Computing Curriculum
EYFS – Year 6

The primary intent for our curriculum
- Children are responsible, competent, confident and creative users of information and communication technology
- Children can appropriately choose to use ICT as a tool for learning – and have the skills to do so, ready for Key Stage 2
- Children are able to use a range of ICT applications and programs, so their use across the wider curriculum does not hinder learning – regardless of the equipment that the children may, or may not have at home
- Children are responsible, competent, confident and creative users of information and communication technology
- Children understand what algorithms are, how to create, manipulate and program devices and that when they go wrong, they need debugging
- Know the key knowledge identified in each unit, so that they have a firm knowledge base to study when leaving Primary School

The primary intent for our EYFS curriculum.
- To become an 'Intrepid Explorer' who knows how to read a simple map, knows their family tree, shows care to living creatures and understands some differences between their country and other countries across the world.

Computing Curriculum

	Autumn		Spring		Summer	
	1	**2**	**1**	**2**	**1**	**2**
Nursery (UW 3-4)	-Explore how things work.					
Reception	-Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. ELGs <u>Listening, Attention and Understanding</u> -Make comments about what they have heard and ask questions to clarify their understanding <u>Speaking</u> -Participate in small group, whole class or one-to-one discussions, offering their own ideas, using recently introduced vocabulary.					
Year 1/2 Cycle A	**Digital Literacy** 1.1 Online Safety & Exploring Purple Mash **Digital Literacy** 2.5 Effective Searching	**Computer Science** 1.5 Maze Explorers **Information Technology** 1.6 Animated Storybooks	**Computer Science** 1.7 Coding	**Computer Science** 2.1 Coding	**Computer Science** 1.2 Grouping and Sorting **Computer Science** 1.4 Lego Builders	**Information Technology** 1.3 Pictograms **Digital Literacy** 1.9 Technology Outside School
Year 1/2 cycle B	**Digital Literacy** 1.1 Online Safety & Exploring Purple Mash **Digital Literacy** 2.2 Online Safety	**Information Technology** 1.8 Spreadsheets **Information Technology** 2.3 Spreadsheets	**Information Technology** 2.4 Questioning	**Information Technology** 2.6 Creating Pictures	**Information Technology** 2.7 Making Music **Digital Literacy** 2.5 Effective Searching	**Information Technology** 2.8 Presenting Ideas
Year 3	**Digital Literacy** 3.2 Online Safety **Information Technology** 3.3 Spreadsheets	**Computer Science** 3.1 Coding	**Information Technology** 3.6 Branching Databases **Information Technology** 3.7 Simulations	**Digital Literacy** 3.5 Email (including email safety)	**Information Technology** 3.9 Presenting	**Information Technology** 3.8 Graphing **Information Technology** 3.4 Touch Typing
Year 4	**Digital Literacy** 4.2 Online Safety **Information Technology** 4.6 Animation	**Computer Science** 4.1 Coding	**Information Technology** 4.3 Spreadsheets	**Computer Science** 4.5 Logo **Computer Science** 4.8 Hardware Investigators	**Information Technology** 4.7 Effective Searching **Information Technology** 4.9 Making Music	**Information Technology** 4.4 Writing for Different Audiences
Year 5/6 cycle A	**Digital Literacy** 5.2 Online Safety **Information Technology** 5.6 3D Modelling	**Computer Science** 5.5 Game Creator **Information Technology** 5.4 Databases	**Information Technology** 5.8 Word Processing (MS Word)	**Computer Science** Coding (mixture of 5 and 6 – see lesson breakdown)	**Information Technology** 5.3 Spreadsheets	**Information Technology** 5.7 Concept Maps
Year 5/6 Cycle B	**Digital Literacy** 6.2 Online Safety **Information Technology** 6.7 Quizzing	**Computer Science** Coding (mixture of 5 and 6 – see lesson breakdown) **Computer Science** 6.6 Networks	**Information Technology** 6.3 Spreadsheets (Excel)	**Computer Science** 6.8 Understanding Binary	**Computer Science** 6.5 Text Adventures	**Information Technology** 6.4 Blogging

Nursery	Autumn	Cycle 1 – We're going on a bear hunt, Peace at last, Goldilocks and the three bears, Dear Santa Cycle 2 - The tiger who came to tea, The three little pigs, room on the broom, Kipper's Christmas Eve
What will be taught … key ideas?	I wonder ..	Key vocabulary
To be aware of how to stay safe online when at school and at home To follow simple instructions when using technology and battery operated toys eg torches, CD player and light box To show an interest in toys with buttons, flaps and simple mechanisms and begin to learn how to operate them. To use a simple programme on the IWB	I wonder who lives there? I wonder how you get there? I wonder what it looks/tastes/sounds/feels like…? I wonder what happens if…? I wonder who it is…? I wonder how it's made…? I wonder how many? I wonder why/how/who?	Push Pull Press Safety Safe Online Tablet Videos Worried Scared Sad Feelings help

