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| **Year A & B overviews - Skills progression – Computing (October 2025)**  Pupils are taught the knowledge, understanding and skills needed to engage in Computer learning  Below are the skills and end points for each phase. | | | | | | |
| **EYFS**  Children at the expected level of development will:   * Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. | | | | | | |
|  | **Year1/2** | | **Year 3/4** | | **Year 5/6** | |
| **Computer Science** (programming) | 1.3.1   * I can predict the outcome of a command on a device * I can match a command to an outcome * I can run a command on a device   1.3.2   * I can follow an instruction * I can recall words that can be acted out * I can give directions   1.3.3   * I can compare forward and backward movements * I can start a sequence from the same place * I can predict the outcome of a sequence involving ‘forwards’ and ‘backwards’ commands   1.3.4   * I can compare left and right turns * I can experiment with ‘turn’ and ‘move’ commands to move a robot * I can predict the outcome of a sequence involving up to four commands   1.3.5   * I can explain what my program should do * I can choose the order of commands in a sequence * I can debug my program   1.3.6   * I can identify several possible solutions * I can plan two programs * I can use two different programs to get to the same place   1.6.1   * I can find the commands to move a sprite * I can use commands to move a sprite * I can compare different programming tools   1.6.2   * I can use more than one block by joining them together * I can use a Start block in a program * I can run my program   1.6.3   * I can find blocks that have numbers * I can change the value * I can say what happens when I change a value   1.6.4   * I can show that a project can include more than one sprite * I can delete a sprite * I can add blocks to each of my sprites   1.6.5   * I can choose appropriate artwork for my project * I can decide how each sprite will move * I can create an algorithm for each sprite   1.6.6   * I can use sprites that match my design * I can add programming blocks based on my algorithm * I can test the programs I have created   ***2.3.1***   * ***I can follow instructions given by someone else*** * ***I can choose a series of words that can be acted out as a sequence*** * ***I can give clear instructions***   ***2.3.2***   * ***I can use the same instructions to create different algorithms*** * ***I can use an algorithm to program a sequence on a floor robot*** * ***I can show the difference in outcomes between two sequences that consist of the same instructions***   ***2.3.3***   * ***I can follow a sequence*** * ***I can predict the outcome of a sequence*** * ***I can compare my prediction to the program outcome***   ***2.3.4***   * ***I can explain the choices that I made for my mat design*** * ***I can identify different routes around my mat*** * ***I can test my mat to make sure that it is usable***   ***2.3.5***   * ***I can explain what my algorithm should achieve*** * ***I can create an algorithm to meet my goal*** * ***I can use my algorithm to create a program***   ***2.3.6***   * ***I can test and debug each part of the program*** * ***I can plan algorithms for different parts of a task*** * ***I can put together the different parts of my program***   ***2.6.1***   * ***I can identify the start of a sequence*** * ***I can identify that a program needs to be started*** * ***I can show how to run my program***   ***2.6.2***   * ***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***   ***2.6.3***   * ***I can work out the actions of a sprite in an algorithm*** * ***I can decide which blocks to use to meet the design*** * ***I can build the sequences of blocks I need***   ***2.6.4***   * ***I can choose backgrounds for the design*** * ***I can choose characters for the design*** * ***I can create a program based on the new design***   ***2.6.5***   * ***I can choose the images for my own design*** * ***I can create an algorithm*** * ***I can build sequences of blocks to match my design***   ***2.6.6***   * ***I can compare my project to my design*** * ***I can improve my project by adding features*** * ***I can debug my program*** | | 3.3.1   * I can identify the objects in a Scratch project (sprites, backdrops) * I can explain that objects in Scratch have attributes (linked to) * I can recognise that commands in Scratch are represented as blocks   3.3.2   * I can identify that each sprite is controlled by the commands I choose * I can choose a word which describes an on-screen action for my plan * I can create a program following a design   3.3.3   * I can start a program in different ways * I can create a sequence of connected commands * I can explain that the objects in my project will respond exactly to the code   3.3.4   * I can explain what a sequence is * I can combine sound commands * I can order notes into a sequence   3.3.5   * I can build a sequence of commands * I can decide the actions for each sprite in a program * I can make design choices for my artwork   3.3.6   * I can identify and name the objects I will need for a project * I can relate a task description to a design * I can implement my algorithm as code   3.6.1   * I can explain the relationship between an event and an action * I can choose which keys to use for actions