Computing Curriculum

Intent	The purpose of our curriculum at Meadow Park Academy is to ensure that all our children are prepared learners for the 21st Century and are responsible global citizens. Our curriculum will introduce our children to the essential knowledge, skills and understanding that will help them develop a love for their lifelong learning. We want our children to be confident, resilient and independent learners and ensure that they have an appreciation of their own place in the wider world. At Meadow Park, we want our children to be proud and passionate about their learning and have a desire to be successful within and beyond the school day. Our curriculum is designed to provide an outline of core knowledge around which our teachers can develop exciting and stimulating lessons to promote the development of children's knowledge, understanding and skills as part of the wider school curriculum.
Implementation	To deliver a curriculum that ensures that children develop their skills and knowledge progressively and enables children to communicate their understanding and what they remember both orally and in writing. To design sequences of learning in each subject that inspires, challenges and engages children through the use of a range of teaching strategies including: practical activities, hooks, resources, visits, outdoor learning, speakers, and workshops. To ensure the topics taught within the subject enable children to develop depth and breadth of understanding. To promote the Meadow Park curriculum within the local, national and international context and make explicit links to the world beyond the school gates. To ensure that the children are exposed to high-level subject vocabulary and can articulate their understanding confidently using the correct terminology. To ensure the curriculum is accessible to all children through carefully planned and delivered lessons that is inclusive and ensures all children are able to succeed. To promote links across the curriculum to enable learning to be contextualised, exciting, creative and fun.
Impact	Children are engaged and motivated about their learning at Meadow Park Academy. They demonstrate a love and passion and are able to talk and write about their learning and how it links to the modern world confidently. The enriched curriculum will have prepared the children for their transition to the next phase of their learning by equipping them with the skills of resilience, curiosity, independence and proactivity to ensure they continue to be successful.

Long Term Overview: Computing

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	**Early Technology** Overview The children will explore technology at home and at school. They will begin to think about how to stay safe online and use small world play to learn about technology at work. Curriculum Links PSHE Experiences	**Developing Technology** Overview The children will continue to learn about technology and will develop independence when using technology in school, including asking for help when it's needed. Curriculum Links PSHE Experiences	**Technology for Media** Overview The children will use computer software to play games and create images on painting software. They will use technology to watch video and look at images related to their learning. Curriculum Links Experiences	**Technology for Research** Overview The children will use the internet to explore images online and find out facts, with the support of an adult. They will also use technology to watch videos and look at images relating to their learning. Curriculum Links Experiences	**Safety in Technology** Overview The children will learn how to log on and off devices safely, including how to keep passwords private. They will also have lots of small world opportunities, using technology in the real world. Curriculum Links Experiences	**Technology for me** Overview The children will continue to develop their skills of logging on and logging off. They will search for images themselves, developing their typing skill and will begin to type their own name. Curriculum Links Experiences
Year 1	**Technology around us** Overview The children will understand that technology is something that helps us in our every day life to be more effective and productive. They will identify the main part of a computer and use a mouse/trackpad confidently. They will begin to consider how to stay safe online. Curriculum Links PSHE Experiences	**Digital Writers** Overview The children will use the computer to write for a purpose and will add and remove text on the screen. They will explore how this text can be edited and compare this process to that of writing on paper. Curriculum Links English Experiences	**Moving a Robot** **Overview** The children will learn about giving commands and anticipating what the outcome will be. They will combine commands such as backwards, forwards, clockwise and anti-clockwise. They will explore whether there is more than one solution to a problem. **Curriculum Links** English **Experiences**	**Introduction to Animation** **Overview** The children will learn tat they can choose a command for a given purpose. They will show that a series of commands can be joined together and identify the effect of changing a value. They will explain that each Sprite has it's own instructions and will use an algorithm to create a program. **Curriculum Links** **Experiences**	**Grouping Data** **Overview** The children will learn how to label objects and identify that objects can be counted. They will describe the objects in different ways and will count the objects with the same properties. They will be able to analyse the data and answer questions about groups or objects. **Curriculum Links** Maths **Experiences**	**Digital Painting** **Overview** Children will use their voices expressively and creatively by singing songs and speaking chants and rhymes and play tuned and untuned instruments. They will rehearse a song and play it to an audience; talk about their performance afterwards; and follow a leader or conductor. **Curriculum Links** **Experiences**
Year 2	**Technology around us** **Overview** Children will recognise the uses and features of information technology. They will be able to identify IT around the home, at school and beyond school and be able to talk about how this benefits us. **Curriculum Links** PSHE **Experiences**	**Digital Photography** **Overview** The children will explain and carry out the process of taking a photograph, identify what is wrong with a photography and know how to correct it and use editing tools to change a photograph. **Curriculum Links** History **Experiences**	**Robot Algorithms** **Overview** The children will use key vocabulary to enact as a sequence and give clear and unambiguous instructions. They will give commands using a range of sequences and use logical reasoning to predict the outcome of a program. They will identify different routes around a mat, create an algorithm to meet an end goal and create a debug a program. **Curriculum Links** **Experiences**	**Introduction to Quizzes** **Overview** The children will learn how to identify the start in the sequence of commands; predict an outcome of a set of commands; and match up two sequences with the same outcome. They will explore how to compare the project to their design and debug for any errors. **Curriculum Links** Science **Experiences**	**Pictograms** **Overview** The children will learn how to record and compare data in a tally chart; how to enter and view data in different formats; and how to use a tally chart to create a pictogram. They will explain why information is presented and give examples of why some information should not be shared. **Curriculum Links** Maths **Experiences**	**Making Music** **Overview** The children will learn how to create a rhythmic pattern and how to use a computer to experiment with pitch and duration. They will use a computer to create music and to save and reopen work. **Curriculum Links** Music Science **Experiences**
Year 3	**Connecting Devices** **Overview** The children will learn to understand the terms input and output while being able to model a simple process. They will compare using digital devices and non digital devices and understand the term 'network switch'. They will explore different connections and how messages are passed on.	**Desktop Publishing** **Overview** The children will learn how to change font style, size and colours for a given purpose. They will edit text, create a template and define 'page orientation'. They will learn how to paste text and images. **Curriculum Links** English	**Sequence in Music** **Overview** The children will learn to explain that objects in scratch have attributes and to recognise that commands are represented as blocks. They will create a program that has been designed and create a sequence of connected commands. They will combine sound commands and an algorithm as code.	**Events and actions** **Overview** The children will choose the correct key for the correct action and explain the relationship between an event and an action. They will program movement; choose blocks to set up a program; and match a piece of code to an outcome. **Curriculum Links**	**Branching databases** **Overview** The children will learn how to arrange objects into a tree structure; how to select an attribute to create groups and prove a branching database works. They will compare two branching database structures and evaluate the effectiveness of using a computer for this data collection.	**Animation** **Overview** The children will identify a sequence in a group of pictures and predict an animation. They will understand small, incremental changes and evaluation the quality of the animation. They will review the sequence to check it works and use onion skinning to help make small

