

Science – Year 7	Head of Department: Mrs D Proctor
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Content

Students in Years 7 and 8 are placed in Mixed ability groups for Science at Key Stage 3. All students study the same topics but the method of teaching may vary depending upon the needs of the group. Science topics are taught with emphasis upon student practical work, enquiry and investigation.

Term	Scheme		Term	Scheme		Term	Scheme
Autumn	Cells		Spring	Particles		Summer	Reactions
				Light			Space
	Forces			Sound			Acids and Alkalis
	Body			Elements			Reproduction

Assessment

Students in year 7 will be regularly assessed on course content, with small tests during the year and with a full exam at the end of the year.

How Parents and Carers can support

To help students become more independent and proactive in their revision, the Science Department provides the online textbook via a Kerboodle student account.

By referring to your child's Edulink account every week please ensure that he/she has completed all homework on time.

Also please ensure that he/she comes equipped to lessons with the right equipment.

Some great websites packed with lots of relevant information are:

<http://www.bbc.co.uk/schools/bitesize/>

<http://www.docbrown.info/>

<http://phet.colorado.edu/index.php>

<http://www.schoolscience.co.uk/>

http://www.sciencemuseum.org.uk/educators/classroom_and_homework_resources/ks3.aspx



Science – Year 8	Head of Department: Mrs D Proctor
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Content

Students in Year 8 are placed in mixed ability groups for Science at Key Stage 3. All students study the same topics but the method of teaching may vary depending upon the needs of the group. Science topics are taught with emphasis upon student practical work, enquiry and investigation.

Term	Scheme	Term	Scheme	Term	Scheme
Autumn	Health	Spring	Rock Cycle	Summer	Motion + Pressure
	Periodic Table		Energy		Metals
	Electricity		Inheritance		Carbon Cycle
	Separation		Magnetism		Ecosystem
					Working scientifically

Assessment

Students in year 8 will be regularly assessed on course content, with small tests during the year and with a full exam at the end of the year.

How Parents and Carers can support

To help students become more independent and proactive in their revision, the Science Department provides the online textbook via a Kerboodle student account.

By referring to your child's planner every week please ensure that he/she has completed all homework on time.

Also please ensure that he/she comes equipped to lessons with the right equipment.

Some great websites packed with lots of relevant information are:

<http://www.bbc.co.uk/schools/bitesize/>

<http://www.docbrown.info/>

<http://phet.colorado.edu/index.php>

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Science – Year 9	Head of Department: Mrs D Proctor
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Content

The GCSE curriculum is taught from the beginning of Year 9. Emphasis is placed upon “working scientifically” which is to encourage enquiry, evaluation and communication in Science.

The students are placed in broad ability bands based on the broadest range of information and assessment data. Most students follow the AQA Combined Science Trilogy course. Some students are offered the opportunity to follow a Triple Science course leading to separate GCSEs in Biology, Chemistry and Physics from the end of Year 10.

Both Combined Science and Triple Science routes will prepare students for further Sixth Form study in the A Level Sciences if that is their intention.

Assessment

Students in year 9 will study topics of Biology, Chemistry and Physics from AQA GCSE Combined Science Trilogy. Examples of topics may include:

Biology B1:

- Cell structure and transport
- Cell division and growth
- Organisation and the digestive system
- Organising animals and plants
- Non-communicable diseases
- Photosynthesis and respiration

Chemistry C1:

- Atomic structure and Bonding
- The Periodic Table
- Electrolysis
- Chemical change
- Energy changes
- Formulae and equations

Physics P1:

- Conservation and dissipation of Energy
- Energy transfer by heating
- Energy resources
- Radioactivity

Students in year 9 will be regularly assessed on course content, with small exams during the year and with a full exam at the end of the year.

How Parents and Carers can support

Science resources are now plentiful; from revision guides, smart phone and tablet apps to interactive websites. We would urge parents and carers to encourage students to use as many as possible.



To help students become more independent and proactive in their revision, the Science Department provides the online textbook via a Kerboodle student account.

Background reading is an important aspect of becoming a successful scientist. We have put together a list of websites that we as Science teachers have found to be extremely helpful:

<http://www.bbc.co.uk/schools/bitesize/>

<http://www.sep.org.uk/>

<http://www.docbrown.info/>

<http://www.s-cool.co.uk>

<http://phet.colorado.edu/index.php>

<http://www.triplescience.org.uk>

<http://www.schoolscience.co.uk>

http://www.sciencemuseum.org.uk/educators/classroom_and_homework_resources/ks3.aspx

<http://www.nature.com>

<https://www.newscientist.com>

<http://www.nasa.gov/audience/forstudents/index.html>

<http://www.my-gcsescience.com>

<http://www.bbc.co.uk/schools/bitesize/>

<http://www.docbrown.info/>

<http://phet.colorado.edu/index.php>

<http://www.schoolscience.co.uk/>

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Science – Year 10	Head of Department: Mrs D Proctor
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Exam Board and Syllabus Code

Double award science: AQA GCSE Combined Science Trilogy (8464)

Triple award science: AQA GCSE Biology (8461), AQA GCSE Chemistry (8462) and AQA GCSE Physics (8463)

Content

The GCSE curriculum is taught from the beginning of Year 9. Emphasis is placed upon “working scientifically” which is to encourage enquiry, evaluation and communication in Science.

