

# Summer 2022 GCSE Science Trilogy Revision List- HIGHER

\*this revision list covers the major content of the exams you may be required to understand other contexts in a small amount e.g. the structure of an atom or electricity.  
**DO NOT IGNORE** the other areas only the ones stated not in the exam.

**WATCH THIS FIRST:** <https://www.youtube.com/watch?v=GhkGrd5I-A4>

	TOPIC	Video link and subject area	Watched	Revised from book
	<b>P1 Biology</b>			
	4.1.2 Cell division	4.1.2.1 Chromosomes/4.1.2.2 Mitosis and the cell cycle <a href="https://www.youtube.com/watch?v=RHyzVmbiA78&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=8">https://www.youtube.com/watch?v=RHyzVmbiA78&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=8</a>		
		4.1.2.3 Stem cells <a href="https://www.youtube.com/watch?v=X0Gmp8oM_2E&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=7">https://www.youtube.com/watch?v=X0Gmp8oM_2E&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=7</a>		
	4.2.2 Animal tissues, organs and organ systems	4.2.2.2 The heart and blood vessels <a href="https://www.youtube.com/watch?v=zU90AkcTJEs&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=22">https://www.youtube.com/watch?v=zU90AkcTJEs&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=22</a> <a href="https://www.youtube.com/watch?v=AISQEs694qY&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=23">https://www.youtube.com/watch?v=AISQEs694qY&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=23</a>		
		4.2.2.3 Blood <a href="https://www.youtube.com/watch?v=81w0BXg7QJA&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=24">https://www.youtube.com/watch?v=81w0BXg7QJA&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=24</a>		
		4.2.2.4 Coronary heart disease: a non-communicable disease <a href="https://www.youtube.com/watch?v=UN5BIPfMUkg&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=25">https://www.youtube.com/watch?v=UN5BIPfMUkg&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=25</a>		
		4.2.2.5 Health issues <a href="https://www.youtube.com/watch?v=thAyrNpD77A&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=26">https://www.youtube.com/watch?v=thAyrNpD77A&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=26</a>		
		4.2.2.6 The effect of lifestyle on some non-communicable diseases <a href="https://www.youtube.com/watch?v=iy-47a68P60&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=27">https://www.youtube.com/watch?v=iy-47a68P60&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=27</a> <a href="https://www.youtube.com/watch?v=dbd5iydu3EY&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=31">https://www.youtube.com/watch?v=dbd5iydu3EY&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=31</a>		
		4.2.2.7 Cancer <a href="https://www.youtube.com/watch?v=B5VHRKBI4PY&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=28">https://www.youtube.com/watch?v=B5VHRKBI4PY&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=28</a>		
	4.4.1 Photosynthesis	4.4.1.1 Photosynthetic reaction <a href="https://www.youtube.com/watch?v=X81OIkeuHJw&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=39">https://www.youtube.com/watch?v=X81OIkeuHJw&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=39</a>		
		4.4.1.2 Rate of photosynthesis <a href="https://www.youtube.com/watch?v=J0KxRX3fyoI&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=40">https://www.youtube.com/watch?v=J0KxRX3fyoI&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=40</a>		
	Required practicals	Required practical activity 3: use qualitative reagents to test for a range of carbohydrates, lipids and proteins. To include: Benedict's test for sugars; iodine test for starch; and Biuret reagent for protein <a href="https://www.youtube.com/watch?v=SqWTJWOBww4">https://www.youtube.com/watch?v=SqWTJWOBww4</a>		
		Required practical activity 4: investigate the effect of pH on the rate of reaction of amylase enzyme. <a href="https://www.youtube.com/watch?v=JyXXoEvEWc8">https://www.youtube.com/watch?v=JyXXoEvEWc8</a>		

		Required practical activity 5: investigate the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed. <a href="https://www.youtube.com/watch?v=cBCKedXdFeE">https://www.youtube.com/watch?v=cBCKedXdFeE</a>		
