

## The Computing Curriculum at Hunsley Primary

At Hunsley Primary we use the 'Teach Computing' curriculum which is devised by the National Centre for Computing Education. It is built around an innovative progression framework where computing content has been organised into interconnected networks and has been created by subject experts, using the latest pedagogical research. We have chosen this curriculum framework because we recognise that our children arrive with a wealth of experience on specific technology devices. For example, the children are often very able to navigate tablet and phone technology, but may not yet have been exposed to some of the key skills required to be able to independently use a range of technologies in different contexts such as a laptop, Chromebook or netbook. Our children often already know how to use touch screen technology and apps to play games, but are unaware of key skills such as how to log on, type using a keyboard, using a mouse and be able to understand that different platforms represent information in different ways.

Through our curriculum, our children will understand how to be online safely and learn different digital ways to communicate, analyse and present information, produce artwork, make music and create their own programs. They will have the necessary skills, when they leave us in Year 6, to progress in a continually technologically advancing world. Our curriculum gives them a range of opportunities to try things out, solve problems and learn from their own mistakes in a safe, stimulating environment. Children will be able to apply their skills in maths, art, English and music to help them in their computing learning. They take their computing skills into other lessons too, for example producing a presentation in geography, or a quiz in history. They use their online searching skills across all areas of the curriculum. Our curriculum helps children identify the positive and negative influences of technology on health and the environment and make informed decisions about their use.

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn	Children in Reception develop their 'pre-computing' skills such as following instructions. They develop their familiarity with a range of apps and using an iPad. They show an awareness of different types of technology and their purposes both in school and at home. They talk about how to stay safe when using these.	Computing systems and networks  Technology around us Creating media – Digital painting	Computing systems and networks – IT around us  Creating media – Digital photography	Computing systems and networks – Connecting computers  Creating media - Stop-frame animation	Computing systems and networks – The internet  Creating media - Audio production	Computing systems and networks - Systems and searching  Creating media - Video production	Computing systems and networks - Communication and collaboration  Creating media – Web page creation
Spring		Programming A – Moving a robot  Data and information – Grouping data	Programming A – Robot algorithms  Data and information – Pictograms	Programming A - Sequencing sounds  Data and information – Branching databases	Programming A – Repetition in shapes  Data and information – Data logging	Programming A – Selection in physical computing  Data and information – Flat-file databases	Programming A – Variables in games  Data and information – Spreadsheets
Summer		Creating media – Digital writing  Programming B - Programming animations	Creating media - Digital music  Programming B - Programming quizzes	Creating media – Desktop publishing  Programming B - Events and actions in programs	Creating media – Photo editing  Programming B – Repetition in games	Creating media – Introduction to vector graphics  Programming B – Selection in quizzes	Creating media – 3D Modelling  Programming B - Sensing movement

### Key Threshold Concepts

- Our children know how to keep themselves safe online. They also have a clear knowledge of acceptable online behaviour.
- Our children know how to search for information, use web browsers and find information online.
- Our children can use technology for many purposes: drawing graphs, analysing information, producing artwork, presenting information, communicating and making music.
- Our children have an understanding of basic programming and use design to devise their own programs. They can turn a more complex programming task into an algorithm by identifying the important aspects of the task and then decompose them in a logical way using their knowledge of possible coding structures. They test and debug a program as they go and can use logical methods to identify the approximate cause of any bugs.
- Our children know what a database is and how this can be used. They can use spreadsheets to organise and present information.
- Our children understand how a blog can be used as an informative text and its key features.
- Our children know how to send and receive emails. They can add an attachment to an email. They know how to do this safely.