The students are placed in broad ability bands based on the broadest range of information and assessment data. Most students follow the AQA Combined Science Trilogy course. Some students are offered the opportunity to follow a Triple Science course leading to separate GCSEs in Biology, Chemistry and Physics from the end of Year 10.

Both Combined Science and Triple Science routes will prepare students for further Sixth Form study in the A Level Sciences if that is their intention.

Assessment**Year 10**

Students in year 10 will study topics of Biology, Chemistry and Physics from AQA GCSE Combined Science Trilogy. They will also carry out ‘Required Practicals’ in line with exam board specifications for all GCSE Science courses.

Students in year 10 will study topics of Biology, Chemistry and Physics from AQA GCSE Combined Science Trilogy. Examples of topics may include:

Biology B1:

- Communicable diseases
- Preventing and treating disease
- Variation and Evolution
- Genetics and evolution
- Human nervous system
- Hormonal coordination

Chemistry C1:

- Chemical calculations
- Chemical changes
- Crude oil and fuels
- The Earth’s atmosphere
- The Earth’s resources
- Rates and equilibrium

Physics P1:

- Electric circuits
- Electricity in the home
- Molecules and matter



- Radioactivity (current year 10 only)
- Forces in balance
- Motion
- Force and motion

Year 10 students are assessed on content at the end of each block of study.

Year 11

Students in year 11 will complete their study of GCSE Combined Science Trilogy, then recap and revise course material covered in years 9 and 10.

Students selected to follow the Separate Sciences, Triple award GCSE course will complete their study by covering the extra sections in Biology, Chemistry and Physics.

How Parents and Carers can support

Science resources are now plentiful; from revision guides, smart phone and tablet apps to interactive websites.

We would urge parents and carers to encourage students to use as many as possible.

To help students become more independent and proactive in their revision, the Science Department provides the online textbook via a Kerboodle student account.

Background reading is an important aspect of becoming a successful scientist. We have put together a list of websites that we as Science teachers have found to be extremely helpful

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<http://www.schoolscience.co.uk>

http://www.sciencemuseum.org.uk/educators/classroom_and_homework_resources/ks3.aspx

<http://www.nature.com>

<https://www.newscientist.com>

<http://www.nasa.gov/audience/forstudents/index.html>

<http://www.my-gcsescience.com>



Science – Year 11	Head of Department: Mrs D Proctor
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Exam Board and Syllabus code:

Double award science: AQA GCSE Combined Science Trilogy (8464)

Triple award science: AQA GCSE Biology (8461), AQA GCSE Chemistry (8462) and AQA GCSE Physics (8463)

Content

The GCSE curriculum is taught from the beginning of Year 9. Emphasis is placed upon “working scientifically” which is to encourage enquiry, evaluation and communication in Science.

The students are placed in broad ability bands based on the broadest range of information and assessment data. Most students follow the AQA Combined Science Trilogy course. Some students are offered the opportunity to follow a Triple Science course leading to separate GCSEs in Biology, Chemistry and Physics from the end of Year 10.

Both Combined Science and Triple Science routes will prepare students for further Sixth Form study in the A Level Sciences if that is their intention.

Assessment

Students in year 11 will study topics in Biology, Chemistry and Physics from AQA GCSE Combined Science Trilogy. Some selected students will study the extra elements for the Triple/Separate GCSE qualifications in Biology, Chemistry and Physics. They will also carry out ‘Required Practicals’ in line with exam board specifications for all GCSE Science courses.

Biology:

- Reproduction
- Organising and ecosystems
- Biodiversity and ecosystems
- Adaptations, interdependence and competition
- Homeostasis in action (Triple only)

Chemistry:

- The Earth’s atmosphere
- The Earth’s resources
- Equilibrium
- Chemical analysis
- Using our resources (Triple only)
- Organic reactions (Triple only)
- Polymers (Triple only)

Physics:

- Waves and wave properties
- Electromagnetic waves
- Light and lenses (Triple only)
- Space (Triple only)
- Electromagnetism
- Force and Pressure



How Parents and Carers can support

Science resources are now plentiful; from revision guides, smart phone and tablet apps to interactive websites. We would urge parents and carers to encourage students to use as many as possible.

Background reading is an important aspect of becoming a successful scientist. We have put together a list of websites that we as Science teachers have found to be extremely helpful

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