Year 1 Computing systems and networks – Technology around us		Year 2 Computing rustern and networks – IT around us		Year 3 Computing systems and networks - Connecting computers		Year 4 Computing systems and nebworks – The Internet		Year S Computing systems and networks - Systems and searching		Year 6 Computing systems and networks - Communication and collaboration	
									-i can describe that a computer system features inputs, processes, and		
-To identify technology	- I can explain how these technology examples help us - I can explain technology as something that helps us - I can locate examples of technology in the classroom	-To recomise the uses and features of information technology	- I can describe some uses of computers - I can identify examples of computers - I can identify that a computer is a part of IT	-To explain how dieltal devices function	- I can explain that digital devices accept inputs - I can explain that digital devices produce outputs - I can follow a process:	-To describe how networks shrvically connect to other networks	-I can demonstrate how information is shared across the internet - I can describe the internet as a network of networks - I can discuss why a network needs protecting	-To explain that computers can be connected together to form system	outputs - I can explain that computer systems communicate with other devices - I can explain that systems are built usine a number of carts	-To explain the importance of internet addresses.	-i can describe how computers use addresses to access websites i can explain that internet devices have addresses i can recognise that data is transferred using agreed methods.
-To identify a computer and its main parts	- I can name the main parts of a computer - I can switch on and logisto a computer - I can use a mouse to click and draw	-To identify the uses of information technology in the school	-I can identify examples of IT -I can identify that some IT can be used in more than one way -I can sert school IT by what it's used for	-To identify input and output devices	- I can classify input and output divices - I can describe a simple process - I can describe a simple process - I can describe a simple process - I can explain how is use digital devices for different activities - I can exceptive similarities between using digital devices and non- degiat fools	-To recomise how networked devices make up the internet	-1 can describe networked devices and how they connect -1 can explain that the internet is used to provide many sentices -1 can recognise that the World Wide Wieb contains websites and web cases.	-To recomise the role of corrouter swittens in our lives	- I can explain the benefits of a given computer system - I can identify tasks that are managed by computer systems - I can identify the human elements of a computer overen	-To reconite how data it transferred across the interest	-I can region that all data transferred over the internet is in packets - I can region that data is transferred over networks in packets - I can identify and evoluin the main parts of a data eacket
-To use a mouse in different wavs	- I can click and drag to make objects on a screen - I can use a mouse to create a picture - I can use a mouse to open a program.	-To identify information technology beyond school	- I can find examples of information technology - I can set IT by where it is found - I can talk about uses of information technology	-To recomise how disital devices can chance the way we work	 Law reappress in initial title between using digital devices and non-digital tools Law reappress differences between using digital devices and non-digital tools Law suggest differences between using digital devices and non-digital tools 	-To outline how websites can be shared via the World Wide Web RWWW	-1 can describe how to access websites on the WWW -1 can describe where websites are stored when uploaded to the WWW -1 can esolain the tuces of media that can be shared on the WWW	-To experiment with search engines	- I can compane results from different search engines - I can make use of a web search to find specific information - I can nefine my web search - I can nefine my web search	-To explain how sharing information coline can help people to work toeether	-1 can explain that the internet allows different media to be shared -1 can recognise how to access shared files stored online -1 can send information over the internet in different ways
-To use a keyboard to type on a computer	- I can save my work to a file - I can say what a keyboard is for - I can type my name on a computer	-To explain how information technology helps us	-I can demonstrate how Iff devices work together - I can recognise common types of technology - I can say why we use IT	-To explain how a computer network can be used to share information	- I can discuss why we need a network switch - I can explain how messages are passed through multiple connections - I can recognise different connections	-To describe how content can be added and accessed on the World Wide Web (WWW)	-i can eiglain that internet services can be used to create content online - il can eiglain what media can be found on websites - il can recognise that il can addicontent to the WWW	-To describe how search engines select results	-I can explain why we need tools to find things online - I can necognise the role of web crawlers in creating an index - I can relate a search term to the search english's index	-To evaluate different ways of working together online	-I can explain how the internet enables effective collaboration - I can identify different ways of working together online - I can recognise that working together on the internet can be public or private
-To use the kerboard to edit test	- I can delete letters - I can open my work from a file - I can use the arraw laws to move the cursor.	-To exalisin how to use information technolosy safely	- I can list different uses of information technology - I can say how rules can help keep me safe - I can talk about different rules for usine IT	-To existore how disital devices can be connected	- I can demonstrate how information can be passed between devices - I can explain the noise of a switch, server, and wirefess access point in a network - I can recognise that a computer network is made up of a number of devices.	-To recomise how the content of the WWW is created by people	-1 can explain that there are rules to protect content -1 can explain that websites and their content are created by people -1 can sussest who owns the content on websites	-To esolain how search results are ranked	-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 - I can order a list by rank	-To recomise how we communicate usine technolosy	-I can choose methods of communication to suit particular purposes - 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.
