

## END OF KEY STAGE 4

Practical Scientific skills, Scientific terms and keywords. Mathematical skills for Science.

- Biology – Cell Biology, Organisation, Infection and Response, Bioenergetics, Homeostasis and Response, Inheritance, Variation and Evolution, Ecology
- Chemistry – Atomic Structure and the Periodic Table, Bonding, Structure and the Properties of Matter, Quantitative Chemistry, Chemical Changes, Energy Changes, The Rate and Extent of Chemical Changes, Organic Chemistry, Chemical Analysis, Chemistry of the Atmosphere and Using Resources.
- Physics – Energy, Electricity, Particle Model of Matter, Atomic Structure, Forces, Waves, Magnetism and Electromagnetism (*Space if Separate Science*)

- Unit 1 (External January Exam) – Principles and Applications of Science I: Biology, Chemistry and Physics (Mandatory unit)

- Unit 3 (External January Exam) Science Investigation Skills (Mandatory unit)

- Unit 8 (internal) - Physiology of Human Body Systems (Optional unit)

- Unit 9 (internal) Human Regulation and Reproduction (Optional unit)

YEAR 12 AUTUMN

### January Exams – Unit 1, Unit 3

- Begin Unit 2 (internal) – Practical Scientific Procedures and Techniques (Mandatory unit)
- Begin Unit 5 (External June Exam) - Principles and Applications of Science II: Biology, Chemistry, Physics (Mandatory unit)
- Begin Unit 7 (External June Exam) – Contemporary Issues in Science (Mandatory unit)
- Complete Unit 8 (internal) - Physiology of Human Body Systems (OP unit)
- Complete Unit 9 (internal) Human Regulation and Reproduction (Optional unit)

YEAR 12 SPRING

### June Exams – Unit 5, Unit 7

- Complete Unit 5 (External June Exam) Principles and Applications of Science II (Mandatory unit)
- Complete Unit 2 (internal) – Practical Scientific Procedures and Techniques (Mandatory unit)
- Unit 6 (internal) - Investigative Project (Mandatory unit)
- Complete Unit 7 (External June Exam) – Contemporary Issues in Science (Mandatory unit)
- Unit 21 (internal) – Medical Physics Applications (Optional unit)

### Resit Opportunities – Unit 1 & Unit 3

YEAR 12 SUMMER

### June Resit Exam Opportunities

- Complete Unit 4 (internal unit) – Laboratory Techniques and their Applications (Mandatory unit)
- Unit 12 (internal) – Disease and Infection (Optional unit)
- Unit 23 (internal) – Forensic Evidence, Collection and Analysis (Optional unit)

YEAR 13 SUMMER

- Begin Unit 4 (internal unit) – Laboratory Techniques and their Applications (Mandatory unit)
- Unit 12 (internal) – Disease and Infection (Optional unit)
- Unit 16 (internal) – Astronomy and Space Science (Optional unit)
- Unit 23 (internal) – Forensic Evidence, Collection and Analysis (Optional unit)

YEAR 13 SPRING

- Complete Unit 6 (internal unit) – Investigative Project (Mandatory unit)
- Unit 12 (internal) – Disease and Infection (Optional unit)
- Unit 16 (internal) – Astronomy and Space Science (Optional unit)
- Unit 23 (internal) – Forensic Evidence, Collection and Analysis (Optional unit)

YEAR 13 AUTUMN

BEYOND YEAR 13

- Foundation University Degrees in Pharmacy, Dentistry, Medicine
- University Degrees in all areas of Science, Biomedical Sciences, Optometry, Audiology, Physiotherapy, Occupational Therapy, Nursing
- Apprenticeships & Level 4/5 HNDs in Sciences, Technician training,

Assignment (research, analysis, evaluation) skills (Unit 28 and 9), Science Investigative Skills (Unit 3), Scientific Procedures (Unit 2), Principles of Science (Unit 1 and 5) as knowledge basis for optional units