	<b>P1 Chemistry</b>			
	5.2.2 How bonding and structure are related to the properties of substances	5.2.2.1 The three states of matter and <a href="https://www.youtube.com/watch?v=hkBrw2fG75U&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=21">https://www.youtube.com/watch?v=hkBrw2fG75U&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=21</a>		
		5.2.2.2 State symbols <a href="https://www.youtube.com/watch?v=h7ErVAZbeu0&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=22">https://www.youtube.com/watch?v=h7ErVAZbeu0&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=22</a>		
		5.2.2.3 Properties of ionic compounds <a href="https://www.youtube.com/watch?v=6DtrrWA5nke&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=13">https://www.youtube.com/watch?v=6DtrrWA5nke&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=13</a> <a href="https://www.youtube.com/watch?v=kShlfsvWbQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=14">https://www.youtube.com/watch?v=kShlfsvWbQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=14</a>		
		5.2.2.4 Properties of small molecules <a href="https://www.youtube.com/watch?v=5I_1jRGSr9E&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=14">https://www.youtube.com/watch?v=5I_1jRGSr9E&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=14</a> <a href="https://www.youtube.com/watch?v=d2ogZgGmMDY&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=15">https://www.youtube.com/watch?v=d2ogZgGmMDY&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=15</a>		
		5.2.2.5 Polymers <a href="https://www.youtube.com/watch?v=EP0zfm_FVqc&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=18">https://www.youtube.com/watch?v=EP0zfm_FVqc&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=18</a>		
		5.2.2.6 Giant covalent structures <a href="https://www.youtube.com/watch?v=tGH0mXCcEFU&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=16">https://www.youtube.com/watch?v=tGH0mXCcEFU&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=16</a> <a href="https://www.youtube.com/watch?v=tGH0mXCcEFU&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=17">https://www.youtube.com/watch?v=tGH0mXCcEFU&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=17</a>		
		5.2.2.7 Properties of metals and alloys/5.2.2.8 Metals as conductors <a href="https://www.youtube.com/watch?v=Rc2JBp91V7o&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=9">https://www.youtube.com/watch?v=Rc2JBp91V7o&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=9</a> <a href="https://www.youtube.com/watch?v=b1y2Q6YX1bQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=19">https://www.youtube.com/watch?v=b1y2Q6YX1bQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=19</a>		
	5.3.2 Use of amount of substance in relation to masses of pure substances	5.3.2.1 Moles		
		5.3.2.2 Amounts of substances in equations 5		
		5.3.2.3 Using moles to balance equations (HT only) <a href="https://www.youtube.com/watch?v=wPGVQu3UXpw&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=24">https://www.youtube.com/watch?v=wPGVQu3UXpw&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=24</a>		
		5.3.2.4 Limiting reactants (HT only) <a href="https://www.youtube.com/watch?v=TKDOyR7WKQQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=26">https://www.youtube.com/watch?v=TKDOyR7WKQQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=26</a>		
		5.3.2.5 Concentration of solutions <a href="https://www.youtube.com/watch?v=kJBbu7_vYC8&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=26">https://www.youtube.com/watch?v=kJBbu7_vYC8&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=26</a>		
	5.4.1 Reactivity of metals	5.4.1.1 Metal oxides <a href="https://www.youtube.com/watch?v=gvNuMpxqG7Q">https://www.youtube.com/watch?v=gvNuMpxqG7Q</a>		
		5.4.1.2 The reactivity series <a href="https://www.youtube.com/watch?v=2i5Lm7BMtpo&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=30">https://www.youtube.com/watch?v=2i5Lm7BMtpo&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=30</a>		
