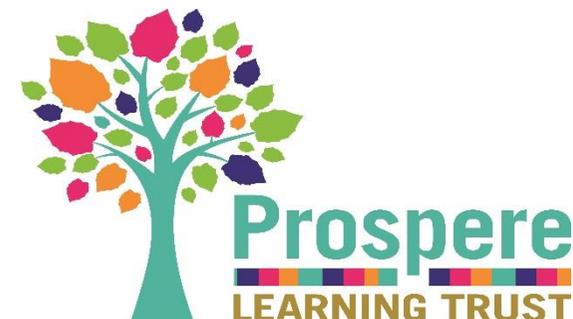


## Science (GCSE)



The areas of development are:	Solutions
<b>Biology</b>	
<ul style="list-style-type: none"> <li>Paper 1: Cell Biology – Unspecialised plant cells, differentiation, cells structure and microscopes</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.1.1/Cell Structure Cell Biology</a></li> <li><a href="#">Seneca Foundation – Cell biology</a></li> <li><a href="#">Seneca Higher – Cell biology</a></li> <li><a href="#">BBC Bitesize – Cell biology</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Cell Biology – Cells, mitosis, stem cells, growth and multicellular organisms</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.1.2/Cell Division</a></li> <li><a href="#">Seneca Foundation – Cell division</a></li> <li><a href="#">Seneca Higher – Cell division</a></li> <li><a href="#">BBC Bitesize – Cell division</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Cell Biology - Osmosis, diffusion and active transport, surface to volume ration and gas exchange</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.1.3/Transport in Cells – Transport in cells</a></li> <li><a href="#">Seneca Foundation – Transport in cells</a></li> <li><a href="#">Seneca Higher – Transport in cells</a></li> <li><a href="#">BBC Bitesize – Transport in cells</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Organisation – Diet, health, disease, enzymes, blood and the circulatory system</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.2.2/Animal tissues, organs and organ systems</a></li> <li><a href="#">Seneca Foundation – Animal tissues, organs and organ systems</a></li> <li><a href="#">Seneca Higher – Animal tissues, organs and organ systems</a></li> <li><a href="#">BBC Bitesize – Animal tissues, organs and organ systems</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Organisation – Transpiration, plant organs, plant structures and plant minerals</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.2.3/Plant tissues, organs and systems</a></li> <li><a href="#">Seneca Foundation – Plant tissues, organs and systems</a></li> <li><a href="#">Seneca Higher – Plant tissues, organs and systems</a></li> <li><a href="#">BBC Bitesize – Plant tissues, organs and systems</a></li> </ul>

