

A Westdale Digital Citizen Computing Knowledge Progression

Year 1 National Curriculum

Pupils should be taught to:

- 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 programs
- 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 on the internet or other online technologies.

What should I already know?

What I will know by the end of this learning

Computer Science	<p>I know that an algorithm is a set of instructions used to solve a problem or achieve an objective.</p> <p>I know that an algorithm written for a computer is called a program.</p> <p>I know how to work out what is wrong with a simple algorithm when the steps are out of order.</p> <p>I know how to write my own simple algorithm.</p> <p>I know how to make logical attempts to fix a code.</p> <p>I know how to predict what will happen.</p>
Digital Literacy + see online safety knowledge in PSHRE progression	<p>I know how to log onto software (Purple Mash).</p> <p>I know how to navigate to work in the 2Do section of Purple Mash.</p> <p>I know the importance of keeping information private, such as my username and password.</p> <p>I know how to save learning in my own private space e.g. (save and hand in) on Purple Mash.</p> <p>I know who to tell when I see something that makes me feel uncomfortable.</p>
Information Technology	<p>I know how to find saved digital learning and retrieve it.</p> <p>I know how to follow simple instructions to access online resources.</p> <p>I know how to add sound, text, a background and animations in 2Createastory.</p>

CODE

I know how to run a command on a device.
I know how to follow an instruction.
I know how to give directions

CONNECT

I know how to use a computer to paint a picture.
I know how to select and open a programme or application.

COMMUNICATE

I know how to write a message with letters, numbers, space keys and full stops on an iPad.

COLLECT

I know how to match objects to groups.
I know how to group and count objects.
I know how to group similar objects.

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I know how to find and use the commands to move a sprite.	I know how to save and close a programme or application.	I know how to use backspace to remove text. I know how to type capital letters. I know how to use 'undo' to remove change.	I know how to group objects in more than one way. I know how many objects share a property.
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Year 2 - National Curriculum

CS - 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 programs.

IT - Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

DL - 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 on the internet or other online technologies.

What should I already know?		What I will know by the end of this learning
<p>I know that an algorithm is a set of instructions used to solve a problem or achieve an objective.</p> <p>I know that an algorithm written for a computer is called a program.</p> <p>I know how to work out what is wrong with a simple algorithm when the steps are out of order.</p> <p>I know how to write my own simple algorithm.</p> <p>I know how to make logical attempts to fix a code.</p> <p>I know how to predict what will happen.</p> <p>I know how to log onto software (Purple Mash).</p> <p>I know how to navigate to work in the 2Do section of Purple Mash.</p>	Computer Science	<p>I know that an algorithm is a set of instructions to complete a task.</p> <p>I know that algorithms need to be precise so they can be successfully converted into code.</p> <p>I know how to identify and correct some errors.</p> <p>I know the reasons for needing logical and systematic steps.</p> <p>I know how to write a cause-and-effect sentence of what will happen in a program (when I click the 'x', the 'x' will...).</p>
	Digital Literacy + see online safety knowledge in PSHRE progression	<p>I know how to use a search engine safely.</p> <p>I know email shares information electronically.</p> <p>I recognise that images can be changed (sizes, shape, position).</p> <p>I know that not all pictures I see are 'real' (AI/airbrushing).</p> <p>I know how to report inappropriate behaviours and content to a trusted adult.</p>
	Information Technology	<p>I know how to organise data.</p> <p>I know how to create, name, save and retrieve content by myself or with limited support.</p> <p>I know how to use photos, text and sound in my digital learning.</p>

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<p>I know the importance of keeping information private, such as my username and password.</p> <p>I know how to save learning in my own private space e.g. (save and hand in) on Purple Mash.</p> <p>I know who to tell when I see something that makes me feel uncomfortable.</p> <p>I know how to find saved digital learning and retrieve it.</p> <p>I know how to follow simple instructions to access online resources.</p> <p>I know how to add sound, text, a background and animations in 2Createastory.</p>		
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Disciplinary Knowledge Y2

<p>CODE</p> <p>I know how to choose a series of words that can be enacted as a sequence.</p> <p>I know how to give clear and unambiguous instructions.</p> <p>I know how to create different algorithms for a range of sequences (using the same commands).</p> <p>I know how to plan algorithms for different parts of a task.</p> <p>I know how to test and debug each part of the program I know how to put together the different parts of my program.</p>	<p>CONNECT</p> <p>I know how to find examples of information technology (Ipad, tablet, phone, laptop, PC, gaming devices).</p> <p>I know that images can be changed.</p>	<p>COMMUNICATE</p> <p>I know how to open a file.</p> <p>I know how to move and resize images.</p> <p>I know some uses of information technology and how they help people.</p> <p>I know how to use a music program to experiment with pitch and duration.</p>	<p>COLLECT</p> <p>I know how to organise, record and read data (e.g. a tally chart).</p> <p>I know how to use a computer program to present information in different ways (e.g. bar chart, line graph).</p>
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Computing Knowledge Progression**