



Curriculum Overview 2021-22: Science

Year Group	Autumn Term	Spring Term	Summer Term	Useful Information/ Websites
Year 7	Safety in the laboratory Particle nature of Matter Living systems Forces and motion	Atoms, elements and compounds Diet and Health Electricity and electromagnets	Reproduction and growth	Seneca Bitesize Firefly
Year 8	Atoms, elements and compounds Acids and Alkalis Forces and Motion	Energy Photosynthesis, respiration and circulation. Chemicals and their reactions	Reproduction and growth Waves Genetics and evolution	Seneca Bitesize Firefly
Year 9	Exam specification: AQA Combined Science SYNERGY and Separate GCSE Science TRANSITION YEAR			Seneca Bitesize Firefly
Combined SC	Autumn 1 Booklet Density Microscopes Chromatography Specific Heat Capacity Autumn 2 Booklet Waves Osmosis Food tests Water Purification	Spring 1 Booklet Infrared radiation Reaction time Making salts Spring 2 Booklet Resistance I-V resistors Photosynthesis Temperature changes	Summer 1 Booklet Forces and extension – Hooke’s Law Field Distributions – Quadrats Rates of Reaction Summer 2 Booklet Forces and acceleration pH and amylase Electrolysis	
Triple Science	Light Decay	Microbiology and aseptic technique Thermal Insulation Neutralisation	Plant Responses Identifying ions	
Year 10	Exam specification: AQA Combined Science SYNERGY and Separate GCSE Science			Seneca Bitesize Firefly
	Unit 1: Building Blocks Unit 2: Transport over Larger distances	Unit 2: Transport over Larger distances Unit 3: Interactions with the Environment	Unit 4: Explaining Change Unit 5: Building Blocks for Understanding	



ASTON MANOR ACADEMY



Triple Science	<i>In addition to above</i> Pressure in Gases <i>Culturing microorganisms</i> Reflection of waves Sound waves and waves for detection and exploration Lenses and visible light Black body radiation The brain and the eye Plant diseases	<i>In addition to above</i> Monoclonal antibodies Temperature, water and nitrogen balance Plant Hormones Hazards and uses of radioactive emissions Advantages and disadvantages of asexual and sexual reproduction DNA structure Cloning	<i>In addition to above</i> Theory of evolution; speciation and work of Mendel Decomposition Impact of environmental change Trophic levels Food production Properties of transition metals Atom economy and percentage yield Using concentrations of solutions and amount of substance for gases.	
Year 11	Exam specification: AQA Combined Science SYNERGY and Separate GCSE Science			
	Inheritance, Variation and Evolution Bioenergetics Waves Rates of Reaction Chemical Analysis	Infection and Response Forces and Motion Electricity Chemical Changes Energy Changes Magnets	Revision	Seneca Bitesize Firefly
Triple Science	<i>In addition to above</i> Evaluating types of reproduction DNA structure and cloning Theory of evolution; speciation and work of Mendel The brain and the eye Temperature, water and nitrogen balance Plant hormones <i>Reflection of waves</i> <i>Sound waves and waves for detection and exploration</i> <i>Lenses and visible light</i> Black body radiation	<i>In addition to above</i> Monoclonal antibodies Plant Disease <i>Identifying ions</i> <i>Titrations</i> <i>Chemical Cells and Fuel Cells</i> Loudspeakers Induced potential transformers and the National Grid Space Physics Static Electricity	Revision	

ALL DIFFERENT · ALL EQUAL · ALL ACHIEVING