

Science Curriculum Intent

24-25

Curriculum Intent:

At FreshSteps, we aim to deliver a **high-quality science education** that lays the foundation for understanding the world through the core disciplines of **biology, chemistry, and physics**. Our curriculum is designed to equip students with essential scientific knowledge, methods, and processes, enabling them to see the relevance of science in **everyday life** and understand its crucial role in shaping the future.

We encourage curiosity by prompting students to ask questions and build on their existing knowledge. Our goal is for students to **collect, analyse, and interpret data**, which will help them develop their own conclusions and hone their problem-solving skills. This approach will not only expand their understanding of the scientific process but also raise their awareness of how Science can be applied to **solve real-world problems**.

Implementation:

- **Progress Mapping:** Each unit of work begins with a **Progress Map**, outlining the key knowledge and skills students will cover. Students complete a pre-teaching assessment to identify their starting point, which allows for personalized learning throughout the unit. The curriculum is designed to accommodate **visual, kinesthetic, and auditory learners**, ensuring inclusivity and catering to the **individual needs** of all students.
- **Wide Range of Topics:** Students explore various topics across biology, chemistry, and physics, such as **human anatomy, plants, atomic structure, elements, forces, momentum, and genetics**. These topics are taught alongside **hands-on practical activities**, helping to nurture creative thinking and problem-solving.
- **Assessment:** At the end of each unit, students complete an assessment to gauge progress and are given the chance to improve their work based on feedback. This approach encourages **growth and reflection**, ensuring that students understand key concepts before moving forward.
- **Long-term Memory & Application:** We use **retrieval practice** to enhance long-term retention of knowledge, and our teaching is designed to relate scientific concepts to **real-life situations**. For students who need additional support, we offer the **AQA Unit Award Scheme**—a flexible way for learners to have their achievements formally recognized. This scheme covers a range of topics, including **classification, states of matter, environment, the heart, and homeostasis**, aligning with both the KS3 and KS4 Programmes of Study.
- **Flexible Learning:** For students requiring extra support with the demands of the GCSE course, the AQA Unit Award offers **smaller, manageable units** that allow them to accumulate achievements gradually, fostering both **confidence and competency** in Science.

Impact:

The impact of our science curriculum at FreshSteps is evident through a variety of positive outcomes:

- **Improved understanding:** Pupils grasp scientific concepts more easily due to a focused and personalized approach to teaching.
- **Enhanced focus:** Students demonstrate **better attention and concentration** during lessons.
- **Consistent progress:** There is noticeable improvement in classwork and in students' ability to **engage with scientific material**.
- **Pride in work:** Pupils show pride in their **workbooks** and the progress they've made.
- **Preparedness for lessons:** Students arrive **ready to work** and are more engaged in their learning.
- **Stronger engagement:** With increased enthusiasm for science, students demonstrate a **willingness to participate**, ask questions, and explore concepts independently.

Through this structured, yet flexible approach to teaching Science, FreshSteps ensures that students are not only prepared for **KS4 and beyond** but are also equipped with the **skills and knowledge** to navigate a world shaped by scientific and technological advancements.