

Year 8 Science

What will be studied?

Topic(s)

Students are following the AQA KS3 Science Syllabus.

- Chemistry: Reactions, Elements and Compounds – *As students learning was disrupted due to a period of online teaching students start Year 8 learning Year 7 Chemistry. They will look at the reactions of acids and alkalis and the properties of metals and non-metals. They will then look at the periodic table and be taught how to read it. They will be taught how to name compounds and how to write chemical formulae.*
- Physics: Waves – *Students will be taught how we hear and see, learning about the eyes and the ears. They will study the differences between sound waves and light waves and will be taught how waves transfer energy. Students will look at the uses, applications and risks of the waves of the electromagnetic spectrum.*
- Biology: Breathing, Digestion and Respiration – *Building upon Year 7 learning of body systems students will be taught the breathing system and the digestive system. They will look at the different cells, tissues and organs in these systems and how they work together to ensure that the whole organism is able to function. Students will also be taught about aerobic and anaerobic respiration.*
- Chemistry: Chemical reactions – *Students will start to explore how atoms rearrange themselves in chemical reactions. They will look at the two types of reactions in detail: thermal decomposition and combustion and how these are examples of endothermic and exothermic reactions. At this point in the year students are also taught how to balance chemical equations.*
- Physics: Contact forces and pressure – *Students will build upon their learning in Year 7 on forces to look at contact forces and pressure. Students will plan, do, evaluate and improve a practical look at drag.*

Students will apply and develop their knowledge by undertaking a range of practical work. This practical work is used to develop transferable skills such as devising and testing questions, identifying and controlling variables, analysing and interpreting data. Students are given the opportunity to build and master practical skills including: using specialist equipment to take measurements, handling and manipulating equipment with confidence and recognising hazards and planning to minimise risk.

How do you assess the learning?

Students are assessed by the following methods:

- Teacher created assessment for learning opportunities
- Level assessed tasks which allow students to write at length
- Multiple choice assessments
- Examination questions
- Online assessments
- Spelling tests

- In class AfL as appropriate such as: use of mini whiteboards, traffic light cards, exit cards etc.

Teachers arrange opportunities in lessons for students to present work and do individual and group projects. Practical work is completed in lessons and assessed by teachers.

End of Year Examination

How will I be assessed at the end of the year?

Students are given a one hour final assessment covering topics from the whole of Year 8 and the corresponding prior learning from Year 7. This also covers the skills that students have learnt, students will be assessed on their ability to apply knowledge they have gained in one topic to another. For example, they may have done some work on graph drawing in physics – in their exam they may be asked to draw a graph for chemistry.

How can I help my child?

Guidance and advice from science on how to help.

- Kerboodle.com – *all students have a log in for a free version of the textbook used in lessons. This also includes videos, support and extension activities.*
 - BBC Bitesize – *KS3 Science. Students can find animations, explanations and questions on this site – organised as Biology, Chemistry and Physics.*
 - Collins Science KS3 Revision - *Collins provides KS3 revision books based on the AQA KS3 science syllabus.*
 - Senecalearning.com - *Students are encouraged to revise using Seneca. There is a Key Stage Three Science course available for free.*
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