



Orton Wistow Primary School – Curriculum Plan



Subject: Computing

Year : 3

Term : Autumn



Vocabulary

Define the word and include etymology if useful.



Knowledge

What children will know

Learning	Teaching	Assessment
Remembering	Telling	Testing



Understanding

What children will understand

Learning	Teaching	Assessment
Practising	Coaching	Observing



Skills

What children will be able to do

Learning	Teaching	Assessment
Reflecting	Facilitating	Evaluating

Computer Science-- 2Code

Action - Types of commands, which are run on an object. They could be used to move an object or change a property

Algorithm - a precise step by step set of instructions used to solve a problem or achieve an objective.

Bug - A problem in a computer program that stops it working the way it was designed.

Code Design – Design what your program will look like and what it will do.

Command - A single instruction in a computer program.

Control - These commands determine whether parts of the program will run, how often and sometimes, when.

Debug/Debugging - Looking for any problems in the code, fixing and testing them.

Event – Something that causes a block of code to be run.

Input - Information going into the computer. Can include moving or clicking the mouse, using the keyboard, swiping and tilting the device.





Object - An element in a computer program that can be changed using actions or properties. In 2Code, buttons, characters and vehicles are types of objects.

Output - Information that comes out of the computer e.g. sound. Repeat - This command can be used to make a block of

- Children will know the terms object, action, output, control and event and know how these relate to codes they can create.
- Children will know that there are different forms of computer code and the blocks used in '2Code' is just one.
- Children will know that a program can be created that simulates a physical system.
- Children will know that a physical system is a program where the objects behave as they would in the real world.
- Children will know that sounds, animation and images can be added into codes.
- Children know that codes need to be checked and tested

- Children will understand the function of these computer programming functions and the effect they have on a program
- Children will understand that behind the 2code blocks there is a code that the computer can use.
- Children understand that timers can be used to create repetition
- Children will understand the effect sounds, animation and images have on a code, making it more attractive and appealing to the audience/user
- Children understand that a failed test/check is due to bugs in the code that need fixing.

- Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts
- children can explain the choice of commands they have included in their program and what they achieve
- Children will be able to select suitable sounds, animations and images for a program and be able to recognise when they don't work or need replacing.
- Children can read other's code and predict what will happen.

									
Vocabulary	Knowledge What children will know			Understanding What children will understand			Skills What children will be able to do		
Define the word and include etymology if useful.	Learning Remembering	Teaching Telling	Assessment Testing	Learning Practising	Teaching Coaching	Assessment Observing	Learning Reflecting	Teaching Facilitating	Assessment Evaluating
<p>commands run a set number of times or forever.</p> <p>Computer simulation - A program that models a real-life situation.</p> <p>Selection - This is a conditional/decision command. When selection is used, a program will choose a different outcome depending on a condition.</p>									
<p>Information Technology Purple Mash 3.4 Touch Typing</p>									
<p>Posture – The correct way to sit at the computer.</p> <p>Top row keys – The keys on the top row of the keyboard.</p> <p>Home row keys – The keys on the middle row of the keyboard.</p> <p>Bottom row keys – The keys on the bottom row of the keyboard.</p> <p>Space bar – The bar at the bottom of the keyboard.</p>	<ul style="list-style-type: none"> Children will know that a good posture is important when using a computer Children will know that using specific fingers for specific keys allows you to type more quickly. 			<ul style="list-style-type: none"> Children will understand that a poor posture could result in injury Children will understand that being a confident and accurate typist saves time and makes using technology more effective 			<ul style="list-style-type: none"> Children will be able to use both hands to type Children will be able to identify the home, top and bottom row keys and know where to place their hands on the keyboard. 		







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	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Coding (Barefoot – 2D shape drawing / Introduction to variables / 2code 3.1 lessons 4/5/6)									
<p>Action - Types of commands, which are run on an object. They could be used to move an object or change a property</p> <p>Algorithm - a precise step by step set of instructions used to solve a problem or achieve an objective.</p> <p>Bug - A problem in a computer program that stops it working the way it was designed.</p> <p>Code Design – Design what your program will look like and what it will do.</p> <p>Command - A single instruction in a computer program.</p> <p>Control - These commands determine whether parts of the program will run, how often and sometimes, when.</p> <p>Debug/Debugging - Looking for any problems in the code, fixing and testing them.</p> <p>Event – Something that causes a block of code to be run.</p> <p>Input - Information going into the computer. Can include moving or clicking the mouse, using the keyboard, swiping and tilting the device.</p> <p>Object - An element in a computer program that can be changed using actions or properties. In</p>	<ul style="list-style-type: none"> Children will know that mistakes in an algorithm will result in problems with the outcome. Children will know that logical reasoning helps us to explain why something happens. Children will know that variables need to be created and named, the data/value in the variable can change, programs have access of the data and they know of examples of variables in computer programs (games with scores, times table rock stars etc) Children will know that an object can repeat an action indefinitely. 			<ul style="list-style-type: none"> Children will understand the importance of approaching a problem logically, breaking it down and identifying bugs. Children will understand that variables can store data and are used by a computer program as it runs. Children will understand that coders can use some tools to save time and simplify their algorithms (such as repetition) Children will understand that adding sounds, animations and images into their coding can improve their work. 			<ul style="list-style-type: none"> Children will be able to use logical reasoning to detect and correct errors in algorithms. Children will be able to write an algorithm to match a desired outcome. Children will be able to collaborate to work a physical system that has variables (quiz) Children will be able to explain their choice of commands and explain what they achieve. 		



									
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<p>2Code, buttons, characters and vehicles are types of objects.</p> <p>Output - Information that comes out of the computer e.g. sound. Repeat - This command can be used to make a block of commands run a set number of times or forever.</p> <p>Computer simulation - A program that models a real-life situation.</p> <p>Selection - This is a conditional/decision command. When selection is used, a program will choose a different outcome depending on a condition.</p> <p>Timer - Use this command to run a block of commands after a timed delay or at regular intervals.</p> <p>Variable – A named area in computer memory. A variable has a name and a value. The program can change this variable value.</p>	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Information Technology (3.7 Simulations unit)									
<p>Simulation – A computer simulation is a program that models a real-life situation. They let you try things out that would be too difficult or dangerous to do in real life.</p>	<ul style="list-style-type: none"> Children will know that a computer simulation models a real-life situation and lets the user try out things that would be too difficult or dangerous in real life. 			<ul style="list-style-type: none"> Children will understand that simulations for flying, medical practices or space missions enable the user to experience the event without risk. Children will also understand that some are there just for fun, such as racing simulations. 			<ul style="list-style-type: none"> Children can explain the advantages and disadvantages of simulations. 		