Nursery	Spring	Cycle 1 – The gingerbread man, Kitchen disco, cleversticks, sharing a shell
		Cycle 2 – Elmer, Rosie's walk, Bathroom boogie,

What will be taught … key ideas?	I wonder ..	Key vocabulary
To be aware of how to stay safe online when at school and at home. To follow simple instructions to observe a process and achieve an end result eg. Baking, Set of instructions to make a puppet To use a simple programme on the IWB	I wonder who lives there? I wonder how you get there? I wonder what it looks/tastes/sounds/feels like…? I wonder what happens if…? I wonder who it is…? I wonder how it's made…? I wonder how many? I wonder why/how/who?	Bake Mix Ingredients Recipe Cook Oven Scales Instructions Safety Safe Online Tablet Videos Worried Scared Sad Feelings help

Nursery	Summer	Cycle 1 – Peepo, Whatever next, the selfish crocodile, the very hungry caterpillar Cycle 2 – Walking through the jungle, Jack and the beanstalk, Owl babies, Farmyard hullabaloo	
What will be taught … key ideas?		**I wonder ..**	**Key vocabulary**
To be aware of how to stay safe online when at school and at home preparing the children for Rec CEOP To follow simple instructions to observe a process and achieve an end result eg. Baking, Set of instructions to make a puppet To use a simple programme on the IWB		I wonder who lives there? I wonder how you get there? I wonder what it looks/tastes/sounds/feels like…? I wonder what happens if…? I wonder who it is…? I wonder how it's made…? I wonder how many? I wonder why/how/who?	Bake Mix Ingredients Recipe Cook Oven Scales Instructions Safety Safe Online Tablet Videos Worried Scared Sad Feelings help

Reception	Autumn	Superworm, The enormous turnip , Funny bones, Gruffalo, Stick Man, Lost and found	
What will be taught … key ideas?		I wonder ..	Key vocabulary
To explore beebots. To use 'Jessie and friends' to teach online safety.		Open ended questioning to prompt deeper discussion. I wonder who lives there? I wonder how you get there? I wonder what it looks/tastes/sounds/feels like…? I wonder what happens if…? I wonder who it is…? I wonder how it's made…? I wonder how many? I wonder why/how/who?	Forwards Backwards Clear turn Stop Go Safety Safe Online Tablet Videos Worried Scared Sad Feelings help

Reception	Spring	Mixed, Once there were giants, Three billy goats gruff, Zog, The Little Red Hen	
What will be taught … key ideas?		I wonder ..	Key vocabulary
To be able to take a photo of their bridge. To use a mouse successfully.		Open ended questioning to prompt deeper discussion. I wonder who lives there? I wonder how you get there? I wonder what it looks/tastes/sounds/feels like…? I wonder what happens if…? I wonder who it is…? I wonder how it's made…? I wonder how many? I wonder why/how/who?	Ipad Photo Print Click Mouse Click Move Arrow Computer Press

Reception	Summer	The little red hen, Monkey puzzle, Handa's Hen, What the ladybird heard, Commotion in the Ocean.	
What will be taught … key ideas?		I wonder ..	Key vocabulary
To explore using beebots		Open ended questioning to prompt deeper discussion. I wonder who lives there? I wonder how you get there? I wonder what it looks/tastes/sounds/feels like…? I wonder what happens if…? I wonder who it is…? I wonder how it's made…? I wonder how many? I wonder why/how/who?	Forwards Backwards Clear turn Stop Go

1.1 Online Safety & Exploring Purple Mash	Topic: Digital Literacy	Year: 1/2 Cycle A	Term: Autumn 1

Foundations of previous learning:
Children from EYFS are be able to…
- make a floor robot move.
- use simple software to make something happen.
- make choices about the buttons and icons I press, touch or click on.

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology purposefully to create, organise, store, manipulate and retrieve digital content To 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	To log in safely. To learn how to find saved work in the Online Work area and find teacher comments. To learn how to search Purple Mash to find resources. To become familiar with the icons and types of resources available in the Topics section. To start to add pictures and text to work. To explore the Tools and Games section of Purple Mash. To learn how to open, save and print. To understand the importance of logging out.	Knows how to log in safely. Knows how to navigate to a document area where saved work by child can be found. Knows how to use search to locate applications or resources on a platform such as Purple Mash. Knows how to enhance work by adding multimodal items such as text and images. Knows how to open, save and print work. Knows the importance of logging out of an account.	Log in Log out Avatar Save Username Password My work Notification Topics Tools Sort Criteria
	Assessment of Skills	**Assessment of Knowledge**	
	To be able to find saved work in the online work area. To search Purple Mash to find resources.	Knows how to log in safely. Knows the importance of logging out of an account.	

