East Preston Infant School
Computing Progression Overview

Intent:

We aim for the children to confidently and independently use and apply information technology skills to support and extend their learning and be safe when participating in activities online.

Implementation:

This will be achieved through three aspects of the computing curriculum: Computer Science, Information Technology and Digital Literacy. Computing is taught in our suite and also embedded into other curriculum subjects in the classroom setting.

Intended Impact:

- The children will learn to think logically, understand programming
- Know about online safety
- Be able to use a variety of software to create content

Year Group	Computer Science	Information Technology	Digital Literacy
Reception **Emerging** **ELG**	• Is able to open/turn on a device • Successfully uses the touch screen • Can use a mouse to action a program • Children can give instructions to move a programmable toy	• Can select a required app or program • Can log-in using their password and username	• Can talk about what it means to be safe online
Reception Key Vocabulary	iPad, camera, instructions, program, screen, swipe, button, app, device, tablet, password, username, online, mouse, keyboard, pointer, click, right-click, left-click, save		
Year 1	• Children can think about the need for precise, purposeful, ordered instructions. • Children know that an algorithm is a set of instructions used to solve a problem or achieve an objective. • Children know that an algorithm written for a computer to follow is called a program. • Children know that any unexpected outcome is due to the code that they have created and make logical attempts to try to fix this code (debugging). • Children can consider the purpose of a program when designing it and can construct their code purposefully to make objects interact. • Children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program.	• Children can create, store and retrieve their own work. • Children can create an interactive story. They can manipulate the properties of their story by changing the images, adding animations and sound as well as typing, copying and pasting pages. • Children know the importance of saving their work, overwriting saved files and retrieving their saved work. • Children can manipulate how a program looks by adding and changing backgrounds, characters, sounds and objects. • Children use the sounds with 2Sequence to create a composition. They demonstrate their ability to manipulate digital content by editing and amending their composition. • Children can use a paint program to create an image replication of an established style e.g. pointillism	• Children understand what is meant by technology and can identify a limited number of examples both in and out of school. • Children understand the importance of keeping information, such as their usernames and passwords private and actively demonstrate this in lessons. • Children take ownership of their work and save this in a shared folder. • Children use an age-appropriate search engine (Kiddle) to find information online.

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Year One Key Vocabulary	Build on Reception vocab computer, direction, arrow, rewind, forward, backwards, right turn, left turn, button, sort, keys, delete, password, information, save, program, debug, predict, instruction, action, background, undo, animation, e-Book, font, file, sound effect, backspace, clipart, lock, technology, username, private, online, code, cursor, search engine, algorithm		
Year 2	• Children can explain that an algorithm is a set of instructions to complete a task. • Children show an awareness of the need to be precise so that algorithms can be successfully translated into code. • Children can create a program that achieves a specific purpose. • Children can identify and correct errors (debugging). • Children can identify the parts of a program that respond to specific events and initiate specific actions. • Children can predict and describe using a cause and effect sentence, what will happen in a program.	• Children can enter data into cells, allocate a value to an image and present data in a variety of ways. • Children can create pictograms to represent data. • Children use a binary tree to sort information and can manipulate their data, answering questions relating to this. They can store and retrieve data. • Children can use tools to enhance a picture, demonstrating their ability to manipulate a digital image. • Children can efficiently store and retrieve their work from their saved area in order to edit. • Children can organise their knowledge and understanding from research projects into simple presentation software.	• Children understand the terminology, layout and features of a search engine. • Children can effectively retrieve relevant, purposeful digital content using a search engine. • Children understand how to use online search engines and know the implications of inappropriate searches. • Children begin to evaluate information online and are able to consider the reliability of sources. • Children begin to understand how things are shared electronically including an awareness of photo permissions. • Children develop an understanding of how to use email safely and responsibly. • Children develop an understanding of appropriate behaviours when using online forums. • Children know how to report inappropriate content to their teacher.
Year Two Key Vocabulary	Build on Year 1 vocab algorithm, program, debug, backspace, columns, rows, spreadsheet, pictogram, question, data, store, present, report, search, input, command, code, code block, sprite, background, cause and effect, cells, image, edit, copy, paste, slide, purpose, value, email, inappropriate, content, attachment, binary tree, compose, manipulate, digital footprint		

National Curriculum

The National Curriculum for Computing aims to ensure that all pupils:

- 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 program
- 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 or other online technologies.

Assessment

Teachers view children's Computing skills regularly and make on-going assessments against the learning intention.