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	Curriculum Links Maths Art **Experiences**	**Experiences**	**Curriculum Links** Music **Experiences**	Maths PSHE **Experiences**	**Curriculum Links** Maths **Experiences**	changes, and to explain why I made certain decisions. **Curriculum Links** English **Experiences**
Year 4	**The Internet** **Overview** The children will understand how information is shared across the internet; explain what the internet is and why a network needs protecting; and understand the difference between the internet and the WWW. They will create new content to share online and explore content permissions and ownership. **Curriculum Links** PSHE Art **Experiences**	**Photo Editing** **Overview** The children will identify that not all images online are true and will consider what changes have been made and why they might have been changed. They will explore appropriate tools to retouch an image and sort images into fake and real. **Curriculum Links** **Experiences**	**Repetition in Shapes** **Overview** The children will learn to create a code snippet for a given purpose; explain the effect of the changing value of a command and test an algorithm in text based language. They will write an algorithm to produce a given outcome; use a count controlled loop and use a procedure in program. **Curriculum Links** Maths **Experiences**	**Repetition in Games** **Overview** The children will modify a set of code to give a certain outcome; predict an outcome; use existing code and use repetition in a project. **Curriculum Links** **Experiences**	**Data logging** **Overview** The children will identify that sensors are input devices; import a data set and sort and view data using a computing – focussing specifically on whether this would be easier without a computer. They will use a data logger to collect data and interpret data collected using sorting tools. **Curriculum Links** Science **Experiences**	**Audio Editing** **Overview** The children will identify devices that can record sound; recap input and output; record an effective audio for a podcast; and save a digital recording as a file. They will explore how digital recordings can be edited and export a recording for sharing. **Curriculum Links** English Music Science **Experiences**
Year 5	**Sharing Information** **Overview** The children will learn about how computers are connected and how to identify human elements to a computer system. They will understand how data is transferred over in packets and understand that devices have unique addresses. They will also compare working online with offline and work collaboratively on a project. **Curriculum Links** PSHE **Experiences**	**Video Editing** **Overview** Children will learn to recognise that video can be both audio and visual, and identifying digital devices that record video. They will handle devices safely and select the correct tools to edit video footage. They will learn to story, retrieve and export the recording. **Curriculum Links** **Experiences**	**Selection in Physical Computing** **Overview** The children will learn to build a simple circuit to connect a microcontroller to a computer. They will use an infinite loop and connect more than one output device to a microcontroller. The children will also learn to experiment with a 'do until' loop and create a physical project that includes selection. **Curriculum Links** **Experiences**	**Selection in Quizzes** **Overview** The children will learn how to identify, modify and recall how conditions are used; relate that a conditional statement connects a condition to an outcome and explain how selection directs the flow of the program. They will identify the outcome of user input in an algorithm and test a program. **Curriculum Links** **Experiences**	**Flat file databases** **Overview** The children will create a controllable system that includes selection, they will order, sort and group data cards and compare paper and computer based databases. The children will learn how to use specific tools to select specific data and refine a chart by selecting a specific filter. **Curriculum Links** Science **Experiences**	**Vector Drawing** **Overview** The children will identify common drawing tools and identify shapes that make up a vector drawing. They will move, resize and rotate duplicated objects. The children will further use alignment grids and use zoom detail to add more detail to drawings and to change the order of layers in the drawing. **Curriculum Links** DT **Experiences**
Year 6	**Communication** **Overview** The children will identify how to use a search engine; describe how search engines select results and explain how search results are ranked. They will recognise why the order of results is important and recognise how we communicate using technology. They will evaluate different methods of online communication. **Curriculum Links** **Experiences**	**Web page creation** **Overview** The children will review an existing website and consider it's structure; they will plan the features of a webpage; consider the ownership and use of images and recognise the need to preview pages. They will outline the need for a navigation path and recognise the implications of linking content owned by other people. **Curriculum Links** English **Experiences**	**Variables in Games** **Overview** The children will be able to define a variable as something that is changeable and explain why a variable is used in a program. They will choose how to improve a game by using variables. They will also design a project that builds on a given example and use their design to create a project. Finally, they will evaluate their project. **Curriculum Links** **Experiences**	**Sensing** **Overview** The children will create a program to run on a controllable device and explain that selection can control the flow of a program. They will update a variable with a user input and use a conditional statement to compare a variable to a value. They will design a project that uses inputs and outputs on a controllable device. They will also develop a program to use inputs and outputs on a controllable device. **Curriculum Links** **Experiences**	**Spreadsheets** **Overview** The children will be able to identify questions which can be answered using data; explain that objects can be describe using data; explain that formula can be used to produce calculated data; and apply formulas to data, including duplication. They will create a spreadsheet to plan an event and choose suitable ways to present data **Curriculum Links** Maths **Experiences**	**3D Modelling** **Overview** The children will use a computer to create and manipulate 3D objects; compare working digitally with 2D and 3D graphics; and construct a digital 3D model of a physical object. They will identify that physical objects can be broken down into a collection of 3D objects. They will design a digital model by combining 3D objects and develop and improve a digital 3D model. **Curriculum Links** Art AT Maths **Experiences**

