COMPUTING

Our curriculum Champions have been created to inspire and motivate the children to find out more and be interested in Computing. The champion for Computing is Codebreaking Caleb and he is seen around school on displays and in curriculum assemblies.

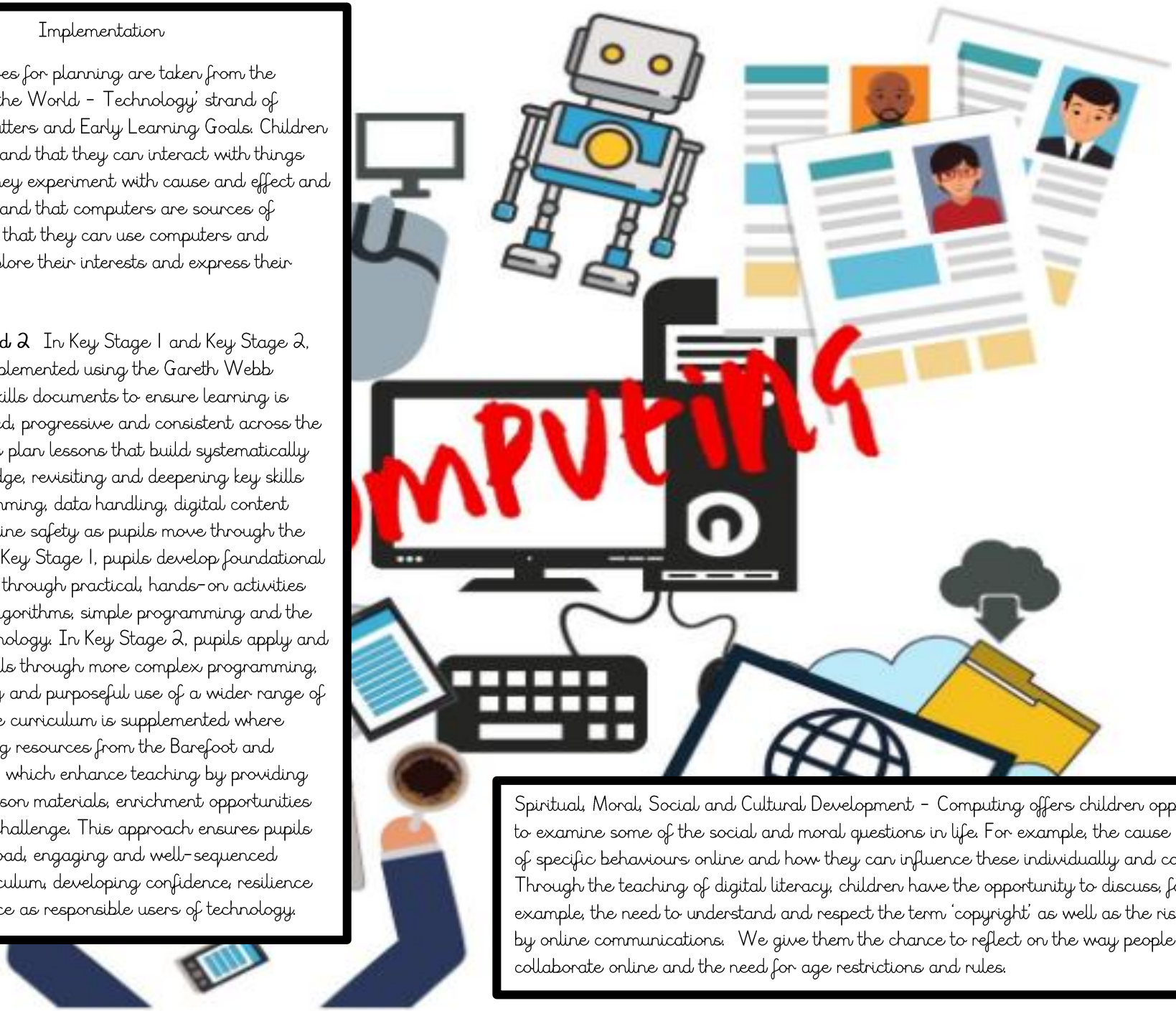
Intent

Our computing curriculum aims to provide a relevant, challenging and enjoyable learning experience for all pupils, equipping them with the skills and knowledge needed to thrive in an increasingly digital world. We ensure that teaching meets the full requirements of the National Curriculum for Computing while responding to ongoing developments in technology. Pupils are taught to use computing as a purposeful tool to enhance learning across the wider curriculum, supporting creativity, problem-solving and critical thinking. A strong emphasis is placed on developing pupils' confidence and capability in using technology both now and in their future lives. Online safety is embedded throughout the curriculum, ensuring that pupils understand how to use technology safely, responsibly and respectfully, preparing them to become confident digital citizens.