<ul style="list-style-type: none"> <li>Paper 1: Infection and Response – Immunisation, drug trials, viruses, disease prevention, defences, immunity and resistance</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.3.1/Communicable disease</a></li> <li><a href="#">Seneca Foundation – Communicable diseases</a></li> <li><a href="#">Seneca Higher – Communicable diseases</a></li> <li><a href="#">BBC Bitesize – Communicable diseases</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Bioenergetics – Photosynthesis, limiting factors, gas exchange and plant growth</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.4.1/Photosynthesis</a></li> <li><a href="#">Seneca Foundation - Photosynthesis</a></li> <li><a href="#">Seneca Higher - Photosynthesis</a></li> <li><a href="#">BBC Bitesize - Photosynthesis</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Bioenergetics – Metabolism, respiration both aerobic and anaerobic and energy</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.4.2/Respiration</a></li> <li><a href="#">Seneca Foundation - Respiration</a></li> <li><a href="#">Seneca Higher - Respiration</a></li> <li><a href="#">BBC Bitesize – Respiration</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 2: Homeostasis and Response - Homeostasis</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.5.1/Homeostasis</a></li> <li><a href="#">Seneca Foundation - Homeostasis</a></li> <li><a href="#">Seneca Higher - Homeostasis</a></li> <li><a href="#">BBC Bitesize - Homeostasis</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 2: Homeostasis and Response – Central nervous system, reflex arc, synapses, reflexes, receptors and effectors</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.5.2/The human nervous system</a></li> <li><a href="#">Seneca Foundation – The human nervous system</a></li> <li><a href="#">Seneca Higher – The human nervous system</a></li> <li><a href="#">BBC Bitesize – The human nervous system</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 2: Homeostasis and Response – Type 1 and type 2 diabetes, hormones, controlling fertility and human reproduction</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.5.3/Hormonal coordination in humans</a></li> <li><a href="#">Seneca Foundation – Hormonal coordination in humans</a></li> <li><a href="#">Seneca Higher – Hormonal coordination in humans</a></li> <li><a href="#">BBC Bitesize – Hormonal coordination in humans</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 2: Inheritance, Variation and Evolution – Meiosis, genetics, inheritance, foetal screening, sperm and egg and reproduction in plants</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.6.1/Reproduction</a></li> <li><a href="#">Seneca Foundation – Reproduction</a></li> <li><a href="#">Seneca Higher - Reproduction</a></li> <li><a href="#">BBC Bitesize - Reproduction</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 2: Inheritance, Variation and Evolution – Genetic engineering, GM, cloning, variation, selective breeding and speciation</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.6.2/Variation and evolution</a></li> <li><a href="#">Seneca Foundation – Variation and evolution</a></li> <li><a href="#">Seneca Higher – Variation and evolution</a></li> </ul>

<ul style="list-style-type: none"> <li>Paper 2: Inheritance, Variation and Evolution – Extinction, evolution, bacteria, Darwin and evolution, natural selection and fossil record</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">BBC Bitesize – Variation and evolution</a></li> <li><a href="#">4.6.3/The development of understanding of genetics and evolution</a></li> <li><a href="#">Seneca Foundation – The development of understanding of genetics and evolution</a></li> <li><a href="#">Seneca Higher – The development of understanding of genetics and evolution</a></li> <li><a href="#">BBC Bitesize – The development of understanding of genetics and evolution</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 2: Inheritance, Variation and Evolution – Five kingdoms and classifications</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.6.4/Classification of living organism</a></li> <li><a href="#">Seneca Foundation – Classification of living organism</a></li> <li><a href="#">Seneca Higher – Classification of living organism</a></li> <li><a href="#">BBC Bitesize – Classification of living organism</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 2: Ecology – Competition, adaptations, extreme conditions and ecosystems</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.7.1/Adaptations, interdependence and competition</a></li> <li><a href="#">Seneca Foundation – Adaptations, interdependence and competition</a></li> <li><a href="#">Seneca Higher – Adaptations, interdependence and competition</a></li> <li><a href="#">BBC Bitesize – Adaptations, interdependence and competition</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 2: Ecology – Carbon cycle, fieldwork, water cycle, food chains and webs</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.7.2/Organisation of an ecosystem</a></li> <li><a href="#">Seneca Foundation – Organisation of an ecosystem</a></li> <li><a href="#">Seneca Higher – Organisation of an ecosystem</a></li> <li><a href="#">BBC Bitesize – Organisation of an ecosystem</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 2: Ecology – Population change, biodiversity, human waste, deforestation and peat removal, global pollution and greenhouse effect</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">4.7.3/Biodiversity and the effect of human interaction on ecosystems</a></li> <li><a href="#">Seneca Foundation – Biodiversity and the effect of human interaction on ecosystems</a></li> <li><a href="#">Seneca Higher – Biodiversity and the effect of human interaction on ecosystems</a></li> <li><a href="#">BBC Bitesize – Biodiversity and the effect of human interaction on ecosystems</a></li> </ul>
<b>Chemistry</b>	