		5.4.1.3 Extraction of metals and reduction <a href="https://www.youtube.com/watch?v=gvNuMpxqG7Q&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=31">https://www.youtube.com/watch?v=gvNuMpxqG7Q&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=31</a>		
		5.4.1.4 Oxidation and reduction in terms of electrons (HT only) <a href="https://www.youtube.com/watch?v=jyvcVjrZnJA&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=32">https://www.youtube.com/watch?v=jyvcVjrZnJA&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=32</a>		

	5.4.2 Reactions of acids	5.4.2.1 Reactions of acids with metals <a href="https://www.youtube.com/watch?v=ofw6oHSYGF1">https://www.youtube.com/watch?v=ofw6oHSYGF1</a> <a href="https://www.youtube.com/watch?v=vt8fB3MFzLk&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=27">https://www.youtube.com/watch?v=vt8fB3MFzLk&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=27</a>		
		5.4.2.2 Neutralisation of acids and salt production <a href="https://www.youtube.com/watch?v=IBjwMCHUyBY&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=29">https://www.youtube.com/watch?v=IBjwMCHUyBY&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=29</a>		
		5.4.2.3 Soluble salts <a href="https://www.youtube.com/watch?v=wmhOttrolrw">https://www.youtube.com/watch?v=wmhOttrolrw</a>		
		5.4.2.4 The pH scale and neutralisation <a href="https://www.youtube.com/watch?v=pLiJ9Xuary4">https://www.youtube.com/watch?v=pLiJ9Xuary4</a>		
		5.4.2.5 Strong and weak acids (HT only) <a href="https://www.youtube.com/watch?v=gYBbzqrmE&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=28">https://www.youtube.com/watch?v=gYBbzqrmE&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=28</a>		
	5.4.3 Electrolysis	5.4.3.1 The process of electrolysis <a href="https://www.youtube.com/watch?v=AhTRiL6xjBA">https://www.youtube.com/watch?v=AhTRiL6xjBA</a>		
		5.4.3.2 Electrolysis of molten ionic compounds <a href="https://www.youtube.com/watch?v=AhTRiL6xjBA">https://www.youtube.com/watch?v=AhTRiL6xjBA</a> <a href="https://www.youtube.com/watch?v=hOrGntIN3sg&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=34">https://www.youtube.com/watch?v=hOrGntIN3sg&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=34</a>		
		5.4.3.4 Electrolysis of aqueous solutions <a href="https://www.youtube.com/watch?v=GrgYXk_NCec&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=35">https://www.youtube.com/watch?v=GrgYXk_NCec&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=35</a>		
		5.4.3.5 Representation of reactions at electrodes as half equations (HT only) <a href="https://www.youtube.com/watch?v=8xuNffjUrJU">https://www.youtube.com/watch?v=8xuNffjUrJU</a>		
	5.5.1 Exothermic and endothermic reactions	5.5.1.1 Energy transfer during exothermic and endothermic reactions <a href="https://www.youtube.com/watch?v=dstRL5xB0Sk&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=36">https://www.youtube.com/watch?v=dstRL5xB0Sk&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=36</a>		
		5.5.1.2 Reaction profiles <a href="https://www.youtube.com/watch?v=4HS6D0hTzdg">https://www.youtube.com/watch?v=4HS6D0hTzdg</a>		
		5.5.1.3 The energy change of reactions (HT only) <a href="https://www.youtube.com/watch?v=it0HGxhxD-s&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=37">https://www.youtube.com/watch?v=it0HGxhxD-s&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=37</a>		
	Required practicals	Required practical activity 8: preparation of a pure, dry sample of a soluble salt from an insoluble oxide or carbonate, using a Bunsen burner to heat dilute acid and a water bath or electric heater to evaporate the solution. <a href="https://www.youtube.com/watch?v=9GH95172Js8">https://www.youtube.com/watch?v=9GH95172Js8</a>		
		Required practical activity 9: investigate what happens when aqueous solutions are electrolysed using inert electrodes. This should be an investigation involving developing a hypothesis. <a href="https://www.youtube.com/watch?v=ukbtTTG1Kew">https://www.youtube.com/watch?v=ukbtTTG1Kew</a>		