2.5 Effective searching	Topic: Digital Literacy	Year: 1/2 Cycle A	Term: Autumn 1

Foundations of previous learning:
1.1
Safe logins
Using purple mash search functionality
1.6
Developing ideas about the concept of technology that we are surrounded by and its purpose.

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
Use technology purposefully to create, organise, store, manipulate and retrieve digital content To 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	To understand the terminology associated with the Internet and searching. To gain a better understanding of searching the Internet To create a leaflet to help someone search for information on the Internet.	Knows the meaning of key Internet and searching terms. Knows the basic parts of a web search engine page. Knows how to navigate a web search results page. Knows how to search the Internet to some degree for answers to a quiz. Knows the premise of what effective Internet searching is.	Browser Device Digital footprint Domain Internet Network Search engine URL Web address Web page Web site World wide web
	Assessment of Skills	**Assessment of Knowledge**	
	To understand the terminology associated with the Internet and searching. To gain a better understanding of searching the Internet	Know that an algorithm is a precise, step-by-step set of instructions used. Know that the Internet is a global network of computers. Know the World Wide Web is the pages you see when search the net.	

1.5 Maze Explorers		Topic: Computer Science	Year: 1/2 Cycle A	Term: Autumn 2
Foundations of previous learning: Children from EYFS are be able to… tell you about different kinds of information such as pictures, video, text and sound.				
Unit Learning				

NC Objective - Coverage	Skills	Knowledge	Vocabulary
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.	To understand the functionality of the basic direction keys in Challenges 1 and 2. To be able to use the direction keys to complete the challenges successfully. To understand the functionality of the basic direction keys in Challenges 3 and 4. To understand how to create and debug a set of instructions (algorithm). To use the additional direction keys as part of their algorithm. To understand how to change and extend the algorithm list To provide an opportunity for the children to set challenges for each other. To provide an opportunity for the teacher to add these challenges to a display board for the class to try.	Knows the functionality of the direction keys in 2GO. Knows how to create and debug a set of simple instructions (algorithm). Knows how to use the additional direction keys within 2Go as part of an algorithm. Knows how to change and extend the algorithm list in 2Go.	Algorithm Challenge Command Direction Instruction Left Right Route Undo Units
	Assessment of Skills	**Assessment of Knowledge**	
	To be able to use the direction keys to complete the challenges successfully. To understand how to change and extend the algorithm list	Knows the functionality of the direction keys in 2GO. Knows how to create and debug a set of simple instructions (algorithm). Knows how to use the additional direction keys within 2Go as part of an algorithm.	

1.6 Animated Story Books		Topic: Information Technology	Year: 1/2 Cycle A	Term: Autumn 1

Foundations of previous learning:
Children from EYFS are be able to…
- make a floor robot move.
- use simple software to make something happen.
- make choices about the buttons and icons I press, touch or click on.

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	To understand the differences between traditional books and ebooks. To explore the tools of 2Create a Story's My Simple Story level. To save the page they have created. To add animation to a picture. To play the pages created so far. To save the additional changes and overwrite the file. To add a sound effect to a picture. To add a voice recording to the picture. To add created music to the picture. To add a background to the story. To demonstrate a good understanding of all the tools they have used in 2Create a Story and use these successfully to create their own story. To use the copy and paste feature to create additional pages. To continue and complete an animated story. To create a class display board of the story books created by the class.	Knows what e-books are. Knows of software such as 2Create a Story that allows users to create interactive stories. Knows how to add animation to an interactive story. Knows how to add sound, including voice recordings and music to a story they have created using software. Beginning to know how to work on more complex digital stories, including adding backgrounds, copying and pasted pages. Knows how to share digital stories with others such as using Digital Display Boards.	Animation Gallery Clip Art E-book Edit Font Sound Sound Effect Text
Assessment of Skills		**Assessment of Knowledge**	
To save the page they have created. To add a sound effect to a picture.		Knows what e-books are. Knows how to add animation to an interactive story. Knows how to add sound, including voice recordings and music to a story they have created using software.	

