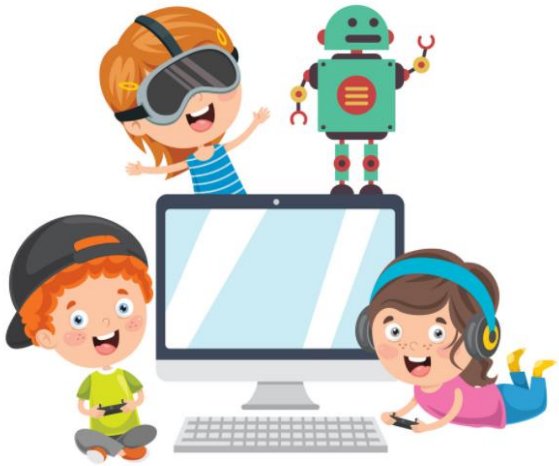
Windmill Hill Primary School

Windmill Hill is committed to lifelong learning within a caring environment. Together we make a difference."

Subject Information

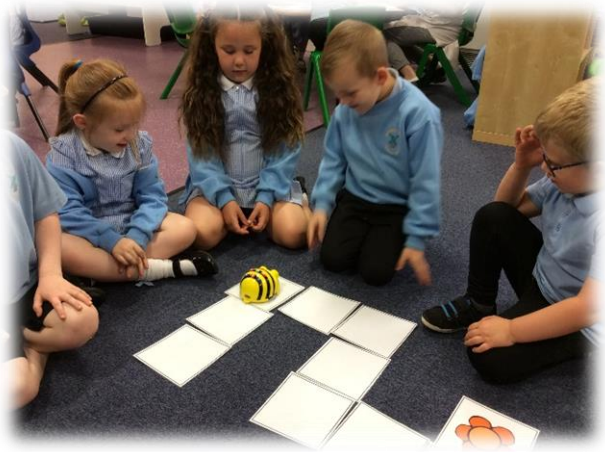
Computing



Developing our pupils' digital literacy skills is fully in line with our learner profile to develop our children as knowledgeable Inquirers, open minded and principled communicators and caring and reflective thinkers able to flourish in a high tech world.

The skills of a great computing student:

- The ability to collaborate, communicate and express yourself effectively by choosing the right media and applications from a range of information, communication technology.
- Confidence and creativity to tinker with technology and explore ideas.
- Curiosity to ask questions and the perseverance to want to know more.
- The ability to make connections and links between learning in maths, science and design technology.
- Resilience to be able to see the challenge of overcoming errors, bugs and mistakes as important and exciting steps to learning and discovery.
- Systematic thinking to break instructions, processes and systems down into small steps.
- Adaptability and confidence to transfer and applying existing skills and knowledge to new situations and technologies.
- Being SMART online and having fun!



Our vision for computing:
At Windmill Hill Primary we aim to deliver a relevant, engaging and high-quality computing curriculum. To be successful and active participants workforce in the future, all of our pupils to be digitally literate and able to use a range of information and communication technology.

We are also striving to embed computing and digital skills across the entire curriculum so that pupils have the opportunity to select the most appropriate and effective media and software to express themselves and communicate ideas and information.

The 3 main strands to the computing curriculum:

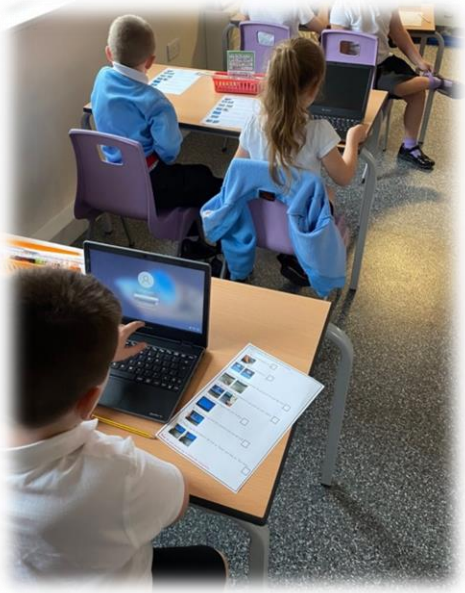
- **Computer Science** - in which children are given the opportunity to explore how applications and software are made through programming (coding) and how things actually work “under the bonnet” of our digital devices. They will develop their

creativity, computational thinking and logic, to design digital solutions for the world around them.

- **Information Technology** - in which children will use applications and develop their word processing skills to present their ideas. They will work creatively, linking with many of the other subjects in the wider curriculum, using a wide range of apps to create, save and retrieve data, music, art, photography, animations and their written work (plus more!).

- **Digital Literacy** - in which children will become confident, creative, respectful, responsible online users. Children will develop online skills to safely explore, safely manage their own online image and their online relationships. They will also develop their understanding of the World Wide Web and the Internet it is built on. The children will also connect to many of the other curriculum subjects via their own research.

