

**What are we aiming for students to achieve through our Science curriculum? (Intent)**

* To help students understand the world through the specific disciplines of Biology, Chemistry and Physics (provide students with the scientific knowledge to be able to relate to the world around them and understand the role/significance of future career pathways/Stem careers).
* To engage students in Science, allowing them to explore, enjoy and succeed in Science (resulting in students developing a sense of excitement and curiosity about activities in the natural world).
* To teach students about the relevance and importance of Science (by building on a body of key knowledge foundation) to the worlds future prosperity by encouraging them to understand how Science can be used to explain what is happening and predict what may happen next.
* For students to feel confident using scientific enquiry skills to help them answer questions about the world around them.
* To enable students to relate Science to other subjects and apply their scientific knowledge and skills to other settings (encourage students to apply their scientific knowledge to allow critical and analytical thinking. Encourage students to question the world they live in based on evidence and knowledge).
* To develop students’ ethical, social and cultural awareness in a scientific context, to allow them to form their own opinions on information and events.
* Develop students’ ability to articulate scientific ideas using specialist vocabulary in a clear and precise way.
* Encourage students to strengthen and develop other curriculum areas such as mathematics through exploring and developing scientific enquiry skills.
* To allow every student to leave Bents Green School with a qualification/award that reflects their true ability.

**How is the Science curriculum delivered? (Implementation)**

**Curriculum Delivery**

* Science is delivered to all students across Bents Green School (including students taught in the Westfield Hub and Post 16).
* Science content is differentiated to meet the individual needs of students – depending on understanding and stage of development not just age.
* For groups within Pathway 3 (Sycamore & Nurture groups) – Science is delivered in a way that allows students to explore the subject through sensory learning.
* Science is a timetabled lesson, 1 double/2 single lessons a week in KS3 (dependent on pathway) and KS4. The KS4 GCSE class have 2 double lessons a week.
* In Phase 3 students follow one of two pathways (all underpinned by the national curriculum); main KS3 pathway, following KS3 Science scheme of work aimed at preparing students for AQA GCSE Biology or Entry level certificate or a sensory Science pathway aimed at supporting students to build a solid foundation to encounter and achieve AQA unit award certificates in Science.
* In Phase 4 students will complete AQA unit awards in Science, AQA ELC in Science or GCSE Biology.
* Curriculum Days – Science is explored and enjoyed through extra curriculum days such as STEM day and participating in activities during Science week.
* Additional curriculum support is available for students to access, GCSE Science support sessions during lunch time and GCSE Science homework support.
* The Science curriculum provides lots of cross-curricular learning, including Mathematics, English (reading, writing, vocab development) along with other subjects such as RSE, PSD and PSHE where personal, social and ethical issues may be explored through science learning.
* Science and Intervention –Interventions to support students through the science curriculum will be informed by formal and informal assessment methods put in place by the class teacher and the science team. Such assessments will result in tailored intervention being put in place for specific students to meet their needs. This could be dyslexia support, extra help to support maths or reading skills, extra revision sessions, one to one support during lessons to ensure key concepts are understood etc.  The impact of intervention is continuously reviewed and therefore adapted to ensure every child’s individual needs are met.

**Science & Assessment**

* Student’s written work will be marked, with feedback given in writing and verbally based around their understanding of scientific investigative skills.
* Teachers will assess student knowledge through questioning and marking.
* Phase 4 AQA unit awards are marked by class teachers in line with AQA marking guidelines. Assessment can be of students work or classroom observations.
* Phase 4 ELC work is assessed against AQA standards and marked in line with school policy on accreditation. Assessment includes formal written tests and teacher assessed practical work.
* Phase 4 GCSE Biology is assessed through the completion of past exam questions at specific intervals throughout the course, along with teacher formative assessment in the classroom. Formal assessment is at the end of the course where students complete two 1 hour 45-minute exam papers.
* The delivery of all aspects of our curriculum are supported by Bents Green’s involvement in British Science week, a whole school Science Curriculum day and through the exploration of scientific ideas through whole school assemblies.

**What difference is the Science curriculum making to students? (Impact)**

* Whilst pathway 1 students complete a GCSE in a science subject, pathway 2 students will all gain an Entry Level qualification in science from AQA. Pathway 3 students will complete a portfolio of AQA Unit Awards across all 3 sciences and as such leave BGS with certificates to recognise their achievements.
* All students are well prepared for their next stage of their scientific education, whatever level that may be.
* All students will have a better understanding of future careers that include an understanding of science.
* All students will have developed investigative science skills and had the opportunity to carry out practical investigations to answer a question.
* All students will have experience of communicating scientific ideas and knowledge, using scientific language.
* Almost all students will be able to answer questions by collecting, analysing and presenting data. They will have some understanding of experimental design and control.
* Students will have developed other skills such as maths and will understand the real-life application of such subjects.
* Students will have a better understanding of the world around them and their life skills will have been promoted and developed through the learning and understanding of the Science curriculum, ultimately allowing students to navigate the world they live in, as safely as possible whilst promoting an enquiring mind.
* All students will have access to and experience of learning in a science classroom and using specialist equipment.