



GCSE Science at TGAS

DR. C BARNFIELD - TRUST EDUCATION ADVISOR FOR SCIENCE



Overview

AQA board

100% assessment through terminal examinations (June 2020)

2 pathways

- GCSE Combined Science: Trilogy
- GCSE Biology, Chemistry and Physics



Course content

Both pathways students can move through will cover;

Cell biology
Organisation
Infection and response
Bioenergetics
Homeostasis and response
Inheritance, variation and evolution
Ecology

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 change
Organic chemistry
Chemical analysis
Chemistry of the atmosphere
Using resources

Forces
Energy
Waves
Electricity
Magnetism and electromagnetism
Particle model of matter
Atomic structure



GCSE Science: Trilogy

Covers all three science disciplines over Y9, Y10 and Y11

Allows further study at A-level

Students will obtain 2 GCSEs on a 17 points grading scale (9-9, 9-8, through to 2-1,1-1)

16 required practical's to complete – 15% of examination questions relate to these.

10% of biology questions, 20% of chemistry and 30% of physics questions require higher tier GCSE mathematics skills

6 examination papers (two for each science)

- 1 hour 15 minutes each
- F and H tier available
- 16.7% per paper (70 marks)
- Multiple choice, structure, closed, short and open response questions



GCSE Biology, Chemistry and Physics

Covers all GCSE Science: Trilogy content along with much more challenging content in each science area.

Allows for further study at A-level

Students will obtain 3 GCSEs, each with a separate grade (9-1) for each.

8 required practical's per science -15% of examination questions relate to these

10% of biology questions, 20% of chemistry and 30% of physics questions require higher tier GCSE mathematics skills

2 examination papers per science (6 in total)

- 1 hour 45 minutes
- 50% per paper (100 marks)
- Multiple choice, structure, closed, short and open response questions



Summary of Courses

Combined Trilogy

- **6 examination papers (two for each science)**
- 1 hour 15 minutes each
- 70 marks per paper 420 in total
- 16 required practical's
- 2 paired GCSE grades : 9-9, 6,5 etc.

Separate science

- **2 examination papers per science (6 in total)**
- **Same content** as combined trilogy + **separates only content**
- 1 hour 45 minutes each
- 100 marks per paper, 200 in total
- 8 required practical's
- 3 separate GCSE grades



Assessment

Compulsory homework tasks

Optional homework tasks

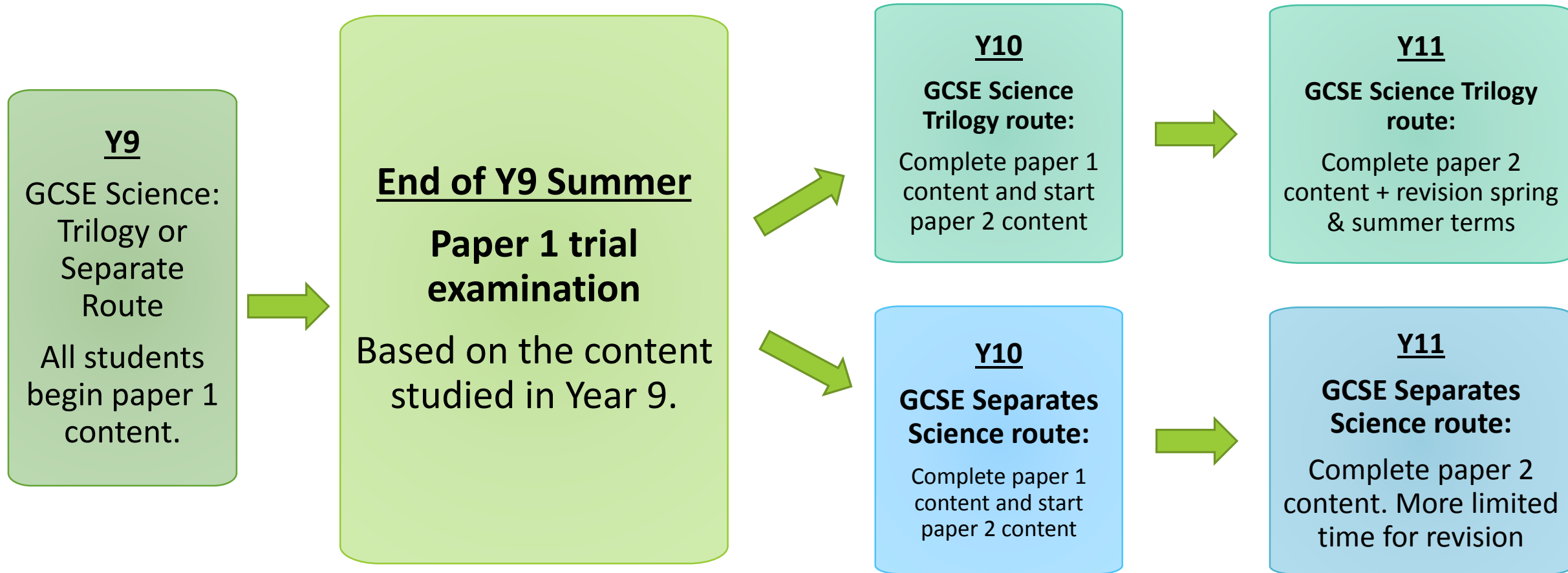
Booster tasks

In-class assessments

End of year assessment



Moving on through GCSE studies





Resources

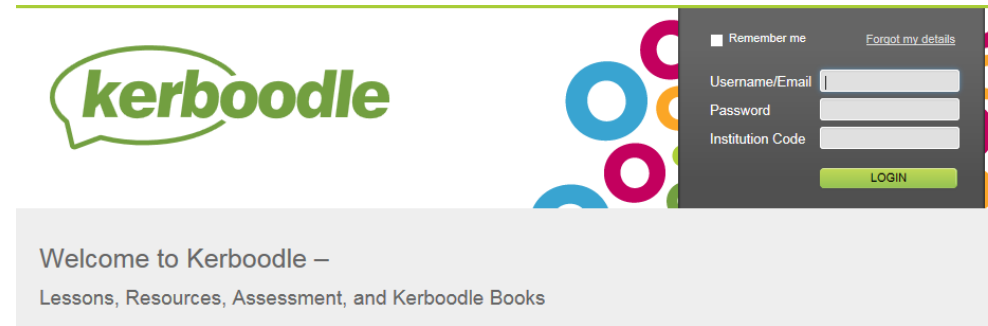
Kerboodle

Used in Year 7 & 8

Students have their own logins

Access online book and revision tasks

Automated tests for practice





Resources

BBC Bitesize has been updated

Revision guides available from some publishers – **academy will offer discounted copies from spring term onwards.**

- Oxford University Press

The screenshot shows the BBC Bitesize website interface. At the top, there is a navigation bar with 'Primary', 'Secondary', and 'All subjects' menus. Below this, there are links for '3rd level', '4th level', 'CA3', 'KS3', 'GCSE', 'National 4', 'National 5', 'Nàiseanta 4', 'Nàiseanta 5', 'TGAU', and 'Higher'. The main content area is titled 'Science' and includes a definition: 'Science is the systematic study of the physical and natural world through observation and experimentation.' Below this, there is a section for 'Collins GCSE Revision and Practice' with a list of subjects: Maths, English, and Science. There are also links to 'Download your FREE flashcards' and 'Download FREE sample pages' for Biology, Chemistry, and Physics.



Enrichment Opportunities

STEM Club

Trips

Drop in Sessions

Competitions



Questions ??
