Year 9 Science

Curriculum Leader: Mrs Claire Allen

The course in 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 Gilberd 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 9

Topics to be covered

Combined Science

Biology	Chemistry	Physics
CB1 Key Concepts in Biology	CC1 States of Matter	CP3 Conservation of Energy
	CC2 Methods of Separating and Purifying Substances	
	CC3 Atomic Structure	CP1 Motion
CB2 Cells and Control	CC4 The Periodic Table	
	CC5 Ionic Bonding	CP2 Forces and Motion
	CC6 Covalent Bonding	
CB3 Genetics	CC7 Types of Substance	CP4 Waves
End of year Exams (w/b 12th May)		

Sept ↓ July

Separate Science– Sets 1-3 are taught the Separate Science syllabus.

Biology	Chemistry	Physics
SB1 Key Concepts in Biology	SC1 States of Matter	SP1 Motion
	SC2 Methods of Separating and Purifying Substances	
	SC3 Atomic Structure	SP2 Forces and Motion
SB2 Cells and Control	SC4 The Periodic Table	
	SC5 Ionic Bonding	SP3 Conservation of Energy
	SC6 Covalent Bonding	
SB3 Genetics	SC7 Types of Substance	SP4 Waves
	SC9 Mole calculations	
End of year Exams (w/b 12th May)		

Sept ↓ July

Key vocabulary

Please find word sheets 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 9 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 on this topic. 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 given in class to revisit content. Interleaving takes place at relevant points to support student progress. Revision techniques are taught, 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?	Formal assessments **End of year Exam – w/b 12th May 2025 to cover Scientific skills and the content covered in topics B1 – B3, C1-C7, P1 – P3** Students are assessed regularly both informally through questioning in lessons and formally via end of unit 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 9 Useful Resources

Website Links:

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

http://www.gcsepod.com/

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

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

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

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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