KNOWLEDGE TRANSFER



# CURRICULUM ROAD MAP

## BTEC APPLIED SCIENCE

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YEAR 12 AUTUMN

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YEAR 12 SPRING

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YEAR 12 SUMMER

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YEAR 13 SUMMER

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YEAR 13 SPRING

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YEAR 13 AUTUMN



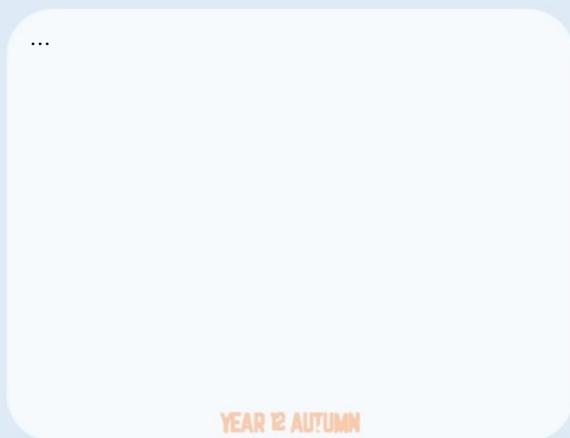
# EMPLOYER ENGAGEMENT LINKS

BTEC APPLIED SCIENCE

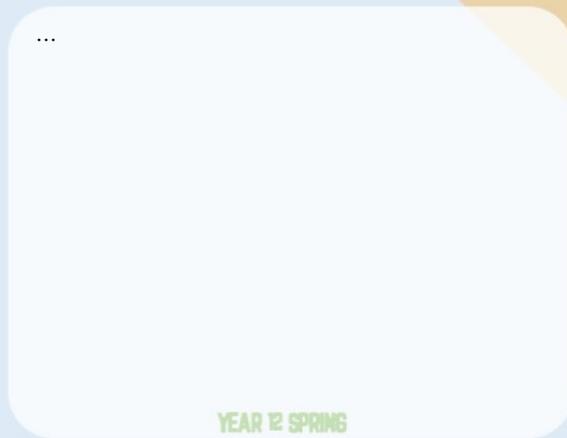
Q. What are the industry application(s) for this knowledge/concept(s)?