-To create rules for using technology responsibly	- I can discuss how we benefit from these rules - I can give examples of some of these rules - I can identify rules to keep us safe and healthy when we are using technology in and beyord the home.	-To recognise that choices are made when using information technology	-I can explain the need to use IT in different ways - I can identify the choices that I make when using IT - I can use IT for different types of activities	-To recognise the physical components of a network	- I can identify how devices in a network are connected together - I can identify networked devices around one - I can identify the brandto of computer networks.	-To evaluate the consequences of unreliable content	 -i can explain that not evenything on the World Wide Web is true i can explain why I need to think carefully before I share or reshare content -i can explain why some information I find online may not be honest, accounts, or legal 	-To recognise why the order of results is important, and to whom	-I can describe some of the ways that search results can be influenced - I can explain how search engines make money - I can recognise some of the limitations of search engines	-To availuate different methods of colline communication	-I can compare different methods of communicating on the internet -I can decide when I should not should not share information online -I can explain that communication on the internet may not be pivoste
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Creating me	nda - Digital painting	Creating media	- Digital photography	Creating media - S	top-frame animation	Creating media	I - Audio production	Creating med	a - Video production	Creating media	- Web page creation
	-I can draw lines on a screen and explain which tools I used -I can make marks on a screen and explain which tools I used		-i can explain what i did to capture a digital photo - i can recognise what devices can be used to take photographs		-i can create an effective flip book—style animation - i can draw a sequence of pictures - i can exclain how an animation/file book works		 - Nudio production -i can explain that the person who records the sound can say who is allowed to use it -i can identify the input and output devices used to record and play sound 		- I can compane features in different videos - I can explain that video is a visual media format - I can identify features of videos		-i can discuss the different types of media used on websites - I can explore a website
-To describe what different freehand tools do	- I can use the paint tools to draw a picture - I can make marks with the square and line tools - I can use the shape and line tools effectively.	-To use a disital device to take a photoeraph	I can talk about how to take a obstoerash I can explain the process of taking a good photograph I can explain why a photo looks better in portrait or landscape format	-To explain that animation is a sequence of drawines or photographs	- I can explain how an animation/file book works -I can create an effective stop-frame animation - I can explain why little changes are needed for each frame -I can explain what an animation will lick like Can explain the lat an animation will lick like	-To identify that sound can be recorded	- I can use a computer to record audio	-To explain what makes a video effective	- I can identify features of videos I can experiment with different camera angles I can identify and find features on a digital video recording device I can make use of a microbote.	-To review an existing website and consider its structure	I know that websites are written in HTML I can straw a web page layout that suits my purpose I can recognise the common features of a web page
To use the shape tool and the line tools	- I can use the shape and line tools to recreate the work of an artist	-To make choices when taking a photograph	- I can take ohotos in both landscape and portrait format	To relate animated movement with a sequence of images.	- I can expan why into change are needed for each frame - I can predict what an animation will look like - I can break flown a store into without characters and events.	-To explain that audio recordings can be edited	-I can discuss what sounds can be added to a podcast - I can inspect the soundwave view to know where to tim my recording - I can in-second ms voice to immove me recording - I can englain how sounds can be combined to make a podcast more - consistent of the combined to make a podcast more - consistent of the combined to make a podcast more - consistent of the combined to make a podcast more - consistent of the combined to make a podcast more - consistent of the combined to make a podcast more - consistent of the combined to make a podcast more - combined to make a podcast more - consistent of the combined to make a podcast more - combined to ma	-To identify disital devices that can record sideo		-To clan the features of a web case	- I can suspent media to include on my page
-To make careful choices when painting a distal picture	- I can choose appropriate shapes I can create a picture in the style of an artist I can make approaches colour choices I can choose appropriate paint tools and colours to recreate the wo-	-To describe what makes a rood photograph fit	-I can discuss how to take a good photograph - I can identify what is wrong with a photograph - I can improve a ohotograph by retakine it	-To plan an animation	- I can break down a story into settings, characters and events I can create a storyboard - I can describe an animation that is achievable on screen - I can evaluate the quality of my animation - I can eview a sequence of forest to check my work.	-To recognise the different parts of creating a podcast project	engaging - I can plan appropriate content for a podcast - I can save my project so the different parts remain editable	-To capture video usine a range of techniques	-I can capture video using a range of filming techniques - I can review how effective my video is - I can suseest filmine techniques for a sleen purpose	-To consider the ownership and use of images (coovright)	-I can describe what is meant by the term 'fair use' - I can find copyright free images - I can sav whe I should use coovrisht free images -I can add content to any own web page
