



## Curriculum Plan Key Stage 4 Combined Science

Academic year: 2020-21		Head of department: Mr Keane ( <a href="mailto:a.keane@todhigh.co.uk">a.keane@todhigh.co.uk</a> )	
Term 1			
Year 10		Year 11	
Bonding and types of substance  Health, disease and drug development  Biology catch up and revision for units in paper 1  Acids and alkalis		Plant Structure and function  Exchange and transport in animals  Ecosystems and material cycles  Groups, Rates and Energy Changes  Fuels, Earth and Atmospheric Science	
Term 2			
Year 10		Year 11	
Electrolytic Processes, Metals and equilibria  Calculations in Chemistry  Chemistry catch up and revision for units in paper 1  Radioactivity  Physics catch up and revision for units in paper 1		Fuels, Earth and Atmospheric Science  Electricity and circuits  Magnetism and Motor Effect  Particle Model, Forces and matter	
Term 3			
Year 10		Year 11	
Animal Coordination, control and homeostasis  Plant Structure and function  Ecosystems and material cycles  Forces and Effects		Revision and catch up on topics covered during closure	

Due to classes following slightly different pathways, due to health and safety requirements and sharing of equipment, the exact topics may be in a slightly different order. If you have any questions or want further information, please contact Mr Keane.

We follow the Pearson Edexcel specification, further information, including specifications are available here:  
<https://qualifications.pearson.com/en/qualifications/edexcel-gcses/sciences-2016.html>

## Separate Science

### Biology

Term 1	
Year 10	Year 11
Introduction to Separate Science Biology – building on Y9  Health, Disease and drug development	Exchange and transport in animals  Ecosystems and material cycles
Term 2	
Year 10	Year 11
Health, Disease and drug development  Animal coordination, control and homeostasis	Ecosystems and material cycles  Revision, mocks.  Catch up on topics covered during school closure
Term 3	
Year 10	Year 11
Plants structure and function  Exchange and Transport in animals	Revision.

### Chemistry

Term 1	
Year 10	Year 11
Key Chemistry concepts for Separate Science  Bonding and Types of substance  Acids and alkalis  Chemical Calculations	Earth and atmospheric Science  Rates and energy transfers in chemical reactions  Qualitative analysis
Term 2	
Year 10	Year 11
Chemical Calculations  Electrolytic Processes, metals and Equilibria  Quantitative Analysis	Organic chemistry and polymers  Catch up / consolidation of content covered during COVID closure
Term 3	
Year 10	Year 11
Quantitative Analysis  Catch up / consolidation of content covered during COVID closure  Groups, rates and energy changes	Revision and preparation for GCSE Chemistry exam

# Physics

Term 1	
Year 10	Year 11
Introduction to Separate Science Physics – building on Y9 Momentum Waves Light and the EM spectrum  Radioactivity	Electricity and circuits Electromagnetic induction Catch up / consolidation of content covered during COVID closure  Particle Model  Forces and matter
Term 2	
Year 10	Year 11
Space and the Solar System  Catch up / consolidation of content covered during COVID closure  Energy and forces doing work	Forces and matter  Revision and Prep for exam
Term 3	
Year 10	Year 11
Energy and forces doing work  Static electricity	Revision and Prep for exam

Homework/revision	
Year 10	Year 11
<p>Homework is set in accordance with the homework timetable and set on the Seneca website. Seneca provides instant feedback and is built using complex algorithms to ensure topics students have found difficult are repeated to improve knowledge.</p> <p>All students have been provided a link to join the online application, however if another copy is required please email <a href="mailto:b.riding@todhigh.co.uk">b.riding@todhigh.co.uk</a>.</p> <p>Revision guides and workbooks are available to buy through parent pay and cost £5.</p> <p>You can support by ensuring the homework is completed weekly and that knowledge and understanding are consolidated at home.</p> <p>Separate Science students will be set homework by their class teacher on a weekly basis. There is also an expectation of independent study and consolidation of learning following every lesson.</p>	<p>Homework is set in accordance with the homework timetable and set on the Seneca website. Seneca provides instant feedback and is built using complex algorithms to ensure topics students have found difficult are repeated to improve knowledge.</p> <p>All students have been provided a link to join the online application, however if another copy is required please email <a href="mailto:b.riding@todhigh.co.uk">b.riding@todhigh.co.uk</a>.</p> <p>Revision guides and workbooks are available to buy through parent pay and cost £5.</p> <p>You can support by ensuring the homework is completed weekly and that knowledge and understanding are consolidated at home.</p> <p>Separate Science students will be set homework by their class teacher on a weekly basis. There is also an expectation of independent study and consolidation of learning following every lesson.</p>

Assessment	
Year 10	Year 11
<p>Topic assessments take place at the end of every scheme of teaching to provide exam practice for students. These assessments are used formatively to allow pupils to reflect on their strengths and work on their areas for development.</p> <p>Every term students will complete at least one past paper in exam conditions to inform the data check. This will ensure an accurate reflection of student attainment is reported.</p>	<p>Topic assessments take place at the end of every scheme of teaching to provide exam practice for students. These assessments are used formatively to allow pupils to reflect on their strengths and work on their areas for development.</p> <p>Every term students will complete at least one past paper in exam conditions to inform the data check. This will ensure an accurate reflection of student attainment is reported.</p>

How can parents and carers help?	
Year 10	Year 11
<p>Ensure students are logged onto Seneca and completing their homework on a weekly basis. Checking their account is an easy way of monitoring this.</p> <p>Encouraging students to consolidate knowledge by asking them about their learning is also very helpful.</p>	<p>Ensure students are logged onto Seneca and completing their homework on a weekly basis. Checking their account is an easy way of monitoring this.</p> <p>Encouraging students to consolidate knowledge by asking them about their learning is also very helpful.</p>