



Year 10 Science Curriculum Map

HalfTerm	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Big Themes	Biology: Homeostasis and Response Chemistry: Energy Changes	Chemistry: Rate and extent of chemical change Physics: Electricity Biology: Bioenergetics	Exam period Physics: Waves	Chemistry: Quantitative chemistry and chemical analysis Biology: Infections and response	Chemistry: Organic Chemistry and electrolysis	Physics: Atomic structure Physics: Space (triple only)
Knowledge and skills covered	<ul style="list-style-type: none">• The human nervous system• Hormonal coordination in humans• Plant Hormones• Exothermic and endothermic reactions• Chemical cells and fuel cells Skills: <ul style="list-style-type: none">-maths calculations-practical work-evaluation	<ul style="list-style-type: none">• Rates of reaction• Reversible reactions and dynamic equilibrium• Current, potential difference and resistance• Series and parallel circuits• Domestic uses and safety• Energy transfers• Static electricity• Photosynthesis• Respiration Skills: <ul style="list-style-type: none">-equations-graphs-practical work-handling data	<ul style="list-style-type: none">• Waves in air, fluids and solids• Electromagnetic waves• Black body radiation Skills: <ul style="list-style-type: none">-practical work-using tables	<ul style="list-style-type: none">• Relative mass and moles• Conservation of mass• Reacting masses• Yield and atom economy• Gas volumes• The concentrations of solutions• Purity, formulations and chromatography• Identification of common gases• Identification of ions by chemical and spectroscopic means• Electrolysis and half equations• Infections and response• Monoclonal antibodies• Plant disease Skills: <ul style="list-style-type: none">-calculations-rearranging equations-practical work-reading data from tables and graphs	<ul style="list-style-type: none">• Crude oil and alkanes• Cracking and alkenes• Alcohols, carboxylic acids and esters• Polymers• Biochemistry Skills: <ul style="list-style-type: none">-practical work-scale	<ul style="list-style-type: none">• Atoms and isotopes• Atoms and nuclear radiation• Hazards and uses of radioactive emissions and of background radiation• Nuclear fission and fusion• Solar system, Stability of orbital motions,• Satellites• Red shift Skills: <ul style="list-style-type: none">-scale

Knowledge organisers and more detailed topic resources can be found on all student Google Classrooms