-To explain why I chose the tools I used	- I can make asonosiste colour choices - I can choose approprise pair tools and colours to recreate the woo of an artist - I can say which tools were helpful and why - I know that different colour and house - I can charge the colour and houses - I can charge the colour and houses - I can charge the colour and houses - I can make dots of colour on the page	-To decide how ohotoerashs can be improved	- I can experiment with different light sources I can explain why a picture may be unclear I can explore the effect that light has on a photo.	-To identify the need to work consistently and carefully	- can evaluate the quanty or my animation - i can review a sequence of frames to check my work - i can use onion skinning to help me make small changes between frames	-To apply audio editine skills independently	-I can improve my voice recordings - I can record content following my plan - I can reward to custive of me recordings - I can range multiple sounds to create the effect I want - I can arrange multiple sounds to create the effect I want - I can explain the difference between saving a project and exporting an	-To create a storyboard	-I can create and save video content - I can decide which filming techniques I will use - I can outline the scenes of my video	-To recomise the need to covilew cases	I can evaluate what my web page looks like on different devices and suggest/make edits I can preview what my web page looks like
-To use a computer on my own to paint a picture	 I can change the colour and brush sizes I can make dots of colour on the page I can use dots of colour to create a picture in the style of an artist or my own 	-To use took to change an image	- I can explain my choices - I can recognise that images can be changed - I can use a tool to achieve a desired effect.	-To review and improve an animation	- I can evaluate another learner's animation - I can explain ways to make my animation better - I can improve my animation based on feedback	-To combine audio to enhance my podcast project	 -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 -I can open my project to continue working on it 	-To identify that video can be improved through reshooting and editing	- I can explain how to improve a video by reshocting and editing - I can select the correct tools to make edits to my video - I can store, retrieve, and export my recording to a computer	-To outline the need for a navigation path	-I can describe why navigation paths are useful - I can explain what a navigation path is - I can make multiple web pages and link them using hyperlinks.
	-i can explain that pictures can be made in lots of different ways -i can say whether i prefer painting using a computer or using apper -i can spot the differences between painting on a computer and on		-I can apply a range of photography skills to capture a photo - I can identify which photos are real and which have been changed - I can recognise which photos have been changed		- I can add other media to my animation - I can evaluate my final film - I can evaluate my final film - I can explain why I added other media to my animation		-I can choose appropriate edits to improve my podcast -I can listen to an audio recording to identify its strengths -I can laugent improvements as an audio recording	-To consider the impact of the choices made when making and sharing	-I can evaluate my video and share my opinions - I can make edits to my sideo and improve the final outcome a -I can encopsise that my choices when making a video will impact on the quality of the final outcome.	-To recognise the implications of linking to content owned by other	-I can create hyperlinks to link to other people's work - I can realisate the user experience of a velocite - I can regulate the implication of linking to content owned by others
							Agent may oversen to an audio recording	I seem		Jr	And the supplementation and the content owned by others
	Year 1		Year 2	,	ear3		fear4		Year S		Tear G
Programmin	ng A – Moving a robot	Programming.	A – Robot algorithms	Programming A	Sequencing sounds	Programming A	-Repetition in shapes	Programming A – Sale	ection in physical computing	Programming A	- Variables in games
-To explain what a elver command will do	-I can match a command to an outcome - I can predict the outcome of a command on a device - I can nun a command on a device	-To describe a series of instructions as a seawence	-I can choose a series of words that can be enacted as a sequence - I can follow instructions gives by someone else - I can silve clear instructions	-To existore a new orderammline environment	-I can explain that objects in Scratch have attributes (Inked to) - I can identify the objects in a Scratch project (pothes, backdrops) - I can recoense that commands in Scratch are recreaseded as blocks	-To identify that accuracy in anaerammine is important	-I can create a code unippet for a given purpose -I can explain the effect of changing a value of a command -I can explain a computer by twoise commands	-To control a simple circuit connected to a computer	- I can create a simple circuit and connect it to a microcontroller - I can explain what an infinite loop does - I can explain what an infinite loop does - I can experam a microcontroller to make an LEO switch on	-To define a 'soriable' as comethine that is chanaeable	-I can explain that the way a variable changes can be defined - I can identify examples of information that it variable - I can identify that variables can hold numbers or letters