<ul style="list-style-type: none"> <li>Paper 1: Atomic structure and the periodic table – elements, structure of the atom, subatomic particles, RAM, reactions, elements and compounds</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">5.1.1/A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes</a></li> <li><a href="#">Seneca foundation – A simple model of the atom, symbols, relative atomic mass, electronic mass, electronic charge and isotopes</a></li> <li><a href="#">Seneca higher – A simple model of the atom, symbols, relative atomic mass, electronic mass, electronic charge and isotopes</a></li> <li><a href="#">BBC Bitesize – A simple model of the atom, symbols, relative atomic mass, electronic mass, electronic charge and isotopes</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Atomic structure and the periodic table – Group 1, Group 7, Noble Gases and Periodic table</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">5.1.2/The periodic table</a></li> <li><a href="#">Seneca Foundation – The periodic table</a></li> <li><a href="#">Seneca Higher – The periodic table</a></li> <li><a href="#">BBC Bitesize – The periodic table</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Bonding, structure and the properties of matter – Ionic bonding, covalent bonding, metallic bonding, simple and giant structures</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">5.2.1/Chemical bonds, ionic, covalent and metallic</a></li> <li><a href="#">Seneca Foundation – Chemical bonds, ionic, covalent and metallic</a></li> <li><a href="#">Seneca Higher – Chemical bonds, ionic, covalent and metallic</a></li> <li><a href="#">BBC Bitesize – Chemical bonds, ionic, covalent and metallic</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Bonding, structure, and the properties of matter – States of matter and properties of metals</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">5.2.2/How bonding and structure are related to the properties of substances</a></li> <li><a href="#">Seneca Foundation – How bonding and structure are related to the properties of substances</a></li> <li><a href="#">Seneca Higher – How bonding and structure are related to the properties of substances</a></li> <li><a href="#">BBC Bitesize – How bonding and structure are related to the properties of substances</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Bonding, structure, and the properties of matter – Allotropes of carbon</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">5.2.3/Structure and bonding of carbon</a></li> <li><a href="#">Seneca Foundation – Structure and bonding of carbon</a></li> <li><a href="#">Seneca Higher – Structure and bonding of carbon</a></li> <li><a href="#">BBC Bitesize – Structure and bonding of carbon</a></li> </ul>
<ul style="list-style-type: none"> <li>Paper 1: Quantitative chemistry – Atoms and formula, RFM, % mass, uncertainty and mass change</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">5.3.1/Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations</a></li> </ul>

	<ul style="list-style-type: none"> <li>• <a href="#">Seneca Foundation – Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations</a></li> <li>• <a href="#">Seneca Higher – Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Quantitative chemistry – Reactions, empirical formula, moles, concentration and reacting masses</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.3.2/Use of amount of substance in relation to masses of pure substances</a></li> <li>• <a href="#">Seneca Foundation – Use of the amount of substance in relation to masses of pure substances</a></li> <li>• <a href="#">Seneca Higher – Use of amount of substance in relation to masses of pure substances</a></li> <li>• <a href="#">BBC Bitesize – Use of amount of substance in relation to masses of pure substances</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Chemical changes – Metals and ores, transition metals, displacement, REDOX and Oxides</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.4.1/Reactivity of metals</a></li> <li>• <a href="#">Seneca Foundation – Reactivity of metals</a></li> <li>• <a href="#">Seneca Higher – Reactivity of metals</a></li> <li>• <a href="#">BBC Bitesize – Reactivity of metals</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Chemical changes – Salts, acids and bases, alkalis, neutralisation, strong and weak acids, acid and metal reactions</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.4.2/Reactions of acids</a></li> <li>• <a href="#">Seneca Foundation 1 – Reactions of acids</a></li> <li>• <a href="#">Seneca Foundation 2 – Reactions of acids</a></li> <li>• <a href="#">Seneca Higher 1 – Reactions of acids</a></li> <li>• <a href="#">Seneca Higher 2 – Reactions of acids</a></li> <li>• <a href="#">BBC Bitesize – Reactions of acids</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Chemical changes – Electrolysis, electrodes and the uses of electrolysis</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.4.3/Electrolysis</a></li> <li>• <a href="#">Seneca Foundation - Electrolysis</a></li> <li>• <a href="#">Seneca Higher - Electrolysis</a></li> <li>• <a href="#">BBC Bitesize - Electrolysis</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Energy changes – Exo and endothermic reactions, bond breaking and making, measuring energy changes and calculating bond energies</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.5.1/Exothermic and endothermic reactions</a></li> <li>• <a href="#">Seneca Foundation – Exothermic and endothermic reactions</a></li> <li>• <a href="#">Seneca Higher – Exothermic and endothermic reactions</a></li> </ul>