1.7 Coding	Topic: Computer Science	Year: 1/2 Cycle A	Term: Spring 1

Foundations of previous learning:
Children from EYFS are be able to…
- tell you about technology that is used at home and in school.
- operate simple equipment.
- use a safe part of the Internet to play and learn.

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To understand what instructions are. To predict what will happen when instructions are followed. To understand that computer programs work by following instructions called code. To use code to make a computer program. To understand what objects and actions are. To understand what an event is. To use an event to control an object To begin to understand how code executes when a program is run. To understand what backgrounds and objects are. To understand how to use the scale property. To plan a computer program. To make a computer program.	Knows what instructions are and can predict what might happen when they are followed Knows how to plan and make a simple computer program e.g. fish moves right, crab moves up. Knows what objects, actions and backgrounds are within a coding environment. Knows what an event is and knows how to use an event to control an object. Beginning to know how code executes when a program is run.	Action Algorithm Background Code Coding Command Debug Execute Event Instruction Object Output Plan Programmer Properties
	Assessment of Skills	**Assessment of Knowledge**	
	To predict what will happen when instructions are followed To use an event to control an object	Knows what instructions are and can predict what might happen when they are followed. Knows how to plan and make a simple computer program e.g. fish moves right, crab moves up.	

2.1 Coding		Topic: Computer Science	Year: 1/2 Cycle A	Term: Spring 2

Foundations of previous learning:
Year 1 Prior links:
Objects and actions • Events (Click event, sound output) • Executing a program • Design view: Planning
Algorithms • Logical decision making • Sequencing instructions • Following instructions
Coding a sprite • Creating programs using sequencing and repeat • Visual use of the Logo programming language • Program logic and structure

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To understand what an algorithm is. To create a computer program using an algorithm. To create a program using a given design. To understand the collision detection event. To understand that algorithms follow a sequence. To design an algorithm that follows a timed sequence. To understand that different objects have different properties. To understand what different events do in code. To create a program using a given design. To understand the function of buttons in a program. To know what debugging means. To understand the need to test and debug a program repeatedly. To debug simple programs.	Knows what an algorithm is and can explain that it is a set of instructions and that algorithms follow a sequence. Knows how to create a computer program using an algorithm. Knows how to create a computer program from a given design. Knows that collision detection is an event type in coding. Knows how to design an algorithm that follows a timed sequence. Knows that different objects within the coding environment have different properties. Knows that there are different events in coding and knows what some of these events are. Knows the function of buttons in the coding environment. Knows how to interpret and debug simple programs.	Action Algorithm Background Bug Button Click events Collision detection Command Debug/debugging Event Execute Implement Instructions Interaction Interval Object Output Properties Run
	Assessment of Skills	**Assessment of Knowledge**	
	To create a computer program using an algorithm. To design an algorithm that follows a timed sequence.	Know that sorting something means to put things together by features they have in common. Know that an algorithm is a set of instructions needed to complete a task.	

13

1.2 Grouping and Sorting		Topic: **Computer Science**	Year: 1/2 Cycle A	Term: Summer 1

Foundations of previous learning:
Children from EYFS are be able to…
- make a floor robot move.
- use simple software to make something happen.

- make choices about the buttons and icons I press, touch or click on.

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To sort items using a range of criteria. To sort items on the computer using the 'Grouping' activities in Purple Mash.	Knows how to sort items using a range of criteria. Knows how to use software for grouping items such as tools within Purple mash.	Log in Log out Avatar Save Username Password My work Notification Topics Tools Sort Criteria
	Assessment of Skills	**Assessment of Knowledge**	
	To sort items using a range of criteria. To sort items on the computer using the 'Grouping' activities in Purple Mash.	Knows how to sort items using a range of criteria. Knows how to use software for grouping items such as tools within Purple mash.	

1.4 Lego Builders	Topic: **Computer Science**	Year: 1/2 Cycle A	Term: Summer 1

Foundations of previous learning:
Children from EYFS are be able to…
- move objects on a screen.
- create shapes and text on a screen.
- use technology to show my learning.

Unit Learning			
NC Objective – Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To organise instructions for a simple recipe. To compare the effects of adhering strictly to instructions to completing tasks without complete instructions. To follow and create simple instructions on the computer. To consider how the order of instructions affects the result.	Knows how to compare the effects of adhering strictly to instructions when completing tasks without complete instructions. Knows how to follow and create simple instructions on the computer. Knows that the order of instructions affects the end result for a given instructional task.	Pictogram Data Collate Add Delete Collect data Compare Record results Title Algorithm Code Computer Debugging Instructions Program
	Assessment of Skills	**Assessment of Knowledge**	
	To follow and create simple instructions on the computer. To consider how the order of instructions affects the result.	Knows how to follow and create simple instructions on the computer. Knows that the order of instructions affects the end result for a given instructional task.	