Implementation

EYFS Objectives for planning are taken from the 'Understanding the World – Technology' strand of Development matters and Early Learning Goals. Children begin to understand that they can interact with things around them. They experiment with cause and effect and begin to understand that computers are sources of information and that they can use computers and programs to explore their interests and express their ideas.

Key Stage 1 and 2 In Key Stage 1 and Key Stage 2, computing is implemented using the Gareth Webb progression of skills documents to ensure learning is clearly sequenced, progressive and consistent across the school. Teachers plan lessons that build systematically on prior knowledge, revisiting and deepening key skills such as programming, data handling, digital content creation and online safety as pupils move through the year groups. In Key Stage 1, pupils develop foundational computing skills through practical, hands-on activities that introduce algorithms, simple programming and the safe use of technology. In Key Stage 2, pupils apply and extend these skills through more complex programming, problem-solving and purposeful use of a wider range of digital tools. The curriculum is supplemented where appropriate using resources from the Barefoot and Kapow schemes, which enhance teaching by providing high-quality lesson materials, enrichment opportunities and additional challenge. This approach ensures pupils experience a broad, engaging and well-sequenced computing curriculum, developing confidence, resilience and independence as responsible users of technology.



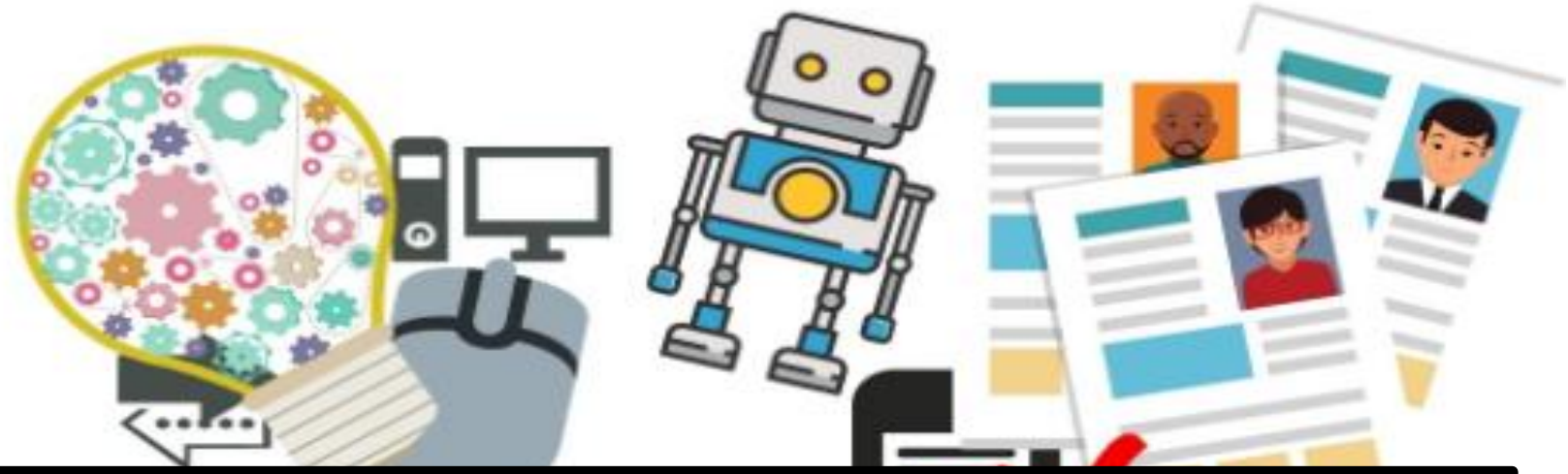
Spiritual, Moral, Social and Cultural Development – Computing offers children opportunities to examine some of the social and moral questions in life. For example, the cause and effect of specific behaviours online and how they can influence these individually and collectively. Through the teaching of digital literacy, children have the opportunity to discuss, for example, the need to understand and respect the term 'copyright' as well as the risks posed by online communications. We give them the chance to reflect on the way people collaborate online and the need for age restrictions and rules.

