



Church of England School
Executive Head and CEO: Dr Hilary Macaulay

15th September 2022

Dear Parent/Carer

Year 9 Science Overview

I am writing to give you an overview of Science in Year 9 to help you support your child's learning and progress.

Monitoring the progress of your child

Year 9 Students have 9 Science lessons per fortnight, divided between 3 teachers: one for Biology, one for Chemistry and one for Physics (one class has 2 teachers for chemistry). Each student will be on a 'pathway' depending on their KS2 data, spelling/reading age and progress in Year 8 (support, core or extension pathway). Each student will be given a tracking sheet at the start of each term in Year 9. Students are expected to RAG rate their performance after each topic using a specific criteria, e.g. knowledge of the topic, ability to apply their knowledge, data handling, practical skills and literacy. Students should also record their test percentage after each assessment. Teachers will complete termly tracking data based on your child's attitude to learning in lessons and achievement on each assessment. This data will be available to parents towards the end of each term. Students will also sit end of year exams in Biology, Chemistry and Physics, based on the topics they have studied in Year 9. These results will be used to determine classes in Year 10.

Year 9 Science Curriculum and Resources

Our Science curriculum has clear links to the school's curriculum intent of **Learning, Loving and Living** and there are frequent opportunities in our Science curriculum for students to develop in **Learning, Loving and Living**. At the start of Year 9, students study a 'transition topic', divided into 3 distinct units: revision and independence, maths and literacy skills and key ideas in Science. This allows students to consolidate their knowledge and understanding of key scientific concepts from Years 7 and 8 and to help in the transition to the GCSE course. This transition topic also provides students with links to scientific careers, opportunities to investigate bias in the media and understand the role they can play improving the quality of human life. Students start the GCSE curriculum in the Autumn term. At Bishop Ramsey, we follow the AQA specification and students study a range of Biology, Chemistry and Physics topics throughout the year. Students can opt to take Triple Science in the Spring term (criteria and guidance will be given later in the term), all other students will study Combined Science for GCSE from Year 10. Students can find useful resources on the [KS4 Science TEAM](#) (accessible using their school email). Students are also encouraged to use a variety of online resources e.g. 'cognito' (which are all available on the **Blended Learning Plan** for each topic), allowing students to watch videos, complete multiple choice questions and exam style questions on each topic. Students will also be given access to 'kerboodle' which has a digital version of the textbook and activities that they can complete at home. An overview of the Year 9 Science curriculum (Science Learning Journey) can be found on the school's website: [LINK](#)

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Topics and Assessments

Students will complete an assessment at the end of each topic. This is usually a 40-50 minute test, comprising questions that are similar to the questions they will answer in the actual GCSE exams. Students are expected to make corrections on their tests and reflect on their strengths and weaknesses. Students will either sit a Foundation or Higher test for each topic, which will be decided by the class teachers. Students will be given a 'checklist' for each topic to help them revise and will be expected to complete a 'revision sheet' for each topic, to prepare them for the end of unit test. The revision sheet gives students opportunities to develop their literacy, maths, working scientifically and exam skills. Copies of these will also be placed onto the KS4 Science TEAM and on Arbor. Students will carry out up to 21 required practicals throughout the GCSE course (or 28 required practicals if they study Triple Science). Students will record their data and complete practice questions in their practical workbooks, which are issued to each child at the start of Year 9. Required practicals are assessed in the final GCSE exams (15% of each exam).

The table below gives an overview of topics studied in Year 9 (B = Biology, C = Chemistry, P = Physics). A more detailed Year 9 programme of study can be found on the school's website: [LINK](#)

Topic code	Topic name	Associated required practical	Term taught
M&L R&I KIS	Transition topic (split into 3 units) Maths and Literacy Revision and Independence Key Ideas in Science		Autumn term
B1	Cells	microscopes, osmosis	
B4	Organising animals and plants		
C1	Atomic structure		
P3	Energy resources		
B7	Non-communicable disease		
C2	Periodic table		Spring term
P6	Molecules and Matter	Density	
C5	Chemical changes	prepare a salt	
C6	Electrolysis	electrolysis	
P4	Electric circuits	electrical circuits and resistance	
B16	Adaptation, competition and interdependence	sampling	
C13	The Earth's atmosphere		Summer term
P5	Electricity in the home		
B2	Cell division		
C12	Chemical analysis	chromatography	
P12	Wave properties	ripple tank	

Transition unit and Practical work

Students will be expected to follow guidelines set out by staff during practical tasks to ensure their safety e.g. wearing goggles, standing behind desks. If students behave in an unsafe manner, detentions may be issued and, in some cases, parents will be contacted.

Students start the Year 9 Science course with a transition unit. Part of this unit covers key skills and ideas that students learnt at KS3. Students will have **three** assessments towards the end of September on the transition units: Maths and Literacy, Revision and Independence and Key Ideas in Science. Students will be provided with a revision sheet for each unit to help them revise for the assessment. This assessment will be used to identify gaps that students may have in their subject knowledge and skills from Years 7 and 8.

Behaviour: rewards and sanctions

Students who display excellent behaviour, effort, achievement or progress will be rewarded in a number of ways including by being given housepoints, stickers, certificates or receiving positive phone calls home. Each term teachers nominate students for a 'Head of Science' certificate. Nominated students will be presented with certificates in the end of term achievement assembly. Students are expected to follow the school behaviour policy.

Students who cause disruption to lessons, fail to hand in homework or do not follow the health and safety guidelines may be issued with a detention or placed onto a green Science report. Students will be set targets and their teacher will monitor them against these targets for a period of up to 6 lessons. If students fail their targets, they will be placed onto an orange report, where they will be monitored by one of the Heads of Department (Biology, Chemistry or Physics). Students who fail their orange report will be placed onto red Science report and this will be monitored by the Head of Faculty. Parents will be informed if students are placed onto Science report.

Supporting your child at home

Parents can support their children at home in a number of ways:

- Help your child to organise their revision in a folder. The folder should contain end of topic tests, revision notes, checklists and exam questions
- Ask questions, in everyday situations around the home e.g. how do you think that works?
- Work with your child to find answers to these questions using resources such as books, library, the internet
- Discuss any scientific news or TV programs with your child
- Ask your child to tell you about science they have done at school
- Show an interest in your child's science homework and check Arbor regularly
- Talk about the animals or plants you see in the garden or park
- Visit science based exhibitions, museums or zoological parks

Should you have any questions, please do not hesitate to contact us.

Yours sincerely,

Mrs N Jeffries

Head of Science

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