

Computing – Triple I



RIDGEWAY
Primary School

Intent

To develop a curriculum which:

- Intends to develop 'future thinkers' through a modern, ambitious and relevant education in computing.
- Equips pupils to use computational thinking and creativity that will enable them to become active participants in an ever-developing digital world.
- Ensure pupils acquire a relevant and deep knowledge of computing vocabulary that they can use accurately.
- Teaches pupils via an up to date curriculum scheme (Teach Computing) which is based on the most recent pedagogical research and developed by subject experts.
- Ensures pupils understand how to use ever-changing technology to express themselves as tools for learning and as a means to drive their generation forward into the future.
- Ensure pupils become respectful, responsible and confident users of technology who are aware of the measures they can take to keep themselves and others safe online.
- Provides a computing curriculum that is designed to balance acquiring a broad and deep knowledge alongside opportunities to apply skills in various digital contexts.
- Offers opportunities for pupils to apply and develop what they have learnt across wider learning in the curriculum.

Implementation

Our scheme of work for computing is based on the 'Teach Computing' scheme which covers all aspects of the national curriculum.

- This scheme has been created by subject experts and provides a good baseline of plans and resources for our teachers to use and adapt, as they see fit, to support the learning needs of pupils in their class.
- The Teach Computing scheme provides an innovative progression framework where computing content (concepts, knowledge, skills and objectives) has been organised into interconnected networks called learning graphs.
- Our curriculum can be broken into three stands: computer science, information technology and digital literacy.
- The curriculum will teach pupils to understand and apply the fundamental principles and concepts of computer science (including abstraction, logic, algorithms and data representation).
- It will allow pupils to analyse problems in computational terms and have repeated practical experience of writing computer programs in order to solve such problems.
- It will ensure pupils can evaluate and apply information technology, including new and unfamiliar technology, analytically to solve problems
- It will teach pupils to be responsible, competent, confident and creative users of information and communication technology.
- The scheme of work is progression so pupils can build on their prior knowledge and skills from previous year groups and develop these as they progress through the school.
- Teachers will adapt resources, where necessary, to ensure all pupils can access the curriculum and teachers can use resources from previous year groups to plug any gaps in knowledge before moving onto their year group relevant knowledge and skills.
- We will use 'Flashbacks' to support the retention of computing knowledge, skills and vocabulary and use these as opportunities to assess how well pupils are developing.
- To support our teaching of online safety, we use the Project Evolve framework.
- The Project Evolve framework is used to support and broaden the provision of online safety education so that it is empowering, builds resilience and effects positive culture change.
- Project Evolve supports teachers in our school to promote the development of safe and appropriate long-term behaviours and support them in shaping the culture within the school setting and beyond.

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- Within each year group, the Project Evolve topics include: Self-image and identity, Online Relationships, Online Reputation, Online Bullying, Managing Online Information, Health, Well-being and Lifestyle, Privacy and Security and finally, Copyright and Ownership.
- To support with the implantation of our computing curriculum we have a variety of hardware available to all teachers including: a class set of laptops, a total of 50 iPads for pupils. In addition each classroom is equipped with an interactive whiteboard, teacher laptops and a teacher iPad.
- To encourage the use and development of computing skills at home, all homework is set on the online platform Seesaw. This gives pupils the opportunity to become more fluent in using technology and prepares them for a digital future.

Impact

- Children will achieve age related expectations in Computing at the end of their academic year.
- Children will use relevant and age-appropriate vocabulary to discuss what they have learnt.
- Children will develop their computing skills to equip them for an ever-developing technological world.
- Children will be engaged and enthusiastic in their computing lessons to learn new concepts, skills, knowledge and vocabulary.
- Children will retain key knowledge, skills and vocabulary from previous year groups via the use of regular Flashbacks.
- Children will become responsible and safe online users and will be able to articulate and demonstrate how to keep themselves (and others) safe online.
- Children will be able to apply their computing skills and knowledge across the curriculum to produce computer-based work in other subjects such as English, Science, Maths, History, Geography, etc.