Enrichment opportunities

We offer enrichment opportunities that extend learning beyond the core curriculum, including STEM-focused activities, clubs, and projects that encourage creativity, critical thinking, and exploration of individual interests.

British Values

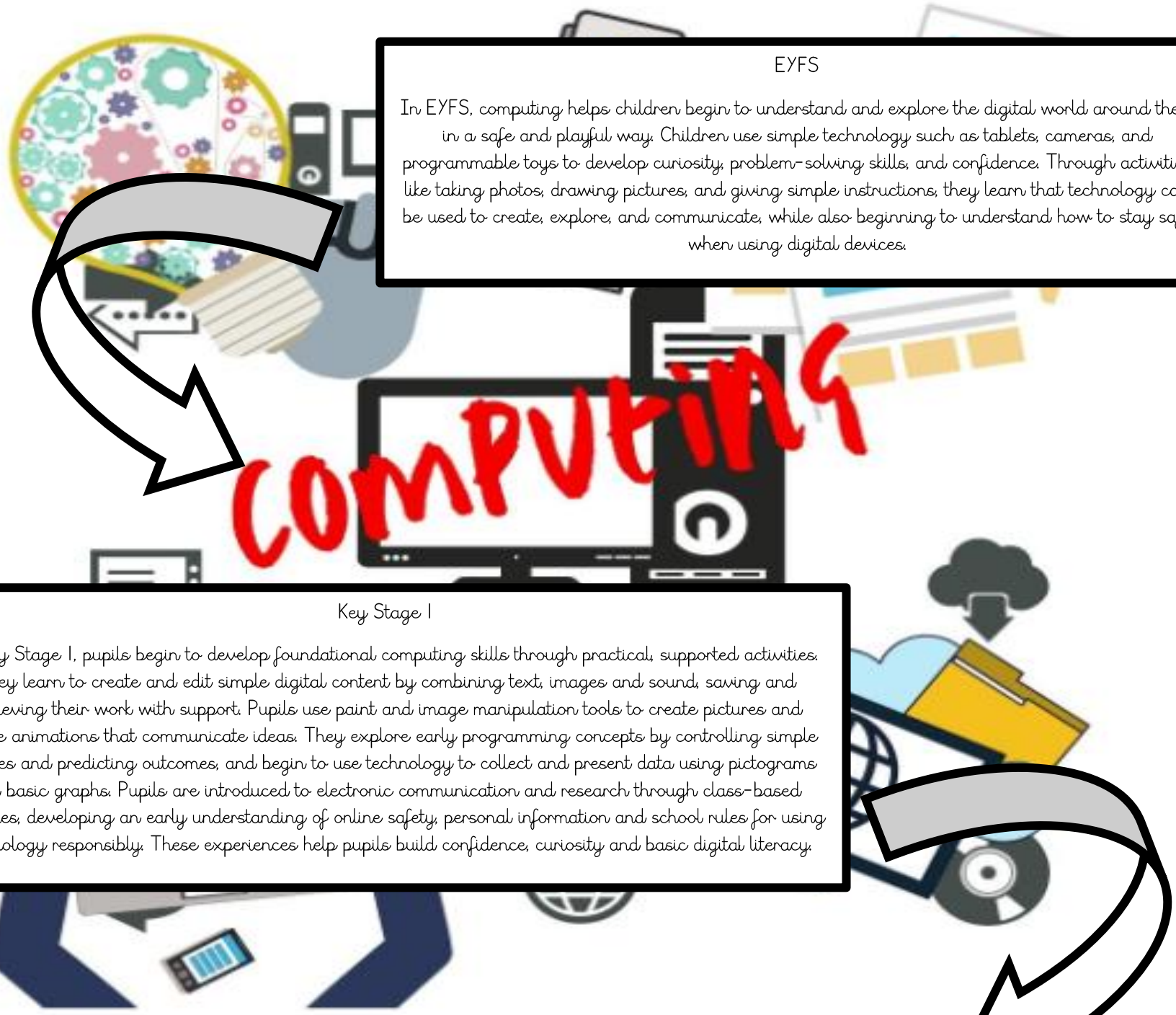
The teaching of Computing at our school actively promotes British values by encouraging critical thinking, collaboration, creativity, and responsible online behaviour. Through the National Curriculum, pupils develop digital skills alongside important social values, learning to work both independently and collaboratively on projects and problem-solving tasks. Computing lessons foster responsibility, mutual respect, and an understanding of the importance of online safety, fairness, and respectful communication. Pupils are given opportunities to express their ideas, create digital content, and evaluate information, promoting individual liberty, democracy, and tolerance. By exploring digital citizenship and ethical use of technology, children develop a strong sense of responsibility towards themselves, others, and the wider online community.



