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| **Happiness Responsibility Friendship Respect Courage** |
| **DIGITAL LITERACY** |
| **Computer Systems and Networks** |
|  | **Technology Around Us** | **IT Around Us** |
| **EYFS** | **Year One** | **Year Two** |
|  | Knowledge | Skills | Knowledge | Skills |
| I know a range of technology is used in places such as home and schools.I can operate technology such as IWB, iPads and toys with knobs, pulleys and buttons.I can draw pictures on IWB and begin to change colours.I can type my name on a keypad.  | I know what the term ‘technology’ means.I know what the main parts of a desktop or laptop are called.I know that different computers use different mice but that they perform the same function.I know that I can write on a computer using a keyboard and this is called typing.I know that I can save my work on a computer.I know that I can reopen work I have previously saved.I know that I can edit work that I have already saved.I know that I need to follow Computer Safety rules to keep myself safe online. | I can locate examples of technology in my classroom and explain how it helps me.I can log onto a computer.I can use a mouse to click and drag.I can use a mouse to open a program.I can use a mouse to create a picture.I can type my name using a keyboard.I can find the save icon to save my work.I can open my work from a file.I can use the arrow keys to move the cursor.I can use the delete key to edit my text.I can identify rules for when I am using technology in school and at home.I can discuss how I benefit from following these rules. | I know that ‘information technology’ is a computer or anything that works with a computer.I know the different examples of IT within the school setting.I know that IT is used in the wider world (outside of the school)I know that IT devices can work together.I know that I have to follow rules to use IT safely. | I can identify that a computer is part of IT.I can sort school IT by what it is used for.I can identify which IT can be used in more than one way.I can sort IT by where it is found.I can explain why we use IT in different settings.I can explain if actions are using IT or not.I can talk about different rules for using IT safely.I can explain how these rules keep me safe. |
| **Key vocabulary:** technology, IWB (Interactive White Board), type, keypad, iPad, pulley, button | **Key vocabulary:** technology, desktop, laptop, computer, mice, mouse, keyboard, type, save, reopen, open, edit, log on, click, drag, program, keys, cursor | **Key vocabulary:** IT (information technology), computer, devices |
|  | **INFORMATION TECHNOLOGY** |
|  | **Creating Media** |
|  | **Digital Painting (optional)** |  |
| **EYFS** | **Year One** | **Year Two** |
|  | Knowledge | Skills | Knowledge | Skills |
| I can select and use technology for the correct purpose such as using iPad for photos. | I know how we paint using computers.I know that pictures can be painted with and without digital devices. | I can use different freehand tools to make marks, draw lines and draw a picture.I can use the shape and line tools.I can use a range of shape tools.I can make colour choices.I can use the brush tools.I can use the tools to make marks and recreate the work of an artist.I can spot the differences between painting on a computer and on paper.I can say whether I prefer painting using a computer or using paper. | iPad deployment | I can use technology to create, organise, store, manipulate and retrieve content. |
| **Key vocabulary:** technology, iPad, photo | **Key vocabulary:** computer, digital, device, paint, picture, tool, shape, line, brush, recreate | **Key vocabulary:** iPad, technology, create, organise, store, manipulate, retrieve, content |
|  | **COMPUTER SCIENCE** |
|  | **Programming A** |
|  | **Moving a robot** | **Robot Algorithms** |
| **EYFS** | **Year One** | **Year Two** |
|  | Knowledge | Skills | Knowledge | Skills |
| I can use the IWB to play games and follow programmes. I can make a bee bot go forwards.I can follow directions with a bee bot. | I know what a given command will do.I know that computer language needs to be precise.I know how to program the floor robot to move.I know that a computer program must have a purpose. | I can predict and then match the outcome of a command on a device.I can act out a given word.I can compare forwards and backwards movements.I can start a sequence from the same place.I can predict the outcome of a sequence involving forwards and backwards commands.I can use left and right commands.I can combine four direction commands to make sequences.I can plan a simple program.I can find more than one solution to a problem. | I know that an algorithm is a set of clear, unambiguous instructions.I know that the order of instructions in a sequence is important.I know how to design, create and test a mat for a floor robot.I know the term decomposition. | I can describe a series of instructions as a sequence.I can explain what happens when we change the order of instructions.I can use logical reasoning to predict the outcome of a program.I can use code and algorithms in my design.I can test and debug a program I have written. |
| **Key vocabulary:** IWB (Interactive White Board), programme, BeeBot, direction | **Key vocabulary:** command, precise, computer, program, robot, purpose, device, movement, sequence, problem, solution | **Key vocabulary:** algorithm, instruction, sequence, design, create, test, robot, decomposition, outcome, program, code, debug |
|  | **COMPUTER SCIENCE** |
|  | **Programming B** |
|  | **Introduction to Animation** | **An introduction to quizzes** |
|  | **Year One** | **Year Two** |
|  | Knowledge | Skills | Knowledge | Skills |
|  | I know that Scratch Junior is a computer block code programming environment.I know that some blocks have numbers underneath them and that changing these numbers has different effects.I know that programs can have multiple sprites and that each sprite has its own programming area.I know projects can have backgrounds. | I can choose commands to move a sprite.I can use more than one block by joining them together.I can use a Start block in a programI can run my program.I can say what happens when I change a value.I can add and delete sprites.I can add blocks to each of my sprites.I can design the parts of a project.I can use my algorithm to create my program. | Scratch JuniorI know that a sequence of commands has an outcome.I know how to change a design.I know how to use the ‘Start on tap’ and ‘Go to page’ (Change background) blocks.I know how to design and create a quiz program.I know how to evaluate my program. | I can predict the outcome of a sequence of commands.I can match two sequences with the same outcome.I can change the outcome of a sequence of commands.I can create a program using a given design.I can modify a given design by choosing backgrounds and characters.I can choose the images for my own design.I can create an algorithm.I can build sequences of blocks to match my design.I can compare my project to my design.I can improve my project by adding features.I can debug. |
|  | **Key vocabulary:** block, code, programming, sprite, project, command, program, run, value, add, delete, algorithm, design, create | **Key vocabulary:** sequence, command, outcome, design, block, create, program, evaluate, modify, image, algorithm, build, project, feature, debug |

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| **KS1 Key Vocabulary** |
| **Vocabulary** | **Definition** |
| Algorithm | A precise set of ordered steps that can be followed by a human or a computer to achieve a task |
| Attribute (property) | A word or a phrase that can be used to describe an object such as its colour, size, or price |
| Code | The **commands** that a **computer** can **run** |
| Code snippet | A section of a **program** viewed in isolation |
| Command | A single instruction that can be used in a **program** to control a **computer** |
| Computer | A **programmable** machine that accepts and **processes** **inputs** and produces **outputs** (input, process, output; IPO) |
| Data | A letter, word, number etc. that has been collected for a purpose, but **stored** without context |
| Debugging | The process of finding and correcting errors in a **program** |
| Information | **Data** put into a context that provides meaning |
| Information technology | The study, use, and development of **computer systems** for storing, processing, retrieving, and sending information |
| Object | Something that can be named and has other **attributes (properties)**, which can be labelled |
| Program | A set of ordered **commands** that can be **run** by a **computer** to complete a task |
| Property (attribute) | A word or a phrase that can be used to describe an **object** such as its colour, size, or price |
| Run (execute) | To action the **commands** in a **program** |
| Technology | The use of scientific knowledge for practical purposes |