

## Year 10

2022/2023 Year 10 students will be following a slightly different route due to Covid changes and a change in teaching order. The route through is as follows:

Term 1: Electricity 1, bonding 2

Term 2: Energy 2, Cell transport, Chemical changes

Term 3: Particle model of matter, plants and photosynthesis

Term 4: Atomic structure (physics), Energy changes


Term 5: Waves 1, The rate and exchange of chemical changes

Term 6: Electricity 2, Organic chemistry

Term 1	Biology: Cell transport	1. Diffusion 2. Osmosis 3. Active transport <a href="#">W</a> Cell transport SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize - Cell transport</a>
	Physics: Energy 2	1. Specific heat capacity 2. Required practical on SHC. 3. Dissipation of energy 4. Insulation <a href="#">W</a> Energy 2 SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize energy and heating</a>
Term 1 and 2	Biology: Digestion and respiration	1. Digestive system 2. Food test required prac 3. Digestive enzymes 4. Differences between aerobic and anaerobic respiration. 5. Lactic acid and oxygen debt <a href="#">W</a> Digestion and respiration SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize enzymes</a>  <a href="#">BBC bitesize respiration</a>
	Chemistry: Bonding 1	1. Drawing covalent substances 2. Giant and simple covalent structures and properties 3. Polymers and nanoparticles. 4. Metallic bonding and properties. <a href="#">W</a> Bonding 1 SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize covalent bonding</a> <a href="#">BBC bitesize metallic bonding</a>

Term 2	Chemistry: Bonding 2	1. Ionic bonding and the properties 2. Reactivity of metals 3. Electrolysis 4. Uses of electrolysis <a href="#">w</a> Bonding 2 SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize ionic bonding</a> <a href="#">BBC bitesize electrolysis</a>
	Biology: Breathing and circulation	1. The lungs 2. The heart 3. Blood <a href="#">w</a> Breathing and circulation SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize Breathing</a>
Term 3	Physics: Particle model of matter	1. Explain changes of state 2. Explain how motion is related to pressure and temperature 3. Density required practical. <a href="#">w</a> Particle model of matter SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize particle model</a>
	Chemistry: Chemical changes	1. Oxidation and reduction 2. Neutralisation 3. Required practical making salts 4. Concentration 5. Separating mixtures required practical 6. (T) required practical titrations <a href="#">w</a> Chemical changes SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize chemical changes (1-3)</a>
Term 4	Chemistry: Energy changes	1. Endothermic and exothermic reactions 2. Energy profile diagrams 3. Bond energy calculations (HT) 4. Required practical energy changes 5. (T) fuel cells and batteries <a href="#">w</a> Energy changes SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize energy changes (2 =T only)</a>  <a href="#">Seneca GCSE chemistry</a>
	Physics: Atomic structure	1. Atomic structure 2. Radioactive decay 3. Nuclear equations 4. Hazards and uses of radiation. 5. (T) nuclear fission and fusion.	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize Radioactive decay</a>

		<a href="#">W</a> Atomic structure SPEC.docx	
Term 5	Chemistry: Rate and Extent of chemical change	1.How to calculate rate of reaction 2.Factors affecting rate of reaction 3.Required practical on rates. 4.Collision theory and activation energy 5.Reversible reactions 6. (HT) equilibrium <a href="#">W</a> Rate and extent of chemical change SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize rates of reaction</a>
	Biology: Health and immune system	1. Links between physical and mental health 2.Risk factors of disease 3.Cancer 4.Difference between bacteria and viruses 5.How diseases are spread 6.White blood cells 7.Vaccinations, antibiotics and drug testing <a href="#">W</a> Health and immune system SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize communicable diseases</a>
Term 6	Chemistry: Organic chemistry	1.Fractional distillation 2.Alkane properties 3.Cracking 4.Alkene properties 5.Combustion 6.(T) Alcohols 7.(T) Carboxylic acids 8.Polymers (T) addition polymerisation <a href="#">W</a> Organic chemistry SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize organic chemistry</a>  <a href="#">BBC bitesize organic chemistry triple content</a>
	Physics: Waves 1	1.Difference between longitudinal and transverse waves. 2.Describe all key words connected with wave diagrams. 3.Wave speed calculations 4.Required practical waves. 5.(T) describing and explaining sound waves 6.(T) ultrasound. <a href="#">W</a> Waves 1 SPEC.docx	Lesson resources are available through google classrooms. Alternatively: <a href="#">BBC bitesize types of waves</a>
	Physics: Electricity 2	1.Ohm's law 2.Wiring a plug	Lesson resources are available through google

		<p>3.Power calculations 4.Calculating energy transferred. 5.National grid</p> <p> Electricity 2 SPEC.docx</p>	<p>classrooms. Alternatively: <a href="#">BBC bitesize electricity</a></p>
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