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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 learningBelow 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.
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|  | **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***
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| **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***
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| **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 image5.5.5* 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***
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| New Key Vocabulary | **Y1**algorithmbackgroundbackspacebackwardsBee-Botblockboldbrush sizebrush styleclearcommandscomputerdata setdeletedesigndirectionsdouble-clickerasefewestfillfill toolfontformatforwardsgogroupimageinstructionsitalickeyboardkeyslabelleftlessline toolmoremostmouseobjectpaint programpaintbrushplanprogramprogrammingprogramming-areapropertyredoresetrightrouteScratch Jnrscreensearchselectshapeshape toolssizespacespritestart-blocktechnologytext cursorthe sametooltoolbartrackpadturntypetypingunderlineundoundo toolvalueword processor | **Y2**actionsattributebarcodeblock diagrambuildchangecomposeconclusioncountcreatedatadebuggingdecompositiondigital deviceediteditingenterevaluatefeaturesfilterflashfocusframingInformation technology (IT)inputlandscapeleastleast commonleast popularless thanlight sourcelightingmatchmodifymore commonmore thanmost popularnotesopenorderorganiseoutcomeoutputpatternpictogrampitchportraitprocessprojectpulserhythmscanscannersequencesubjecttally charttempototalvotes | **Y3**animationbackdropbenefitsbranching databasebugcharacterchordcodecommunicateconnectionconsistencycontentcopycostumedatabasedebugdecision treedesktop publishingdigitalerrorseventeventsextension blockflip bookfont styleframeglidego toimportinformationlayoutlogicmediamotionmovenetworknetwork cablesnetwork socketsnetwork switchnon-digitalonion-skinningorientationpastepen upphotographpoint in directionprojectpurposeresizerun the codeScratchselectingserverset upsettingstagestop-frame animationtasktemplatetesttexttransitionwireless access point | **Y4**accurateadjustmentsadvertsalignanalyseaudioclonecode snippetcollectioncombinecompositeconclusioncount-controlled loopcropdata loggerdata pointdata setdownloadduplicateeffectsevaluateexportfeedbackfilesforegroundforeverheadphoneshonesthueinfinite loopinternetintervallayerlayoutlinksloadloggedloggingmade upmicrophoneMP3network securityownershippermissionplaybackpodcastprocedurerealrecordrefinerepetitionretouchreviewrotaterouterroutingsaturationsaveselectionsensorsepiasharingspeakertabletracetrimusevignetteweb addressweb browserweb pagewebsiteWorld Wide Web | **Y5**axisbotchartclipclose upcomponentsconditionconditional statementcreatorcriteriacrumble controllerfieldfilminggraphhigh angleimplementindexLEDlenslong shotlow anglemicrocontrollermid-rangemoving subjectnormal angleorderingpanningpresentationrankingreorderreshootreusesearchsearch enginesearch engine optimisation (SEO)setupside by sidesortsplitstatic camerastoryboardsystemtalking headtiltvaluevectorvector drawingvideoweb crawler | **Y6**accelerometeraddressartworkbreadcrumb trailcalculatecalculationcellcell referencechoosecollaborationcollectingcomparisoncompassconstructCopyrightcylinderdata itemdata payloadDomain Name Server (DNS)embedexternal linkfair useflashingformulaGoogle Siteshandlesheaderhollowhome pagehyperlinkHypertext Markup Language (HTML)if then elseimplicationimproveInternet Protocol (IP) addressliftlowerMakeCodeMicro.bitmodifynavigationone-to-manyone-to-oneone-wayoperationpacketperspectiveplaceholderplanprivateproposeprotocolquestionrandomrangerecolourresizeresultssensingsetsharesigmaslide decksoftwarespreadsheetstep counterstructuresubpagetwo-wayUSBvariableview |