-To act out a silven word	- I can follow an instruction - I can give directions - I can necall words that can be acted out	-To explain what haccens when we chance the order of instructions	-I can show the difference in outcomes between two sequences that consist of the same commands - I can use an algorithm to program a sequence on a floor robot - I can use the same instructions to create different also	-To identify that commands have an outcome	-1 can choose a word which describes an on-screen action for my plan -1 can create a program following a design -1 can identify that each scribe is controlled by the commands I choose	-To create a program in a text-based language	-1 can test my algorithm in a test-based language -1 can use a template to create a design for my program -1 can write an aleodithm to enoduce a siven outcome	-To write a program that includes count-controlled loops	- I can connect more than one output component to a microcontroller - I can design sequences that use count-controlled loops - I can use a count-controlled loop to control outputs	-To excitain why a variable is used in a program.	-I can explain that a variable has a name and a value - I can ledging a program variable as a placeholder in memory for a single value - I can recognise that the value of a variable can be chansed
-To combine forwards and backwards commands to make a sequence	- I can compare forwards and backwards movements - I can predict the outcome of a sequence involving forwards and backwards commands so - I can start a sequence from the same place	-To use logical reasoning to predict the outcome of a program	-I can compare my prediction to the program outcome - I can follow a sequence - I can predict the outcome of a sequence	-To explain that a program has a start	-I can create a sequence of connected commands - I can explain that the objects in my project will respond exactly to the code - I can start a program in different ways	-To explain what 'repeat' means	- can identify earryday talks that include repetition as part of a sequence, set brashing steeft, dance moves - can identify steems in a sequence - can identify steems in a sequence - cl can use a court-controlled loop to produce a given outcome - can choose without waster to change in a loop - cl can identify the effect of changing the number of times a task is repeated.	-To explain that a loop can stop when a condition is met	- I can design a conditional loop - I can explain that a condition is either true or fake - I can program a microcontroller to respond to an input	-To choose how to improve a game by using variables	-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
-To combine four direction commands to make sequences	- 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.	-To explain that programming projects can have code and artwork	-I can explain the choices I made for my mat design - I can identify different routes around my mat - I can test my mat to make mer that it is usable	-To recomine that a sequence of commands can have an order	-1 can combine sound commands -1 can explain what a sequence is -1 can explain what as sequence is -1 can order notes into a secuence	-To modify a count-controlled loop to produce a siven outcome	 -i can choose which values to change in a loop -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 	-To explain that a loop can be used to repeatedly check whether a condition has been met	-1 can explain that a condition being met can start an action -1 can identify a condition and an action in my project -1 can use selection jan "ifthen" statement) to direct the flow of a consum	-To design a project that builds on a given example	-I can choose the artwork for my project - I can cannot algorithms for my project - I can exable my defent choices
. To plan a simple program	-I can choose the order of commands in a sequence -I can debug my program -I can explain what my program should do	-To desim an alsorithm	- I can create an algorithm to meet my goal - I can explain what my algorithm should achieve - I can use my aleorithm to create a processn	To change the appearance of my project	- I can build a sequence of commands - I can decide the actions for each spite in a program - I can make desian choices for my artwork	-To decompose a track into small stems	-I can explain that a computer can repeatedly call a procedure -I can identify 'chunks' of actions in the real world -I can use a procedure in a program -I can use a procedure in a program.	. To dission a physical popularit that locks has reduction	- I can create a detailed drawing of my project - I can describe what my project will do - I can identify a real-world example of a condition starting an action	.To use mudicilento create a newlect	-I can choose a name that identifies the role of a variable -I can create the artwork for my project -I can text the code that I have written
	-i can identify several possible solutions -i can glan two grograms		-I can plan algorithms for different parts of a task - I can out together the different parts of my program		-i can identify and name the objects I will need for a project - I can implement my algorithm as code	-To create a program that uses count-controlled loops to produce a	-i can design a program that includes count-controlled loops		-I can test and debug my project - I can use selection to produce an intended outcome		-I can identify ways that my game could be improved - I can share my game with others
-To find more than one solution to a problem	- I can use two different programs to get to the same place	-To create and debug a program that I have written	- I can test and debug each part of the program.	To create a project from a task description	- I can relate a task description to a design	given outcome	- I can make use of my design to write a program	To create a grogram that controls a physical computing project	- I can write an algorithm that describes what my model will do	-To evaluate my project	- I can use variables to extend my game
	Year 1		Year 2	V.	ear 3		fear 4		Year S		Tear G
Data and infor	mation – Grouping data	Data and infor	mation – Pictograms	Data and information	n – Branching databases	Data and Inform	nation – Data logging	Data and informal	ion – Flat-file databases	Data and inform	nation – Spreadsheets