1.3 Pictograms		Topic: **Information Technology**		Year: 1/2 Cycle A	Term: Summer 2

Foundations of previous learning:
Children from EYFS are be able to…
- move objects on a screen.
- create shapes and text on a screen.
- use technology to show my learning.

Unit Learning			
NC Objective – Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	To contribute to a class pictogram. To use a pictogram to record the results of an experiment. To discuss and illustrate the transport used to travel to school. To contribute to the collection of class data. To use illustrations to create a simple pictogram. To contribute to a class pictogram. To discuss what the pictogram shows.	Knows that data can be represented in a picture format e.g. pictogram. Knows how to contribute to a class pictogram. Knows how to use a software such as 2Count to record results of an experiment into a pictogram format.	Pictogram Data Collate Add Delete Collect data Compare Record results Title Algorithm Code Computer Debugging Instructions Program
	Assessment of Skills	**Assessment of Knowledge**	
	To use a pictogram to record the results of an experiment. To use illustrations to create a simple pictogram.	Knows that data can be represented in a picture format e.g. pictogram. Knows how to use a software such as 2Count to record results of an experiment into a pictogram format.	

16

1.9 Technology outside school	Topic: Digital Literacy	Year: 1/2 Cycle A	Term: Summer 2

Foundations of previous learning:

Children from EYFS are be able to…

- make a floor robot move.
- use simple software to make something happen.
- make choices about the buttons and icons I press, touch or click on.

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology purposefully to create, organise, store, manipulate and retrieve digital content To 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	To find examples of where technology is used To compare the speed and ease of technology to non-technological actions e.g. sending an email vs sending a letter	To understand what is meant by technology To identify a variety of examples of technology both in and out of school.	Computer Technology Button Calculation Cell Clip art Columnn Count Tool Data Delete Image Look cell Move cell Row Speak tool Spreadsheet Value
	Assessment of Skills	**Assessment of Knowledge**	
	To find examples of where technology is used To compare the speed and ease of technology to non-technological actions e.g. sending an email vs sending a letter	To understand what is meant by technology To identify a variety of examples of technology both in and out of school.	

1.1 Online Safety & Exploring Purple Mash		Topic: Digital Literacy	Year: 1/2 Cycle B	Term: Autumn 1

Foundations of previous learning:
Children from EYFS are be able to…
- make a floor robot move.
- use simple software to make something happen.
- make choices about the buttons and icons I press, touch or click on.

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology purposefully to create, organise, store, manipulate and retrieve digital content To 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	To log in safely. To learn how to find saved work in the Online Work area and find teacher comments. To learn how to search Purple Mash to find resources. To become familiar with the icons and types of resources available in the Topics section. To start to add pictures and text to work. To explore the Tools and Games section of Purple Mash. To learn how to open, save and print. To understand the importance of logging out.	Knows how to log in safely. Knows how to navigate to a document area where saved work by child can be found. Knows how to use search to locate applications or resources on a platform such as Purple Mash. Knows how to enhance work by adding multimodal items such as text and images. Knows how to open, save and print work. Knows the importance of logging out of an account.	Log in Log out Avatar Save Username Password My work Notification Topics Tools Sort Criteria
	Assessment of Skills	**Assessment of Knowledge**	
	To be able to find saved work in the online work area. To search Purple Mash to find resources.	Knows how to log in safely. Knows the importance of logging out of an account.	

2.2 Online Safety	Topic: **Digital Literacy**	Year: 1/2 Cycle B	Term: Autumn 1

Foundations of previous learning:
Children from Year 1 understand…
- Safe logins • Concept of privacy • Concept of ownership • The need to logout
- Developing ideas about the concept of technology that we are surrounded by and its purpose
- Spreadsheet navigation • Adding images • Vocab: cell, column, row
- Pictograms - What is data? • Representing data