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National Curriculum Coverage —Years 1 and 2	1.1 Technology around us	1.2 Digital painting	1.3 Moving a robot	1.4 Grouping data	1.5 Digital writing	1.6 Programming animations	2.1 Information technology around us	2.2 Digital photography	2.3 Robot algorithms	2.4 Pictograms	2.5 Digital music	2.6 Programming quizzes
Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions.			✓			✓			✓			✓
Create and debug simple programs			✓			✓			✓			✓
Use logical reasoning to predict the behaviour of simple programs			✓			✓			✓			✓
Use technology purposefully to create, organise, store, manipulate, and retrieve digital content	✓	✓		✓	✓		✓	✓		✓	✓	✓
Recognise common uses of information technology beyond school	✓		✓				✓	✓				
use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	✓			✓	✓		✓	✓	✓	✓		

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National Curriculum Coverage – Years 3 and 4	3.1 Connecting computers	3.2 Stop-frame animation	3.3 Sequencing sounds	3.4 Branching databases	3.5 Desktop publishing	3.6 Events and actions in programs	4.1 The internet	4.2 Audio production	4.3 Repetition in shapes	4.4 Data logging	4.5 Photo editing	4.6 Repetition in games
design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts			✓			✓			✓			✓
use sequence, selection, and repetition in programs; work with variables and various forms of input and output	✓		✓			✓			✓	✓		✓
use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs			✓			✓			✓			✓
understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration	✓						✓					
use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content					✓		✓	✓			✓	
select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.		✓		✓			✓	✓			✓	

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National Curriculum Coverage – Years 5 and 6	5.1 systems and searching	5.2 Video production	5.3 Selection in physical computing	5.4 Flat-file database	5.5 Introduction to vector graphics	5,6 Selection in quizzes	6.1 Communication and collaboration	6.2 Webpage creation	6.3 Variables in games	6.4 Introduction to spreadsheets	6.5 3D modelling	6.6 Sensing movement
design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts			✓			✓	✓		✓			✓
use sequence, selection, and repetition in programs; work with variables and various forms of input and output			✓			✓			✓			✓
use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs			✓			✓			✓			✓
understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration	✓						✓					
use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content		✓		✓				✓				
select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	✓	✓						✓	✓		✓	

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Progression of Skills

Substantive Knowledge	Disciplinary Knowledge

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		Reception	Y1	Y2	Y3	Y4	Y5	Y6
COMPUTER SCIENCE	**Programming**  Disciplinary knowledge Substantive knowledge	Know how to give instructions. Know how to make predictions. Know how to follow a route. Know how to program a beebot. Know simple examples of personal information (e.g. name, birthday, address) Know who to share personal information with. Know the internet can be used to communicate. Know that arrows show directions. Know left and right. Know that a beebot is a robot.	Know and predict the outcome of a command on a device. Know how to match a command to an outcome. Know how to run a command on a device. Know how to follow an instruction. Know how to recall words that can be acted out. Know how to give directions. Know how to compare forwards and backwards movements. Know to start a sequence from the same place.	Know how to follow instructions given by someone else. Know how to choose a series of words that can be enacted as a sequence. Know how to create different algorithms for a range of sequences (using the same commands). Know how to use an algorithm to program a sequence on a floor robot. Know how to test my mat to make sure that it is usable. Know how to create an algorithm to meet my goal. Know how to use my algorithm to	Know how to create a program following a design. Know how to start a program in different ways. Know how to create a sequence of connected commands. Know how to explain that the objects in my project will respond exactly to the code. Know how to explain what a sequence is. Know how to combine sound commands. Know how to order notes into a sequence. Know how to build a sequence of commands.	Know how to program a computer by typing commands Know how to create a code snippet for a given purpose Know how to use a template to draw what I want my program to do Know how to write an algorithm to produce a given outcome Know how to test my algorithm in a text- based language Know how to identify patterns in a sequence Know how to use a count-controlled loop to produce a given outcome Know how to choose which values to change in a loop Know how to use a procedure in a program	Know how to build a simple circuit to connect a microcontroller to a computer Know how to program a microcontroller to light an LED Know how to connect more than one output device to a microcontroller Know how to design sequences for given output devices Know how to program a microcontroller to respond to an input Know how to identify a condition and an action in my project Know how to use selection (an 'if… then…' statement) to direct the flow of a program	Know how to create algorithms for my project. Know how to create the artwork for my project. Know how to test the code that I have written. Know ways that my game could be improved. Know how to extend my game further using more variables. Know how to share my game with others. Know how to apply my knowledge of programming to a new environment. Know how to test my program on an emulator.

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			Know and predict the outcome of a sequence involving forwards and backwards commands. Know to compare left and right turns. Know how to experiment with turn and move commands to move a robot. Know and predict the outcome of a sequence involving up to four commands. Know how to choose the order of commands in a sequence. Know how to debug my program. Know to identify several possible solutions. Know how to plan two programs. Know how to use two different	create a program. Know how to plan algorithms for different parts of a task Know how to test and debug each part of the program. Know how to put together the different parts of my program. Know how to run my program. Know how to match two sequences with the same outcome. Know how to change the outcome of a sequence of commands. Know how to work out the actions of a sprite in an algorithm. Know how to build the sequences of blocks I need. Know how to choose	Know how to decide the actions for each sprite in a program. Know how to make design choices for my artwork. Know how to relate a task description to a design. Know how to implement my algorithm as code. Know how to choose a character in Scratch. Know how to program movement Know how to use a programming extension Know how to build more sequences of commands to make my design work Know how to test a program against a given design Know how to match a piece of code to an outcome Know how to modify a program using a design	Know how to design a program that includes count-controlled loops Know how to make use of my design to write a program Know how to develop my program by debugging it Know how to modify a snippet of code to create a given outcome Know how to modify loops to produce a given outcome Know how to select key parts of a given project to use in my own design Know how to develop my own design explaining what my project will do. Know how to refine the algorithm in a design Know how to build a program that follows a design Know how to evaluate the steps that were followed when building the project	Know how to identify a condition to start an action (real world) Know how to create a detailed drawing of my project Know how to write an algorithm to control lights and a motor Know how to test and debug my project Know how conditions are used in selection Know how to identify conditions in a program Know how to modify a condition in a program Know how to use selection in an infinite loop to check a condition Know how to create a program with different outcomes using selection Know how to design the flow of a program which contains 'if... then... else...' Know that a condition can direct program	Know how to transfer my program to a controllable device. Know how to identify examples of conditions in the real world. Know how to determine the flow of a program using selection. Know how to experiment with different physical inputs. Know how to use an operand (e.g. e.g <>=) in an if, then statement. Know how to modify a program to achieve a different outcome. Know how to design the algorithm for my project. Know how to design the program flow for my project. Know how to create a program based on my design. Know how to test my program against my design.