	<ul style="list-style-type: none"> <li>• <a href="#">BBC Bitesize – Exothermic and endothermic reactions</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: The rate and extent of chemical change – Reaction rate and collision theory, factors affecting rate, catalysts, rate of reaction graphs and measuring rate</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.6.1/Rate of reaction</a></li> <li>• <a href="#">Seneca Foundation – Rate of reaction</a></li> <li>• <a href="#">Seneca Higher – Rate of reaction</a></li> <li>• <a href="#">BBC Bitesize – Rate of reaction</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: The rate and extent of chemical change – Reversible reactions and choosing reaction conditions</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.6.2/Reversible reactions and dynamic equilibrium</a></li> <li>• <a href="#">Seneca Foundation – Reversible reactions and dynamic equilibrium</a></li> <li>• <a href="#">Seneca Higher – Reversible reactions and dynamic equilibrium</a></li> <li>• <a href="#">BBC Bitesize – Reversible reactions and dynamic equilibrium</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Organic chemistry – Crude oil, alkanes, fuels and combustion</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.7.1/Carbon compounds as fuels and feedstock</a></li> <li>• <a href="#">Seneca Foundation – Carbon compounds as fuels and feedstock</a></li> <li>• <a href="#">Seneca Higher – Carbon compounds as fuels and feedstock</a></li> <li>• <a href="#">BBC Bitesize – Carbon compounds as fuels and feedstock</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Chemical analysis – Chromatography, formulations and pure substances</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.8.1/Purity, formulations and chromatography</a></li> <li>• <a href="#">Seneca Foundation – Purity, formulations and chromatography</a></li> <li>• <a href="#">Seneca Higher – Purity, formulations and chromatography</a></li> <li>• <a href="#">BBC Bitesize – Purity, formulations and chromatography</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Chemical analysis – Identification of common gases</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.8.2/Identification of common gases</a></li> <li>• <a href="#">Seneca Foundation – Identification of common gases</a></li> <li>• <a href="#">Seneca Higher – Identification of common gases</a></li> <li>• <a href="#">BBC Bitesize – Identification of common gases</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Chemistry of the atmosphere – Atmosphere past and present</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.9.1/The composition and evolution of the Earth’s atmosphere</a></li> <li>• <a href="#">Seneca Foundation – The composition and evolution of the Earth’s atmosphere</a></li> <li>• <a href="#">Seneca Higher – The composition and evolution of the Earth’s atmosphere</a></li> <li>• <a href="#">BBC Bitesize – The composition and evolution of the Earth’s atmosphere</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Chemistry of the atmosphere – Climate changes and the processes that change the atmosphere</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.9.2/Carbon dioxide and methane as greenhouse gases</a></li> </ul>

