Intent

At Cromwell Academy, we understand the significant value technology plays in supporting the whole school curriculum, day-to-day life of our school and also the increasing role it plays in our pupils' lives as they grow older. We believe that technology can provide: enhanced collaborative learning opportunities; better engagement of pupils; easier access to rich content; support conceptual understanding of new concepts and can support the needs of all our pupils.

Staff are well equipped to provide effective teaching of Computing, carefully monitored by the subject leader through assessments, moderation of evidence files, CPD, pupil voice and drop-in lesson observations.

Our aim is for all our pupils to develop their computational thinking skills and creativity. At the core of the Computing curriculum lies computer science. Our children are able to build on their knowledge using information technology skills and by becoming computer literate. To supplement teaching and learning, we have access to a range of teaching tools, including Purple Mash, which provide a firm basis for teaching the curriculum as well as effective resourcing to support learning. In addition, these resources allow for cross-curricular links between computing and all other curriculum areas to ensure learning is embedded and applied regularly to enhance understanding.

At our school we want pupils to be MASTERS of technology and not slaves to it. Technology is everywhere and will play a pivotal part in students' lives. Therefore, we want to model and educate our pupils on how to use technology positively, responsibly, creatively and safely. We want to develop pupils who are digital leaders and creators rather than consumers and our broad curriculum, which encompasses computer science, information technology and digital literacy, reflects this. We want our pupils to understand that there is always a choice with using technology and as a school we utilise technology to model positive use, recognising that the best prevention for current technological issues concerning young people is through good education around eSafety. We want our pupils to be fluent with a range of tools to best express their understanding and, by the end of their primary years, our children will have the independence and confidence to choose the best tool to fulfil any task or challenge they face.

Implementation

Computing at Cromwell Academy is taught in a number of meaningful, contextualised and varied ways.

All Computing lessons begin with the children acknowledging the online safety rules which are rehearsed and applied at all times across the school community.

In the Early Years the emphasis is placed on cross-curricular learning, using hands-on experiences. It is planned and assessed as part of their Understanding the World. Teaching is through context-based and role play experiences using a range of resources such as iPads, laptops, interactive screens and programmable toys.

From Year One upwards, we supplement our curriculum sequence using Purple Mash as a cohesive scheme of work addressing the statutory aspects of the National Curriculum. Alongside this, we use a range of further tools to support teaching delivery and learning application, including but not limited to;
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As well as the teaching foundation provided by these tools and applications, we also enjoy the flexibility of using Computing to enhance our wider curriculum lessons and further engage the pupils in leading their own learning. They are able to use technology imaginatively and creatively whilst also becoming efficient, independent learners and critical thinkers. The use of PRO Pods for personal research opportunities encourages the independent use of technology to enhance learning in all areas.

We believe that this transference of skills can aid in teaching pupils the strategies and knowledge necessary to enable them to reap the benefits of the online world, whilst minimising risk to themselves or others.

The learning sequence is mapped out across the school as follows:

Computing	Understanding of the World – Technology	Online Safety Grouping and Sorting/Pictograms	Coding Online Safety	Coding Online Safety	Coding Online Safety	Coding Online Safety	Coding Online Safety
		Lego Builders/Maze Explorers Animated Stories	Spreadsheets Questioning/ Effective Searching	Spreadsheets Typing/Email	Spreadsheets Writing for different audiences	Spreadsheets Databases	Spreadsheets Blogging
	Use a range of devices to explore information, interactive games and multi-media.	Coding Spreadsheets	Creating Pictures/Making Music Presenting Ideas.	Databases/Graphing Simulations	Logo/Animation Effective Search/Hardware Investigators	Game Creators 3D modelling	Text Adventures Network/Quizzing

Key Stage 1:

- Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions.
- Write and test simple programs.
- Organise, store, manipulate and retrieve data in a range of digital formats.
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

Key Stage 2:
- 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.
- 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.
- 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 collecting, analysing, evaluating and presenting data and information.

Impact

Learners will be safe, resilient and reflective in the use of technology. They will apply a broad knowledge and skill set in a range of meaningful ways that equip them for the next stage of education and beyond.

The way pupils showcase, share, celebrate and publish their work will best show the impact of our curriculum. Leaders carefully monitor the quality of teaching by reviewing pupil's knowledge and skills digitally, through pupil voice and observation of teaching and learning.

Technology provides access to experiences that would otherwise not be possible, particularly for pupils from disadvantaged backgrounds, ensuring crucial links can be made between learning new knowledge and experiences. This enables children to know more and remember more.

Teachers assess pupils' knowledge and ability within lessons and as part of a termly assessment cycle. This enables teachers and leaders to identify next steps in learning and plan accordingly to ensure progress. Evidence folders are kept to provide hard-copy samples of pupils' work in each class and work done through Purple Mash is saved electronically in the children's personal document folders.