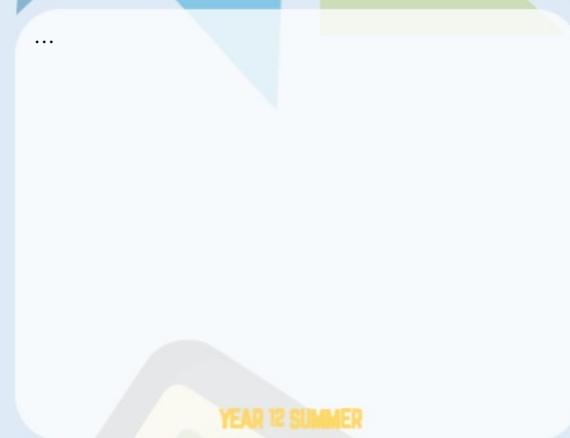
UNIVERSITY  
COLLEGIATE  
SCHOOL



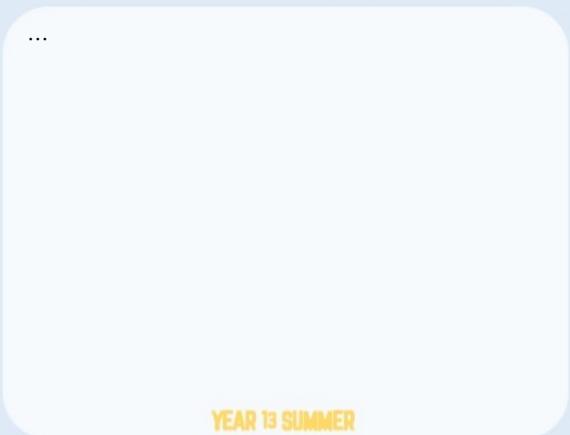
YEAR 12 AUTUMN



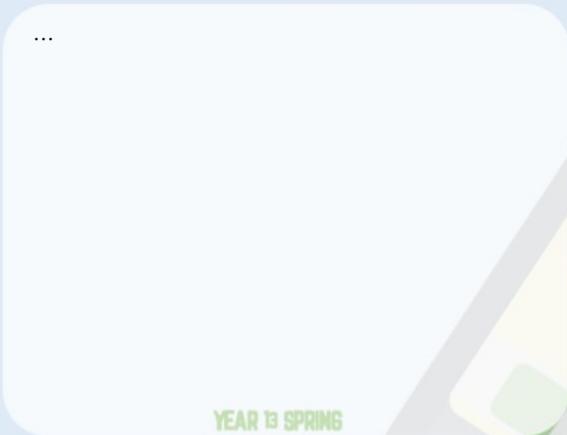
YEAR 12 SPRING



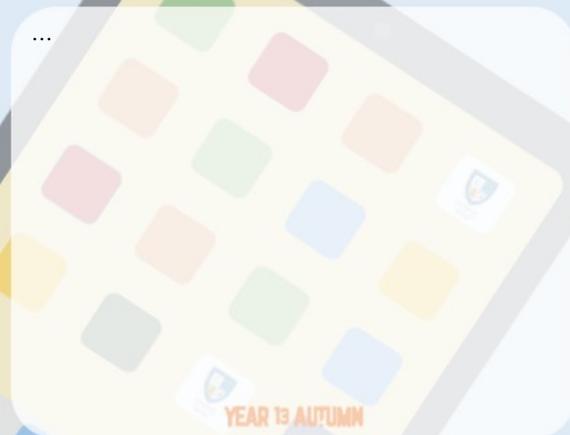
YEAR 12 SUMMER



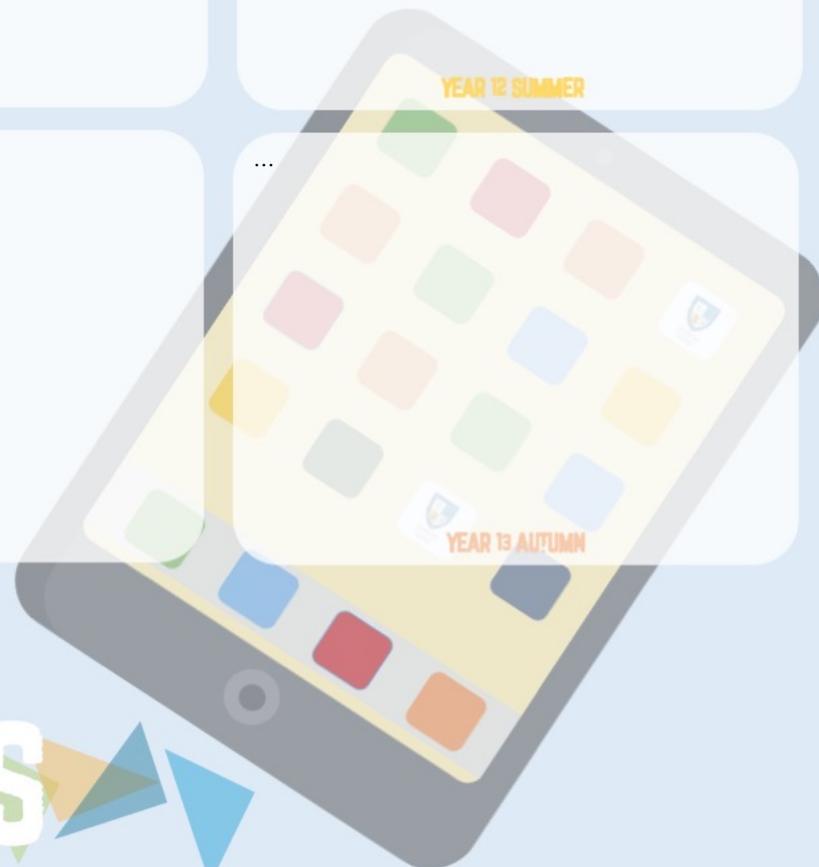
YEAR 13 SUMMER



YEAR 13 SPRING



YEAR 13 AUTUMN



# DIGITAL ACTIVITY LINKS



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YEAR 12 AUTUMN

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YEAR 12 SPRING

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YEAR 12 SUMMER

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YEAR 13 SUMMER

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YEAR 13 SPRING

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YEAR 13 AUTUMN

# SPECIFICATION REFERENCES