



Computing

Curriculum Intent

At Bentley High Street, we intend to enable children to become confident consumers and creators of content. We intend for children to follow pillars of progression by understanding the foundations, application and implication of computing. We aim to give children equal and progressive exposure to Computer Science, Information Technology and Digital Literacy whilst knowing how to protect themselves and others by being safe online. We believe that an expansive computing curriculum prepares children for later life and for jobs that do not exist in an ever-changing world. Our computing curriculum is expansive over explicit teaching, wider curriculum and the celebration of world events such as 'Safer Internet day'. At Bentley High Street we teach computing aligned with our trust values of 'Inspire, Integrity, Include, Exceed'. We expect all pupils to be active in understanding the core principles of computing which are:

- Understanding the theory behind programmes and computing concepts. Building onto their understanding of *why* technology is a key part of our society and *how* technology helps us in our world. We also aim for pupils to understand how digital devices work and the mechanisms of running a digital device.
- Pupils are encouraged to explore different software and hardware and learn through curiosity. Children are taught to **tinker** as a method of discovering new learning and reviewing prior learning. Tinkering is a vital skill that allows pupils to develop their understanding through exploration.
- Pupils are part of the **creation** process of many digital artefacts at Bentley High Street. Pupils are encouraged to apply their knowledge practically in order to create a variety of different outcomes. Pupils are taught to be part of the creation process from design to development.
- All pupils are encouraged to work collaboratively in parts of the computing process, which pupils will do on and offline. This enables pupils to practice key social skills as well as beginning to understand how **collaboration** is a key part of the technological workforce.
- Pupils will be taught to **debug** programmes and software they have made. They are taught to ask how to improve their learning or to reflect on their process for creation in order to make small changes. Enhancing problem solving skills is a focus for thinking computationally and all pupils will have the chance to pattern spot and amend. Knowing that debugging problems in all areas of learning is vital to growth and for the effectiveness of the end outcome.

In Early Years, pupils are still taught the key principles of computing as listed above so the progression of skills starts from our earliest pupils. Pupils explore the understanding of the world (knowing how technology has changed over time and that actions have an outcome). Exploring and using media and materials (looking at images online, following patterns and instructions, exploring maps on whiteboards) and being imaginative (sequencing patterns and stories, tinkering with new technologies introduced).

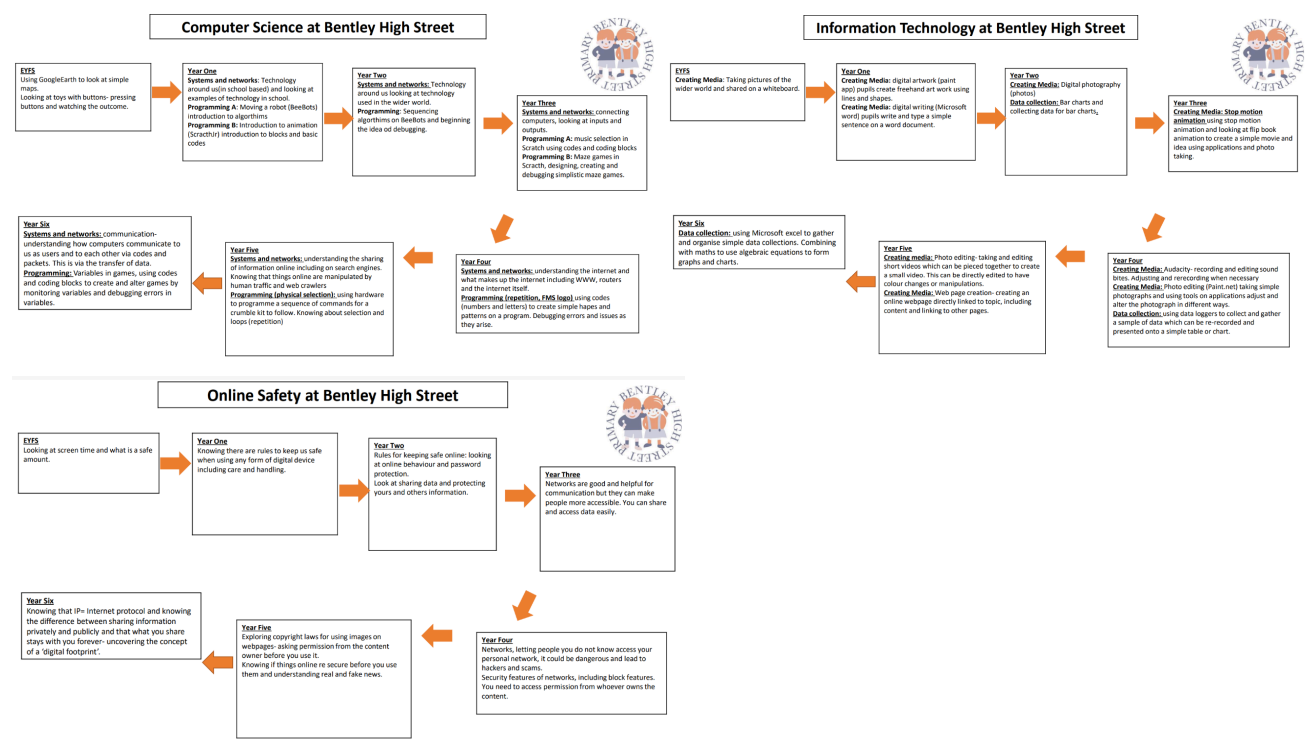
Our school places high importance on Online Safety. This area of computing is mapped vigorously throughout the safeguarding curriculum ensuring that our pupils know how to keep themselves and others safe. We aim for children to be conscious digital consumers and that they know what to do should anything arise online. We explore online safety in dedicated lessons, on special events, in termly assemblies and interwoven with our Jigsaw lessons.



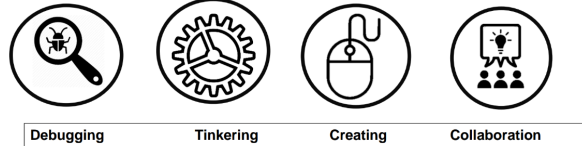
Curriculum Implementation Subject Content and Organisation Across School

We teach computing in sequences of learning across the year:

- Each Year group will cover an aspect of Computer Science, Digital Literacy and Information Technology.



- All year groups must cover a range of Collaboration, Creation, Debugging and Tinkering



All pupils will get to experience online and offline computing. Pupils will have the opportunity to use a wide range of software to cover a wide range of skill from music creation to using Microsoft Excel for algebraic equations. We aim to provide children with a mixed diet of software and hardware which progress as their skill and understanding does. At the end of each unit each child will have made a quality, product which they can then evaluate.

Teacher's will assess children's knowledge through a range of observation notes, written or oral communication, collaboration, problem solving skills and practical skills applied to a finished product. Children record their learning through the understanding of how technology is, design of product and creation of a product and how well they evaluate their learning at the end of the creation sequence.

All sequences will have a high quality end outcome to show a cumulation of the learning throughout the sequence - this may be a podcast, animation, programme, collaborative document etc and is dependent upon the sequence. These will be displayed in floorbooks.



Memory is developed through retrieval and practice of skills - this takes place termly and pupils will revisit the hardware and software from the current year and previous years with hands-on activities to allow them to use the programmes and knowledge that they have acquired.