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
Use technology purposefully to create, organise, store, manipulate and retrieve digital content To 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	To know how to refine searches using the Search tool. To know how to share work electronically using the display boards. To use digital technology to share work on Purple Mash to communicate and connect with others locally. To have some knowledge and understanding about sharing more globally on the Internet. To introduce Email as a communication tool using 2Respond simulations. To understand how we talk to others when they are not there in front of us. To open and send simple online communications in the form of email. To understand that information put online leaves a digital footprint or trail. To begin to think critically about the information they leave online. To identify the steps that can be taken to keep personal data and hardware secure	Knows how searches can be refined when searching digitally and therefore attempts refining when searching. Knows that digitally created work can be shared with others e.g. Purple Mash Display Boards. Has knowledge and understanding about sharing more globally on the Internet. Knows that email is a type of communication tool. Knows how to open and send simple online communications in the form of email e.g. 2Email (virtual email client). Knows that there is an appropriate way to communicate with others in an online situation. Knows that information put online leaves a digital footprint. Knows some steps that can be taken to keep personal data and hardware secure.	**Attachment** **Digital footprint** **Email** **Filter** **Internet** **Personal information** **Private information** **Search** **Secure** **Sharing**
	Assessment of Skills	**Assessment of Knowledge**	
	To understand that information put online leaves a digital footprint or trail. To identify the steps that can be taken to keep personal data and hardware secure	Know what an email is used for. Know what a digital footprint is. Know what they would not like in their digital footprint.	

1.8 Spreadsheets		Topic: **Information Technology**	Year: 1/2 Cycle B	Term: Autumn 2

Foundations of previous learning:

Children from EYFS are be able to…

- make a floor robot move.
- use simple software to make something happen.
- make choices about the buttons and icons I press, touch or click on.

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	To understand what a spreadsheet looks like. To be able to navigate around a spread sheet and enter data. To learn new vocabulary related to spreadsheets. To add clipart images to a spreadsheet. To use the 'move cell' and 'lock' tools. To use the 'speak' and 'count' tools in 2Calculate to count items.	Knows what a spreadsheet program environment looks like including cells, rows and columns. Knows what a spreadsheet program can help do. Knows how to enter data into spreadsheet cells. Knows how to add images to cells. Knows how to use some tools within spreadsheets e.g. with 2Calulate can use lock cell, move cell, speak and count.	Button Calculation Cell Clip art Columnn Count Tool Data Delete Image Look cell Move cell Row Speak tool Spreadsheet Value
	Assessment of Skills	**Assessment of Knowledge**	
	To be able to navigate around a spread sheet and enter data To use the 'move cell' and 'lock' tools.	Knows what a spreadsheet program environment looks like including cells, rows and columns. Knows basically what a spreadsheet program can help do. Knows how to enter data into spreadsheet cells.	

2.3 Spreadsheets		Topic: **Information Technology**	Year: 1/2 Cycle B	Term: Autumn 2

Foundations of previous learning:

Children from Year 1 understand…

- Safe logins • Concept of privacy • Concept of ownership • The need to logout
- Developing ideas about the concept of technology that we are surrounded by and its purpose
- Spreadsheet navigation • Adding images • Vocab: cell, column, row
- Pictograms - What is data? • Representing data

Unit Learning			

NC Objective - Coverage	Skills	Knowledge	Vocabulary
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	To review the work done in 2Calculate in year 1. To revise spreadsheet related vocabulary. To use some 2Calculate tools that were introduced in year 1. To use copying, cutting and pasting shortcuts in 2Calculate. To use 2Calcuate totalling tools. To use 2Calculate to solve a simple puzzle To explore the capabilities of a spreadsheet in adding up coins to match the prices of objects To add and edit data in a table layout. To use the data to manually create a block graph.	Knows how to use prior learning to perform composite task of creating a counting machine using software such as 2Calculate (image, lock move cell, speak and count tools). Knows how to copy, cut and paste in spreadsheet software such as 2Calculate. Knows what totalling tools are and how to use them. Knows how to use a spreadsheet to perform calculations for purpose. For example, adding and totalling money. Knows how to use some tools within a spreadsheet to support calculations. For example, using the equals tool in 2Calculate to check calculations. Knows how to create a manual block graph within a spreadsheet from data.	**Block graph** **Cell** **Column** **Copy** **Data** **Drag** **Equals** **Equals tool** **Labels** **Row** **Speak tool** **Table** **Total**
	Assessment of Skills	**Assessment of Knowledge**	
	To use copying, cutting and pasting shortcuts in 2Calculate. To add and edit data in a table layout.	Knows how to copy, cut and paste in spreadsheet software such as 2Calculate. Knows what totalling tools are and how to use them. Knows how to use a spreadsheet to perform calculations for purpose. For example, adding and totalling money.	

