

Below outlines the learning focus for each term

KS1 End Points			
Algorithms/Problem solving			
<ul style="list-style-type: none"> understand: -what algorithms are -how algorithms are implemented as programs on digital devices -that programs execute by following precise and unambiguous instructions 			
Programming			
<ul style="list-style-type: none"> create and debug simple programs 			
Logical thinking			
<ul style="list-style-type: none"> use logical reasoning to predict the behaviour of simple programs 			
Creating content			
<ul style="list-style-type: none"> use technology purposefully to create, organise, store, manipulate and retrieve digital content 			
Using IT beyond school			
<ul style="list-style-type: none"> Recognise common uses of information technology beyond school 			
E-safety			
<ul style="list-style-type: none"> 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 			
Term	Learning Focus		Cross Curricular links
	Knowledge	Skills	
Autumn 1	Computer Science Espresso Coding 2.0 - Block Coding Level 2 – Different sorts of input <ul style="list-style-type: none"> An algorithm is a sequence of instructions to complete a task. Sets of directions or movements are an example of an algorithm. Programs are sequences of code. These are precise instructions (or a set of rules) that can be understood and followed by a computer. To understand that programs respond to different sorts of input (keyboard and mouse) To understand that the information I put online leaves a digital footprint To know how to keep personal information private 	<ul style="list-style-type: none"> To program objects to move, hide, show and turn when a key is pressed (key press events) To program objects to move by pressing and releasing the mouse button (pointer pressed/released events) To create a loop (repeating set of instructions) To program objects to match the mouse pointer's position To explain how to be SMART online To sort personal information into safe and not safe to share 	English - children use language associated with giving instructions Maths - position and movement

Autumn 2	Information Technology – MS Paint <ul style="list-style-type: none"> To understand that MS Paint can be used create digital art To understand that programs respond to different sorts of input (keyboard and mouse) To know that the undo tool can be used to correct mistakes Saving your image means storing it (as numbers) in the computer / device To use a painting program to develop simple graphical awareness, as a class 	<ul style="list-style-type: none"> To change the colour and size of dots To draw lines and fill spaces with colour To rotate, resize and colour shapes To produce lighter and darker shades of a colour To duplicate and alter colours of an image To save and retrieve digital content 	Art – linked to colour mixing in Autumn 2 & Summer 1
Spring	Computer Science Espresso Coding 2.0 - Block Coding Level 2 – Buttons and instructions <ul style="list-style-type: none"> An algorithm is a sequence of instructions to complete a task. Sets of directions or movements are an example of an algorithm. Programs are sequences of code. These are precise instructions (or a set of rules) that can be understood and followed by a computer. To understand that programs respond to different sorts of input (keyboard and mouse) To know how to create and debug simple programs Debugging means finding and correcting mistakes in a computer program algorithm Google's search engine lists web pages containing the keywords that were searched for. A Google custom search searches only a specific list of sites A URL is a web page address (location) for a particular page on a website 	<ul style="list-style-type: none"> To program buttons to control other objects (button click events) To add and name new buttons on the design screen To practise debugging code To identify and use websites appropriate for children Follow the e-safety rules (see key knowledge) and tell a teacher if they see an image that concerns them. 	
Summer 1	Digital Literacy – MS PowerPoint <ul style="list-style-type: none"> To understand that MS PowerPoint can be used to create digital presentations Recognise common uses of information technology beyond school Know how to create a presentation including slides, text, images, transitions and animation 	<ul style="list-style-type: none"> To insert and format the layout of slides To insert images by copying and pasting To insert and format text boxes To add animations to images and text boxes To add transitions to slides To save and retrieve digital content 	Digital Literacy – pupils practice effective presentation of information
Summer 2	Computer Science – Coding with Scratch Junior <ul style="list-style-type: none"> An algorithm is a sequence of instructions to complete a task. Sets of directions or movements are an example of an algorithm. Programs are sequences of code. These are 	<ul style="list-style-type: none"> Create sequences of move instructions. Implement algorithms as programs using block-based programming (Scratch). Add instructions to display a sequence of texts. 	Literacy - links to the study of character, dialogue and narrative. The use of a storyboard to plan myths and