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			programs to get to the same place. Know how to find the commands to move a sprite. Know how to use commands to move a sprite. Know how to compare different programming tools. Know how to use more than one block by joining them together. Know how to use a **Start** block in a program. Know how to run my program. Know how find blocks that have numbers. Know how to change the value. Know and say what happens when I change a value. Know and show that a project can	backgrounds for the design. Know how to choose characters for the design. Know how to create a program based on the new design. Know how to choose the images for my own design. Know how to create an algorithm. Know how to build sequences of blocks to match my design. Know how to compare my project to my design. Know how to improve my project by adding features. Know how to debug. Know where the start of a sequence is. Know that a program needs to be started.	Know how to implement my design Know all the objects in a Scratch project (sprites, backdrops) Know that objects in Scratch have attributes (linked to) Know that commands in Scratch are represented as blocks. Know that each sprite is controlled by the commands I choose. Know a word which describes an on- screen action for my design. Know the names of the objects I will need for a project. Know the relationship between an event and an action Know which keys to use for actions and explain my choices Know a way to improve a program	Know the effect of changing a value of a command Know examples of repetition in everyday tasks Know the effect of changing the number of times a task is repeated Know to predict the outcome of a program containing a count-controlled loop Know where there are 'chunks' of actions in the real world Know that a computer can repeatedly call a procedure Know an everyday task as a set of instructions including repetition Know to predict the outcome of a snippet of code Know when to use a count-controlled and an infinite loop Know that some programming languages enable more than one	flow in one of two ways Know how to outline a given task Know how to use a design format to outline my project Know how to identify the outcome of user input in an algorithm Know how to implement my algorithm to create the first section of my program Know how to test my program Know how to share my program with others Know how to identify the setup code I need in my program Know how to extend my program further Know and explain why I used an infinite loop Know which output devices I control with a count-controlled loop	Know examples of information that is variable. Know that the way that a variable change can be defined. Know that variables can hold numbers or letters. Know to identify a program variable as a placeholder in memory for a single value. Know that a variable has a name and a value. Know that the value of a variable can be changed. Know where in a program to change a variable. Know to make use of an event in a program to set a variable. Know that the value

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			include more than one sprite. Know how to delete a sprite. Know how to add blocks to each of my sprites. Know how to choose appropriate artwork for my project. Know how to decide how each sprite will move. Know how to create an algorithm for each sprite. Know how to use sprites that match my design. Know how to add programming blocks based on my algorithm. Know how to test the programs I have created Know what a command does.	Know to predict the outcome of a sequence of commands. Know which blocks to use to meet the design. Know to give clear and unambiguous instructions. Know to show the difference in outcomes between two sequences that consist of the same commands. Know to follow a sequence. Know to predict the outcome of a sequence. Know to compare my prediction to the program outcome. Know to explain the choices I made for my mat design. Know to identify different routes around my mat.	Know a suitable size for a character in a maze Know to consider the real world when making design choices Know which blocks to use to set up my program Know additional features (from a given set of blocks) Know suitable keys to turn on additional features Know to make design choices and justify them Know to evaluate my project	process to be run at once Know which action will be repeated for each object Know what the outcome of the repeated action should be Know to evaluate the effectiveness of the repeated sequences used in my program Know which parts of a loop can be changed Know the effect of my changes Know to re-use existing code snippets on new sprites Know to evaluate the use of repetition in a project	Know that a condition is something that can be either true or false (eg whether a value is more than 10, or whether a button has been pressed) Know to experiment with a 'do until' loop Know that a condition being met can start an action Know and describe what my project will do (the task) Know to use selection to produce an intended outcome Know to identify the condition and outcomes in an 'if… then… else…' statement Know that program flow can branch according to a condition Know to identify ways the program could be improved	of a variable can be used by a program. Know how to choose the artwork for my project. Know to explain my design choices. Know to choose a name that identifies the role of a variable. Know to use a variable in an if, then, else statement to select the flow of a program. Know that if you read a variable, the value remains. Know the importance of the order of conditions in else, if statements. Know what variables to include in a project. Know to use a range of approaches to find and fix bugs.

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			Know a program is a set of commands a computer can run. Know that a series of instructions can be issued before they are enacted. Know what a sprite is. Know to compare different programming blocks. Know a series of commands can be joined together to form a program. Know a program is a set of commands a computer can run.	Know to explain what my algorithm should achieve.				
		Reception	Y1	Y2	Y3	Y4	Y5	Y6
COMPUTER SCIENCE	**Data and Information** Disciplinary knowledge Substantive knowledge	Know to sort objects into groups. Know questions can be answered using yes or not. Know different ways things can be sorted. Know data can match a simple pictogram.	Know how to describe objects using labels. Know how to match objects to groups. Know how to identify the label for a group of objects. Know how to count objects.	Know how to record data in a tally chart. Know how to represent a tally count as a total. Know how to compare totals in a tally chart.	Know how to choose a data set to answer a given question. Know how to suggest questions that can be answered using a given data set. Know how to use data from a sensor to answer a given question.	Know how to investigate questions with yes/no answers. Know how to make up a yes/no question about a collection of objects. Know how to create two groups of objects separated by one attribute. Know how to select an attribute to	Know how to create multiple questions about the same field. Know how information can be recorded. Know how to order, sort, and group my data cards. Know how to navigate a flat-file database to	Know how to answer questions from an existing data set. Know how to apply an appropriate number format to a cell. Know how to build a data set in a spreadsheet application. Know how to