	<ul style="list-style-type: none"> <li>• <a href="#">Seneca Foundation - Carbon dioxide and methane as greenhouse gases</a></li> <li>• <a href="#">Seneca Higher – Carbon dioxide and methane as greenhouse gases</a></li> <li>• <a href="#">BBC Bitesize – Carbon dioxide and methane as greenhouse gases</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Chemistry of the atmosphere – impact of burning hydrocarbons and pollution</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.9.3/Common atmospheric pollutants and their sources</a></li> <li>• <a href="#">Seneca Foundation – Common atmospheric pollutants and their sources</a></li> <li>• <a href="#">Seneca Higher – Common atmospheric pollutants and their sources</a></li> <li>• <a href="#">BBC Bitesize – Common atmospheric pollutants and their sources</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Using resources – Purifying water and testing for water</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.10.1/Using the Earth’s resources and obtaining potable water</a></li> <li>• <a href="#">Seneca Foundation – Using the Earth’s resources and obtaining potable water</a></li> <li>• <a href="#">Seneca Higher – Using the Earth’s resources and obtaining potable water</a></li> <li>• <a href="#">BBC Bitesize – Using the Earth’s resources and obtaining potable water</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Using resources – Reducing pollution and recycling metals</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">5.10.2/Life cycle assessment and recycling</a></li> <li>• <a href="#">Seneca Foundation – Life cycle assessment and recycling</a></li> <li>• <a href="#">Seneca Higher – Life cycle assessment and recycling</a></li> <li>• <a href="#">BBC Bitesize – Life cycle assessment and recycling</a></li> </ul>
<b>Physics</b>	
<ul style="list-style-type: none"> <li>• Paper 1: Energy – Energy changes in a system and the ways energy is stored before and after such changes – EPE, GPE, Power, what is energy, conservation, efficiency and insulation</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.1.1/Energy changes in a system, and the ways energy is stored before and after such changes</a></li> <li>• <a href="#">Seneca Foundation – Energy changes in a system, and the ways energy is stored before and after such changes</a></li> <li>• <a href="#">Seneca Higher – Energy changes in a system, and the ways energy is stored before and after such changes</a></li> <li>• <a href="#">BBC Bitesize – Energy changes in a system, and the ways energy is stored before and after such changes</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Energy – Conservation and dissipation of energy including Conservation of Energy, Efficiency and Insulation</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.1.2/Conservation and dissipation of energy</a></li> </ul>

	<ul style="list-style-type: none"> <li>• <a href="#">Seneca Foundation – Conservation and dissipation of energy</a></li> <li>• <a href="#">Seneca Higher – Conservation and dissipation of energy</a></li> <li>• <a href="#">BBC Bitesize – Conservation and dissipation of energy</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Electricity – Current, potential difference and resistance including Ohm’s law, IV graphs, circuit symbols, resistors and LDR’s</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.2.1/Current, potential difference and resistance</a></li> <li>• <a href="#">Seneca Foundation – Current, potential difference and resistance</a></li> <li>• <a href="#">Seneca Higher – Current, potential difference and resistance</a></li> <li>• <a href="#">BBC Bitesize – Current, potential difference and resistance</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Electricity – Series and parallel circuits including resistor combinations series and parallel circuits</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.2.2/Series and parallel circuits</a></li> <li>• <a href="#">Seneca Foundation – Series and parallel circuits</a></li> <li>• <a href="#">Seneca Higher – Series and parallel circuits</a></li> <li>• <a href="#">BBC Bitesize – Series and parallel circuits</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Electricity – Domestic uses and safety including ac/dc, batteries/cells, insulation, fuses, plugs and RCD’s</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.2.3/Domestic uses and safety</a></li> <li>• <a href="#">Seneca Foundation – Domestic uses and safety</a></li> <li>• <a href="#">Seneca Higher – Domestic uses and safety</a></li> <li>• <a href="#">BBC Bitesize – Domestic uses and safety</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Electricity – Energy transfers including transformers, national grid, electrical power and energy transfers in the home</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.2.4/Energy transfers</a></li> <li>• <a href="#">Seneca Foundation – Energy transfers</a></li> <li>• <a href="#">Seneca Higher – Energy transfers</a></li> <li>• <a href="#">BBC Bitesize – Energy transfers</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper1: Particle model of matter – Changes of state and the particle model including density, changes of state and states of matter</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.3.1/Changes of state and the particle model</a></li> <li>• <a href="#">Seneca Foundation – Changes of state and the particle model</a></li> <li>• <a href="#">Seneca Higher – Changes of state and the particle model</a></li> <li>• <a href="#">BBC Bitesize – Changes of state and the particle model</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Particle model of matter- Internal energy and energy transfers including heat and temperature, SHC and latent heat</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.3.2/Internal energy and energy transfers</a></li> <li>• <a href="#">Seneca Foundation – Internal energy and energy transfers</a></li> <li>• <a href="#">Seneca Higher – Internal energy and energy transfers</a></li> <li>• <a href="#">BBC Bitesize – Internal energy and energy transfers</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Particle model of matter – Particle model and pressure including Kinetic Theory</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.3.3/Particle model and pressure</a></li> <li>• <a href="#">Seneca Foundation – Particle model and pressure</a></li> <li>• <a href="#">Seneca Higher – Particle model and pressure</a></li> </ul>