	<p>precise instructions (or a set of rules) that can be understood and followed by a computer.</p> <ul style="list-style-type: none"> Scratch is a simple block-based programming language in which programs for characters are built by snapping together code blocks To understand that programs respond to different sorts of input (keyboard and mouse) Sprites are on-screen characters that can be given their own sequence of instructions to produce outputs. Examples of outputs that sprites can produce in ScratchJr are the sprite moving, the sprite saying something (displaying text), or playing a sound. In ScratchJr, Yellow triggering blocks, e.g. 'start on green flag', cause code to be run after a certain event.* Computers can be programmed to run the same code repeatedly. This is called repetition. Using repetition makes programs quicker to write 	<ul style="list-style-type: none"> Use different events to launch code. Give logical explanations for what programs will do when run. . Record audio and add instruction to play audio. Test and debug programs for sprites in Scratch Jr Work with input and output in Scratch Jr Use repetition in a program. 	<p>legends extended writing piece.</p> <p>P.E - outdoor and adventure activities, giving and following directions</p> <p>Reading - using predictions skills.</p>
Online Safety	<p>Online Safety</p> <ul style="list-style-type: none"> To understand that the information I put online leaves a digital footprint To understand how to safely search using search engines To recognise whether a website is appropriate for children 	<ul style="list-style-type: none"> To keep personal information private To use keywords in an online search to find key information about a topic To use search engines and websites appropriate for children To be able to identify kind and unkind behaviour online 	<p>PSHE – Keeping Safe</p>

Intent

We know that computing and digital technology is going to play a pivotal role in our children’s lives and as a result we aim to develop ‘thinkers of the future’. We aim for our children to be digital creators rather than just consumers when using technology and to equip them to navigate the rapid and extraordinary changes taking place in digital technology effectively and safely.

Our curriculum, encompassing computer science, information technology, digital literacy and online safety, is progressive, ambitious and carefully sequenced. Children know that they need to face and overcome challenge in computing lessons; they accept that they will fail, will need to persevere and develop skills as logical, computational thinkers. We offer children access to a wide range of software, platforms and devices to help them, using technology as a tool for both creativity and learning. We want our children to be active participants in the digital world, whilst ensuring they are respectful, responsible and confident users; children will constantly be made aware of measures they can take to keep themselves, and others, safe online.

Implementation

Our children follow a carefully structured Computing curriculum which has been designed to ensure children know more, do more and remember more as they progress through our school. Our content is supported by advice, requirements and guidelines presented in the National Curriculum.

Computing is taught weekly. Detailed medium-term planning supports teaching, ensures continuity and carefully plans for progression and depth. Children have opportunities to use high quality resources and materials to support their learning. Wider Curriculum links and opportunities for the safe use of digital systems are

considered in wider curriculum planning.

Our computing curriculum is inclusive for all children; each lesson is sequenced so that it builds on the learning from the previous session. Where appropriate, activities are scaffolded so that all children can succeed, children may be provided with extra resources and support, such as visual prompts, so that they can reach the same learning points as the rest of the class.

Impact

A high quality computing education aims to develop a range of programming and technological skills that are transferable to other curriculum areas, including Science, Mathematics, English and History. As pupils progress through KS1 and KS2 children will become increasingly confident in:

- The application of their digital skills,
- Becoming increasingly efficient and effective communicators, collaborators and analysts,
- Showing imagination and creativity in their use of ICT in different aspects of their learning and life beyond school.
- E-safety and the risks involved when using the internet.

The impact of the computing curriculum is assessed continuously against the age-related expectations in computing for each year group. In doing so, we are ensuring that the necessary support is provided for all children to have a good understanding of the primary computing curriculum whilst allowing us to effectively differentiate tasks for students.

Other methods of judging the impact of the computing curriculum offered are through the following methods:

- Pupil discussions and interviewing the pupils about their learning (pupil voice).
- Monitoring planning of lessons by the subject lead and providing feedback.
- Photo evidence and images of the pupils' practical learning.
- Monitoring of children's work.