-To tabel objects	- I can describe objects using labels - I can identify the label for a group of objects - I can match objects to groups - I c	-To recognise that we can count and compare objects using tally chart	-l can compane totals in a tally chart - l can record data in a tally chart x - i can represent a tally count as a total	-To create questions with yes/no answers	-I can create two groups of objects separated by one attribute - I can investigate questions with yes/no answers - I can make up a yes/no question about a collection of objects	-To explain that data gethered over time can be used to answer questions	-i can choose a data set to answer a given question - i can identify data that can be gathered over time - i can suggest questions that can be answered using a given data set	-To use a form to record information	- I can create a database using cards - I can explain how information can be recorded - I can order, not, and group my data cards - I can order, not, and group my data cards - I can choose which field to sort data by to answer a given question	-To create a data set in a spreadsheet	-i can collect data - i can exter data into a spreadsheet - i can suggest how to structure my data
-To identify that objects can be counted	- I can count a group of objects - I can count objects - I can arous objects	-To recomise that objects can be represented as pictures	- I can enter data onto a computer - I can use a computer to view data in a different format - I can use intornams to amove rimole-ouestions about objects - I can use sictornams to amove rimole-ouestions about objects - I can exclain what the octoorsam shows	-To identify the attributes needed to collect data about an object	-I can arrange objects into a tree structure - I can create a group of objects within an existing group - I can select an attribute to securate objects into wrocce	-To use a disital device to collect data automatically	-I can explain what data can be collected using sensors - I can identify that data from sensors can be recorded - I can use data from sensor to answer a seven puestion - I can use data from a service to sensor to answer a seven puestion	-To compare paper and computer-based databases	Lean explain what a field and a record is in a database Lean explain what a field and a record is in a database Lean explain what a field database to compare different views of information.	-To build a data set in a sorwadeheet	-i can apply an appropriate format to a cell - i can choose an appropriate format for a cell - i can essistive what an item of data is -i can essistive what an item of data is -i can essistive formula in a user additive t
-To describe objects in different ways	- I can describe an object - I can describe a property of an object - I can find objects with similar or coordies - I can find objects with similar or coordies - I can find objects with similar or coordies - I can find objects with similar or coordinates - I can find objects with similar or coordinates - I can describe an object - I can describe a property of an object - I can find object - I can fin	-To create a oictoware	I can organise data in a tally chart I can use a tally chart to create a dictorram	-To create a branchine database	- I can group objects using my own yes/no questions - I can select objects to arrange in a branching database - I can test my branching database to see if it works	-To explain that a data logger collects 'data points' from sensors over time	I can require that a data logger collects data at given points I can talk about the data that I have castured	-To outline how you can answer questions by grouping and then sorting data.	I can explain that data can be grouped using chosen values I can explain that data can be grouped using chosen values I can explain that data can be grouped using chosen values	-To explain that formulas can be used to produce calculated data	- Lan explain within the high special be used in calculations - I can identify that charatine inputs channels outputs
-To court objects with the same properties	- I can count how many objects share a property - I can group objects in more than one way - I can erous similar objects	-To select objects by attribute and make comparisons	-I can answer 'more than' l'iess than' and 'most/least' questions about an attribute - I can create a pictogram to arrange objects by an attribute - I can tally objects usine a common attribute	-To explain whe it is heloful for a database to be well structured	 - Lan compare two branching database structures - Lan create yeu/no questions using given attributes - Lan explain that questions need to be ordered carefully to split objects into similarly sized enous 	-To recomise how a computer can help us analyse data	-I can explain that there are different ways to slew data - I can sort data to find information - I can view data at different levels of detail	-To explain that tools can be used to select specific data	-I can choose multiple criteria to answer a given question - I can choose which field and value are required to answer a given question - I can outline how "AND" and "DR" can be used to refine data selection	-To apply formulas to data	-i can apply a formula to multiple cells by duplicating it - i can calculate data using different operations - i can create a formula which includes a ranse of cells