and explain my choices * I can identify a way to improve a program   3.6.2   * I can choose a character for my project * I can choose a suitable size for a character in a maze * I can program movement   3.6.3   * I can use a programming extension * I can consider the real world when making design choices * I can choose blocks to set up my program   3.6.4   * I can identify additional features (from a given set of blocks) * I can choose suitable keys to turn on additional features * I can build more sequences of commands to make my design work   3.6.5   * I can test a program against a given design * I can match a piece of code to an outcome * I can modify a program using a design   3.6.6   * I can make design choices and justify them * I can implement my design * I can evaluate my project   ***4.3.1***   * ***I can program a computer by typing commands*** * ***I can explain the effect of changing a value of a command*** * ***I can create a code snippet for a given purpose***   ***4.3.2***   * ***I can use a template to draw what I want my program to do*** * ***I can write an algorithm to produce a given outcome*** * ***I can test my algorithm in a text-based language***   ***4.3.3***   * ***I can identify repetition in everyday tasks*** * ***I can identify patterns in a sequence*** * ***I can use a count-controlled loop to produce a given outcome***   ***4.3.4***   * ***I can identify the effect of changing the number of times a task is repeated*** * ***I can predict the outcome of a program containing a count-controlled loop*** * ***I can choose which values to change in a loop***   ***4.3.5***   * ***I can identify ‘chunks’ of actions in the real world*** * ***I can use a procedure in a program*** * ***I can explain that a computer can repeatedly call a procedure***   ***4.3.6***   * ***I can design a program that includes count-controlled loops*** * ***I can make use of my design to write a program*** * ***I can develop my program by debugging it***   ***4.6.1***   * ***I can list an everyday task as a set of instructions including repetition*** * ***I can predict the outcome of a snippet of code*** * ***I can modify a snippet of code to create a given outcome***   ***4.6.2***   * ***I can modify loops to produce a given outcome*** * ***I can choose when to use a count-controlled and an infinite loop*** * ***I can recognise that some programming languages enable more than one process to be run at once***   ***4.6.3***   * ***I can choose which action will be repeated for each object*** * ***I can explain what the outcome of the repeated action should be*** * ***I can evaluate the effectiveness of the repeated sequences used in my program***   ***4.6.4***   * ***I can identify which parts of a loop can be changed*** * ***I can explain the effect of my changes*** * ***I can re-use existing code snippets on new sprites***   ***4.6.5***   * ***I can evaluate the use of repetition in a project*** * ***I can select key parts of a given project to use in my own design*** * ***I can develop my own design explaining what my project will do***   ***4.6.6***   * ***I can refine the algorithm in my design*** * ***I can build a program that follows my design*** * ***I can evaluate the steps I followed when building my project*** | | 5.3.1   * I can create a simple circuit and connect it to a microcontroller * I can program a microcontroller to make an LED switch on * I can explain what an infinite loop does   5.3.2   * I can connect more than one output component to a microcontroller * I can use a count-controlled loop to control outputs * I can design sequences that use count-controlled loops   5.3.3   * I can explain that a condition is either true or false * I can design a conditional loop * I can program a microcontroller to respond to an input   5.3.4   * I can explain that a condition being met can start an action * I can identify a condition and an action in my project * I can use selection (an ‘if…then…’ statement) to direct the flow of a program   5.3.5   * I can identify a real-world example of a condition starting an action * I can describe what my project will do * I can create a detailed drawing of my project   5.3.6   * I can write an algorithm that describes what my model will do * I can use selection to produce an intended outcome * I can test and debug my project   5.6.1   * I can recall how conditions are used in selection * I can identify conditions in a program * I can modify a condition in a program   5.6.2   * I can use selection in an infinite loop to check a condition * I can identify the condition and outcomes in an ‘if… then… else…’ statement * I can create a program that uses selection to produce different outcomes   5.6.3   * I can explain that program flow can branch according to a condition * I can design the flow of a program that contains ‘if… then… else…’ * I can show that a condition can direct program flow in one of two ways   5.6.4   * I can outline a given task * I can use a design format to outline my project * I can identify the outcome of user input in an algorithm   5.6.5   * I can implement my algorithm to create the first section of my program * I can test my program * I can share my program with others   5.6.6   * I can identify ways the program could be improved * I can identify the setup code I need in my program * I can extend my program further   ***6.3.1***   * ***I