

# East Preston Infant School

## Computing Progression Overview



### Intent:

At East Preston Infant School, 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:

- Through Computing, our 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
<b>Reception</b>	Is able to open/turn on a device	Can select a required app or program	Can talk about what it means to be safe online
<b>Emerging</b>	Successfully uses the touch screen	Can log-in using their password and username	
<b>ELG</b>	Can use a mouse to action a program		
	Children can give instructions to move a programmable toy		
<b>Reception Key Vocabulary</b>	iPad, camera, instructions, program, screen, swipe, button, app, device, tablet, password, username, online, mouse, keyboard, pointer, click, right-click, left-click, save		
<b>Year 1</b>	<p>Think about the need for precise, purposeful, ordered instructions</p> <p>Know that an algorithm is a set of instructions used to solve a problem or achieve an objective</p> <p>Know that an algorithm written for a computer to follow is called a program</p> <p>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)</p> <p>Consider the purpose of a program when designing it and can construct their code purposefully to make objects interact</p> <p>Read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program</p>	<p>Create, store and retrieve their own work</p> <p>Create an interactive story and manipulate the properties of their story by changing the images, adding animations and sound as well as typing, copying and pasting pages</p> <p>Know the importance of saving their work, overwriting saved files and retrieving their saved work</p> <p>Manipulate how a program looks by adding and changing backgrounds, characters, sounds and objects</p> <p>Use the sounds with 2Sequence to create a composition</p> <p>Demonstrate their ability to manipulate digital content by editing and amending their composition</p> <p>Use a paint program to create an image replication of an established style</p>	<p>Understand what is meant by technology and can identify a limited number of examples both in and out of school</p> <p>Understand the importance of keeping information, such as their usernames and passwords private and actively demonstrate this in lessons</p> <p>Take ownership of their work and save this in a shared folder</p> <p>Use an age-appropriate search engine (Kiddle) to find information online</p>

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<b>Year One Key Vocabulary</b>	<b>Build on Reception vocab</b>		
	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		
<b>Year 2</b>	<p>Explain that an algorithm is a set of instructions to complete a task</p> <p>Show an awareness of the need to be precise so that algorithms can be successfully translated into code</p> <p>Create a program that achieves a specific purpose</p> <p>Identify and correct errors (debugging)</p> <p>Identify the parts of a program that respond to specific events and initiate specific actions</p> <p>Predict and describe using a cause and effect sentence, what will happen in a program</p>	<p>Enter data into cells, allocate a value to an image and present data in a variety of ways</p> <p>Create pictograms to represent data</p> <p>Use a binary tree to sort information and can manipulate their data, answering questions relating to this. They can store and retrieve data</p> <p>Use tools to enhance a picture, demonstrating their ability to manipulate a digital image</p> <p>Efficiently store and retrieve their work from their saved area in order to edit</p> <p>Organise their knowledge and understanding from research projects into simple presentation software</p>	<p>Understand the terminology, layout and features of a search engine</p> <p>Effectively retrieve relevant, purposeful digital content using a search engine</p> <p>Understand how to use online search engines and know the implications of inappropriate searches</p> <p>Begin to evaluate information online and are able to consider the reliability of sources</p> <p>Begin to understand how things are shared electronically including an awareness of photo permissions</p> <p>Develop an understanding of how to use email safely and responsibly</p> <p>Develop an understanding of appropriate behaviours when using online forums</p> <p>Know how to report inappropriate content to their teacher</p>
<b>Year Two Key Vocabulary</b>	<b>Build on Year 1 vocab</b>		
	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		
<b>National Curriculum</b>			
<p>The National Curriculum for Computing aims to ensure that all pupils:</p> <ul style="list-style-type: none"> <li>• Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</li> <li>• Create and debug simple programs</li> <li>• Use logical reasoning to predict the behaviour of simple program</li> <li>• Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</li> <li>• Recognise common uses of information technology beyond school.</li> <li>• 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.</li> </ul>			
<b>Assessment</b>			
Teachers observe children's Computing skills regularly and make on-going assessments against the end points for the lesson. Activities for each half-term are highlighted to evidence knowledge and understanding of the half-term's end points.			