2.4 Questioning		Topic: Information Technology	Year: 1/2 Cycle B	Term: Spring 1

Foundations of previous learning:
Year 1 Prior links…
Sorting data according to criteria
Collecting and presenting data in a picture format

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	To show that the information provided on pictograms is of limited use beyond answering simple questions To use yes/no questions to separate information To construct a binary tree to separate different items. Use 2Question (a binary tree) to answer questions	Knows that pictograms provide limited information. Knows that there are other data handling tools that can give more information than pictograms. Knows how to use yes/no questions to separate information. Knows how to construct a binary tree to identify items. Knows how to use a binary tree database (such as 2Question), to answer questions. Knows how to use a database to answer more complex search questions. Knows how to use a search feature at a basic level when trying to locate data within a database such as 2Investigate.	Binary Tree Data Database Field Pictogram Question Record Search Sort
	Assessment of Skills	**Assessment of Knowledge**	
	To use yes/no questions to separate information To construct a binary tree to separate different items.	Know that a pictogram is a diagram that uses pictures to represent data. Know a binary tree is a data structure. Know a database is a computerised system that makes it easy to search, select and store information.	

2.6 Creating pictures	Topic: Information Technology	Year: 1/2 Cycle B	Term: Spring 2

Foundations of previous learning:
1.1
General use of Purple Mash
Design: avatar creation
Paint Projects: use of the simple paint tools
1.6
2Create a Story: Painting tool.
Animating images using built in effects
Concept of background (static) and foreground (can move)

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	To explore 2Paint A Picture. To look at the work of Impressionist artists and recreate them using the Impressionism template. To look at the work of pointillist artists such as Seurat. To recreate pointillist art using the Pointillism template. To look at the work of Piet Mondrian and recreate it using the Lines template. To look at the work of William Morris and recreate it using the Patterns template.	Knows the purpose and benefits of painting software tools such as 2Paint a Picture. Knows how to recreate Impressionism, surrealism and Pointillism using features within 2Paint a Picture. Knows how to reproduce the style of William Morris by using repeating patterns, manipulating patterns and adding multiple effects in painting software such as 2Paint a picture.	Impressionism Palette Share Pointillism Surrealism Template Art Clipart Diagonal Dilute eCollage Fill Horizontal Parallel Repeating pattern Rotated Stamps Style Symmetry Vertical
	Assessment of Skills	**Assessment of Knowledge**	
	To explore 2Paint A Picture. To recreate pointillist art using the Pointillism template.	Knows the purpose and benefits of painting software tools such as 2Paint a Picture. Knows how to recreate Impressionism, surrealism and Pointillism using features within 2Paint a Picture.	

2.7 Making music		Topic: Information Technology	Year: 1/2 Cycle B	Term: Summer 1

Foundations of previous learning: Adding simple sound effects to stories in 2Create a Story

Unit Learning

NC Objective - Coverage	Skills		Knowledge		Vocabulary
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	To be introduced to making music digitally using 2Sequence. To explore, edit and combine sounds using 2Sequence. To add sounds to a tune to improve it. To think about how music can be used to express feelings and create tunes which depict feelings. To upload a sound from a bank of sounds into the Sounds section. To record their own sound and upload it into the Sounds section. To create their own tune using the sounds which they have added to the Sounds section.		Knows how to make forms of music (digitally) using age appropriate software such as 2Sequence. Knows how to edit and combine sounds using 2Sequence. Knows how to refine composed music. Knows how to upload/import and record sounds beyond the software environment.		Bars Beat Compose Note Tune Repeat Sound effect Soundtrack Speed Tempo Volume
	Assessment of Skills		**Assessment of Knowledge**		
	To explore, edit and combine sounds using 2Sequence. To record their own sound and upload it into the Sounds section.		Knows how to make forms of music (digitally) using age appropriate software such as 2Sequence. Knows how to edit and combine sounds using 2Sequence. Knows how to refine composed music.		

2.5 Effective searching	Topic: Digital Literacy	Year: 1/2 Cycle B	Term: Summer 1

Foundations of previous learning:
1.1
Safe logins
Using purple mash search functionality
1.6
Developing ideas about the concept of technology that we are surrounded by and its purpose.

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology purposefully to create, organise, store, manipulate and retrieve digital content To 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	To understand the terminology associated with the Internet and searching. To gain a better understanding of searching the Internet To create a leaflet to help someone search for information on the Internet.	Knows the meaning of key Internet and searching terms. Knows the basic parts of a web search engine page. Knows how to navigate a web search results page. Knows how to search the Internet to some degree for answers to a quiz. Knows the premise of what effective Internet searching is.	Browser Device Digital footprint Domain Internet Network Search engine URL Web address Web page Web site World wide web
	Assessment of Skills	**Assessment of Knowledge**	
	To understand the terminology associated with the Internet and searching. To gain a better understanding of searching the Internet	Know that an algorithm is a precise, step-by-step set of instructions used. Know that the Internet is a global network of computers. Know the World Wide Web is the pages you see when search the net.	

