Broadening Horizons

Our intent is that all students have a full understanding of how to develop themselves as well rounded citizens, maintain healthy relationships and understand how to keep themselves safe both online and in their day-to-day life. We want all students to know what options are open to them in the future and understand the routes they have in order to progress on their life journey.

Our curriculum includes:

- Links with local industries and national organisations, innovative external speakers, events and resources
- Opportunities for students to visit University Science Departments
- Science based activity days
- First hand fieldwork

Careers

We run a series of 'Careers in the Curriculum' weeks in our school. For Science, this week takes place in January.

Careers in Science:

- Biomedical/ Environmental Scientist
- Physiologist
- Conservationist
- Pharmaceutical Scientist/ Medicinal Chemist
- Electrical Engineer
- Aerospace Engineer
- Computer Programmer
- Physiotherapist
- Nurses
- Port Scientist

Immerse Yourself

Kerboodle Online Resources

A-Level Biology - Kerboodle, Biological Science review magazines. After school P5 session runs every week on Thursdays.

A-Level Chemistry - Kerboodle, Chemguide, Physics and Maths Tutor Online. Students can also attend Wednesday P5 sessions.

A-Level Physics - Kerboodle, textbooks, CGP revision guides, workbooks and student checklists which should be thoroughly utilised throughout their study. Thursday P5 study sessions occur weekly in C7.

Physics and Maths Tutor Online

BTEC Applied Science - For support students can use the Applied Science revision guide and workbook, as well as the textbook. They should use their checklists provided by teachers to guide their revision.

Praise and Reward

Our rewards system can be broadly split into four categories: classroom level, subject level, school level and privilege rewards. We'll focus on classroom and subject rewards here - for more information about our rewards schemes, please see our website.

CLASSROOM LEVEL REWARDS

Awarded for: working hard, taking risks and rising to a challenge, making mistakes and learning from them, helping others, and taking pride in the school community.

Rewarded by: praise postcards, positive phone calls to parents/ carers, positive text messages home, and lesson based prizes.

SUBJECT LEVEL REWARDS

Reward scheme: star of the week, curriculum awards (Subject/ School Way, participation, working with pride, embracing the whole curriculum), high flyer, extra mile, most improved.

Rewarded by: names displayed on reward boards, certificates, social media posts.

Contact

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The Royal Society

Independent Scientific Academy of the UK, dedicated to promoting excellence in Science for the benefit of humanity.

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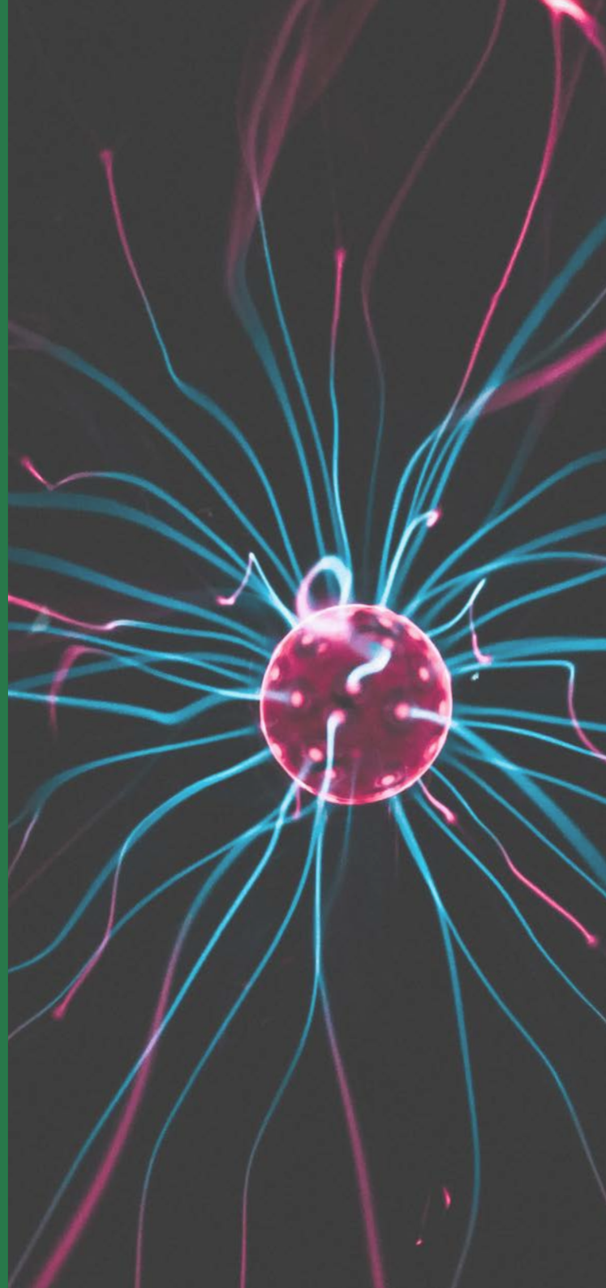
SCIENCE

Curriculum Newsletter

YEAR 12



Curriculum Intent

The Science curriculum is inclusive and ambitious for all students, designed to engage students and strengthen the memory of what is being learnt.

The curriculum is organised into 12 Big Ideas that are developed through a series of key concepts organised into teaching topics which are revisited throughout the KS3, 4 and 5 programmes of study.

The Science curriculum is planned to build increasingly sophisticated knowledge of the products and practices of Science.

Have your say!

At WPT we're always looking for feedback. If you have any thoughts/opinions on this Curriculum Newsletter, its content or the curriculum in general, please scan the QR code to fill out a short feedback form.

Year 12 Curriculum

A-Level Biology

Students are close to completing module 2 'Foundations in Biology', most recently studying how the cell divides in mitosis and meiosis, along with how cells specialise. They have also been completing practical work involving enzymes, investigating the factors that affect their action.

In the next few weeks Year 12 will be moving on to study communicable diseases and how the body defends itself against bacteria and viruses. Alongside this on the other side of the course, they will be learning about the structure of various animal gas exchange systems.

A-Level Chemistry

Students in Year 12 finished off the alkanes and alkenes sub-topic for organic chemistry and have now begun studying alcohols. They will soon be completing a required practical on the oxidation of ethanol and how reaction conditions can control the products formed.

For inorganic chemistry the students are currently in the middle of studying periodicity, looking at how physical properties and structure and bonding change across the periods.

A-Level Physics

In Module 3, students have studied forces, motion, work, energy and power. They will go on to study materials physics and Newton's laws and how they can be used to describe our world.

In Module 4, students have studied charge, current, energy, power and resistance and are currently applying their knowledge to electrical circuits. They will go on to study waves and quantum physics and learn about Schrodinger's cat.

BTEC Science

Year 12 scientists (both double and single) have both just finished unit 2 learning aim A which looks at different ways to find concentrations in solutions. They are now moving on to learning aim B, which looks at analysing energy changes during cooling and freezing of different substances. Year 12 single scientists are currently studying the lymphatic system, disorders and treatments.

Assessment Points

A-Level Biology, Chemistry and Physics
Students have sat mock assessments for content studied so far. Students will sit full Y12 mocks at the beginning of May - the results will form the basis of UCAS reference grades.. Students will also have in-class end of topic assessments.

BTEC
Students have regular coursework hand in dates. Students will have a mini mock this half term in any exam units they study (Unit 1 and Unit 3).

The Science Way

The Science Way is followed in all of our lessons. It is designed to help students become young subject specialists and has two main purposes: to teach students the vital skills needed to achieve their full potential, and to demonstrate how Science relates to the wider world.