		Required practical activity 10: investigate the variables that affect temperature changes in reacting solutions such as, eg acid plus metals, acid plus carbonates, neutralisations, displacement of metals. <a href="https://www.youtube.com/watch?v=rdl7xEq4Ew8">https://www.youtube.com/watch?v=rdl7xEq4Ew8</a>		
	<b>P1 Physics</b>			
	6.1.1 Energy changes in a system, and the	6.1.1.1 Energy stores and systems <a href="https://www.youtube.com/watch?v=JGwDCeYRYo&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=1">https://www.youtube.com/watch?v=JGwDCeYRYo&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=1</a>		
		6.1.1.2 Changes in energy <a href="https://www.youtube.com/watch?v=WrfCHt21kVA&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=2">https://www.youtube.com/watch?v=WrfCHt21kVA&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=2</a>		

	ways energy is stored before and after such changes	<a href="https://www.youtube.com/watch?v=rNS-W7k0jts&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=3">https://www.youtube.com/watch?v=rNS-W7k0jts&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=3</a>		
		6.1.1.3 Energy changes in systems <a href="https://www.youtube.com/watch?v=4rT7-5yE4pQ">https://www.youtube.com/watch?v=4rT7-5yE4pQ</a>		
		6.1.1.4 Power <a href="https://www.youtube.com/watch?v=kCJUzdCBOk0&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=7">https://www.youtube.com/watch?v=kCJUzdCBOk0&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=7</a>		
	6.2.4 Energy transfers	6.2.4.1 Power <a href="https://www.youtube.com/watch?v=LOyJdI41aCU">https://www.youtube.com/watch?v=LOyJdI41aCU</a>		
		6.2.4.2 Energy transfers in everyday appliances <a href="https://www.youtube.com/watch?v=WAMyh1zVtyU">https://www.youtube.com/watch?v=WAMyh1zVtyU</a>		
		6.2.4.3 The National Grid <a href="https://www.youtube.com/watch?v=VTAFjhO1HNo&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=20">https://www.youtube.com/watch?v=VTAFjhO1HNo&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=20</a>		
	6.3.1 Changes of state and the particle model	6.3.1.1 Density of materials <a href="https://www.youtube.com/watch?v=pgGzVdau1Bw&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=28">https://www.youtube.com/watch?v=pgGzVdau1Bw&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=28</a>		
		6.3.1.2 Changes of state <a href="https://www.youtube.com/watch?v=OTksau0_Vol&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=26">https://www.youtube.com/watch?v=OTksau0_Vol&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=26</a>		
	6.3.3 Particle model and pressure	6.3.3.1 Particle motion in gases <a href="https://www.youtube.com/watch?v=9PwzPDJ7GYc&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=31">https://www.youtube.com/watch?v=9PwzPDJ7GYc&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=31</a> <a href="https://www.youtube.com/watch?v=-TjKWzZrDGk&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=31">https://www.youtube.com/watch?v=-TjKWzZrDGk&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=31</a>		
	6.4.1 Atoms and isotopes	6.4.1.1 The structure of an atom/6.4.1.2 Mass number, atomic number and isotopes <a href="https://www.youtube.com/playlist?list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7">https://www.youtube.com/playlist?list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7</a>		
		6.4.1.3 The development of the model of the atom (common content with chemistry) <a href="https://www.youtube.com/watch?v=Q8y4x5EEIm8&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=32">https://www.youtube.com/watch?v=Q8y4x5EEIm8&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=32</a>		
	6.4.2 Atoms and nuclear radiation	6.4.2.1 Radioactive decay and nuclear radiation <a href="https://www.youtube.com/watch?v=VeXpMijpazE&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=34">https://www.youtube.com/watch?v=VeXpMijpazE&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=34</a>		
		6.4.2.2 Nuclear equations <a href="https://www.youtube.com/watch?v=CaYoDxWxww8&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=35">https://www.youtube.com/watch?v=CaYoDxWxww8&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=35</a>		
