



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

9th September 2021

Dear Parent/Carer,

Year 11 Science Overview

We are writing to give you an overview of Science in Year 11 to help you support your child's learning and progress.

Monitoring the progress of your child

Students in Year 11 either study Combined Science or Triple Science. Students studying Combined Science have 8 lessons per fortnight and Triple students have 4 lessons per fortnight each for Chemistry and Physics and 5 lessons a fortnight for Biology. Teachers will complete termly tracking data based on your child's attitude to learning in lessons and progress (predicted grade). This data will be available to parents towards the end of each term. Students are encouraged to take ownership of their learning journey, through the use of revision folders and reflection on their progress throughout the course.

GCSE 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**. Students in Year 11 continue to study the GCSE curriculum. In both the Combined and Triple courses, the curriculum covers a broad range of topics in Biology, Chemistry and Physics, with an overarching theme of developing practical skills. Students are required to complete a number of 'required practicals' which are assessed through the terminal exams. The required practicals (as well as other practicals carried out throughout GCSE), give students the opportunity to plan, investigate, analyse, problem solve, evaluate, build independence, take risks and make links to the knowledge and understanding learnt previously at key stage three and taught at KS4. Teachers ensure that there are many opportunities to make links with the A level Science curriculum that many go onto study and help them to manage their time and develop their independent and organisational skills, which are essential for future employment. Through the delivery of the AQA Combined Science or Triple Science GCSE our students are supported to develop the key skills needed for the exams as well as preparing them to be responsible and competent scientists for a sustainable and moral future.

Students can find useful resources on the KS4 Science TEAMS room (accessible using their school email). Students are also given free access to mygcscience, allowing students to watch videos, complete multiple choice questions and exam style questions on each topic. Students also have access to 'kerboodle' which has a digital version of the textbook and activities that they can complete at home.

An overview of the 7 year Science curriculum (Science Learning Journey) can be found on the school's website: [LINK](#)

Topics and Assessments

Students will complete an assessment at the end of each topic. This is usually a 30 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 also sit mock exams in December, assessing them on topics studied in Years 9, 10 and 11. Decisions about tiers of entry are decided after the mocks in December. Some 'borderline' Foundation/Higher Tier students may be given an opportunity to sit a re-test to determine their final Tier.

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 TEAMS room (students can access this using their school email) and will be set as homework on Arbor.

Students will carry out up to 21 or 28 'required practicals' throughout the GCSE course, depending on whether they are studying Combined or Triple science respectively. 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 that will be studied in Year 11 (not necessarily in this order). For Combined Science students, there is a detailed programme of study which details the specific order of topics, which can be found on the school's website: [LINK](#)

Topics, required practicals and assessments	Combined Science	Triple Science		
		Biology	Chemistry	Physics
Topics	B13: Reproduction B14: Variation and evolution B15: Genetics and Evolution B18- Biodiversity and ecosystems C8: rates and equilibrium C9: Crude oil and fuels C13-The Earth's atmosphere C14-The Earth's resources P4- Electrical Circuits	B15- Genetics and Evolution B16- Adaptations, interdependence and Competition B17- Organising an ecosystem B18- Biodiversity and ecosystems	C8- Rates and Equilibrium C12- Chemical analysis C14-The Earth's resources C15- Using our resources	P6-Molecules and matter P8-Forces in balance P11-Forces and pressure P15- Electromagnetism

Address: Hume Way, Ruislip, Middlesex, HA4 8EE ∞ **Telephone:** 01895 639227
Email: office@bishopramsey.school ∞ **Website:** www.bishopramseyschool.org

	P5 – Electricity in the home P6: Molecules and matter P8 – Forces in Balance P15: Electromagnetism			
Required practicals	Rates of reaction (C8) Purify and test water (C14) Specific heat capacity (P2) Circuits and resistance (P4) Density (P6)	Sampling (B16) Decay (B17)	Rates of reaction (C8) Flame tests (C12) Purify and test water (C14)	Specific Heat capacity (P2) Density (P6)
Assessments	Students will complete end of unit tests at the end of each topic. Students will sit mocks (three papers per student)			

COVID and Practical Work

We are very eager to ensure that despite the current situation, students will be able to complete practical activities in Science. Our priority must be the safety of our staff and students and as such, we have ensured that we follow current CLEAPSS and Government guidelines with respect to COVID. Whilst this means that certain practicals are unable to take place, most practical activities will still be possible in Science. Students will be expected to follow guidelines set out by staff during practical tasks to ensure their safety.

Behaviour: Rewards and Sanctions

Students who display excellent behaviour, effort, achievement or progress will be rewarded in a number of ways including being given housepoints, stickers, certificates or receiving positive phone calls home. Each term teachers nominate students for the 'student of the term' award. Winners will be presented with certificates in 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 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 mygcscience 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.

Yours sincerely,

Mrs N Jeffries
Head of Science
njeffries@bishopramsey.school

Mr A Murphy
Head of Biology
amurphy2@bishopramsey.school

Mrs S Ngochi
Head of Chemistry
sngochi@bishopramsey.school

Dr T Jackson
Head of Physics
tjackson@bishopramsey.school