can identify examples of information that is variable*** * ***I can explain that the way a variable changes can be defined*** * ***I can identify that variables can hold numbers or letters***   ***6.3.2***   * ***I can identify a program variable as a placeholder in memory for a single value*** * ***I can explain that a variable has a name and a value*** * ***I can recognise that the value of a variable can be changed***   ***6.3.3***   * ***I can decide where in a program to change a variable*** * ***I can make use of an event in a program to set a variable*** * ***I can recognise that the value of a variable can be used by a program***   ***6.3.4***   * ***I can choose the artwork for my project*** * ***I can create algorithms for my project*** * ***I can explain my design choices***   ***6.3.5***   * ***I can create the artwork for my project*** * ***I can choose a name that identifies the role of a variable*** * ***I can test the code that I have written***   ***6.3.6***   * ***I can identify ways that my game could be improved*** * ***I can use variables to extend my game*** * ***I can share my game with others***   ***6.6.1***   * ***I can apply my knowledge of programming to a new environment*** * ***I can test my program on an emulator*** * ***I can transfer my program to a controllable device***   ***6.6.2***   * ***I can identify examples of conditions in the real world*** * ***I can use a variable in an if, then, else statement to select the flow of a program*** * ***I can determine the flow of a program using selection***   ***6.6.3***   * ***I can use a condition to change a variable*** * ***I can experiment with different physical inputs*** * ***I can explain that checking a variable doesn’t change its value***   ***6.6.4***   * ***I can use an operand (e.g. <>=) in an if, then statement*** * ***I can explain the importance of the order of conditions in else, if statements*** * ***I can modify a program to achieve a different outcome***   ***6.6.5***   * ***I can decide what variables to include in a project*** * ***I can design the algorithm for my project*** * ***I can design the program flow for my project***   ***6.6.6***   * ***I can create a program based on my design*** * ***I can test my program against my design*** * ***I can use a range of approaches to find and fix bugs*** | |
| **Computer Science**  (computer systems and networks) | 1.1.1   * I can explain technology as something that helps us * I can locate examples of technology in the classroom * I can explain how these technology examples help us   1.1.2   * I can name the main parts of a computer * I can switch on and log into a computer * I can use a mouse to click and drag   1.1.3   * I can use a mouse to open a program * I can click and drag to make objects on a screen * I can use a mouse to create a picture   1.1.4   * I can say what a keyboard is for * I can type my name on a computer * I can save my work to a file   1.1.5   * I can open my work from a file * I can use the arrow keys to move the cursor * I can delete letters   ***2.1.1***   * ***I can identify examples of computers*** * ***I can describe some uses of computers*** * ***I can identify that a computer is a part of IT***   ***2.1.2***   * ***I can identify examples of IT*** * ***I can sort school IT by what it’s used for*** * ***I can identify that some IT can be used in more than one way***   ***2.1.3***   * ***I can find examples of information technology*** * ***I can sort IT by where it is found*** * ***I can talk about uses of information technology***   ***2.1.4***   * ***I can recognise common types of technology*** * ***I can demonstrate how IT devices work together*** * ***I can say why we use IT***   ***2.1.6***   * ***I can identify the choices that I make when using IT*** * ***I can use IT for different types of activities*** * ***I can explain the need to use IT in different ways*** | | 3.1.1   * I can explain that digital devices accept inputs * I can explain that digital devices produce outputs * I can follow a process   3.1.2   * I can classify input and output devices * I can describe a simple process * I can design a digital device   3.1.3   * I can explain how I use digital devices for different activities * I can recognise similarities between using digital devices and using non-digital tools * I can suggest differences between using digital devices and using non-digital tools   3.1.4   * I can recognise different connections * I can explain how messages are passed through multiple connections * I can discuss why we need a network switch   3.1.5   * I can recognise that a computer network is made up of a number of devices * I can demonstrate how information can be passed between devices * I can explain the role of a switch, server, and wireless access point in a network   3.1.6   * I can identify how devices in a network are connected together * I can identify networked devices around me * I can identify the benefits of computer networks   ***4.1.1***   * ***I can describe the internet as a network of networks*** * ***I can demonstrate how information is shared across the internet*** * ***I can discuss why a network needs protecting***   ***4.1.2***   * ***I can describe networked devices and how they connect*** * ***I can explain that the internet is used to provide many services*** * ***I can recognise that the World Wide Web contains