	<ul style="list-style-type: none"> <li>• <a href="#">BBC Bitesize – Particle model and pressure</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Atomic Structure – Atoms and isotopes including history, isotopes and the PT, protons, neutrons and the atom</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.4.1/Atoms and isotopes</a></li> <li>• <a href="#">Seneca Foundation – Atoms and isotopes</a></li> <li>• <a href="#">Seneca Higher – Atoms and isotopes</a></li> <li>• <a href="#">BBC Bitesize – Atoms and isotopes</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 1: Atomic Structure – Atoms and nuclear radiation including Alpha, Beta, Gamma, the dangers of radioactivity, half-life, ionising and detecting, decay and transmutation and nuclear reactions</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.4.2/Atoms and nuclear radiation</a></li> <li>• <a href="#">Seneca Foundation – Atoms and nuclear radiation</a></li> <li>• <a href="#">Seneca Higher – Atoms and nuclear radiation</a></li> <li>• <a href="#">BBC Bitesize – Atoms and nuclear radiation</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Forces – Resultant forces, vectors and scalars</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.5.1/Forces and their interactions</a></li> <li>• <a href="#">Seneca Foundation – Forces and their interactions</a></li> <li>• <a href="#">Seneca Higher – Forces and their interactions</a></li> <li>• <a href="#">BBC Bitesize 1</a></li> <li>• <a href="#">BBC Bitesize 2</a></li> <li>• <a href="#">BBC Bitesize 3</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Forces – Work done 1 and work done</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.5.2/Work done and energy transfer</a></li> <li>• <a href="#">Seneca Foundation – Work done and energy transfer</a></li> <li>• <a href="#">Seneca Higher – Work done and energy transfer</a></li> <li>• <a href="#">BBC Bitesize – Work done and energy transfer</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Forces – Elastic potential energy and Hooke’s Law</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.5.3/Forces and elasticity</a></li> <li>• <a href="#">Seneca Foundation – Forces and elasticity</a></li> <li>• <a href="#">Seneca Higher – Forces and elasticity</a></li> <li>• <a href="#">BBC Bitesize – Forces and elasticity</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Forces- Acceleration, distance time graphs, Newton’s Laws, speed and stopping distances</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.5.6/Forces and motion</a></li> <li>• <a href="#">Seneca Foundation – Forces and motion</a></li> <li>• <a href="#">Seneca Higher – Forces and motion</a></li> <li>• <a href="#">BBC Bitesize 1</a></li> <li>• <a href="#">BBC Bitesize 2</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Forces – Momentum and collisions</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.5.5/Momentum</a></li> <li>• <a href="#">Seneca Higher - Momentum</a></li> </ul>

