# Computing at Bridge Primary School.

At Bridge Junior School, our children enter in Year 3 having learnt the KS1 curriculum and having a range of experiences outside of school using different devices. Most children start school with an understanding of how to use mobile phones and tablets to play games and watch videos. Whilst they are able to use mobile devices, they are often not as aware of other areas of IT and computing (other the experiences in KS1), especially using desktop computers or laptops. In KS1 the children have learnt the basics of online safety using social media, programming and collecting. We build these experiences using a progressive and thorough curriculum to ensure that children leave Bridge with the skills to enable them to be lifelong learners through a rapidly changing world. We encourage students to be 'young citizens of conscience' and to be aware of the consequences of their actions. Our computing curriculum has been designed to equip children with the creative and transferable skills to in order to prepare them for the demand of KS3 curriculum and ultimately the world of work. We want children to be safe in the digital world by supporting them with techniques and knowledge to remain safe online. It is essential for children to know how to access ideas, experiences and knowledge from a wide range of sources, thus encouraging them to make links across their learning. Our children deliberate develop a wide range skills in Computer science, Digital literacy and IT through a range of interactive and engaging lessons. We build knowledge and skills incrementally to ensure the children can use technical vocabulary and apply transferable computing skills to the tasks set. Through the computing curriculum, children are enabled to find, explore, analyse, exchange and present information with technology. The computing curriculum allows them build this deliberate practice regularly and equips children with a love and proficiency in computing, which will help them in all areas of the curriculum.

## The organisation.

Our curriculum is inclusive and meets the needs of all children; developing positive attitudes to learning. The skills and knowledge that children develop throughout each Computing topic have been mapped across each year group and are progressive throughout the school and reflect the National Curriculum objectives. The students have access to resources which aid in the acquisition of skills and knowledge, such as hardware (laptops, iPads, digital cameras, tablets) and relevant software. Across all year groups, our teaching facilitates progression within the strands of digital literacy, information technology and computer science. Computing lessons are in units that are ordered specifically across the school. Each year group starts with Coding, as this unit teaches a variety of skills that underpin later understanding. Other units are organised to fit in with other areas of the curriculum, for example in Year 3, the children learn how to make branching databases and this ties in with their work on classifying rocks in science. The scheme of work is adapted from Purple Mash, lessons are tailored to the needs our students and units of work picked to ensure coverage of the National Curriculum and engagement of pupils. The units selected ensure that children learn to use programs that they are likely to encounter at secondary school and in the work place, for example in Year 6 the children learn to use Excel (after using more basic spreadsheets in Years 3 and 4) and in Year 5 they learn how to use Word. Students have the opportunity to explore and respond to key issues, including digital communication, cyberbullying, online safety, security, plagiarism and social media. Furthermore, teaching the safe use of digital systems is a concept implemented into the wider curriculum. The importance of online safety is shown through displays within the learning environment. The curriculum highlights what a child should know in terms of current online technology, its influence on behaviour and development, and what skills they need to be able to navigate it. Additionally, students also spend time further exploring the key issues associated with online safety events throughout the year, such as Internet Safety Day. Parents are also informed when issues relating to online safety arise and further information/support is provided if required.

## The impact.

Every child develops their confidence through our curriculum, which promotes self-belief and high aspirations. Children are provided with opportunities to develop the knowledge and skills to excel as lifelong learners. Children understand how to keep themselves, others and the environment safe. We will do this through kindness and collaboration.

The implementation of our Computing curriculum ensures students will be competent and safe users of technology. They will be able to use it to accomplish a wide variety of goals, both at home and in school. Students will have a secure and comprehensive knowledge of the implications of technology and digital systems. This is important in a society where technologies and trends are rapidly evolving.

Our children to ask questions with an enquiring mind to solve problems, understand the difference between right and wrong and appreciate other cultures and traditions and to respect others. Children at Bridge use the Internet on a regular basis as an integral part of their learning. In school, we have regular 'e-safety' activities to remind children of the importance of keeping themselves safe online. In our changing world, children are ever more exposed to a variety of different media and information. Increasing provision of the Internet both in and out of school brings with it the need to ensure our learners are safe! They leave the school prepared with the skills and knowledge to be responsible, effective and literate users of a wide variety of programs and devices, preparing them for later life.

# The National Curriculum Expectations.

**Key Stage One Expectations.**

**Prior Learning**

Pupils should be taught:

- understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
- create and debug simple programs
- use logical reasoning to predict the behaviour of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital
- content
- recognise common uses of information technology beyond school
- use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

**Key Stage 2 Expectations.**

Pupils will be taught:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.