

GCSE Science

Y10 Parents' Information

# Science pathways

- Science is a core, compulsory subject.
- It prepares students for an increasing scientific world and develops key skills such as problem solving, critical thinking and effective communication.
- We offer two pathways:
  - Trilogy Science
  - Separate Sciences

*Both pathways meet the requirements of the national curriculum and provide access to study Science post-16.*

# Trilogy Science Pathway

Most students in Year 10 follow Trilogy Science.

Students gain a double GCSE. Grades from 1/1 to 9/9 are awarded. A student can achieve e.g. a 5/4 grade which counts as a grade 5 and a grade 4.

The grade is a simple sum of the 6 papers they sit. Each paper is out of 70 marks and is 1h 15 mins.

# Separate Science Pathway

In Year 10 we currently have 47 students studying for Separate Sciences.

These are three completely separate GCSE qualifications - Students gain one GCSE in each Biology, Chemistry and Physics.

There are 2 papers for each subject which are 1h 45m. They are longer than the Core Trilogy papers as they are assessing additional content.

# How is science taught?

- Regardless of pathway, students have a dedicated teacher for each of the science specialisms.

Subject	Hours per fortnight	
	Trilogy	Separate science
Biology	3	5
Chemistry	3	5
Physics	3	5

# Paper 1 and 2 content

Subject	Paper 1	Paper 2
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 change Organic chemistry Chemical analysis Chemistry of the atmosphere Using resources
Physics	Energy Electricity Particle model of matter Atomic structure	Forces Waves Magnetism and electromagnetism Space Physics

# What is being studied in Year 10?

<b>Subject</b>	<b>Year 10 topics</b>
Biology	<ul style="list-style-type: none"><li>• Plants and photosynthesis</li><li>• Infection</li><li>• Nerves, hormones and homeostasis</li></ul>
Chemistry	<ul style="list-style-type: none"><li>• Organic Chemistry</li><li>• Bonding, structure, and the properties of matter</li><li>• Metal extraction and electrolysis</li><li>• Using resources</li></ul>
Physics	<ul style="list-style-type: none"><li>• Waves</li><li>• Electricity</li><li>• Forces</li></ul>

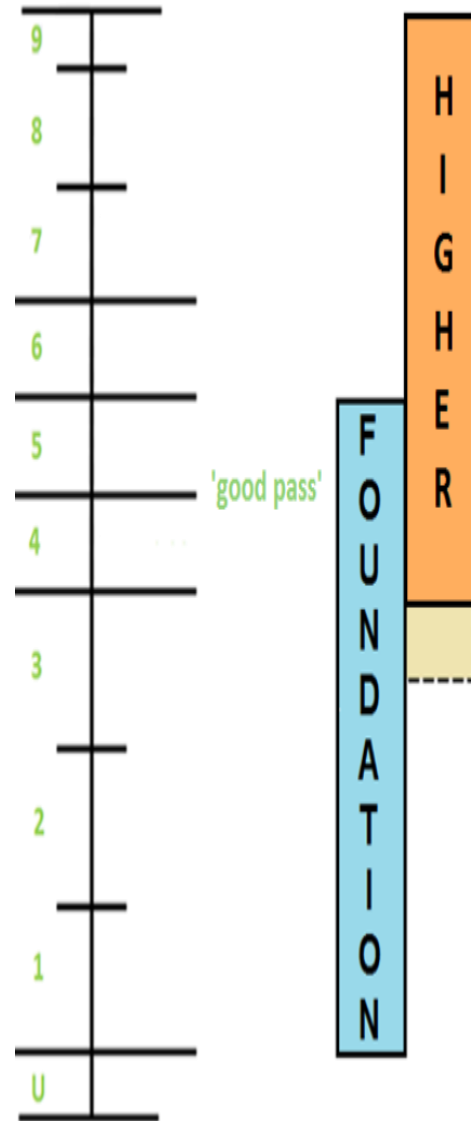
# Higher or Foundation?

We have to make a decision about which Tier of entry is appropriate when we make entries in January of Year 11, although it can change in Feb/March.

We will use all assessment data up to that point to help inform this decision.

Foundation Tier is capped at a 5/5.

Higher Tier only goes down to 4/4 so any student not achieving that grade will be ungraded.





# A Levels



Students on either Trilogy or Separates Pathways can access A Level Science and other A Levels with Science requirements.

Students need to achieve 2 grade 6s in Separates including a 6 in the specific Science subject

***OR***

Students need to achieve a 6/6 or better in Trilogy.

Information confirming this is available via the virtual Sixth Form Information on the website.

# Revision support

- Ehub/Moodle
  - every topic at GCSE
  - Information, powerpoints and linked videos,
  - Interactive quizzes
- Seneca
  - every topic at GCSE
  - Information, powerpoints and linked videos,
  - Interactive quizzes
- AQA Specification links
- BBC Bitesize
- Class specific revision

# How you can support your child?

- Ask them about their science lessons
- Encourage them to start their revision early
- Do homework as soon as it is given
- Learn their Physics equation sheet
- Use Seneca