	<ul style="list-style-type: none"> <li>• <a href="#">BBC Bitesize - Momentum</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Waves -Wavelength, the wave equation and types of waves</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.6.1/Waves in air, fluids and solids</a></li> <li>• <a href="#">Seneca Foundation – Waves in air, fluids and solids</a></li> <li>• <a href="#">Seneca Higher – Waves in air, fluids and solids</a></li> <li>• <a href="#">BBC Bitesize 1</a></li> <li>• <a href="#">BBC Bitesize 2</a></li> <li>• <a href="#">BBC Bitesize 3</a></li> <li>• <a href="#">BBC Bitesize 4</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Waves – Wireless signals, the EMS, refraction, frequency and wavelength</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.6.2/Electromagnetic waves</a></li> <li>• <a href="#">Seneca Foundation – Electromagnetic waves</a></li> <li>• <a href="#">Seneca Higher – Electromagnetic waves</a></li> <li>• <a href="#">BBC Bitesize – Electromagnetic waves</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Magnetism and electromagnetism – magnetic fields</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.7.1/Permanent and induced magnetism, magnetic forces and fields</a></li> <li>• <a href="#">Seneca Foundation – Permanent and induced magnetism, magnetic forces and fields</a></li> <li>• <a href="#">Seneca Higher – Permanent and induced magnetism, magnetic forces and fields</a></li> <li>• <a href="#">BBC Bitesize – Permanent and induced magnetism, magnetic forces and fields</a></li> </ul>
<ul style="list-style-type: none"> <li>• Paper 2: Magnetism and electromagnetism – Electromagnets, left hand and right hand rule</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">6.7.2/The motor effect</a></li> <li>• <a href="#">Seneca Foundation – The motor effect</a></li> <li>• <a href="#">Seneca Higher – The motor effect</a></li> <li>• <a href="#">BBC Bitesize – The motor effect</a></li> </ul>
<ul style="list-style-type: none"> <li>• Presenting observations and other data using appropriate methods</li> </ul>	<ul style="list-style-type: none"> <li>• Undertake the exercises on the AQA <a href="#">Making Sense of Graphical Data</a> and <a href="#">Describing Patterns</a> documents</li> </ul>
<ul style="list-style-type: none"> <li>• Carrying out and representing mathematical and statistical analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Undertaking the exercises on the AQA <a href="#">Describing Patterns</a> document</li> </ul>
<ul style="list-style-type: none"> <li>• Interpreting observations and other data (presented in verbal, diagrammatic, graphical, symbolic or numerical form), including</li> </ul>	<ul style="list-style-type: none"> <li>• Undertake the exercises on the AQA <a href="#">The Earl of Abergavenny</a> and <a href="#">Organising a mind map</a> documents</li> </ul>

identifying patterns and trends, making inferences and drawing conclusions	
<ul style="list-style-type: none"> <li>• Being objective, evaluating data in terms of accuracy, precision, repeatability and reproducibility and identifying potential sources of random and systematic error</li> </ul>	<ul style="list-style-type: none"> <li>• Undertake the exercises on the AQA <a href="#">Describing Patterns</a> document</li> </ul>
<ul style="list-style-type: none"> <li>• Identifying trends on a graph and producing a conclusion</li> </ul>	<ul style="list-style-type: none"> <li>• Undertake the exercises on the AQA <a href="#">Describing Patterns</a> document</li> </ul>
<ul style="list-style-type: none"> <li>• Plotting data and drawing a line of best fit</li> </ul>	<ul style="list-style-type: none"> <li>• Undertake the exercises on the AQA <a href="#">Making Sense of Graphical Data</a> document</li> </ul>
<ul style="list-style-type: none"> <li>• Making conclusions from table data</li> </ul>	<ul style="list-style-type: none"> <li>• Undertake the exercises on the AQA <a href="#">Making Sense of Graphical Data</a> and <a href="#">Pineapple Jelly</a> documents</li> </ul>
<ul style="list-style-type: none"> <li>• Evaluating information from a table and linking it to your own knowledge</li> </ul>	<ul style="list-style-type: none"> <li>• Undertake the exercises on the <a href="#">AQA Pineapple documents</a></li> </ul>

[Return to Year 11 Solutions Homepage](#)