



Year 10 Science

Curriculum Leader: Mr Kosta Karantzis

Exam Board: Edexcel

The course is designed to help students engage with the fundamentals of science and fulfil their potential. They will study areas that are at the forefront of science as well as more established key concepts and ideas. Students will gain analytical, numerical, evaluative and communication skills that will make them very confident learners and professionals. Science and the Gilbert will give them the ability to think conceptually about abstract ideas and bring this complex thinking into practical situations.

Topics to be covered in Year 10

Topics to be covered		Combined Science		
		Biology	Chemistry	Physics
		CB4 Natural Selection and Genetic Modification	CC8 Acids and Alkalis	CP5 Light and the EM Spectrum
		CB5 Health, Disease and Development of Medicines	CC9 Mole Calculations	CP6 Radioactivity
			CC10 Electrolytic Processes	CP7 Energy - Forces Doing Work
		CB6 Plant Structures and their Functions	CC11 Obtaining and Using Metals	CP8 Forces and their Effects
			CC12 Reversible Reactions and Equilibria	
		CB7 Animal Coordination, Control and Homeostasis	Year 10 Mock Exams (June)	CP9 Electricity and Circuits
			Review Mock exams	
		Separate Science		
		Biology	Chemistry	Physics
		SB4 Natural Selection and Genetic Modification	SC8 Acids and Alkalis	SP5 Light and the EM Spectrum
SC9 Mole Calculations	SP6 Radioactivity			
SB5 Health, Disease and Development of Medicines	SC10 Electrolytic Processes	SP7 Astronomy		
	SC11 Obtaining and Using Metals	SP8 Energy - Forces Doing Work		
SB6 Plant Structures and their Functions	SC12 Reversible Reactions and Equilibria SC13 Transition metals, Alloys and Corrosion	SP9 Forces and their Effects		
	SC14 Quantitative Analysis SC15 Equilibrium and Volume calculations	SP10 Electricity and Circuits		
	SC16 Fuel cells			
SB7 Animal Coordination, Control and Homeostasis	SC17 Groups of the Periodic table	SP11 Static electricity		
Year 10 Mock Exams (June)				
Key vocabulary	Please find word sheet on VLE and within SOW Students will be provided with a Topic checklist to outline content and key ideas in each topic			

Skills to be developed	• Describing patterns • Drawing conclusions • Risk assessment • Writing and evaluating methods • Applying maths to scientific concepts • Understanding variables • Exam skills • Collecting data • Understanding relationships between science and society • Modelling • Graph drawing • Accessing impact of scientific progress • Analysis of secondary data • IDEAL – Identify, describe, evaluate, apply and link
Opportunities for revisiting previous learning	The topics in Year 10 build on the work completed at KS2 & KS3, developing these skills further and deepening understanding. At the start of every topic there is a transition exercise to aid with retrieval of previous knowledge. We use Flashback activities every lesson throughout the scheme of work. These comprise of quick quizzes to recap over work learnt in previous lessons. Every topic has an end of unit test. These tests may be taken every 3-4 weeks. Time and support will be given in class to revisit content. Interleaving takes place at relevant points to support student progress. Revision techniques and sessions may be delivered close to large assessment to guide students Use of Seneca, revision guides and active learn is encouraged.
When will formal assessment of progress take place?	<u>Formal assessments</u> Year 10 Mock (End of year exam) – w/b 21st June 2027 Year 10 EOY exams – Paper 1s (Topics B1 - B5, C1 - C12 and P1 - P6) Students are assessed regularly both informally through questioning in lessons and formally via end of topic, and end of year examinations which include topics studied from the scheme of work. Each assessment is analysed and feedback given to assist students to be more targeted in their efforts for further improvement. The student is responsible for acting upon the feedback given. Feedback is used continually in lessons in many forms, predominantly modelling, discussion, highlighting misconceptions and suggestions for improvement or extension.

Year 10 Useful Resources

Website Links:

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

<https://www.qualifications.pearson.com> (Edexcel)

<https://www.bbc.co.uk/bitesize/subjects/zrkw2hv>

<https://app.senecalearning.com/courses?Price=Free&Subject=Combined+Science>

Marking, Assessment and Feedback

Over the course of an academic year students will complete a number of formal assessments, these will be used to assess where students are in their learning journey.

Information from these assessments could be used when making decisions regarding setting of students, reporting progress home and predicting outcome. During lessons we evaluate students' learning through a range of activities including quizzes, class discussions, detailed questioning and other strategies. Through this, students will know where they are in their learning journey and what they need to do next to make further progress.

Teachers will continue to provide planned written feedback on selected pieces of work.

Homework

Homework will be set using the online platform Go 4 Schools

Homework tasks are designed to prepare students for future learning or consolidate work completed in the classroom. It will be clear what should be handed in, when it should be handed in and how it should be handed in.

Contact Information

If you would like to contact the Science Department, please email: science@gilberd.com or contact your child's teacher.

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