Orton Wistow Primary School – Curriculum Plan

Subject: Computing	Year : 1	Term : Autumn

Vocabulary	Knowledge			Understanding			Skills		
	What children will know			What children will understand			What children will be able to do		
Define the word and include etymology if useful.	Learning	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Computer Science Unplugged **Pattern** – a regular or logical form, order, or arrangement of parts. **Algorithm** – An algorithm is a sequence of instructions or a set of rules to get something done. **Debug** – Debugging is the process of finding and fixing errors in an algorithm **Logical reasoning** – Logical reasoning helps us explain why something happens. **Repetition** – Repetition is the recurrence of actions or events. **Decomposition** - the process of breaking down a task into smaller, more-manageable parts.	**Barefoot – Introduction to Pattern Unplugged Activity: Elephants, Cats and Cars**								
	• Children will know that patterns exist in many areas of life. E.g. weather, behaviour, nature			• Children will understand that patterns can help us to make predictions or spot mistakes/problems.			• Children can identify patterns, spotting what is familiar or different.		
	Barefoot – Crazy Character Algorithms: An Introduction to Sequences of Instructions								
	• Children will know that an algorithm is a set of instructions with an intended outcome			• Children will understand that an algorithm needs to be clear and precise or the outcome will not be what is intended.			• Children will write an algorithm, test it and then debug if the outcome is wrong.		
	Barefoot – Developing Logical Reasoning Activity: River Crossing								
	• Children will know that to solve a problem, breaking it down and applying logic will help.			• Children will understand that they need to test a solution and that if it goes wrong they can adapt and try and fix it.			• Children can use logical reasoning to solve a problem.		
	Barefoot – Head, Shoulders, Knees and Toes Algorithms Activity								
	• Children will know that repetition is the recurrence of actions or events and can be used in an algorithm.			• Children will understand that using repetition can save time, simplify an algorithm and help to avoid mistakes.			• Children will be able to spot, within an algorithm, where and when repetition can be used.		
	Barefoot – Dance Move Algorithms								
	• Children will know that a set of instructions is an algorithm and they know that changing the order of these instructions can change what happens.			• Children will understand that the order of a set of instructions is important if they want something specific to happen.			• Children will be able to create an algorithm for a person to follow.		

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Information Technology	Explore technology in the local community, walk around identifying uses of technology and record examples								
Technology - the application of scientific knowledge for practical purposes, especially in industry.	• Children will know that technology has many uses in our homes, our schools and the wider world.			• Children will understand that technology has a purpose and can help improve our lives.			• Children will be able to spot a use of technology and say what it is used for and how it helps.		

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Subject: Computing	Year : 1	Term : Spring

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	Teaching	Assessment	Learning	Teaching	Assessment	Learning	Teaching	Assessment
	Remembering	Telling	Testing	Practising	Coaching	Observing	Reflecting	Facilitating	Evaluating
Bee-bots									
Tinkering – Learning and making sense of something by using, playing and experimenting with it. Programming – the process of writing computer programs	• Children will know what each button on the bee-bot control panel does. (forward, backwards, turn left, turn right, go, clear, pause)			• Children will understand that tinkering with new technology is a good way of discovering what is possible and how something works.			• Children will be able to explore technology through trial and error, discussing, learning and demonstrating as they tinker.		

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
Debugging – Debugging is the process of finding and fixing errors in an algorithm **Collaborating** - work with others on an activity or project	• Children will know that some technology can be programmed to complete a task/act in a certain way/create a specific output • Children will know that they can clear a program and start again. • Children will know that if the bee-bot does not do what they wanted it to do, the algorithm will need de-bugging.			• Children will understand that the Bee-Bot will only do what they program it to do • Children will understand • Children will understand that the Bee-Bot will follow the sequence of buttons pressed in order and that if something goes wrong, it is because the algorithm is wrong.			• Children will be able to look at a problem, discuss possible solutions and test them by programming the Bee-Bots using the control buttons. • Children will persevere when they encounter bugs and work through how to fix them.		
Information Technology (1.6 Animated Storybook)									
Animation – process of giving the illusion of movement to drawings and models. **E-Book** – a book that they can read on the computer or on a tablet. **Font** – the style of text used in a piece of writing on the computer or tablet. **File –** a piece of work on the computer. **Sound Effect** – a sound other than speech or music made for use in a play, film or computer file. **Display Board** – a way to share your work on Purple Mash.	• Children will know that an ebook can be created using 2create a story and will know that it is an electronic version of a normal book. • Children will know what the tools in 2create a story do, including; plan, play, add animation, background, undo/redo, font buttons and copy and paste. • Children will know how to extend their stories by adding additional pages			• Children will understand that adding animations and sound makes an ebook different and can heighten the experience for the reader. • Children will understand that the copy and paste function and undo/redo buttons can save the user a lot of time and help them to work more efficiently. • Children will understand that they can make their book unique by designing their own animations and music.			• Children will be able to; save, open and change work, add sounds and animations, add their own voice, copy and paste and add text to an e-book.		