websites and web pages***   ***4.1.3***   * ***I can explain the types of media that can be shared on the WWW*** * ***I can describe where websites are stored when uploaded to the WWW*** * ***I can describe how to access websites on the WWW***   ***4.1.4***   * ***I can explain what media can be found on websites*** * ***I can recognise that I can add content to the WWW*** * ***I can explain that internet services can be used to create content online***   ***4.1.5***   * ***I can explain that websites and their content are created by people*** * ***I can suggest who owns the content on websites*** * ***I can explain that there are rules to protect content*** | | 5.1.1   * I can explain that systems are built using a number of parts * I can describe the input, process, and output of a digital system * I can explain that computer systems communicate with other devices   5.1.2   * I can identify tasks that are managed by computer systems * I can identify the human elements of a computer system * I can explain the benefits of a given computer system   5.1.3   * I can make use of a web search to find specific information * I can refine my web search * I can compare results from different search engines   5.1.4   * I can explain why we need tools to find things online * I can recognise the role of web crawlers in creating an index * I can relate a search term to the search engine’s index   5.1.5   * I can order a list by rank * I can explain that a search engine follows rules to rank results * I can give examples of criteria used by search engines to rank results   5.1.6   * I can describe some of the ways that search results can be influenced * I can recognise some of the limitations of search engines * I can explain how search engines make money   ***6.1.1***   * ***I can recognise that data is transferred using agreed methods*** * ***I can explain that internet devices have addresses*** * ***I can describe how computers use addresses to access websites***   ***6.1.2***   * ***I can identify and explain the main parts of a data packet*** * ***I can explain that data is transferred over networks in packets*** * ***I can explain that all data transferred over the internet is in packets***   ***6.1.3***   * ***I can recognise how to access shared files stored online*** * ***I can send information over the internet in different ways*** * ***I can explain that the internet allows different media to be shared***   ***6.1.4***   * ***I can identify different ways of working together online*** * ***I can recognise that working together on the internet can be public or private*** * ***I can explain how the internet enables effective collaboration***   ***6.1.5***   * ***I can explain the different ways in which people communicate*** * ***I can identify that there are a variety of ways to communicate over the internet*** * ***I can choose methods of communication to suit particular purposes*** | |
| **Information Technology** (creating media) | 1.2.1   * I can make marks on a screen and explain which tools I used * I can draw lines on a screen and explain which tools I used * I can use the paint tools to draw a picture   1.2.2   * I can make marks with the square and line tools * I can use the shape and line tools effectively * I can use the shape and line tools to recreate the work of an artist   1.2.3   * I can choose appropriate shapes * I can make appropriate colour choices * I can create a picture in the style of an artist   1.2.4   * I can explain that different paint tools do different jobs * I can choose appropriate paint tools and colours to recreate the work of an artist * I can say which tools were helpful and why   1.2.5   * I can make dots of colour on the page * I can change the colour and brush sizes * I can use dots of colour to create a picture in the style of an artist on my own   1.2.6   * I can explain that pictures can be made in lots of different ways * 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   1.5.1   * I can open a word processor * I can recognise keys on a keyboard * I can identify and find keys on a keyboard   1.5.2   * I can enter text into a computer * I can use letter, number, and Space keys * I can use Backspace to remove text   1.5.3   * I can type capital letters * I can explain what the keys that I have already learnt about do * I can identify the toolbar and use bold, italic, and underline   1.5.4   * I can select a word by double-clicking * I can select all of the text by clicking and dragging * I can change the font   1.5.5   * I can say what tool I used to change the text * I can decide if my changes have improved my writing * I can use ‘Undo’ to remove changes   1.5.6   * I can make changes to text on a computer * I can explain the differences between typing and writing * I can say why I prefer typing or writing   ***2.2.1***   * ***I can recognise what devices can be used to take photographs*** * ***I can talk about how to take a photograph*** * ***I can explain what I did to capture a digital photo***   ***2.2.2***   * ***I can explain the process of taking a good photograph*** * ***I can take photos in both landscape and portrait format***   ***2.2.3***   * ***I can identify what is wrong with a photograph*** * ***I can discuss how to take a good photograph*** * ***I can improve a photograph by retaking it***   ***2.2.4***   * ***I can explore the effect that