

Village Infants Computing

<u>Programming</u>		
<p>EYFS EYFS incorporate technology into lessons and every day experiences to provide a foundation for Computing at Key Stage 1. The children will begin to engage in Computational thinking. 'Computational Thinking' is a set of problem solving skills that we can use in everyday life.</p>	<p>National Curriculum Pupils to be taught to:</p> <ul style="list-style-type: none"> • 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 	
Reception	Year 1	Year 2
<p><i>The children will explore a variety of electronic devices in free flow and adult led sessions to gain an understanding of basic programming and cause and effect.</i></p> <ul style="list-style-type: none"> ▪ I can use a variety of electronic toys in play situations (Bee-Bots, remote control toys) using basic directional language ▪ I can explore toys that simulate control devices e.g. cash tills ▪ I can respond to simple cause and effect devices (push a button to hear a sound) Explore the commands needed to control a range of electronic toys ▪ I can explore and create simple patterns using 2 or more variables ▪ I can explore simple algorithms (simple instructions) and guide other children for a desired outcome ▪ I can begin to program a simple floor robot (Bee-Bot) to carry out a short sequence of steps to travel forward and backwards 	<p><i>The children will use Bee-Bots and computer programs (e.g. 2go) to explore following and creating their own algorithms (sets of instructions)</i></p> <ul style="list-style-type: none"> ▪ I can explain what an algorithm is, and give everyday examples ▪ I can write a simple algorithm(using symbols) ▪ I can follow a sequence of instructions (symbols) ▪ I can write a sequence of instructions to move a programmable toy using symbols ▪ I can explore the outcome when instructions are given in different orders 	<p><i>The children will explore coding (2code) to follow and debug programs.</i></p> <ul style="list-style-type: none"> ▪ I can read and follow written algorithms ▪ I know there may be more than one algorithm to do the same task ▪ I can write a sequence of instructions for a specific task ▪ I can identify the problem in order to debug a simple program ▪ I can describe ways computers and other devices are used outside school

Data		
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Reception	Year 1	Year 2
<p><i>The children will sort objects using ICT and practical objects. They will also have opportunities to add to class pictograms. (Cross curricular links to Maths)</i></p> <ul style="list-style-type: none"> I am developing simple classification skills by carrying out simple sorting activities away from the computer I am continuing to develop simple classification skills by carrying out simple sorting activities using ICT 	<p><i>The children will explore pictograms using programs such as 2count and then answer questions about their graphs. (Cross curricular links to Maths)</i></p> <p>Graphs</p> <ul style="list-style-type: none"> I can sort items into groups I can make pictograms, and I know that computers help me to make pictograms more quickly I can make changes to the information in my pictograms I know that if I put the wrong numbers in my charts my pictograms will also be wrong I can use my pictograms to help me answer questions 	<p><i>The children will explore databases using 2question. They will also create block graphs using 2graph. (Cross curricular links to Maths)</i></p> <p>Databases</p> <ul style="list-style-type: none"> I can sort items into groups by asking yes / no questions (e.g. Guess Who games) I can use a branching database to sort and identify items I can search a prepared database to answer simple questions I can collect a set of data and present it as a simple graph I can save, open and edit my work
Digital Literacy and Research		
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Reception	Year 1	Year 2
<p><i>The children will use shortcuts to navigate to selected websites and allow them to locate information.</i></p> <ul style="list-style-type: none"> I can use a shortcut to navigate to a specific website I can use appropriate buttons, menus and hyperlinks to navigate a teacher selected website, or stored information <p>E-safety:</p> <ul style="list-style-type: none"> I know what to do if I see something online that makes me uncomfortable 	<p><i>The children will explore appropriate websites and begin to understand how to stay safe online.</i></p> <p>Research</p> <ul style="list-style-type: none"> I can explore a website using buttons, menus and hyperlinks I can use the 'back' button I can read words, look at pictures and watch videos on a website to find information <p>E-safety:</p> <ul style="list-style-type: none"> I know what to do if I see something online that makes me uncomfortable I know what things count as personal information and who I can share it with 	<p><i>The children will use the internet to research given topics, using appropriate search engines e.g. KidRex / Swiggle. They will develop their knowledge of how to stay safe when using the internet.</i></p> <p>Research</p> <ul style="list-style-type: none"> I can navigate to a website via favourites and typing in address, to find out information I know that some things found on the internet will not be true, useful or safe I can use a search engine to find facts <p>E-safety</p> <ul style="list-style-type: none"> I know what to do if I find something inappropriate online, & where to go for help I know how to stay safe by going to age-appropriate websites I know how to behave safely and respectfully online I know that not everyone online is who they say they are

Multimedia

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Reception	Year 1	Year 2
<p><i>The children will use iPads and webcams to capture images of themselves and others. They will understand how technology allows them to capture and listen to sound. They will also use the large screen and computers to access paint packages.</i></p> <ul style="list-style-type: none"> I can use multimedia equipment, e.g. tablets, webcams and visualisers, to capture still and moving images I can explore ways of making and listening to sounds using simple programs and devices I can use a paint program to make marks, using simple tools, to communicate their ideas 	<p><i>The children will explore paint packages such as 2Paint using the tools to create a desired effect. They will also use iPads and recording devices to record still images and sound recordings.</i></p> <p>Creating images</p> <ul style="list-style-type: none"> I can paint with different colours using undo or eraser to correct mistakes I can use different tools such as brush, pen, line, shape and fill <p>Photography</p> <ul style="list-style-type: none"> I can use a digital still camera to take a picture I understand the need to frame the image and keep the camera still 	<p><i>The children will continue to explore still images and edit or retake as appropriate. The children will also explore video recording using iPads.</i></p> <p>Photography</p> <ul style="list-style-type: none"> I can discuss the quality of my images and make decisions e.g. delete a blurred image I can use a photograph within a document I can combine a set of photographs to tell a story <p>Audio</p> <ul style="list-style-type: none"> I can record an audio recording I can play back an audio recording

Communication

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Reception	Year 1	Year 2
<p><i>The children will use computers and large screens to develop mouse control and when appropriate use the keyboard to type their name.</i></p> <ul style="list-style-type: none"> I am beginning to develop mouse control I can use a paint program to make marks, using simple tools, to communicate their ideas (use colour, size and fill tools) I can use different forms of electronic communication in free play (play phones and working walkie talkies) I am beginning to use a keyboard to type my name on screen, and developing familiarity with letters, numbers, backspace, arrow keys and space bar 	<p><i>The children will use simple word processing programs such as 2publish+ and 2type to develop their word processing skills and edit their work.</i></p> <p>Word processing</p> <ul style="list-style-type: none"> I can use letters, basic punctuation, spacebar and enter key to type words and sentences quickly I can use backspace to make corrections I can use shift key for punctuation I am starting to use two hands when typing 	<p><i>The children will continue to develop their word processing skills using 2publish+, PowerPoint and Word. They will begin to use fonts appropriately to give the desired effect.</i></p> <p>Word processing</p> <ul style="list-style-type: none"> I can edit and improve my work by changing, adding or removing words I can change the font size, colour and style to change my work I can word process short texts, rather than copying up written work