



## Co-op Academy Walkden Science Curriculum Overview 2022-23

### Key Stage 3

Year Group		AU1	AU2	SP1	SP2	SU1	SU2
7	Core Theme	Organisms (Biology) Forces (Physics)	Matter (Chemistry) Genes (Biology)	Genes (Biology) Electromagnets (Physics)	Reactions (Chemistry)	Ecosystems (Biology)	Energy (physics)
	Unit of Work	<ul style="list-style-type: none"> <li>• Movement &amp; the skeleton</li> <li>• Cells</li> <li>• Speed, Gravity and equations</li> </ul>	<ul style="list-style-type: none"> <li>• Particle model</li> <li>• Variation</li> </ul>	<ul style="list-style-type: none"> <li>• Reproduction</li> <li>• Electrical circuits</li> </ul>	<ul style="list-style-type: none"> <li>• Acids and their reactions</li> </ul>	<ul style="list-style-type: none"> <li>• Food chains and webs</li> </ul>	<ul style="list-style-type: none"> <li>• Energy resources</li> <li>• conservation of energy</li> </ul>
8	Core Theme	Waves (Physics) Earth (Chemistry)	Organisms (Biology) Forces (Physics)	Forces (Physics) Matter (Chemistry)	Genes (Biology)	Reactions (Chemistry)	Electromagnets (Physics)
	Unit of Work	<ul style="list-style-type: none"> <li>• Light and Sound</li> <li>• The structure of Earth and the rock cycle</li> </ul>	<ul style="list-style-type: none"> <li>• Gas Exchange</li> <li>• Effects of Forces</li> </ul>	<ul style="list-style-type: none"> <li>• Atoms, Elements &amp; Compounds</li> </ul>	<ul style="list-style-type: none"> <li>• Natural selection and evolution</li> </ul>	<ul style="list-style-type: none"> <li>• Atoms and chemical reactions</li> </ul>	<ul style="list-style-type: none"> <li>• Magnets and Magnetic Fields</li> </ul>
9	Core Theme	Energy (Physics) Earth (Chemistry)	Ecosystems (Biology)	Waves (Physics)	Organisms (Biology)	Energy (Physics)	Organisms (Biology) Matter (Chemistry)
	Unit of Work	<ul style="list-style-type: none"> <li>• Energy Transfers</li> <li>• Recycling materials</li> </ul>	<ul style="list-style-type: none"> <li>• Photosynthesis and Respiration</li> </ul>	<ul style="list-style-type: none"> <li>• Types of waves</li> </ul>	<ul style="list-style-type: none"> <li>• Cell structure and transport</li> </ul>	<ul style="list-style-type: none"> <li>• Conservation and dissipation of energy</li> </ul>	<ul style="list-style-type: none"> <li>• Cell division</li> <li>• Periodic table</li> </ul>



## Co-op Academy Walkden Curriculum Overview (Combined Trilogy Science) 2022-23

### Key Stage 4

Year Group		AU1	AU2	SP1	SP2	SU1	SU2
10 2021-22	Core Theme	Organisms(Biology) Matter (Chemistry) Energy (Physics)	Organisms (Biology) Matter (Chemistry) Electromagnets (Physics)	Organisms (biology) Reactions (chemistry) Matter (Physics)	Organisms (biology) Reactions (Chemistry) Radioactivity (physics)	Ecosystems (biology) Reactions (chemistry) Forces (Physics)	Organisms (biology) Reactions (chemistry) Forces (Physics)
	Unit of Work	<ul style="list-style-type: none"> <li>• Organisation and the Digestive System</li> <li>• Structure and Bonding</li> <li>• Energy Transfers by heating</li> <li>• Energy Resources</li> </ul>	<ul style="list-style-type: none"> <li>• Organising animals and plants</li> <li>• Chemical calculations</li> <li>• Electrical circuits</li> <li>• Electricity in the home</li> </ul>	<ul style="list-style-type: none"> <li>• communicable diseases</li> <li>• preventing and treating disease</li> <li>• Chemical change</li> <li>• Molecules and matter</li> </ul>	<ul style="list-style-type: none"> <li>• non communicable diseases</li> <li>• electrolysis</li> <li>• energy changes</li> <li>• Radioactivity</li> </ul>	<ul style="list-style-type: none"> <li>• photosynthesis</li> <li>• respiration</li> <li>• Rates and equilibrium</li> <li>• Forces in balance</li> <li>• motion</li> </ul>	<ul style="list-style-type: none"> <li>• nervous system</li> <li>• hormonal system</li> <li>• Crude oil</li> <li>• Forces and Motion</li> </ul>
11 2021-22	Core Theme	Organisms (biology) Reactions (chemistry) Forces (Physics)	Genes (biology) Reactions (chemistry) Earth (Chemistry) Waves (physics)	Genes (Biology) Ecosystems (Biology)			
	Unit of Work	<ul style="list-style-type: none"> <li>• nervous system</li> <li>• hormonal system</li> </ul>	<ul style="list-style-type: none"> <li>• Reproduction</li> <li>• variation &amp; evolution</li> </ul>	<ul style="list-style-type: none"> <li>• Genetics and evolution</li> </ul>			