		6.4.2.4 Radioactive contamination <a href="https://www.youtube.com/watch?v=Z4GV13xB00U&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=37">https://www.youtube.com/watch?v=Z4GV13xB00U&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=37</a>		
	Required practical	Required practical activity 14: an investigation to determine the specific heat capacity of one or more materials. The investigation will involve linking the decrease of one energy store (or work done) to the increase in temperature and subsequent increase in thermal energy stored. <a href="https://www.youtube.com/watch?v=HAPmwu7byGM">https://www.youtube.com/watch?v=HAPmwu7byGM</a>		
		Required practical activity 15: use circuit diagrams to set up and check appropriate circuits to investigate the factors affecting the resistance of electrical circuits. This should include: • the length of a wire at constant temperature • combinations of resistors in series and parallel. <a href="https://www.youtube.com/watch?v=YsZeZotYVag">https://www.youtube.com/watch?v=YsZeZotYVag</a>		
		Required practical activity 16: use circuit diagrams to construct appropriate circuits to investigate the I–V characteristics of a variety of circuit elements, including a filament lamp, a diode and a resistor at constant temperature		

		<a href="https://www.youtube.com/watch?v=A1SyKvdHoqY">https://www.youtube.com/watch?v=A1SyKvdHoqY</a>		
	<b>P2 Biology</b>			
	4.5.3 Hormonal control in humans	4.5.3.1 Human endocrine system <a href="https://www.youtube.com/watch?v=XMsj-3qRVJM&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=43">https://www.youtube.com/watch?v=XMsj-3qRVJM&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=43</a>		
		<a href="https://www.youtube.com/watch?v=BvpPCn1rsw&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=45">https://www.youtube.com/watch?v=BvpPCn1rsw&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=45</a>		
		4.5.3.2 Control of blood glucose concentration <a href="https://www.youtube.com/watch?v=OhrX3X3LGzI&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=46">https://www.youtube.com/watch?v=OhrX3X3LGzI&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=46</a>		
		4.5.3.2 Control of blood glucose concentration- diabetes <a href="https://www.youtube.com/watch?v=bFnO8Uc9gjQ&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=47">https://www.youtube.com/watch?v=bFnO8Uc9gjQ&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=47</a>		
		4.5.3.3 Hormones in human reproduction <a href="https://www.youtube.com/watch?v=Gf_WLrXAqIA&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=48">https://www.youtube.com/watch?v=Gf_WLrXAqIA&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=48</a>		
		IVF <a href="https://www.youtube.com/watch?v=fOfFr9Q0WWA&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=50">https://www.youtube.com/watch?v=fOfFr9Q0WWA&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=50</a>		
	4.7.2 Organisation of an ecosystem	4.7.2.1 Levels of organisation <a href="https://www.youtube.com/watch?v=NFTSm3D2xrM&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=66">https://www.youtube.com/watch?v=NFTSm3D2xrM&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=66</a>		
		4.7.2.2 How materials are cycled Cycling materials <a href="https://www.youtube.com/watch?v=urzpnjwazV0&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=67">https://www.youtube.com/watch?v=urzpnjwazV0&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=67</a>		
	4.7.3 Biodiversity and the effect of human interaction on an ecosystem	4.7.3.1 Biodiversity <a href="https://www.youtube.com/watch?v=I5UR9uMeWuQ">https://www.youtube.com/watch?v=I5UR9uMeWuQ</a>		
		4.7.3.2 Waste management <a href="https://www.youtube.com/watch?v=1Z405uGDZGo">https://www.youtube.com/watch?v=1Z405uGDZGo</a>		
		4.7.3.5 Global warming <a href="https://www.youtube.com/watch?v=lkqobb34oLI&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=69">https://www.youtube.com/watch?v=lkqobb34oLI&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=69</a>		
		4.7.3.6 Maintaining biodiversity <a href="https://www.youtube.com/watch?v=bs9e6ovISbs&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=71">https://www.youtube.com/watch?v=bs9e6ovISbs&amp;list=PLidqqIGKox7X5UFT-expKluR-i-BN3Q1g&amp;index=71</a>		