light has on a photo*** * ***I can experiment with different light sources*** * ***I can explain why a picture may be unclear***   ***2.2.5***   * ***I can recognise that images can be changed*** * ***I can use a tool to achieve a desired effect*** * ***I can explain my choices***   ***2.2.6***   * ***I can apply a range of photography skills to capture a photo*** * ***I can recognise which photos have been changed*** * ***I can identify which photos are real and which have been changed***   ***2.5.1***   * ***I can identify simple differences in pieces of music*** * ***I can describe music using adjectives*** * ***I can say what I do and don’t like about a piece of music***   ***2.5.2***   * ***I can create a rhythm pattern*** * ***I can play an instrument following a rhythm pattern*** * ***I can explain that music is created and played by humans***   ***2.5.3***   * ***I can connect images with sounds*** * ***I can use a computer to experiment with pitch*** * ***I can relate an idea to a piece of music***   ***2.5.4***   * ***I can identify that music is a sequence of notes*** * ***I can explain how my music can be played in different ways*** * ***I can refine my musical pattern on a computer***   ***2.5.5***   * ***I can create a rhythm which represents an animal I’ve chosen*** * ***I can create my animal’s rhythm on a computer*** * ***I can add a sequence of notes to my rhythm***   ***2.5.6***   * ***I can review my work*** * ***I can explain how I changed my work*** * ***I can listen to music and describe how it makes me feel*** | | 3.2.1   * I can draw a sequence of pictures * I can create an effective flip book—style animation * I can explain how an animation/flip book works   3.2.2   * I can predict what an animation will look like * I can explain why little changes are needed for each frame * I can create an effective stop-frame animation   3.2.3   * I can break down a story into settings, characters and events * I can describe an animation that is achievable on screen * I can create a storyboard   3.2.4   * I can use onion skinning to help me make small changes between frames * I can review a sequence of frames to check my work * I can evaluate the quality of my animation   3.2.5   * I can explain ways to make my animation better * I can evaluate another learner’s animation * I can improve my animation based on feedback   3.2.6   * I can add other media to my animation * I can explain why I added other media to my animation * I can evaluate my final film   3.5.1   * I can explain the difference between text and images * I can recognise that text and images can communicate messages clearly * I can identify the advantages and disadvantages of using text and images   3.5.2   * I can change font style, size, and colours for a given purpose * I can edit text * I can explain that text can be changed to communicate more clearly   3.5.3   * I can explain what ‘page orientation’ means * I can recognise placeholders and say why they are important * I can create a template for a particular purpose   3.5.4   * I can choose the best locations for my content * I can paste text and images to create a magazine cover * I can make changes to content after I’ve added it   3.5.5   * I can identify different layouts * I can match a layout to a purpose * I can choose a suitable layout for a given purpose   3.5.6   * I can identify the uses of desktop publishing in the real world * I can say why desktop publishing might be helpful * I can compare work made on desktop publishing to work created by hand   ***4.2.1***   * ***I can identify the input and output devices used to record and play sound*** * ***I can use a computer to record audio*** * ***I can explain that the person who records the sound can say who is allowed to use it***   ***4.2.2***   * ***I can re-record my voice to improve my recording*** * ***I can inspect the soundwave view to know where to trim my recording*** * ***I can discuss what sounds can be added to a podcast***   ***4.2.3***   * ***I can explain how sounds can be combined to make a podcast more engaging*** * ***I can save my project so the different parts remain editable*** * ***I can plan appropriate content for a podcast***   ***4.2.4***   * ***I can record content following my plan*** * ***I can review the quality of my recordings*** * ***I can improve my voice recordings***   ***4.2.5***   * ***I can open my project to continue working on it*** * ***I can arrange multiple sounds to create the effect I want*** * ***I can explain the difference between saving a project and exporting an audio file***   ***4.2.6***   * ***I can listen to an audio recording to identify its strengths*** * ***I can suggest improvements to an audio recording*** * ***I can choose appropriate edits to improve my podcast***   ***4.5.1***   * ***I can improve an image by rotating it*** * ***I can explain why I might crop an image*** * ***I can use photo editing software to crop an image***   ***4.5.2***   * ***I can explain that different colour effects make you think and feel different things*** * ***I can experiment with different colour effects*** * ***I can explain why I chose certain colour effects***   ***4.5.3***   * ***I can add to the composition of an image by cloning*** * ***I can identify how a photo edit can be improved*** * ***I can remove parts of an image using cloning***   ***4.5.4***   * ***I can