Click here to see the National Curriculum Programme of Study for Key Stages 1 & 2.



Outlined below are the key areas of our aims for the teaching of computing at Windmill Hill

Intent

At Windmill Hill Primary school pupils leave as confident, capable and creative users of digital technology, with a secure understanding of the fundamental principles of computer science and as safe, responsible and discerning digital citizens.
Our Computing Curriculum aims to develop pupils' computational thinking and creativity so that they can 'understand and change the world'. We recognise that computing has three inter-related aspects, and these are covered in each year:

- Computer Science (the foundations of computing, covering coding and computational thinking).
- Information Technology (the applications of computing, including working with documents, data and digital media.)
- Digital Literacy (the implications of computing for individuals and society).

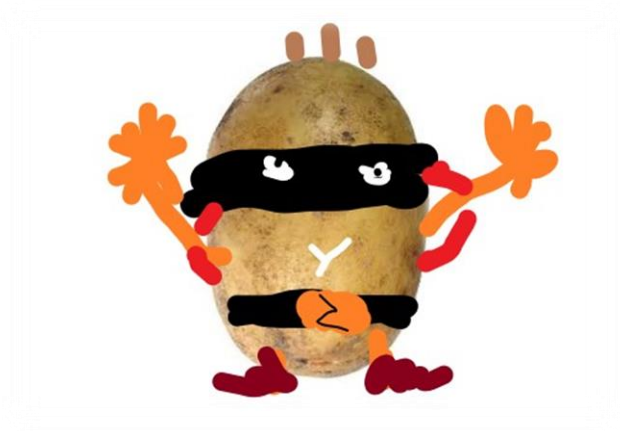
Our Computing Curriculum also recognises the 'spiral' nature of progression within computing: new knowledge, skills and understanding within each of the strands of the subject build on what's gone before.

Implementation

Teachers follow the devised curriculum map for computing which is based on the 'Switched on Computing' scheme of work. 'Switched on Computing' recognises that computing is, at its heart, a practical and creative subject, with pupils learning best when they're consciously engaged in digital artefacts to share with others. These can be as simple as digital images or musical compositions through to complex collaborative projects and sophisticated, well-tested programs of their own. Throughout the scheme, pupils develop skills in working with others, including contributing to and leading shared group work. They become adept at giving constructive, critical feedback, and on acting on feedback they receive from their peers. Units in the scheme typically include some cross-curricular connections to things pupils will be studying elsewhere in the curriculum, helping them see how computing can be applied in a wide range of contexts, but also to promote retention as pupils make and reinforce the connections between new ideas.

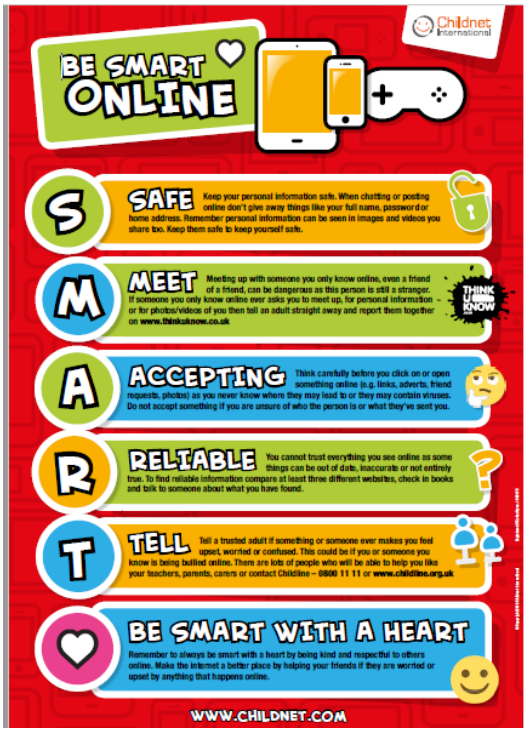
Impact

Each unit in our computing curriculum has a list of differentiated learning outcomes to allow teachers to assess where pupil's work fits within age related expectations. Each unit has a set of multiple choice questions to encourage children to recall and apply their learning. Pupils use SeeSaw to build up a portfolio of their computing work. This demonstrates how their skills and thinking has developed over their years at school.



E-Safety

Windmill Hill takes E-Safety extremely seriously. We have an E- Safety Policy and Acceptable Use Policy that provides guidance for teachers and children about how to use the internet safely, as well as a Home/School agreement. Every year group participates in lessons on E-Safety and children understand how to stay safe when using technology. The profile of E-Safety is further raised each year through the participation in E-Safety Week across the school. As part of CPD, staff complete relevant training on a range of important areas, e.g. PREVENT, safeguarding and grooming.



Additional Information for parents regarding E-Safety can be found here:

https://www.twinkl.co.uk/blog/parents-guide-to-online-safety-for-primary-school-children

and

https://www.internetmatters.org/resources/online-safety-guide/