	Required practical	Required practical activity 7: sampling techniques <a href="https://www.youtube.com/watch?v=yLHz2Ea10Mg">https://www.youtube.com/watch?v=yLHz2Ea10Mg</a>		
	<b>P2 Chemistry</b>			
		5.6.1.1 Calculating rates of reactions <a href="https://www.youtube.com/watch?v=SPXanyy3-hU&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=38">https://www.youtube.com/watch?v=SPXanyy3-hU&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=38</a>		

	5.6.1 Rate of reaction	5.6.1.2 Factors which affect the rates of chemical reactions <a href="https://www.youtube.com/watch?v=-4HXaUBbv04&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=41">https://www.youtube.com/watch?v=-4HXaUBbv04&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=41</a> <a href="https://www.youtube.com/watch?v=GCR5xeduq2o&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=40">https://www.youtube.com/watch?v=GCR5xeduq2o&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=40</a>		
		5.6.1.3 Collision theory and activation energy <a href="https://www.youtube.com/watch?v=u4Co4N-Jmbs">https://www.youtube.com/watch?v=u4Co4N-Jmbs</a>		
		5.6.1.4 Catalysts <a href="https://www.youtube.com/watch?v=hel8fQjxcO8">https://www.youtube.com/watch?v=hel8fQjxcO8</a>		
	5.6.2 Reversible reactions and dynamic equilibrium	5.6.2.1 Reversible reactions <a href="https://www.youtube.com/watch?v=ty9TczsW5ew&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=41">https://www.youtube.com/watch?v=ty9TczsW5ew&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=41</a>		
		5.6.2.2 Energy changes and reversible reactions <a href="https://www.youtube.com/watch?v=SI15m0RQgik">https://www.youtube.com/watch?v=SI15m0RQgik</a> <a href="https://www.youtube.com/watch?v=66qcNNJFy6E">https://www.youtube.com/watch?v=66qcNNJFy6E</a> <a href="https://www.youtube.com/watch?v=NA4u2qUGH0w">https://www.youtube.com/watch?v=NA4u2qUGH0w</a>		
		5.6.2.4 The effect of changing conditions on equilibrium (HT only) <a href="https://www.youtube.com/watch?v=IYyoncESnmQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=43">https://www.youtube.com/watch?v=IYyoncESnmQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=43</a>		
		5.6.2.6 The effect of temperature changes on equilibrium (HT only) <a href="https://www.youtube.com/watch?v=SI15m0RQgik">https://www.youtube.com/watch?v=SI15m0RQgik</a>		
		5.6.2.7 The effect of pressure changes on equilibrium (HT only) <a href="https://www.youtube.com/watch?v=hngzmRrAXTE">https://www.youtube.com/watch?v=hngzmRrAXTE</a>		
	5.7.1 Carbon compounds as fuels and feedstock	5.7.1.1 Crude oil, hydrocarbons and alkanes <a href="https://www.youtube.com/watch?v=ykIFtTjoso&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=43">https://www.youtube.com/watch?v=ykIFtTjoso&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=43</a>		
		5.7.1.2 Fractional distillation and petrochemicals <a href="https://www.youtube.com/watch?v=CjmriZg5xRo&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=45">https://www.youtube.com/watch?v=CjmriZg5xRo&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=45</a>		
		5.7.1.3 Properties of hydrocarbons <a href="https://www.youtube.com/watch?v=4EAh9E2KhOE">https://www.youtube.com/watch?v=4EAh9E2KhOE</a>		
		5.7.1.4 Cracking and alkenes <a href="https://www.youtube.com/watch?v=bOiYlKX9ZRY&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=46">https://www.youtube.com/watch?v=bOiYlKX9ZRY&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=46</a>		
	5.8.1 Purity, formulations and chromatography	5.8.1.1 Pure substances <a href="https://www.youtube.com/watch?v=-OtJI-R-4rU&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=47">https://www.youtube.com/watch?v=-OtJI-R-4rU&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=47</a>		
		5.8.1.2 Formulations <a href="https://www.youtube.com/watch?v=-OtJI-R-4rU&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=47">https://www.youtube.com/watch?v=-OtJI-R-4rU&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=47</a>		