experiment with tools to select and copy part of an image*** * ***I can use a range of tools to copy between images*** * ***I can explain why photos might be edited***   ***4.5.5***   * ***I can describe the image I want to create*** * ***I can choose suitable images for my project*** * ***I can create a project that is a combination of other images***   ***4.5.6***   * ***I can review images against a given criteria*** * ***I can use feedback to guide making changes*** * ***I can combine text and my image to complete the project*** | | 5.2.1   * I can explain that video is a visual media format * I can identify features of videos * I can compare features in different videos   5.2.2   * I can identify and find features on a digital video recording device * I can experiment with different camera angles * I can make use of a microphone   5.2.3   * I can suggest filming techniques for a given purpose * I can capture video using a range of filming techniques * I can review how effective my video is   5.2.4   * I can outline the scenes of my video * I can decide which filming techniques I will use * I can create and save video content   5.2.5   * I can store, retrieve, and export my recording to a computer * I can explain how to improve a video by reshooting and editing * I can select the correct tools to make edits to my video   5.2.6   * I can make edits to my video and improve the final outcome * I can recognise that my choices when making a video will impact the quality of the final outcome * I can evaluate my video and share my opinions   5.5.1   * I can recognise that vector drawings are made using shapes * I can experiment with the shape and line tools * I can discuss how vector drawings are different from paper-based drawings   5.5.2   * I can identify the shapes used to make a vector drawing * I can explain that each element added to a vector drawing is an object * I can move, resize, and rotate objects I have duplicated   5.5.3   * I can use the zoom tool to help me add detail to my drawings * I can explain how alignment grids and resize handles can be used to improve consistency * I can modify objects to create a new image   5.5.4   * I can identify that each added object creates a new layer in the drawing * I can change the order of layers in a vector drawing   I can use layering to create an image  5.5.5   * I can copy part of a drawing by duplicating several objects * I can recognise when I need to group and ungroup objects * I can reuse a group of objects to further develop my vector drawing   5.5.6   * I can create a vector drawing for a specific purpose * I can reflect on the skills I have used and why I have used them * I can compare vector drawings to freehand paint drawings   ***6.2.1***   * ***I can explore a website*** * ***I can discuss the different types of media used on websites*** * ***I know that websites are written in HTML***   ***6.2.2***   * ***I can recognise the common features of a web page*** * ***I can suggest media to include on my page*** * ***I can draw a web page layout that suits my purpose***   ***6.2.3***   * ***I can say why I should use copyright-free images*** * ***I can find copyright-free images*** * ***I can describe what is meant by the term ‘fair use’***   ***6.2.4***   * ***I can add content to my own web page*** * ***I can preview what my web page looks like*** * ***I can evaluate what my web page looks like on different devices and suggest/make edits.***   ***6.2.5***   * ***I can explain what a navigation path is*** * ***I can describe why navigation paths are useful*** * ***I can make multiple web pages and link them using hyperlinks***   ***6.2.6***   * ***I can explain the implication of linking to content owned by others*** * ***I can create hyperlinks to link to other people's work*** * ***I can evaluate the user experience of a website***   ***6.5.1***   * ***I can add 3D shapes to a project*** * ***I can view 3D shapes from different perspectives*** * ***I can move 3D shapes relative to one another***   ***6.5.2***   * ***I can resize an object in three dimensions*** * ***I can lift/lower 3D objects*** * ***I can recolour a 3D object***   ***6.5.3***   * ***I can rotate objects in three dimensions*** * ***I can duplicate 3D objects*** * ***I can group 3D objects***   ***6.5.4***   * ***I can accurately size 3D objects*** * ***I can show that placeholders can create holes in 3D objects*** * ***I can combine a number of 3D objects***   ***6.5.5***   * ***I can analyse a 3D model*** * ***I can choose objects to use in a 3D model*** * ***I can combine objects in a design***   ***6.5.6***   * ***I can construct a 3D model based on a design*** * ***I can explain how my 3D model could be improved*** * ***I can modify my 3D model to improve it*** | |