Impact

We assess children's learning in Computing by making informal judgements as we observe and discuss concepts with them during lessons and assess against a key skills grid after each unit

Teachers make a summative assessment of the children's attainment in Computing at the year and record on Insight. The school report indicates the attainment that children have made at the end of each year



EYFS

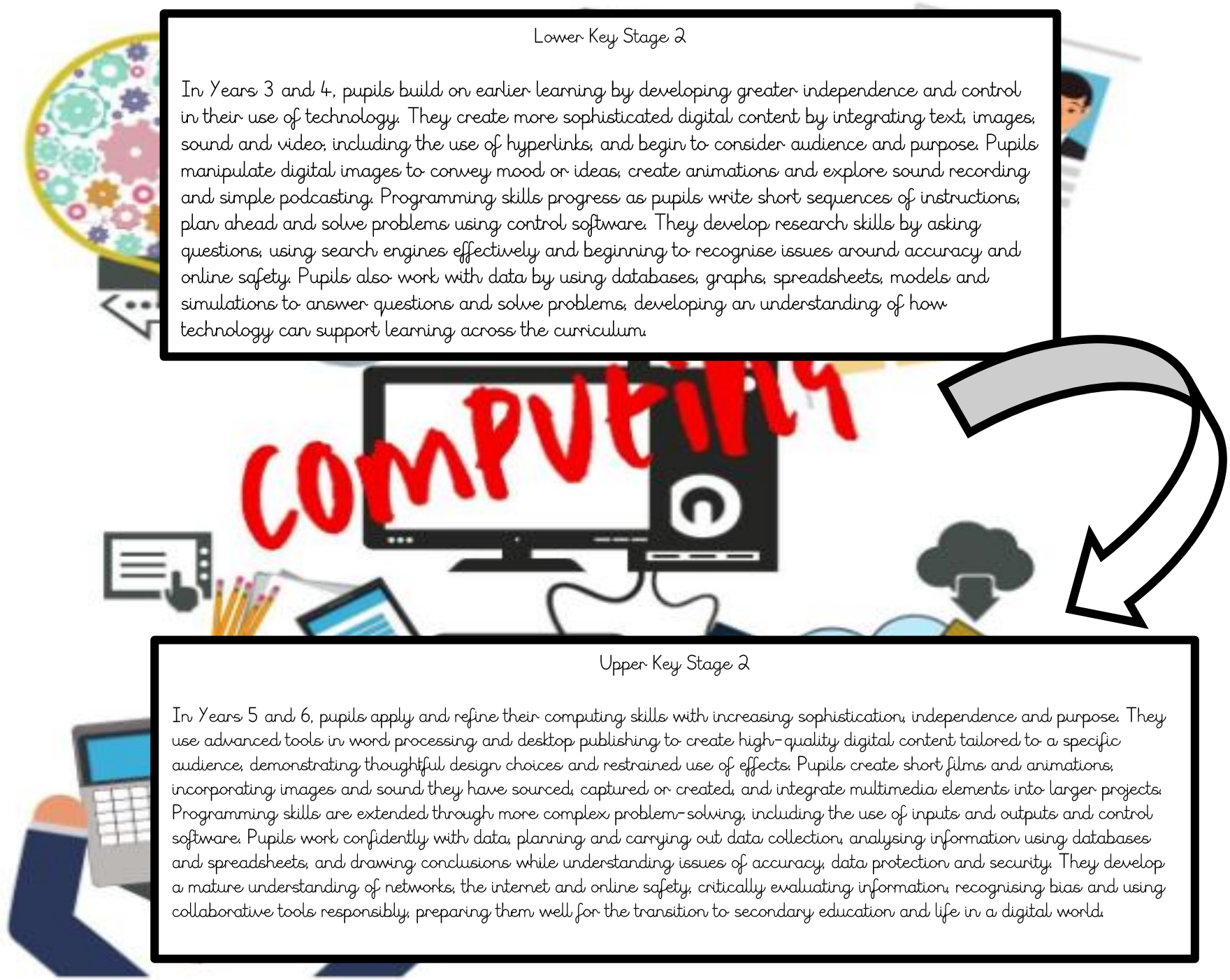
In EYFS, computing helps children begin to understand and explore the digital world around them in a safe and playful way. Children use simple technology such as tablets, cameras, and programmable toys to develop curiosity, problem-solving skills, and confidence. Through activities like taking photos, drawing pictures, and giving simple instructions, they learn that technology can be used to create, explore, and communicate, while also beginning to understand how to stay safe when using digital devices.

