

Intent

Science is a fundamental part of the James Brindley curriculum, delivering scientific challenge and rigour whilst equipping our young people with the skills to think critically, questioning others and themselves without fear of judgment. Our aim is to **nurture** our young people's natural curiosity and to ignite a passion to understand and improve the world around them no matter what the individual needs of the learner may be.

We have developed a science curriculum that is ambitious and **aspirational**, irrespective of individual starting points or academic goals. Our **thrive** informed curriculum aims to equip learners with an understanding that Science is all around us in the world, and that what we learn has real life implications and possibilities. The curriculum is adapted to support the wide range of SEND needs that our pupils exhibit to allow them to access and engage with the content that is delivered. In our teaching centres at key stage 3 we deliver core scientific concepts that underpin our understanding of the subject, enabling our young people to make progress as they move through the school. Concepts are revisited throughout the key stage to ensure coverage regardless of a young person's starting point.

In our teaching centres, we deliver GCSE Combined Science to those learners able to engage with the additional content to achieve two GCSE grades in science. Where our learners are better suited to a single GCSE course, they can study a biology qualification and can achieve one GCSE grade. Entry level science can be delivered to those who are not able to engage with the GCSE examinations but are able to achieve a science award. Each of the courses develop scientific enquiry, practical and investigative skills through the completion of engaging experiments that deepen understanding of the core concepts. In our SPR and hospital settings, the young persons home school direct the areas of study and James Brindley staff identify and modify the available resources to best support the learner. Where appropriate, SPR teachers may use James Brindley's prescribed science curriculum.

Implementation

Our **inclusive** curriculum is delivered via specially designed schemes of work and lesson plans modified from published resources such as Kerboodle. At key stage 3, a spiral curriculum, adapted from Activate, supports a stage not age approach in our teaching centres. This allows core concepts to be revisited to underpin and solidify a young person's understanding in preparation for progress into key stage 4. At key stage 4, the OCR gateway science combined, biology or AQA entry level science courses are underpinned by long term plans supported by a range of resources. All curriculum pathways develop our young person's scientific knowledge and their application of this to new contexts and the world around them. We ensure that the resources used to support our teaching are adaptive to the needs of the learners and, along with additional support of teaching assistants, offer opportunities for our young people to feel **safe** and flourish. Content is adapted to align with the interests of our learners and identify examples of relevant science in everyday life. Recall of past learning is woven throughout the curriculum to support learners to retain information and make links between different topics. We have a strong focus on scientific literacy and use of vocabulary to support our young people to develop their use of the language of science. Learners are encouraged to use glossaries to support them to move from using everyday language to technical language where appropriate. At the end of a topic, formative assessments are used to identify gaps in knowledge and allow timely interventions to be put in place. Staff are supported with continued professional development including training on science disciplinary literacy, exam preparation and health and safety.

Impact

The success of the curriculum is measured by learner attainment in their respective qualifications with progress tracked from their initial baseline upon entry to their final outcomes. On a broader scale, we look at our young people's ability to respond to science in everyday life and make informed and ethical choices rooted in knowledge and understanding. We monitor the engagement of our young people during lessons and adapt our approach accordingly.