-To company arount of objects	- I can choose how to group objects - I can describe groups of objects - I can necord how many objects are in a group - I can necord how many objects are in a group - I can necord how many objects are in a group - I can necord how many objects are in a group - I can necord how many objects are in a group - I can necord how many objects - I can necord how how many objects - I can necord how	-To recomise that people can be described by attributes	-I can choose a suitable attribute to compare people - I can collect the data I need - I can create a bictoeram and draw conclusions from it	-To clan the structure of a branchine database	 -I can create a physical vention of a branching distabase - I can create questions that will enable objects to be uniquely identified - I can independently create ouestions to use in a branchine database 	-To identify the data needed to answer questions	-i can plan how to collect data using a data logger - i can propose a question that can be answered using logged data - i can use a data losser to collect data	-To explain that computer programs can be used to compare data visually	-I can explain the benefits of using a computer to create charts - I can refine a chart by selecting a particular filter - I can select an acorooriste chart to visually compare data	-To create a soreadsheet to blan an event	-i can apply a formula to calculate the data I need to answer questions - i can explain why data should be organised - I can use a surreaddheet to answer questions
-To answer questions about groups of objects	- I can compare groups of objects - I can decide how to group objects to answer a question - I can record and share what I have found	-To explain that we can present information using a computer	-I can give simple examples of why information should not be shared - I can share what I have found out using a computer - I can use a computer program to present information in different way	s -To independently create an identification tool	- I can create a branching database that reflects my plan - I can suggest real-world uses for branching databases - I can work with a partner to test my identification tool	-To use data from sensors to answer questions	-I can draw conclusions from the data that I have collected -I can explain the benefits of using a data logger -I can interpret data that has been collected using a data logger	-To use a real-world database to answer questions	-I can ask questions that will need more than one field to answer - I can present my findings to a group - I can refine a search in a real-world context	-To choose suitable ways to present data	-I can produce a chart - I can suggest when to use a table or chart - I can use a chart to show the answer to questions
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Creating ma	Near 1 eds – Digital writing	Creating ma	Vear 2 edia - Digital music		ear 3 Desktop publishing	Creating med	/ear 4 Sa – Photo editing	Creating media – intr	Year 5 oduction to vector graphics	Creating me	Year G dia – 3D Modelling
				1	- I can explain the difference between text and images - I can identify the advantages and disadvantages of using text and images - I can recognise that text and images can communicate messages.			1	-I can discuss how vector drawings are different from paper-based		
-To use a computer to write	- I can identify and find keys on a keyboard - I can open a word processor - I can recomise kews on a keyboard	-To say how music can make us feel	-I can describe music using adjectives - I can identify simple differences in pieces of music - I can sav what I do and don't like about a piece of music	-To recomise how test and images convex information	CHAIN	-To explain that the composition of dietal images can be changed	-I can esplain why I night crop an image -I can improve an image by rosting it -I can improve a manage by rosting it -I can use about a define anthrear to coro an image -I can esperiment with different close effects -I can esplain that if different close effects in that you think and feel different change -I can esplain and videous cortain colour effects	-To identify that drawing tools can be used to produce different outcomes	drawings - I can experiment with the shape and line tools - I can recomise that vector drawinss are made usine shapes.	-To recomise that you can work in three dimensions on a computer	-I can add 20 shapes to a project - I can move 20 shapes relative to one another - I can view 20 shapes from different perspectives
-To add and remove test on a computer	- I can enter text into a computer - I can use backspace to remove text - I can use letter, number, and space kevs.	-To identify that there are gatherns in music	- I can create a rhythm pattern - I can explain that music is created and played by humans - I can play an instrument followine a rhythm gattern	-To recomise that test and layout can be edited	-I can change font style, size, and colours for a given purpose - I can edit text - I can exciain that text can be chansed to communicate more clearly	-To explain that colours can be chansed in distral images	I can explain that different colour effects make you think and feel different things I can explain why I chose certain colour effects.	-To create a vector drawine by combinine shapes	-I can explain that each element added to a vector drawing is an object I can identify the shapes used to make a vector drawing I can move, resize, and rotate objects I have dualicated.	-To identify that disital 3D objects can be modified	-I can lift,flower 3D objects -I can recolour a 3D object -I can resize an object in three dimensions
-To identify that the look of text can be changed on a computer	-I can explain what the keys that I have learnt about already do -I can identify the toolbar and use bold, italic, and underline -I can type capital letters	-To experiment with sound using a computer	- I can connect images with sounds - I can relate an idea to a piece of music - I can use a computer to experiment with pitch	-To choose appropriate page settings	- I can create a template for a particular purpose - I can define the term 'page celeritation' - I can recognise placeholders and say why they are important.	-To explain how cloning can be used in photo editing	-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	-To use tools to achieve a desired effect	- can explain that each element added to a vector drawing is an object - Losa identify the shapes used to make a vector drawing - Losa move, make and rotate objects these additioned - Losa region have alignment gots and resize handles can be used to reprove consideration. - Losa modify objects to create a new image - Losa modify objects to create a new image - Losa wordly objects objects - Losa wordly objects objects - Losa wordly ob	-To recognise that objects can be combined in a 2D model	-I can duplicate 3D objects - I can group 3D objects - I can group 3D objects - I can rotate objects in three dimensions