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		Know we can find information on the internet. Know which devices will allow us to go on the internet. Know different types of computer hardware. Know everyday uses of technology. Know different ways that I can put things on the internet.	Know how to group objects. Know how to count a group of objects. Know how to describe an object. Know how to describe a property of an object. Know how to find objects with similar properties. Know how to group similar objects. Know how to group objects in more than one way. Know how to count how many objects share a property. Know how to choose how to group objects. Know how to describe groups of objects.	Know how to enter data onto a computer. Know how to use a computer to view data in a different format. Know how to use pictograms to answer simple questions about objects. Know how to organise data in a tally chart. Know how to use a tally chart to create a pictogram. Know how to tally objects using a common attribute. Know how to create a pictogram to arrange objects by an attribute. Know how to answer, 'more than'/'less than' and 'most/least' questions about an attribute. Know how to choose a suitable attribute to compare	Know how to import a data set. Know how to use a computer to view data in different ways. Know how to use a computer program to sort data. Know how to use a data logger to collect data. Know how to interpret data that has been collected using a data logger. Know that data gathered over time can be used to answer questions. Know data that can be gathered over time. Know that sensors are input devices. Know that data from sensors can be recorded. Know a suitable place to collect data.	separate objects into groups. Know how to create a group of objects within an existing group. Know how to arrange objects into a tree structure. Know how to select objects to arrange in a branching database. Know how to group objects using my own yes/no questions. Know how my branching database works. Know how to create yes/no questions using given attributes. Know how to compare two branching database structures. Know how to select a theme and choose a variety of objects. Know how to create questions and apply them to a tree structure. Know how to use my branching database to answer questions.	compare different views of information. Know how information can be grouped. Know how to group information to answer questions. Know how to combine grouping and sorting to answer more specific questions. Know how 'AND' and 'OR' can be used to refine data selection. Know how to refine a search in a real-world context. Know what a 'field' and a 'record' is in a database. Know which field to sort data by to answer a given question. Know which field and value are required to answer a given question. Know to choose multiple criteria to answer a given question. Know to an	construct a formula in a spreadsheet. Know how to create a formula which includes a range of cells. Know how to apply a formula to multiple cells by duplicating it. Know how to use a spreadsheet to answer questions. Know and explain why data should be organised. Know how to produce a graph. Know how to use a graph to show the answer to questions. Know and explain the relevance of data headings. Know to ask simple relevant questions which can be answered using data. Know what an item of data is. Know and explain the relevance of a cell's data type.

Computing Curriculum

			Know how to record how many objects are in a group. Know how to decide how to group objects to answer a question. Know how to compare groups of objects. Know how to record and share what I have found. Know and identify how objects have been grouped. Know labels are used to identify a group.	people. Know how to collect the data I need. Know how to create a pictogram and draw conclusions from it. Know how to use a computer program to present information in different ways. Know what the pictogram shows. Know to share what I have found out using a computer. Know to give simple examples of why information should not be shared.	Know the intervals used to collect data. Know and talk about the data that I have captured. Know to propose a question that can be answered using logged data. Know to plan how to collect data using a data logger. Know to draw conclusions from the data that I have collected. Know and explain the benefits of using a data logger.	Know how to compare two ways of presenting information. Know and explain that questions need to be ordered carefully to split objects into similarly sized groups. Know and explain what a pictogram tells me. Know and explain what a branching database tells me.	appropriate chart to visually compare data. Know to refine a chart by selecting a particular filter. Know the benefits of using a computer to create graphs. Know to ask questions that will need more than one field to answer.	Know that changing inputs changes outputs. Know that data can be calculated using different operations. Know and apply a formula to calculate the data I need to answer questions. Know when to use a table or graph.
		Reception	Y1	Y2	Y3	Y4	Y5	Y6

Computing Curriculum

INFORMATION TECHNOLOGY	**Computer systems and networks**  Disciplinary knowledge Substantive knowledge	Know how to move a mouse. Know how to click a mouse. Know how to drag objects moving a mouse. Know that a computer has different parts.	Know how to open a file. Know how to move and resize images. Know how to find examples of information technology.	Know how to open a file. Know how to move and resize images. Know how to find examples of information technology.	Know how to follow a process. Know how to classify input and output devices. Know how to model a simple process. Know how to design a digital device.	Know how to access websites on the WWW. Know how to create media which can be found on websites. Know the internet is a network of networks.	Know how to complete a web search to find specific information. Know how to refine my search. Know that information can be sent over the internet in different ways. Know that systems	Know how to complete a web search to find specific information. Know how to refine my search. Know how to compare results from different search engines.

Computing Curriculum

		Know how to turn an Ipad. Know different ways some digital devices work. Know the names of some digital devices at home and school. Know that devices have controls which make them work	Know different uses of a computer. Know what logging in and logging out means. Know the importance of passwords. Know what a keyboard is for. Know we can find information on the internet. Know examples of how I might use technology to communicate with people I know e.g. phone, email.	Know how information technology is used in a shop. Know there are examples of different computers. Know and describe some uses of computers. Know that a computer is a part of information technology. Know and explain the purpose of information technology in the home. Know and talk about uses of information technology. Know and compare types of information technology. Know and explain how information technology helps people. Know different uses of information technology.	Know how information technology is used in a shop. Know there are examples of different computers. Know and describe some uses of computers. Know that a computer is a part of information technology. Know and explain the purpose of information technology in the home. Know and talk about uses of information technology. Know and compare types of information technology. Know and explain how information technology helps people. Know different uses of information technology.	Know how I use digital devices for different activities. Know how to recognise similarities between using digital devices and non-digital tools. Know how to recognise different connections. Know how messages are passed through multiple connections. Know that digital devices accept inputs. Know that digital devices produce outputs. Know the differences between using digital devices and non-digital tools. Know why we need a network switch. Know that a computer network is made up of several devices. Know and can demonstrate how information can be passed between devices.	Know that information is shared across the internet. Know why a network needs protecting. Know the different networked devices and how they connect. Know that the internet allows us to view the World Wide Web. Know that the World Wide Web is the part of the internet that contains websites and web pages. Know the types of media that can be shared on the World Wide Web (WWW) Know where websites are stored when uploaded to the WWW. Know that I can add content to the WWW. Know that new content can be created online.	are built using several parts. Know that a computer system features inputs, processes, and outputs. Know that computer systems communicate with other devices. Know tasks that are managed by computer systems. Know the human elements of a computer system. Know the benefits of a given computer system. Know that data is transferred using agreed methods. Know that networked digital devices have unique addresses. Know that data is transferred over networks in packets. Know that connected digital devices can allow us to access	Know how to relate a search term to the search engine's index. Know why we need tools to find things online. Know the role of web crawlers in creating an index. Know that search results are ordered. Know that a search engine follows rules to rank relevant pages. Know some of the criteria that a search engine checks to decide on the order of results. Know some of the ways that search results can be influenced. Know and explain how search engines make money.

