

## Science Curriculum Overview KS3 2019/20

	Autumn 1 - 7 weeks	Autumn 2 - 7 weeks	Spring 1 - 6 weeks	Spring 2 - 6 weeks	Summer 1 - 5 weeks	Summer 2 - 6 weeks (8)
Year 7	Forces, Matter, Organisms		Electricity, Genes, Reactions		Eco Systems, Waves, Energy, Space	
	<p><b>Forces-</b> Speed and acceleration, resultant force, Gravity.</p> <p><b>Matter-</b> Using the particle model, separating mixtures.</p> <p><b>Organisms-</b> Movement, body systems.</p> <p><b>Combined Assessment For, Mat, Org</b></p>		<p><b>Electromagnets-</b> Explaining circuits, current, potential difference, electrostatic force.</p> <p><b>Genes-</b>Variation, human reproduction. (Reproductive systems, contraception, infertility, hormones, development of a foetus, puberty)</p> <p><b>Reactions-</b> Properties of metals and non-metals, types of reactions, acids, alkalis and indicators.</p> <p><b>Combined Assessment Elec, Gen, Rea</b></p>		<p><b>EcoSystems-</b> Relationships in the environment. How plants are adapted to reproduce.</p> <p><b>Waves-</b> What sound is, how sound behaves. What light is, behaviour of light (reflection, prism, refraction, vacuum)</p> <p><b>Energy-</b> Energy stores and transfers, fuels and energy stores, energy in the home, accounting for energy. <b>(End of year exam)</b></p>	
Year 8	Organisms, Energy, Matter		Electromagnets, Genes, Reactions, Ecosystems		Ecosystems, Waves, Forces. Earth	
	<p><b>Organisms-</b> The breathing system, a healthy diet, the digestive system.</p> <p><b>Energy-</b> Doing work, Using machines, Thermal energy, Transfer of thermal energy (Conduction, convection and radiation)</p> <p><b>Matter-</b> The Periodic table, Elements and compounds, Using simple models (molecules, symbols), special materials (ceramics, polymers, composites)</p> <p><b>Combined Assessment Org, Ene, Mat</b></p>		<p><b>Electromagnets-</b> Magnetic fields, magnetic attraction, and repulsion, explaining electromagnets, using electromagnets.</p> <p><b>Genes-</b> Natural selection and evolution, managing populations, the structure of the nucleus, inheritance.</p> <p><b>Reactions-</b> Reaction energy and catalysts, combustion and thermal decomposition, reactions.</p> <p><b>Combined Assessment Ele, Gen, Rea</b></p> <p><b>Ecosystems-</b> Aerobic respiration, anaerobic respiration, photosynthesis.</p>		<p><b>Ecosystems-</b> Aerobic respiration, anaerobic respiration, photosynthesis.</p> <p><b>Waves-</b> Effects and uses of waves, behaviour of waves and energy, modelling waves.</p> <p><b>Forces-</b> Effect of forces, friction, and drag, pressure, floating and sinking, forces in equilibrium.</p> <p><b>End of year exam</b></p> <p><b>Earth-</b> Carbon cycle, Changing Earth (global warming, greenhouse gases, changes in the atmosphere) using and re-using the Earth's resources.</p>	
Year 9	Biology, Chemistry, Physics		Biology, Chemistry, Physics		Biology, Chemistry, Physics	
<b>Triple &amp; Trilogy</b>	<p><b>B1.</b> (Y9 Transition) Cell biology - How cells function in living organisms.</p> <p><b>C1.</b> (Y9 Transition) Atomic structure and the periodic table - Elements of the universe.</p> <p><b>P1.</b> (Y9 Transition) Energy - How energy is stored and transferred.</p>		<p><b>B2.</b> (Y9 Transition) Photosynthesis - The chemical reaction that allows life on earth.</p> <p><b>C2.</b> (Y9 Transition) Bonding, structure, and the properties of matter - Fundamentals of Chemistry.</p> <p><b>P2.</b> (Y9 Transition) Electricity - Understanding the fundamentals of electricity.</p>		<p><b>B3.</b> Moving and Changing Materials - Organs, transport and enzymes.</p> <p><b>C3.</b> Quantitative chemistry - Calculating amounts.</p> <p><b>P3.</b> Particle model of matter - Energy changes and states of matter.</p>	