		<ul style="list-style-type: none"> <li>• Crude oil</li> <li>• Forces and Motion</li> </ul>	<ul style="list-style-type: none"> <li>• chemical analysis</li> <li>• The Earth's atmosphere</li> <li>• Wave properties</li> <li>• EM waves</li> </ul>	<ul style="list-style-type: none"> <li>• Adaptations, Interdependence &amp; competition</li> <li>• Organising an ecosystem</li> <li>• Biodiversity</li> </ul>			
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## Co-op Academy Walkden Curriculum Overview (Triple Science: Separate Sciences) 2022-23

### Key Stage 4

Year Group		AU1	AU2	SP1	SP2	SU1	SU2
10 2021-22	Core Theme	Organisms(Biology) Matter (Chemistry) Energy (Physics)	Organisms (Biology) Matter (Chemistry) Electromagnets (Physics)	Organisms (biology) Matter (chemistry) Radioactivity (Physics)	Organisms (biology) Reactions (Chemistry) Forces (physics)	Ecosystems (biology) Reactions (chemistry) Forces (Physics)	Organisms (biology) Reactions (chemistry) Forces (Physics)
	Unit of Work	<ul style="list-style-type: none"> <li>• Organisation and the Digestive System</li> <li>• Structure and Bonding</li> <li>• Energy Transfers by heating</li> <li>• Energy Resources</li> </ul>	<ul style="list-style-type: none"> <li>• Organising animals and plants</li> <li>• communicable diseases</li> <li>• Chemical calculations</li> <li>• Electrical circuits</li> <li>• Electricity in the home</li> <li>• molecules and matter</li> </ul>	<ul style="list-style-type: none"> <li>• preventing and treating disease</li> <li>• non-communicable diseases</li> <li>• Chemical change</li> <li>• Electrolysis</li> <li>• Radioactivity</li> </ul>	<ul style="list-style-type: none"> <li>• photosynthesis</li> <li>• respiration</li> <li>• energy changes</li> <li>• Forces in balance</li> </ul>	<ul style="list-style-type: none"> <li>• nervous system</li> <li>• Rates and equilibrium</li> <li>• motion</li> <li>• Forces &amp; motion</li> </ul>	<ul style="list-style-type: none"> <li>• hormonal system</li> <li>• Crude oil</li> <li>• Organic Reactions</li> <li>• Forces and pressure</li> </ul>



11 2021-22	Core Theme	Organisms (biology) Reactions (chemistry) Forces (Physics)	Organisms (Biology) Genes (Biology) Reactions (chemistry) Earth (Chemistry) Waves (physics)	Genes (Biology) Earth (chemistry) Waves (Physics) Electromagnets (physics)	Genes (Biology) Earth (chemistry) Space (Physics)	Ecosystems (Biology)
	Unit of Work	<ul style="list-style-type: none"> <li>● hormonal system</li> <li>● Crude oil</li> <li>● Organic Reactions</li> <li>● Forces and pressure</li> </ul>	<ul style="list-style-type: none"> <li>● Homeostasis in action</li> <li>● Reproduction</li> <li>● polymers</li> <li>● chemical analysis</li> <li>● Wave properties</li> <li>● EM waves</li> </ul>	<ul style="list-style-type: none"> <li>● variation &amp; evolution</li> <li>● our atmosphere</li> <li>● Earth's resources</li> <li>● Light</li> <li>● Electromagnetism</li> </ul>	<ul style="list-style-type: none"> <li>● Genetics and evolution</li> <li>● Adaptations, Interdependence &amp; competition</li> <li>● Using our resources</li> <li>● Space</li> </ul>	<ul style="list-style-type: none"> <li>● Organising an ecosystem</li> <li>● Biodiversity</li> </ul>