Computing Curriculum

				Know not to use a device late at night. Know to watch age- appropriate videos. Know to play age- appropriate games. Know to ask permission before taking photographs. Know photos should only be taken of those you have permission of.	Know and can explain the role of a switch, server, and wireless access point in a network. Know and can identify how devices in a network are connected with one another. Know and can identify networked devices around me. Know and can identify the benefits of computer networks.	Know that websites and their content are created by people. Know who owns the content on websites. Know that there are rules to protect content. Know that not everything on the World Wide Web is true. Know why some information I find online may not be honest, accurate, or legal. Know why I need to think carefully before I share or reshare content.	shared files stored online. Know that the internet allows different media to be shared. Know and suggest strategies to ensure successful group work. Know what working online with working offline means. Know different ways of working together online. Know that working together on the internet can be public or private. Know that the internet enables effective collaboration.	Know and compare to compare different methods of communicating on the internet. Know the different ways in which people communicate. Know that there are a variety of ways of communicating over the internet. Know to choose methods of communication to suit purposes. Know when I should and should not share. Know that communication on the internet may not be private. Know what Boolean operators are and how they can help refine a search.

Computing Curriculum

		Reception	Y1	Y2	Y3	Y4	Y5	Y6

Computing Curriculum

INFORMATION TECHNOLOGY	**Creating media**  Disciplinary knowledge Substantive knowledge	Know how to manipulate a simple video or photograph.	Know how to take a photograph. Know how to take photos in both landscape and portrait format. Know how to take a good photograph. Know how to use a tool to achieve a desired effect. Know how to apply a range of photography skills to capture a photo. Know what devices can be used to take photographs. Know and explain what I did to capture a digital photo. Know the process of taking a good photograph. Know and explain why a photo looks better in portrait or landscape format. Know what is wrong with a photograph.	Know how to take a photograph. Know how to take photos in both landscape and portrait format. Know how to take a good photograph. Know how to use a tool to achieve a desired effect. Know how to apply a range of photography skills to capture a photo. Know how to connect images with sounds. Know how to use a computer to experiment with pitch and duration. Know how to use a computer to create a musical pattern using three notes. Know how to save my work. Know how to refine my musical pattern on a computer. Know how to reopen my work. Know what devices	Know how to draw a sequence of pictures. Know how to create flip book—style animation. Know how an animation and flip book works. Know how to create and effective stop frame animation. Know how to break down a story into settings, characters, and events. Know how to describe an animation that is achievable on screen. Know how to create a storyboard. Know how to use onion skinning to help me make small changes between frames. Know how to review a sequence of frames to check my work. Know how evaluate the quality of my animation. Know how to evaluate another learner's animation.	Know how to use a device to record audio and play back sound. Know how to improve my recording. Know how to save a digital recording as a file. Know how to open a digital recording from a file. Know how to edit sections of an audio recording. Know how to use editing tools to arrange sections of audio. Know how to identify changes that we can make to an image. Know how to explore how images can be changed in real life. Know how to explain the effect that editing can have on an image. Know how to explain what has changed in an edited image.	Know how to experiment with different camera angles Know how to make use of a microphone Know how to capture video using a range of filming techniques Know how to create and save video content Know how to review how effective my video is Know how to outline the scenes of my video Know how to decide which filming techniques I will use Know how to store, retrieve, and export my recording to a computer Know how to improve a video by reshooting and editing Know how to select the correct tools to make edits to my video Know how to make edits to my video and	Know how to explore a website. Know how to draw a web page layout that suits my purpose. Know how to find copyright-free images. Know how to add content to my own web page. Know how to preview what my web page looks like. Know how to make multiple web pages and link them using hyperlinks. Know how to select, move, and delete a digital 3D shape. Know how graphical objects can be modified. Know how to resize a 3D object. Know how to change the colour of a 3D object.

Computing Curriculum

			Know that I can improve a photograph by retaking it. Know the effect that light has on a photo. Know to experiment with different light sources. Know and explain why a picture may be unclear. Know that images can be changed. Know which photos have been changed. Know which photos are real and which have been changed.	can be used to take photographs. Know and explain what I did to capture a digital photo. Know the process of taking a good photograph. Know and explain why a photo looks better in portrait or landscape format. Know what is wrong with a photograph. Know that I can improve a photograph by retaking it. Know the effect that light has on a photo. Know to experiment with different light sources. Know and explain why a picture may be unclear. Know that images can be changed. Know that images can be changed.	Know how to improve my animation based on feedback. Know how to add other media to my animation. Know how to evaluate my final film. Know how to change font style, size, and colours for a given purpose. Know how to edit text. Know how to recognise placeholders and say why they are important. Know how to create a template for a particular purpose. Know how to choose the best locations for my content. Know how to paste text and images. Know how to make changes to content after I've added it. Know how to identify different layouts. Know how to identify the uses of desktop publishing in the real	Know how to change the composition of an image by selecting parts of it. Know how to choose effects to make my image fit a scenario. Know how to identify how an image has been retouched. Know how to choose appropriate tools to retouch an image Know how to sort images into 'fake' or 'real' and explain my choices Know how to combine parts of images to create new images Know how to compare the original image with my completed publication Know digital devices that can record sound and play it back. Know the inputs and outputs required to play audio or record sound. Know the range of	improve the final outcome Know how to experiment with the shape and line tools Know how vector drawings are different from paper-based drawings Know how to move, resize, and rotate objects I have duplicated Know how to use the zoom tool to help me add detail to my drawings Know how alignment grids and resize handles can be used to improve consistency Know how to modify objects to create a new image Know how to change the order of layers in a vector drawing Know how to use layering to create an image Know how to copy part of a drawing by	Know how to rotate a 3D object. Know how to position 3D objects in relation to each other. Know how to select and duplicate multiple 3D objects. Know how to identify the 3D shapes needed to create a model of a real-world object. Know how to create digital 3D objects of an appropriate size. Know how to group a digital 3D shape and a placeholder to create a hole in an object. Know how to modify multiple 3D objects. Know how my model can be improved. Know the different types of media used on websites.

