosphere- composition of the earth's atmosphere and structure ● Generating Electricity-Electricity generation and energy resources ● Cosmology-The Solar System and beyond ● Begin Preparing for KS4 | <ul style="list-style-type: none"> ● Cell Biology-Microscopy,cell differentiation,division and transport ● Atomic Structure and the periodic table-The development of the periodic table and evidence for the nuclear model of the atom.Properties of Group 1,7 and 0 elements. |

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| Year 10 | <ul style="list-style-type: none"> ● Energy- Calculating energy stores + transfers. Energy resources ● Organisation-digestive system,disease and cancer ● Bonding-structure +properties of matter-chemical bonding and properties of different materials ● Electricity-charge,current,resistance,potential difference ,domestic electricity supply | <ul style="list-style-type: none"> ● Infection and response-pathogens,immunity and drug development ● Quantitative Chemistry-Chemical measurements,Moles and concentrations ● Energy Changes-Reaction Profiles and bond energies ● Bioenergetics-Factors affecting photosynthesis and respiration ● Particle model of matter-Changes of state,specific heat capacity and specific latent heat | <ul style="list-style-type: none"> ● Chemical Changes-the reactivity and electrolysis and neutralisation reactions ● Atomic Structure-Nuclear Radiation and radioactive decay ● Homeostasis 1- nervous system and reaction times ● Forces 1- Newton's laws and applied forces |
| Year 11 | <ul style="list-style-type: none"> ● The Rate and extent of chemical change-Collision Theory,catalysts and reversible reactions ● Homeostasis 2- The endocrine system,diabetes and hormonal contraception ● Forces 2- speed , velocity, $F=ma$ and stopping distances ● Inheritance- variation,evolution,inheritance,genetics and genetic engineering ● Organic Chemistry- petrochemicals and their properties ● Chemical Analysis- Purity,formulations,chromatography and gas tests | <ul style="list-style-type: none"> ● Waves-Properties of waves,the EM spectrum and its applications ● Ecology-Biodiversity,interdependence and human impact ● Chemistry of the atmosphere-the changing atmosphere,greenhouse effect and atmospheric pollutants ● Using resources-sustainable development,water treatment and life cycle assessments ● Magnetism and Electromagnetism-magnetic fields and the motor effect | <ul style="list-style-type: none"> ● *Space-The solar system,stars,the big bang [Triple Science Only] ● Revision and preparation for exams ● Exam Season |