





Intent (Curriculum design, coverage and appropriateness)

Subject vision overview: Science is delivered to create meaningful learning that enables our pupils to encounter, experience, develop and use their understanding and knowledge of the world around them. Our Science curriculum recognises the importance of science in our everyday lives and its delivery is adapted to be inclusive and personalised for each learner. Pupils are encouraged to work and think scientifically through practical exploration. Science uses and develops transferrable life skills such as problem solving, predicting, applying and using 'what we know' and communication with others. Science is cross-curricular. Science explores topics such as plants (horticulture), animals and living things, materials and their properties, evolution and inheritance, earth and space, forces and seasons. Science teaching is adapted with an awareness of the cognitive differences associated with language, thinking, processing and memory to ensure that practical and functional skills are explored an age appropriate level.

 Identity	 Independent Learning & Creative Thinking	 Knowledge of the Wider World	 Quality of Life
Science enables pupils to explore, recognise and identify the best ways of working for each individual. This will include noticing, communicating and understanding how personal experiences affect everyone differently e.g. senses, what I need to feel OK, etc. Pupils will be encouraged to use 'what they know' to develop problem solving and thinking to enable them to communicate and use skills successfully for themselves and with others.	Pupils are given opportunities to explore skills and knowledge in a variety of settings. This enables pupils to make links between 'what they know' and 'how they understand'. Science enables incidental learning through the development of thinking skills to make sense of the world around them. We encourage 'side to side' thinking to support problem solving, 'forward thinking' to support making predictions and pupils are encouraged to notice and use strategies e.g. self-regulation to support their engagement and learning.	Pupils develop their knowledge of the world around them through scientific thinking, exploration and experiences both in and outside of the school environment. Science links learning to purposeful cross curricula activities e.g. seasonal change. Pupils are encouraged to make connections e.g. between the seasons and the weather to enable skills for life to develop to make choices for the right weather e.g. noticing what to wear. Pupils will learn to stay safe e.g. from using specialist science equipment to teaching safety around hot objects (baking). Pupils begin to make connections with science and the world around them in everyday life and how to keep safe. Science offers opportunity for practicing thinking skills both in and beyond school.	Pupils are encouraged to communicate their thoughts (predictions) in an environment that supports individualised thinking and a culture that aims to boost self-esteem and confidence. Pupils develop the skills to identify what they need to self-manage e.g. knowing it is ok to make mistakes and exploring a different way of doing things. Pupils are encouraged to make choices independently to support their self-awareness and understanding of the things that are important to them and what makes them feel good. This enables them to practice and develop further or generalise these skills to ensure a good quality of life, independence and become a successful adult with autism.

Implementation (Curriculum delivery, teaching, assessment)

Science uses the Planit scheme, which is then adapted relevant to each student. Twinkl is also used to support lesson planning where work is further adapted for a personalised approach for each student. Lessons are taught using a multisensory approach to learning which includes practical and group work. Lessons are predominantly delivered by a science specialist. Lessons will include the use of scientific vocabulary where appropriate and students are encouraged to think scientifically. Planning and predicting 'what might happen' enables students to explore thinking enabling them to make mistakes and know that they can learn from these. Science is delivered through topics and understanding is supported through communication and scientific exploration incorporating skills for life-long learning e.g. forces topic - the word 'buoyancy' is shared and then examples such as a 'buoyance aid' may be used to encourage connections to the wider world e.g. to make links to safety. Science encourages students to look at their surroundings to make them more aware of the world around them. Science supports enrichment activities including STEM week to further support the opportunity for our students to experience scientific learning through planned activities or trips. Science enrichment offers opportunities for our students to see real life in action science, through cross curricular links. Pupils have opportunities to complete science qualifications including Open Awards Level One Award, Level One Certificate and Open Awards Level Two Award and Level Two Certificate. Some pupils may work towards the ASDAN Certificate in Horticulture.

Impact (attaining and progress, reading, destinations)

Science impacts thinking through planning, predicting, evaluating, guessing, wondering and enables our pupils to explore the unknown in a safe and motivating way. By learning how to apply their thinking to a wide range of experiences and topics we aim for pupils to develop and learn to apply life skills such as problem solving, choice-making, noticing, communicating and working with others into a variety of different situations. Students learn to work with others in science lessons. Science offers transferrable skills in communication, interaction, thinking and planning where our pupils learn that it is 'ok to be wrong' thus building their resilience, confidence and boosting self-esteem. Students gain qualifications in science including Open Awards Level One Award, Level One Certificate and Open Awards Level Two Award and Level Two Certificate. Some pupils may complete ASDAN Certificate in Horticulture. Through science learning expands to horticulture and practical hands on experiences where pupils learn self-occupacy, creativity and can access the wider world as they leave school and continue into further education working in horticulture environments. Science links to living things and accessing environments beyond school such as zoo, nature parks, areas of interest etc. all offering enrichment, independence and knowledge of the wider world in life as an adult.