To make careful choices when the control to the	-I can change the foot -I can select all of the text by clicking and dragging -I can select a word by double-clicking	To use a computer to counts a granted and	-I can explain how my music can be played in different ways -I can identify that music is a sequence of notes -I can refine my musical pattern on a computer	To addrophed to a dealton rubbins	-I can choose the best locations for my content - I can make changes to content after I've added it - I can paste text and images to create a magazine cover	.To combine that impages you be complished	-I can experiment with tools to select and copy part of an image -I can explain why photos might be edited -I can use a range of tools to copy between images	To recognise that sector dissalare consist of Issues	-i can change the order of layers in a vector drawing - i can identify that each added object creates a new layer in the drawing - i can use layering to create an image	-To create a 3D model for a siven surpose	-I can accurately size 3D objects - I can combine a number of 3D objects - I can show that placeholders can create holes in 3D objects
-to make careful choices when changing text -To explain why I used the tools that I chose	- I can select a word by double-clicking -I can decide if my changes have improved my writing -I can say what steel I used to change the test: -I can use 'undo' to remove changes:	-to use a computer to create a musical pattern -To create music for a purpose	- I can refine my musical partiers on a computer - I can add a sequence of notes to my drythm - I can create a trythm which represents an animal Twe chosen - I can create my animal's drythm on a computer - I can create my animal's drythm on a computer - I can create my animal's drythm on a computer - I can create my animal's drythm on a computer	To consider how different layouts can suit different purposes.	- I can passe text and images to create a magsatine cover -I can choose a suitable layout for a given purpose - I can identify different layouts - I can identify different layouts - I can identify the suitable	-10 exprain triat images can be combined -To combine images for a purpose	- I can use a range of tools to copy between images -I can choose suitable images for my project - I can create a project that it a combination of other images - I can describe the image I want to create	- ro recognise that vector drawlings consist of layers - To group-objects to make them easier to work with	I can use layering to orate an image I can copp part of a drawing by duplicating several objects. I can recognise when I need to group and ungroup objects. I can news a group of objects to further develop my vector drawing.	-To create a 3D model for a given purpose -To plan my own 3D model	- I can show that placeholders can create holes in 20 objects -I can analyse a 20 model - I can choose objects to sue in a 20 model - I can choose objects to sue in a 20 model - I can combine objects in a design
-To compare typing on a computer to writing on paper	- I can explain the differences between typing and writing - I can make changes to test on a computer - I can say why I prefer typing or writing.	-To review and refine our computer work	-I can explain how I changed my work -I can libben to music and describe how it makes me feel -I can review my work	-Yo consider the benefits of desistop publishing	-i can compare work made on desktop publishing to work created by hand I can identify the uses of desktop publishing in the real world I can say why desktop publishing might be helpful	-To evaluate how changes can improve an image	-I can combine test and my image to complete the project -I can review images against a given criteria -I can use feedback to guide making changes	-To apply what I have learned about vector drawings	- I can compare vector drawings to freehand paint drawings 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.	-To create my own digital 30 model	-I can construct a 30 model based on a design - I can explain how my 30 model could be improved - I can modify my 10 model to improve it
	Year I		Y		ex1				Total Control of the		
Programming B -	Nac 1 Programming animations	Programming S	- Programming quizzes	Programming B - Event	ear a ts and actions in programs	Programming B	Repetition in games	Programming B	- Selection in quizzes	Programming S	- Senting movement

	-i can compare different programming tools		-i can identify that a groups meeds to be started				-i can list an even-day task as a set of instructions including receition		-I can identify conditions in a program		
-To choose a command for a elsen ourpose	- I can find which commands to move a sprite - I can sue commands to move a sprite - I can use commands to move a sprite commands to move a sprit	-To esolain that a sequence of commands has a start	- I can identify the start of a sequence - I can show how to run my growsm - I can show how to run my growsm	-To explain how a softe moves in an existing project	- I can choose which keys to use for actions and explain my choices - I can explain the relationship between an event and an action - I can identify a way to improve a program.	-To develop the use of count-controlled loops in a different protestment environment	- i can set an everyoay task as a set of instructions including repression - i can modify a snippet of code to create a given outcome - i can predict the outcome of a snippet of code		- I can modify a condition in a program - I can modify a condition in a program - I can necal how conditions are used in selection	-To create a program to run on a controllable device	-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