| **Information Technology**  (data and information) | 1.4.1   * I can describe objects using labels * I can match objects to groups * I can identify the label for a group of objects   1.4.2   * I can count objects * I can group objects * I can count a group of objects   1.4.3   * I can describe an object * I can describe a property of an object * I can find objects with similar properties   1.4.4   * I can group similar objects * I can group objects in more than one way * I can count how many objects share a property   1.4.5   * I can choose how to group objects * I can describe groups of objects * I can record how many objects are in a group   1.4.6   * I can decide how to group objects to answer a question * I can compare groups of objects * I can record and share what I have found   ***2.4.1***   * ***I can record data in a tally chart*** * ***I can represent a tally count as a total*** * ***I can compare totals in a tally chart***   ***2.4.2***   * ***I can enter data onto a computer*** * ***I can use a computer to view data in a different format*** * ***I can use pictograms to answer simple questions about objects***   ***2.4.3***   * ***I can organise data in a tally chart*** * ***I can use a tally chart to create a pictogram*** * ***I can explain what the pictogram shows***   ***2.4.4***   * ***I can tally objects using a common attribute*** * ***I can create a pictogram to arrange objects by an attribute*** * ***I can answer ‘more than’/’less than’ and ’most/least’ questions about an attribute***   ***2.4.5***   * ***I can choose a suitable attribute to compare people*** * ***I can collect the data I need*** * ***I can create a pictogram and draw conclusions from it***   ***2.4.6***   * ***I can use a computer program to present information in different ways*** * ***I can share what I have found out using a computer*** * ***I can give simple examples of why information should not be shared*** | | 3.4.1   * I can investigate questions with yes/no answers * I can make up a yes/no question about a collection of objects * I can create two groups of objects separated by one attribute   3.4.2   * I can select an attribute to separate objects into groups * I can create a group of objects within an existing group * I can arrange objects into a tree structure   3.4.3   * I can select objects to arrange in a branching database * I can group objects using my own yes/no questions * I can test my branching database to see if it works   3.4.4   * I can create yes/no questions using given attributes * I can compare two branching database structures * I can explain that questions need to be ordered carefully to split objects into similarly sized groups   3.4.5   * I can independently create questions to use in a branching database * I can create questions that will enable objects to be uniquely identified * I can create a physical version of a branching database   3.4.6   * I can create a branching database that reflects my plan * I can work with a partner to test my identification tool * I can suggest real-world uses for branching databases   ***4.4.1***   * ***I can choose a data set to answer a given question*** * ***I can suggest questions that can be answered using a given data set*** * ***I can identify data that can be gathered over time***   ***4.4.2***   * ***I can explain what data can be collected using sensors*** * ***I can use data from a sensor to answer a given question*** * ***I can identify that data from sensors can be recorded***   ***4.4.3***   * ***I can recognise that a data logger collects data at given points*** * ***I can identify the intervals used to collect data*** * ***I can talk about the data that I have captured***   ***4.4.4***   * ***I can view data at different levels of detail*** * ***I can sort data to find information*** * ***I can explain that there are different ways to view data***   ***4.4.5***   * ***I can propose a question that can be answered using logged data*** * ***I can plan how to collect data using a data logger*** * ***I can use a data logger to collect data***   ***4.4.6***   * ***I can interpret data that has been collected using a data logger*** * ***I can draw conclusions from the data that I have collected*** * ***I can explain the benefits of using a data logger*** | | 5.4.1   * I can create a database using cards * I can explain how information can be recorded * I can order, sort, and group my data cards   5.4.2   * I can explain what a field and a record is in a database * I can navigate a flat-file database to compare different views of information * I can choose which field to sort data by to answer a given question   5.4.3   * I can explain that data can be grouped using chosen values * I can group information using a database * I can combine grouping and sorting to answer specific questions   5.4.4   * I can choose which field and value are required to answer a given question * I can outline how ‘AND’ and ‘OR’ can be used to refine data selection * I can choose multiple criteria to answer a given question   5.4.5   * I can select an appropriate chart to visually compare data * I can refine a chart by selecting a particular filter * I can explain the benefits of using a computer to create charts   5.4.6   * I can ask questions that will need more than one field to answer * I can refine a search in a real-world context * I can present my findings to a group   ***6.4.1***   * ***I can collect data*** * ***I can suggest how to structure my data*** * ***I can enter data into a spreadsheet***   ***6.4.2***   * ***I can explain what an item of data is*** * ***I can choose an appropriate format for a cell*** * ***I can apply an appropriate format to a cell***   ***6.4.3***   * ***I can explain which data types can be used in calculations*** * ***I can construct a formula in a spreadsheet*** * ***I can identify that changing inputs changes outputs***   ***6.4.4***   * ***I can calculate data using different operations*** * ***I can create a formula which includes a range of cells*** * ***I can apply a formula to multiple cells by duplicating it***   ***6.4.5***   * ***I can use a spreadsheet to answer questions*** * ***I can explain why data should be organised*** * ***I can apply a formula to calculate the data I need to answer questions***   ***6.4.6***   * ***I can produce a chart*** * ***I can use a chart to show the answer to a question*** * ***I can suggest when to use a table or chart*** | |