		5.8.1.3 Chromatography <a href="https://www.youtube.com/watch?v=TdJ57SQ6GAQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=48">https://www.youtube.com/watch?v=TdJ57SQ6GAQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=48</a>		
	5.9.1 The composition and evolution of the Earth's atmosphere	5.9.1.1 The proportions of different gases in the atmosphere <a href="https://www.youtube.com/watch?v=t1Z3GINIdLA">https://www.youtube.com/watch?v=t1Z3GINIdLA</a>		
		5.9.1.2 The Earth's early atmosphere <a href="https://www.youtube.com/watch?v=TdJ57SQ6GAQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=48">https://www.youtube.com/watch?v=TdJ57SQ6GAQ&amp;list=PLidqqIGKox7WeOKVGHxcd69kKqtwrKI8W&amp;index=48</a>		
		5.9.1.3 How oxygen increased		

		5.9.1.4 How carbon dioxide decreased		
	5.10.1 Using the Earth's resources and obtaining potable water	5.10.1.1 Using the Earth's resources and sustainable development <a href="https://www.youtube.com/watch?v=1UQnUQR0tTo">https://www.youtube.com/watch?v=1UQnUQR0tTo</a>		
		5.10.1.2 Potable water <a href="https://www.youtube.com/watch?v=PDeiRIQvWnM&amp;list=PLidqqlGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=56">https://www.youtube.com/watch?v=PDeiRIQvWnM&amp;list=PLidqqlGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=56</a>		
		5.10.1.3 Waste water treatment <a href="https://www.youtube.com/watch?v=jLaeBykDwaM&amp;list=PLidqqlGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=57">https://www.youtube.com/watch?v=jLaeBykDwaM&amp;list=PLidqqlGKox7WeOKVGHxcd69kKqtwrKl8W&amp;index=57</a>		
		5.10.1.4 Alternative methods of extracting metals (HT only) <a href="https://www.youtube.com/watch?v=b5RVPauf4oM">https://www.youtube.com/watch?v=b5RVPauf4oM</a>		
	Required practicals	Required practical activity 11: investigate how changes in concentration affect the rates of reactions by a method involving measuring the volume of a gas produced and a method involving a change in colour or turbidity. <a href="https://www.youtube.com/watch?v=N5p06i9ilmo">https://www.youtube.com/watch?v=N5p06i9ilmo</a>		
		Required practical activity 12: investigate how paper chromatography can be used to separate and tell the difference between coloured substances. Students should calculate Rf values. <a href="https://www.youtube.com/watch?v=P8i4QYncQxl">https://www.youtube.com/watch?v=P8i4QYncQxl</a>		
	<b>P2 Physics</b>			
	6.5.1 Forces and their interactions	6.5.1.1 Scalar and vector quantities <a href="https://www.youtube.com/watch?v=iLB_4Wu2QOg&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=42">https://www.youtube.com/watch?v=iLB_4Wu2QOg&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=42</a>		
		6.5.1.2 Contact and non-contact forces <a href="https://www.youtube.com/watch?v=WCPTKRascgE&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=41">https://www.youtube.com/watch?v=WCPTKRascgE&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=41</a>		
		6.5.1.3 Gravity <a href="https://www.youtube.com/watch?v=W2aBVbcHr_k">https://www.youtube.com/watch?v=W2aBVbcHr_k</a>		
		6.5.1.4 Resultant forces <a href="https://www.youtube.com/watch?v=YGGxf6cp3Lo&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=43">https://www.youtube.com/watch?v=YGGxf6cp3Lo&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=43</a>		
	6.5.4.1 Describing motion along a line	6.5.4.1.1 Distance and displacement		
		6.5.4.1.2 Speed		
		6.5.4.1.3 Velocity <a href="https://www.youtube.com/watch?v=U8z8WFhOQ_Y&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=45">https://www.youtube.com/watch?v=U8z8WFhOQ_Y&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=45</a> <a href="https://www.youtube.com/watch?v=QaU9jMHh7gE&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=52">https://www.youtube.com/watch?v=QaU9jMHh7gE&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=52</a>		
		6.5.4.1.4 The distance–time relationship <a href="https://www.youtube.com/watch?v=RM02SnuJOMY&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=54">https://www.youtube.com/watch?v=RM02SnuJOMY&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=54</a> <a href="https://www.youtube.com/watch?v=b0VKlpetP9A&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=55">https://www.youtube.com/watch?v=b0VKlpetP9A&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=55</a>		
