Revision and Development of Key Stage 4 Curriculum Map Science BTEC

Year 1

Autumn Half Term 1	Autumn Half Term 2	Spring Half Term 1	Spring Half Term 2	Summer Half Term 1	Summer Half Term 2
Knowledge acquired					
Unit 2: Chemistry and Our Earth Learning aim A: Investigate chemical reactivity and bonding Learning aim B: Investigate how uses of chemical substances depend on their chemical and physical properties	Unit 2: Chemistry and Our Earth Learning aim B: Investigate how uses of chemical substances depend on their chemical and physical properties	Unit 2: Chemistry and Our Earth Learning aim C: Investigate the factors involved in the rate of chemical reactions Learning aim D: Understand the factors that are affecting the Earth and its environment	Unit 3: Energy and the Universe Learning aim A: Understand ionising radiation, its uses and sources	Assignment review	Revision and Development of Unit 1: Principles of Science
Skills acquired					
This qualification has a core of underpinning knowledge, skills and understanding. This gives learners the opportunity to exemplify scientific principles in vocational contexts, leading to an understanding of how those principles are applied in practice, and can facilitate a move either onto further periods of study or into employment. It allows them to do this by ○ showing links and holistic understanding/approaches to units of study from the specification ○ being able to interrelate overarching concepts and issues, bringing together their scientific knowledge ○ drawing together and integrating knowledge, understanding and skills across different units, in order to develop an appreciation of how topics relate to one another, how each may contribute to different scientific contexts/situations ○ applying scientific knowledge and approaches to particular vocational contexts or situations ○ demonstrating their ability to use and range of investigative methods and techniques ○ being able to put forward different perspectives and/or explanations to support decisions they have made or evidence presented ○ synthesising information gained from studying a number of different vocational contexts ○ applying knowledge, understanding and a range of scientific skills from across different units to a particular vocational context ○ using specialist terminology where appropriate ○ demonstrating use of transferable skills ○ Digital literacy: use accessible digital resources to research a science question; enter and organise results in a simple table or spreadsheet; use a digital document or presentation to communicate findings; practise safe, responsible use of devices and reliable sources. ○ Oracy: explain ideas using key scientific vocabulary; describe observations in a clear sequence; make a prediction and give a reason; ask relevant questions, listen to others and discuss evidence using sentence starters where helpful				
Key Assessments taking place					

Unit 1 Knowledge assessed through homework tasks and past paper exam questions
Assignments set include

- Unit 2 Learning Aims A,B,C,D
- Unit 3 Learning Aim A

Digital literacy/oracy evidence: pupil-created accessible slide/document or recorded verbal explanation; assess accuracy of science vocabulary, clarity and safe/reliable use of information.

Suggestions to parents/Carers to support homework

- Keep it short and manageable (around 10–15 minutes); practise a few key words and ask the pupil to explain them in their own words
- Use everyday examples and real objects at home; talk through what the object is made from, what it does, or how it relates to the topic.
- Use teacher-provided revision prompts or exam questions. Encourage the pupil to try first, then discuss the answer together rather than completing it for them.
- Support a brief spoken recap, voice note or accessible digital presentation if this is an agreed alternative to extended writing. Follow the school's instructions and avoid unsafe experiments

Year 2

Autumn Half Term 1	Autumn Half Term 2	Spring Half Term 1	Spring Half Term 2	Summer Half Term 1	Summer Half Term 2
Knowledge acquired					
Unit 4: Biology and the Environment Learning aim A: Investigate the relationships that different organisms have with each other and with their environment	Unit 4: Biology and the Environment Learning aim B: Demonstrate can be an understanding of the effects of human activity on the environment and how these effects measured	Unit 4: Biology and the Environment Learning aim C: Explore the factors that affect human health	Unit 3: Energy and the Universe Learning aim B: Know how electrical energy produced from different sources can be transferred through the National Grid to homes and industry Learning aim C: Know the components of the Solar System, the way the Universe is changing and the methods we use to explore space	Assignment Review	Revision and Development of Unit 1: Principles of Science
Skills acquired					
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	○ drawing together and integrating knowledge, understanding and skills across different units, in order to develop an appreciation of how topics relate to one another, how each may contribute to different scientific contexts/situations ○ applying scientific knowledge and approaches to particular vocational contexts or situations ○ demonstrating their ability to use and range of investigative methods and techniques ○ being able to put forward different perspectives and/or explanations to support decisions they have made or evidence presented ○ synthesising information gained from studying a number of different vocational contexts ○ applying knowledge, understanding and a range of scientific skills from across different units to a particular vocational context ○ using specialist terminology where appropriate ○ demonstrating use of transferable skills ○ evaluating and justifying their decisions, choices and recommendations
	Key Assessments taking place
	Unit 1 Knowledge assessed through homework tasks and past paper exam questions Assignments set include Unit 4 Learning Aims A,B,C Unit 3 Learning Aim B,C Digital literacy/oracy evidence: pupil-created accessible slide/document or recorded verbal explanation; assess accuracy of science vocabulary, clarity and safe/reliable use of information.
	Suggestions to parents/Carers to support homework
	• Keep it short and manageable (around 10–15 minutes); practise a few key words and ask the pupil to explain them in their own words • Use everyday examples and real objects at home; talk through what the object is made from, what it does, or how it relates to the topic. • Use teacher-provided revision prompts or exam questions. Encourage the pupil to try first, then discuss the answer together rather than completing it for them. • Support a brief spoken recap, voice note or accessible digital presentation if this is an agreed alternative to extended writing. Follow the school's instructions and avoid unsafe experiments