| **Digital Literacy**  (e-safety) | 1.1.6   * I can identify rules to keep us safe and healthy when we are using technology in and beyond the home * I can give examples of some of these rules * I can discuss how we benefit from these rules   ***2.1.5***   * ***I can list different uses of information technology*** * ***I can talk about different rules for using IT*** * ***I can say how rules can help keep me safe*** | | ***4.1.6***   * ***I can explain that not everything on the World Wide Web is true*** * ***I can explain why some information I find online may not be honest, accurate, or legal*** * ***I can explain why I need to think carefully before I share or reshare content*** | | ***6.1.6***   * ***I can compare different methods of communicating on the internet*** * ***I can decide when I should and should not share information online*** * ***I can explain that communication on the internet may not be private*** | |
| New  Key Vocabulary | **Y1**  algorithm  background  backspace  backwards  Bee-Bot  block  bold  brush size  brush style  clear  commands  computer  data set  delete  design  directions  double-click  erase  fewest  fill  fill tool  font  format  forwards  go  group  image  instructions  italic  keyboard  keys  label  left  less  line tool  more  most  mouse  object  paint program  paintbrush  plan  program  programming  programming-area  property  redo  reset  right  route  Scratch Jnr  screen  search  select  shape  shape tools  size  space  sprite  start-block  technology  text cursor  the same  tool  toolbar  trackpad  turn  type  typing  underline  undo  undo tool  value  word processor | **Y2**  actions  attribute  barcode  block diagram  build  change  compose  conclusion  count  create  data  debugging  decomposition  digital device  edit  editing  enter  evaluate  features  filter  flash  focus  framing  Information technology (IT)  input  landscape  least  least common  least popular  less than  light source  lighting  match  modify  more common  more than  most popular  notes  open  order  organise  outcome  output  pattern  pictogram  pitch  portrait  process  project  pulse  rhythm  scan  scanner  sequence  subject  tally chart  tempo  total  votes | **Y3**  animation  backdrop  benefits  branching database  bug  character  chord  code  communicate  connection  consistency  content  copy  costume  database  debug  decision tree  desktop publishing  digital  errors  event  events  extension block  flip book  font style  frame  glide  go to  import  information  layout  logic  media  motion  move  network  network cables  network sockets  network switch  non-digital  onion-skinning  orientation  paste  pen up  photograph  point in direction  project  purpose  resize  run the code  Scratch  selecting  server  set up  setting  stage  stop-frame animation  task  template  test  text  transition  wireless access point | **Y4**  accurate  adjustments  adverts  align  analyse  audio  clone  code snippet  collection  combine  composite  conclusion  count-controlled loop  crop  data logger  data point  data set  download  duplicate  effects  evaluate  export  feedback  files  foreground  forever  headphones  honest  hue  infinite loop  internet  interval  layer  layout  links  load  logged  logging  made up  microphone  MP3  network security  ownership  permission  playback  podcast  procedure  real  record  refine  repetition  retouch  review  rotate  router  routing  saturation  save  selection  sensor  sepia  sharing  speaker  table  trace  trim  use  vignette  web address  web browser  web page  website  World Wide Web | **Y5**  axis  bot  chart  clip  close up  components  condition  conditional statement  creator  criteria  crumble controller  field  filming  graph  high angle  implement  index  LED  lens  long shot  low angle  microcontroller  mid-range  moving subject  normal angle  ordering  panning  presentation  ranking  reorder  reshoot  reuse  search  search engine  search engine optimisation (SEO)  setup  side by side  sort  split  static camera  storyboard  system  talking head  tilt  value  vector  vector drawing  video  web crawler | **Y6**  accelerometer  address  artwork  breadcrumb trail  calculate  calculation  cell  cell reference  choose  collaboration  collecting  comparison  compass  construct  Copyright  cylinder  data item  data payload  Domain Name Server (DNS)  embed  external link  fair use  flashing  formula  Google Sites  handles  header  hollow  home page  hyperlink  Hypertext Markup Language (HTML)  if then else  implication  improve  Internet Protocol (IP) address  lift  lower  MakeCode  Micro.bit  modify  navigation  one-to-many  one-to-one  one-way  operation  packet  perspective  placeholder  plan  private  propose  protocol  question  random  range  recolour  resize  results  sensing  set  share  sigma  slide deck  software  spreadsheet  step counter  structure  subpage  two-way  USB  variable  view |