Key Stage 1

In Key Stage 1, pupils begin to develop foundational computing skills through practical, supported activities. They learn to create and edit simple digital content by combining text, images and sound, saving and retrieving their work with support. Pupils use paint and image manipulation tools to create pictures and simple animations that communicate ideas. They explore early programming concepts by controlling simple devices and predicting outcomes, and begin to use technology to collect and present data using pictograms and basic graphs. Pupils are introduced to electronic communication and research through class-based activities, developing an early understanding of online safety, personal information and school rules for using technology responsibly. These experiences help pupils build confidence, curiosity and basic digital literacy.

Lower Key Stage 2

In Years 3 and 4, pupils build on earlier learning by developing greater independence and control in their use of technology. They create more sophisticated digital content by integrating text, images, sound and video, including the use of hyperlinks, and begin to consider audience and purpose. Pupils manipulate digital images to convey mood or ideas, create animations and explore sound recording and simple podcasting. Programming skills progress as pupils write short sequences of instructions, plan ahead and solve problems using control software. They develop research skills by asking questions, using search engines effectively and beginning to recognise issues around accuracy and online safety. Pupils also work with data by using databases, graphs, spreadsheets, models and simulations to answer questions and solve problems, developing an understanding of how technology can support learning across the curriculum.



Upper Key Stage 2

In Years 5 and 6, pupils apply and refine their computing skills with increasing sophistication, independence and purpose. They use advanced tools in word processing and desktop publishing to create high-quality digital content tailored to a specific audience, demonstrating thoughtful design choices and restrained use of effects. Pupils create short films and animations, incorporating images and sound they have sourced, captured or created, and integrate multimedia elements into larger projects. Programming skills are extended through more complex problem-solving, including the use of inputs and outputs and control software. Pupils work confidently with data, planning and carrying out data collection, analysing information using databases and spreadsheets, and drawing conclusions while understanding issues of accuracy, data protection and security. They develop a mature understanding of networks, the internet and online safety, critically evaluating information, recognising bias and using collaborative tools responsibly, preparing them well for the transition to secondary education and life in a digital world.

Phase	Area of Computing	Vocabulary
EYFS	Exploring Technology	computer, tablet, mouse, keyboard, screen, button
	Using Technology	click, type, swipe, tap, open, close
	Creating with Technology	picture, photo, video, sound, draw
	Online Awareness	internet, safe, share, private, help
Key Stage 1	Digital Literacy	device, log in, password, save, delete, file
	Computer Science	instruction, command, sequence, algorithm
	Programming	code, program, debug, run, robot
	Information Technology	text, image, font, edit, format
	Online Safety	personal information, trusted adult, permission, online
Lower Key Stage 2	Computer Science	algorithm, repetition, loop, condition, debug
	Programming	block code, input, output, event
	Data & Information	data, table, chart, database, sort
	Information Technology	presentation, slide, animation, audio
	Online Safety	communication, privacy, password, report
Upper Key Stage 2	Computer Science	variable, selection, iteration, decomposition
	Programming	text-based code, function, procedure, error
	Data & Information	spreadsheet, formula, graph, filter
	Systems & Networks	network, server, client, internet, protocol
	Online Safety	digital footprint, copyright, reliable, secure