Computing Rationale

Our Computing curriculum encompasses all aspects that are integral to becoming computer literate. **It incorporates carefully selected knowledge and skills which is brought to life in a meaningful and exciting way for pupils.** From our Early Years and beyond, pupils learn about computer science, digital literacy and information technology. Our curriculum is constantly evolving as a result of worldwide developments, taking into account new and emerging technologies and the contribution it has to accomplish specific objectives or goals.

Cross-curricular links are a valuable and creative way to develop children's knowledge, skills and understanding, as well as stimulating curiosity. Our computing curriculum holds strong links with English, Maths, Art and Design, and PHSE.

Units such as online safety are not just taught discretely in computing lessons but are also thread through the school in other aspects – such as online safety assemblies and workshops with external visitors.

We consider links to real-life experiences to be valuable to learning and so are found throughout our computing curriculum. This is particularly prevalent in Key Stage 2, where children's understanding of spreadsheets aids them in budgeting and organising fundraisers and school events.

Knowledge organisers are shared with pupils and children are supported to learn the key knowledge within them; **this helps to develop pupils' schema, transferring knowledge from their short-term to long-term memory**. Schema is developed due to the knowledge in the knowledge organisers building on prior learning from previous topics, but also previous year groups.

Other strategies to help pupils learn the curriculum include retrieval practice and deliberate practice. **Vocabulary is taught explicitly so that pupils have a greater grasp of technical and subject specific vocabulary** and they can relay this throughout a unit of work.

Some aspects within a unit of work are covered in every year group, providing pupils with opportunities of deliberate practice so that core learning, knowledge and vocabulary is regularly consolidated; for example coding - which is taught in every year group from Year 1 to Year 6- pupils have a more comprehensive understanding of how to code and create algorithm to achieve a specific outcome.

The safer use of technology is threaded within all units of work. Our second unit of work introduces pupils to more age-specific content to support them with staying safe when using technology, identifying potential risks and dangers, recognising their digital footprint, what would be acceptable or unacceptable use of technology and how to report content or contact which they have received.

The computing curriculum is carefully planned and sequenced, knowledge is carefully planned and regularly reviewed and developed. Where appropriate, units end with a finished product which allows the children to showcase the content and procedural knowledge they have learnt. An example of this can be seen in Year 5, where the children are taught aspects of game design throughout the unit and subsequently are asked to independently design a 3D game.

Assessment opportunities are carefully planned so that they are purposeful, support learning and inform us as to whether our curriculum and or the delivery of it is effective.