Computing Curriculum

Intent, Implementation, Impact

With our children at the heart of our school we aim to provide:

• An inclusive environment where all children thrive and feel safe
• A broad and rich curriculum where our children can explore their thoughts, feelings and ideas.
• A curriculum which provides the breadth and depth for our children to develop as a whole child.
• A curriculum which is enhanced by other experiences to widen our children's knowledge

Curriculum Intent	Curriculum Implementation	Curriculum Impact
Our intent is to provide a curriculum which enables our children to be computer literate by the time they leave primary school, allowing them to survive in the technological world in which we live. This includes: • Knowing how to use basic desktop productivity software to create digital content • Being able to design; write and debug programs through coding • Understanding how search engines work and understanding the importance of internet safety. • In line with our Harnessing Technology Maximising Learning (HTML) strategy, offering every child access to an iPad, our curriculum aims to provide the skills and confidence to enable all pupils to use their iPad effectively within the wider curriculum to support their learning. There are three fundamental aspects to computing that our curriculum intends to cover: Computer Science, Information Technology and Digital Literacy. **Computer Science:** Computer Science includes teaching children how to design, write and debug programs, controlling physical systems, understanding what algorithms are and how to use variables.	Our Computing Curriculum is high quality and is planned to demonstrate progression and build on and embed current skills. We focus on progression of knowledge and skills in the different computational components and discrete subject vocabulary is taught. The Computing overview details how the National Curriculum objectives are mapped out for each year group, to show full coverage and progression of skills through the use of purple mash. We use Purple Mash as a foundation for teaching, we also enjoy the flexibility of using Computing to enhance our Cornerstones lessons and further engage the pupils in leading their own learning by the use of office 365 tools on the iPads, green screens and making videos to demonstrate what we have learnt. Throughout the course of Key Stage 1 and Key Stage 2 our children learn to use a range of productivity software, including Microsoft Word, Microsoft PowerPoint, Microsoft Excel through the HTML strategy. Children will also cover digital content through purple mash software to create presentations and to use spreadsheets effectively. Aspects of the Harmony Pledge are also achieved through the computing curriculum for example, we teach children to	Children talk enthusiastically about their computing knowledge and skills. Children are able to articulate the potential risks of online work and can identify ways to keep themselves safe. Children are able to use the appropriate computing vocabulary to talk about their learning. Children are able to use software, hardware and apps independently.

In KS1 children will:
- Understand what algorithms are, how they are implemented on digital devices, and that programs execute by following a sequence of instructions.
- Create and debug simple programs.
- Use logical reasoning to predict the behaviour of simple programs
- Children will then write and test their own simple programs using the 2Code software on purple mash.

In KS2 children will:
- Design and write 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; generate appropriate inputs and predicted outputs to test programs.
- Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs.

Information Technology:

Information Technology teaches pupils how to use a range of devices and software to create, organise and store digital content.

In KS1 children will:
- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.
- Recognise common uses of information technology beyond school.

In KS2 children will:
- Understand computer networks including the internet; how they can provide multiple services, such as the worldwide web; and the opportunities they offer for communication and collaboration.
- Describe how Internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including

be Workwise by organising their work efficiently using Office 365 cloud storage.

Online Safety is a key part of the curriculum which we deliver through the use of National Online Safety, Purple Mash and. This curriculum is taught throughout the year and is planned in line with UKCIS – Education for a Connected World (2020) framework.

All children in Y3-6 have been provided with an ipad – these are used to support learning both in the classroom and at home.

collecting, analysing, evaluating and presenting data and information.

Online Safety

At Reigate, we believe that the safety of children is of the utmost importance and their safety is paramount.

In KS1 children will:

- Use technology safety 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

In KS2 children will:

- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.