Computing Curriculum

				Know which photos have been changed. Know which photos are real and which have been changed. Know how to create a rhythm pattern. Know how to play an instrument following a rhythm pattern. Know how to explain that music is created and played by humans. Know to relate an idea to a piece of music. Know that music is a sequence of notes. Know and explain how I made my work better.	world. Know how to use slide templates and organise slides with hyperlinks. Know how to add themes, transitions, and animation to a presentation. Know how to use action settings. Know how to insert audio and video into a PowerPoint Presentation. Know what an animation will look like. Know why little changes are needed for each frame. Know ways to make my animation better. Know why I added other media to my animation. Know the difference between text and images. Know that text and images can communicate messages clearly.	sounds that can be recorded. Know what other people include when recording sound for a podcast. Know how to plan and write the content for a podcast. Know why it is useful to be able to save digital recordings. Know ways in which audio recordings can be altered. Know sounds that other people combine. Know suitable sounds to include in a podcast. Know that digital recordings need to be exported to share them. Know the features of a digital recording I like. Know and suggest improvements to a digital recording. Know what to consider why someone might want	duplicating several objects Know how to recognise when I need to group and ungroup objects Know how to reuse a group of objects to further develop my vector drawing Know how to create a vector drawing for a specific purpose Know how to compare vector drawings to freehand paint drawings Know how to use the shortcuts Ctrl C, Ctrl V, Ctrl Z Know that video is a visual media format Know features of videos Know that features in different videos can be compared Know and find features on a digital video recording device Know and suggest filming techniques for a given purpose	Know that websites are written in HTML. Know the common features of a web page. Know which media to include on my page. Know why I should use copyright-free images. Know what is meant by the term 'fair use'. Know to evaluate what my web page looks like on different devices and suggest/make edits. Know what a navigation path is. Know why navigation paths are useful. Know the implication of linking to content owned by others. Know to evaluate the user experience of a website.

Computing Curriculum

					Know I can identify the advantages and disadvantages of using text and images.	to change the composition of an image. Know about changes made to images. Know to explain why my choices fit a scenarios. Know examples of positive and negative effects that retouching can have on an image. Know about fake images around me Know the effect of adding other elements to my work Know and evaluate the impact of my publication on others through feedback	Know that my choices when making a video will impact the quality of the final outcome Know and suggest how to evaluate my video and share my opinions Know that vector drawings are made using shapes Know the shapes used to make a vector drawing Know that each element added to a vector drawing is an object Know that each added object creates a new layer in the drawing Know to reflect on the skills I have used and why I have used them	Know why we might represent 3D objects on a computer. Know to plan my 3D model. Know which 3D objects I need to construct my model. Know to modify my model to improve it. Know to evaluate my model against a given criterion.
		Reception	Y1	Y2	Y3	Y4	Y5	Y6

Computing Curriculum

DIGITAL LITERACY	 Disciplinary knowledge Substantive knowledge	Know who to share personal information with. Know how to identify simple examples of personal information (e.g. name, birthday, address) know that I can say 'no' or 'please stop' if someone online or offline makes me feel sad, upset and embarrassed. Know that the work I create belongs to me. Know I can name my work so others know it belongs to me. Know different ways that I can put things on the internet Know ways that people can be unkind online e.g. saying unkind words, mean texts, mean images, leaving somebody out of an online game,	Know what information I should not put online without asking a trusted adult first. Know how to behave online in ways that do not upset others and can give examples. Know simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching. Know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke. Know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened. Know how passwords are used to protect information,	Know how other people may look and act differently online and offline. Know examples of issues online that might make someone feel sad, worried, uncomfortable, or frightened; I can give examples of how they might get help. Know examples of how someone might use technology to communicate with others they don't also know offline and explain why this might be risky. (e.g. email, online gaming, a pen-pal in another school / country). Know who I should ask before sharing things about myself or others online. Know different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure.	Know what is meant by the term 'identity'. Know how people can represent themselves in different ways online. Know ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why. Know ways people who have similar likes and interests can get together online. Know what it means to 'know someone' online and why this might be different from knowing someone offline. Know what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with.	Know how my online identity can be different to my offline identity. Know positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them. Know that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this. Know strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms) Know examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours. I can explain how content shared online may feel unimportant to one person but may be important to other	Know how identity online can be copied, modified or altered. Know how to make responsible choices about having an online identity, depending on context. Know examples of technology-specific forms of communication (e.g. emojis, memes and GIFs). Know that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my / our fault. Know some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities or social media groups). I know how someone can get help if they are having problems and	Know and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online. Know can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline. Know the importance of asking until I get the help needed. Know how sharing something online may have an impact either positively or negatively. Know how to be kind and show respect for others online including the importance of respecting boundaries

Computing Curriculum

		mean videos, being nasty on an online game. Know that being unkind online can make people feel sad, frightened or worried. Know that rules keep us safe and healthy in and beyond the home when using technology e.g. asking a grown up to go online.	accounts and devices. Know more detailed examples of information that is personal to someone (e.g. where someone lives and goes to school, family names). Know why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others. Know why work I create using technology belongs to me Know I can say why it belongs to me (e.g. 'I designed it' or 'I filmed it''). Know to save my work under a suitable title or name so that others know it belongs to me (e.g. filename, name on content). Know that work created by others does not belong to me even if I save a copy.	Know why I have a right to say 'no' or 'I will have to ask someone'. I can explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do. Know how information put online about someone can last for a long time. Knowhow anyone's online information could be seen by others. Know who to talk to if something has been put online without consent or if it is incorrect. Know what bullying is, how people may bully others and how bullying can make someone feel. Know why anyone who experiences bullying is not to blame. Know how anyone experiencing	Know why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried. Know how to search for information about others online. Know examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal. Know who someone can ask if they are unsure about putting something online. Know appropriate ways to behave towards other people online and why this is important. Know examples of how bullying behaviour could appear online and how someone can get support.	people's thoughts feelings and beliefs. Know ways that some of the information about anyone online could have been created, copied or shared by others. Know when someone is upset, hurt or angry online. Know ways people can be bullied through a range of media (e.g. image, video, text, chat). Know why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation). Know how to analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.	identify when to tell a trusted adult. Know how to support others (including those who are having difficulties) online. Know how to search for information about an individual online and summarise the information found. Know ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect. Know how to recognise online bullying can be different to bullying in the physical world and can describe some of those differences. Know how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying. Know how anyone can get help if they are	regarding what is shared about them online and how to support them if others do not. Know how things shared privately online can have unintended consequences for others. e.g. screen- grabs. Know that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this. Know the ways in which anyone can develop a positive online reputation. Know strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity. Know how to capture bullying

