

# Science Curriculum Map



## Intent

Students at Highfurlong are taught the subject of Science through interactive and kinaesthetic lessons which are tailored to their needs. Throughout all phases, the intended learning is sequenced from one key stage to the next to build upon prior knowledge, with the next steps of learning in mind. We develop a knowledge of the Science contained within the National Curriculum and adapt and extend it to suit our various cohorts of students. During our students' journey through school, we aim to develop their enjoyment and interest in Science and an appreciation of its contribution to all aspects of everyday life. Students will be taught about famous scientists, including scientists from different cultures. We encourage all students to relate their scientific studies to applications and effects within the real world and aim to build on pupils' curiosity and sense of awe of the natural world and universe. Through the careful planning of classroom based scientific experiments, we aim to encourage pupils to predict the likely outcome of their investigations and practical activities whilst questioning, researching and observing. All pupils are supported to build up a broad range of vocabulary which is built upon across each year group so pupils can effectively communicate, debate and investigate scientifically. Although topics may be revisited across different key stages we aim to add to the depth of knowledge pupils know about the topics such as animals, space, everyday materials and forces.

## Implementation

Our students journey begins in Early Years Foundation Stage (EYFS) where pupils investigate Science as part of Understanding of the World. Children are encouraged to investigate through practical experiences and teachers guide the children and plan opportunities that allow the children to experience and learn whilst experimenting for themselves. By careful planning, pupils' scientific skills and knowledge gained at key stage 1 will be consolidated and developed across each key stage where there will be an option to choose Science as an external accredited course at key stage 4. Our Academic Pathway meets the minimum expectations of the National Curriculum and beyond whilst the Sensory Pathway, although the National Curriculum is covered, the delivery is adapted to incorporate the Engagement Model, enabling all our students to engage the subject of Science in an applied and meaningful way. Pupils access science through focused observations and explorations of the world around them building up the skills to become more independent during experiments. We have a wealth of resources which are used to enhance teaching in Science. We promote Science not just as a discreet subject but also as a We have a very popular Science afterschool club where pupils complete a range on exciting experiments to ignite an interest in this subject, the pupils have also had the chance to use a real Science lab. We also have a special enrichment group on a Thursday where all pupils have the chance to access Silly Science lessons. Teachers are provided with specialist support and CPD to deliver effective Science lessons.

## Impact

The impact we expect from our intent and implementation of Science is that all learners will develop their ability to understand various scientific principles, as well as to acknowledge when they are seen in their daily life. Our students will develop a sense of enquiry which in turn will encourage them to question, research and investigate. They will be able to use their enquiry and investigating skills to develop strong questioning and to communicate their findings in a variety of ways. They will have a good knowledge of a range of Scientists, past and present and will be aware of their impact on the world around us. Our students will be able to adapt the knowledge they have learnt from Science lessons and use this in their day to day life. Our students' attainment will be measured using our bespoke assessment system which will allow us to evidence the progress pupils have made and identify support they need in order to further grasp scientific principles. Evidence of learning is shared on Seesaw as work, pictures and videos. If pupils want to work towards a career in Science, they will access an external accreditation within Science to provide them with the qualifications they need to prepare for the next part in the learning or career journey.



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## Age Progression

Teaching and learning coverage