-To show that a series of commands can be joined together	-I can run my program - I can use a Start block in a program - I can use a Start block in a program - I can use more than one block by ioinine them together	-To exclude that a sequence of commands has an outcome	-I can change the outcome of a sequence of commands - I can match two sequences with the same outcome - I can predict the outcome of a sequence of commands	-To create a grows to move a sprite in four directions	-I can choose a character for my project - I can choose a suitable size for a character in a maze - I can program movement	-To explain that in programming there are infinite loops and count controlled loop.	-i can choose when to use a count-controlled and an infinite loop - I can modify loops to produce a given outcome - I can recognise that some programming languages enable more than one process to be run at once		-I can create a program with different outcomes using selection - I can identify the condition and outcomes in an 'i' then else' statement - I can use selection in an infinite loco to check a condition	-To explain that selection can control the flow of a program	 -1 can determine the flow of a program using selection -1 can identify examples of conditions in the neal world -1 can use a variable in an #, then, whe statement to select the flow of a orderam
-To identify the effect of changing a value	-I can change the value - I can find blocks that have numbers - I can say what happens when I change a value	-To create a program using a given design	-I can build the sequences of blocks I need - I can decide which blocks to use to meet the design - I can work out the actions of a spite in an algorithm	-To adapt a program to a new context	- I can choose blocks to set up-my program - I can consider the real world when making design choices - I can use a programming extension	-To develop a design that includes two or more loops which run at the same time	- I can explain what the outcome of the repeated action should be	-To explain how selection directs the flow of a program	-i can design the flow of a program which contains 'd' then else' - i can explain that program flow can branch according to a condition - i can show that a condition can direct program flow in one of two ways	-To update a variable with a user input	-I can experiment with different physical inputs -I can experiment with different physical inputs -I can explain that checking a variable doesn't change its value -I can explain the importance of the order of conditions in else, if
-To explain that each sprite has its own instructions	- I can add blocks to each of my sprites I can delete a sprite I can show that a project can include more than one sprite.	-To change a given design	- I can choose backgrounds for the design - I can choose characters for the design - I can create a program based on the new design	-To develop my program by adding features	- I can build more sequences of commands to make my design work - I can choose suitable keys to turn on additional features - I can identify additional features (from a given set of blocks)	-To modify an infinite loop in a given program	-i can explain the effect of my changes - i can identify which parts of a loop can be changed - i can re-use existing code snippets on new sprites	-To design a program which uses selection	-I can identify the outcome of user input in an algorithm - I can outline a given task - I can use a design format to outline my project	-To use a conditional statement to compare a variable to a value	statements - I can modify a program to achieve a different outcome - I can use an operand (e.g. <>+) in an if, then statement
-To decian the carts of a project	- I can choose appropriate artwork for my project - I can create an algorithm for each sprite - I can decide how each softe will move - I can add programming blocks based on my algorithm - Can text the programming reget	-To create a program sains my own design	- I can build sequences of blocks to match my design - I can choose the images for my own design - I can create an also other - I can compare my project to my design - I can compare my project to my design - I can debut my constant	-To identify and fix buss in a program	- i can match a piece of code to an outcome - i can modify a program using a design - i can text a coreann assists a siven design - i can evaluate my project - i can invaluate my design	-To design a project that includes repetition	- i can develop my own design explaining what my project will do - i can evaluate the use of repetition in a project - i can relect law outs of a elvers project to use in my own design - i can build a program that follows my design - i can build a the stead is followed when building my project - i can evaluate the stead is followed when building	-To create a program which uses selection	-I can implement my algorithm to create the first section of my program or i can share my program with others -I can share my program with others -I can steed my program further -I can select of the auto code in one of my operant	-To design a project that uses inputs and outputs on a controllable desice -To develop a program to use inputs and outputs on a controllable	-I can decide what variables to include in a project - I can design the algorithm for my project - I can design the retermin flow for my project - I can design the program based on my design - I can set with our parama making the design
-To use my algorithm to create a program	- I can use sprites that match my design	-To decide how my project can be improved	I can improve my project by adding features	-To design and create a maze-based challenge	- I can make design choices and justify them	-To create a project that includes repetition	- I can refine the algorithm in my design	-To evaluate my program	- I can identify ways the program could be improved	device	- I can use a range of approaches to find and fix bugs