		6.5.4.1.5 Acceleration <a href="https://www.youtube.com/watch?v=RM02SnuJOMY&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=54">https://www.youtube.com/watch?v=RM02SnuJOMY&amp;list=PLidqqlGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=54</a>		
	6.5.4.2 Forces, accelerations	6.5.4.2.1 Newton's First Law		
		6.5.4.2.2 Newton's Second Law		

	and Newton's Laws of motion	<a href="https://www.youtube.com/watch?v=i5PtaCJFjw&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=57">https://www.youtube.com/watch?v=i5PtaCJFjw&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=57</a>		
		6.5.4.2.3 Newton's Third Law <a href="https://www.youtube.com/watch?v=DpQ_ikFKru0&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=58">https://www.youtube.com/watch?v=DpQ_ikFKru0&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=58</a>		
	6.5.5 Momentum (HT only)	6.5.5.1 Momentum is a property of moving objects <a href="https://www.youtube.com/watch?v=ZU6rJQTz7FI&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=61">https://www.youtube.com/watch?v=ZU6rJQTz7FI&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=61</a>		
		6.5.5.2 Conservation of momentum <a href="https://www.youtube.com/watch?v=F8DnNgBhUfQ&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=60">https://www.youtube.com/watch?v=F8DnNgBhUfQ&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=60</a>		
	6.6.2 Electromagnetic waves	6.6.2.1 Types of electromagnetic waves <a href="https://www.youtube.com/watch?v=7v2gs8rdQzU&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=65">https://www.youtube.com/watch?v=7v2gs8rdQzU&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=65</a>		
		6.6.2.2 Properties of electromagnetic waves 1 <a href="https://www.youtube.com/watch?v=JNp_-00-fxU&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=71">https://www.youtube.com/watch?v=JNp_-00-fxU&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=71</a>		
		6.6.2.3 Properties of electromagnetic waves 2		
		6.6.2.4 Uses and applications of electromagnetic waves <a href="https://www.youtube.com/watch?v=Ldnh0XIMVc0&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=66">https://www.youtube.com/watch?v=Ldnh0XIMVc0&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=66</a> <a href="https://www.youtube.com/watch?v=dBFGjdgbpno&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=69">https://www.youtube.com/watch?v=dBFGjdgbpno&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=69</a> <a href="https://www.youtube.com/watch?v=ow26-5UirSc&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=67">https://www.youtube.com/watch?v=ow26-5UirSc&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=67</a> <a href="https://www.youtube.com/watch?v=q_CxKQC-zpg&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=68">https://www.youtube.com/watch?v=q_CxKQC-zpg&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=68</a>		
	6.7.2 The motor effect	6.7.2.1 Electromagnetism <a href="https://www.youtube.com/watch?v=79_SF5AZtzo&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=79">https://www.youtube.com/watch?v=79_SF5AZtzo&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=79</a>		
		6.7.2.2 Fleming's left-hand rule (HT only) <a href="https://www.youtube.com/watch?v=GNLhSKZh-jM">https://www.youtube.com/watch?v=GNLhSKZh-jM</a>		
		6.7.2.3 Electric motors (HT only) <a href="https://www.youtube.com/watch?v=ItpPhpi-CC4&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=80">https://www.youtube.com/watch?v=ItpPhpi-CC4&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=80</a> <a href="https://www.youtube.com/watch?v=evWpDrRAYCc&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=81">https://www.youtube.com/watch?v=evWpDrRAYCc&amp;list=PLidqqIGKox7UVC-8WC9djoeBzwxPeXph7&amp;index=81</a>		
	Required practicals	Required practical activity 21: investigate how the amount of infrared radiation absorbed or radiated by a surface depends on the nature of that surface. <a href="https://www.youtube.com/watch?v=eE7OPL7pesA">https://www.youtube.com/watch?v=eE7OPL7pesA</a>		