Computing Curriculum

			Know to stop using a device when someone is talking to you. Know to use the apps only you have been asked to use.	bullying can get help. Know to use simple keywords in search engines. Know how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). Know what voice activated searching is and how it might be used, and know it is not a real person (e.g. Alexa, Google Now, Siri). Know the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real' Know why some information I find online may not be real or true. Know simple guidance for using technology in different environments and settings e.g.	Know what autocomplete is and how to choose the best suggestion. Know why the internet can be used to sell and buy things. Know the difference between a 'belief', an 'opinion' and a 'fact. and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc. Know that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed). Know and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened. Know why spending too much time using technology can sometimes have a negative impact on us	Know how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites). Know some of the methods used to encourage people to buy things online (e.g. advertising offers; in- app purchases, pop- ups) and can recognise some of these when they appear online. Know why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true. Know that technology can be designed to act like or impersonate living things (e.g. bots) and describe what the benefits and the risks might be. Know what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to	being bullied online and identify when to tell a trusted adult. Know a range of ways to report concerns and access support both in school and at home about online bullying. Know how to block abusive users. Know the helpline services which can help people experiencing bullying, and how to access them (e.g. Childline or The Mix). Know the benefits and limitations of using different types of search technologies e.g. voice-activation search engine. I can explain how some technology can limit the information I am presented with. Know what is meant by 'being skeptical'; I can give examples of when and why it is important to be 'skeptical'. Know how to evaluate digital content and	content as evidence (e.g. screengrab, URL, profile) to share with others who can help me. Know how someone would report online bullying in different contexts. Know how search engines work and how results are selected and ranked. Know how to use search technologies effectively. Know how some online information can be opinion and can offer examples. Know how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal. Know how to define the terms 'influence',

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				accessing online technologies in public places and the home environment. Know how those rules / guides can help anyone accessing online technologies. Know and give examples of what is meant by 'private' and 'keeping things private'. Know and explain some rules for keeping personal information private (e.g. creating and protecting passwords). Know how some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions). Know that content on the internet may belong to other people.	anyone; I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged. Know why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming or web sites). Know simple strategies for creating and keeping passwords private. Know how connected devices can collect and share anyone's information with others. Know why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause.	pretend something is true when it isn't. Know how using technology can be a distraction from other things, in both a positive and negative way. Know times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help with limiting this time. Know strategies for keeping personal information private, depending on context. Know that internet use is never fully private and is monitored, e.g. adult supervision. Know how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure. Know what the digital age of consent is and the impact this has on	can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results. Know and explain key concepts including information, reviews, fact, opinion, belief, validity, reliability and evidence. Know ways the internet can draw us to information for different agendas, e.g. website notifications, pop-ups, targeted ads. Know ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, influencers). Know what is meant by the term 'stereotype', how 'stereotypes' are amplified and reinforced online, and why accepting stereotypes may	'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g. advertising and 'ad targeting' and targeting for fake news). Know the concept of persuasive design and how it can be used to influences peoples' choices. Know how to analyse and evaluate the validity of 'facts' and information and I can explain why using these strategies are important. Know how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this. Know the difference between online misinformation and dis-information.

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				Know why other people's work belongs to them. Know not to use a device late at night. Know to watch age-appropriate videos. Know to play age- appropriate games. Know to ask permission before taking photographs. Know photos should only be taken of those you have permission of.		online services asking for consent. When searching on the internet for content to use, know why I need to consider who owns it and whether I have the right to reuse it. Know some simple examples of content which I must not use without permission from the owner, e.g. videos, music, images.	influence how people think about others. Know how fake news may affect someone's emotions and behaviour and explain why this may be harmful. Know what is meant by a 'hoax'. I can explain why someone would need to think carefully before they share. Know ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively. Know some strategies, tips or advice to promote health and wellbeing with regards to technology. Know the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to trusted adults and professionals. Know how and why some apps and	Know why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen (e.g. the sharing of misinformation or disinformation). Know how to identify, flag and report inappropriate content. Know common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. Know and discuss the pressures that technology can place on someone and how / when they could manage this. Know thefeatures of persuasive design and how they are used to keep users engaged (current and future use).

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							games may request or take payment for additional content (e.g. in-app purchases, lootboxes) and explain the importance of seeking permission from a trusted adult before purchasing. Know what a strong password is and demonstrate how to create one. Know how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. Know what app permissions are and can give some examples. Know how to assess and justify when it is acceptable to use the work of others. Know examples of content that is permitted to be reused and know how this content can be found online.	Know how to assess and action different strategies to limit the impact of technology on health (e.g. night- shift mode, regular breaks, correct posture, sleep, diet and exercise). Know and describe effective ways people can manage passwords (e.g. storing them securely or saving them in the browser). Know what to do if a password is shared, lost or stolen. Know how and why people should keep their software and apps up to date, e.g. auto updates. I can describe simple ways to increase privacy on apps and services that provide privacy settings. Know ways in which some online content targets people to gain money or information illegally; I can describe

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									strategies to help me identify such content (e.g. scams, phishing). Know that online services have terms and conditions that govern their use. Know the use of search tools to find and access online content which can be reused by others. Know how to make references to and acknowledge sources I have used from the internet.