2.8 Presenting ideas		Topic: Information Technology	Year: 1/2 Cycle B	Term: Summer 2

Foundations of previous learning:
1.6
Creating text and the use of illustrations
Genre: animated picture book

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	To explore how a story can be presented in different ways. To make a quiz about a story or class topic. To make a fact file on a non-fiction topic. To make a presentation to the class.	Know that digital content can be presented in many different forms e.g. stories. Know how to use presentational or interactive software such as a quiz, making improvements to it based on people feedback. Know that data can be structured in tables to make it useful for an audience. Know how to add images such as clipart and photos to presentational software. Know how to collect, organise and present data and information in digital format.	e-book fact file fiction mind map multiple-choice node non-fiction presentation quiz
	Assessment of Skills	**Assessment of Knowledge**	
	To make a quiz about a story or class topic. To make a presentation to the class.	Know that data can be structured in tables to make it useful for an audience. Know how to add images such as clipart and photos to presentational software. Know how to collect, organise and present data and information in digital format.	

3.2 Online Safety	Topic: Digital Literacy	Year: 3	Term: Autumn 1

Foundations of previous learning:

1.1
Safe logins • Concept of privacy • Concept of ownership • The need to logout
1.6 Developing ideas about the concept of technology that we are surrounded by and its purpose
2.2
Share to a displayboard • Approval process • Sharing online • Email simulations • emotional impact of communications • digital footprint
2.5
Search engine • Digital footprint • Privacy

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away. To understand how the Internet can be used to help us to communicate effectively. To understand how a blog can be used to help us communicate with a wider audience. To consider if what can be read on websites is always true. To look at a 'spoof' website. To create a 'spoof' webpage. To think about why these sites might exist and how to check that the information is accurate. To learn about the meaning of age restrictions symbols on digital media and devices. To discuss why PEGI restrictions exist. To know where to turn for help if they see inappropriate content or have inappropriate contact from others.	Knows what makes a safe password and how to keep it safe. Knows the main outcomes of not keeping passwords safe. Knows all the common ways the Internet enables people to effectively communicate. Know that a blog can be used to help communicate with a wider audience. Know how to contribute to a blog with clear and appropriate messages. Know that some information held on websites may not be accurate or true. Beginning to know how to search the Internet and how to think critically about the results returned. Know why there are age restrictions on digital media and devices. Know where to turn to for help if they see inappropriate content or have inappropriate contact from others.	Appropriate Blog Inappropriate Internet Password Personal information Permission Reliable source Reputable source Spoof Verify Vlogs Website
	Assessment of Skills	**Assessment of Knowledge**	
	To consider if what can be read on websites is always true. To know where to turn for help if they see inappropriate content or have inappropriate contact from others.	Know what makes a safe password and methods for keeping passwords safe Know how the internet can be used for effective communication Know age restriction symbols on digital media and devices	

3.3 Spreadsheets		Topic: **Information Technology**	Year: 3	Term: Autumn 1

Foundations of previous learning:

1.8
Introduce 2Calculate • Spreadsheet navigation • Adding images • Vocab: cell, column, row
1.3
What is data? • Representing data
2.3
Copying and pasting • Totalling tools • Addition • Table layout • Block graph
2.4
Ways to represent data • Pictograms (2Count) • Binary trees (2Question) • Databases (2Investigate)

Unit Learning				
NC Objective - Coverage	**Skills**	**Knowledge**		**Vocabulary**
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.	To add and edit data in a table layout. To find out how spreadsheet programs can automatically create graphs from data. To introduce the 'more than', 'less than' and 'equals' tools. To introduce the 'spin' tool and show how it can be used to count through times tables. To introduce the Advanced mode of 2Calculate. To learn about describing cells using their addresses.	Know how to create tables of data within a spreadsheet. Know how to use a spreadsheet program to automatically create charts and graphs from data. Know how to use various features within a spreadsheet to support solutions to calculations. For example, 'more than', 'less than', and 'equals'. Know how to describe a cell location in a spreadsheet. Know how to find specified locations in a spreadsheet.		Advance mode Bar graph Cell address Data Equals Less than More than More then, less than & equals tool Pie chart Quiz tool Spinner tool Table
	Assessment of Skills	**Assessment of Knowledge**		
	To add and edit data in a table layout. To begin to use the 'more than', 'less than' and 'equals' tools.	Know how to use the symbols for more than, less than and equal to, to compare numbers Know how to use 2calculate Know how to use cell references		

3.1 Coding		Topic: Computer science	Year: 3	Term: Autumn 2

Foundations of previous learning:
1.1
• Introducing block coding • Objects and actions • Events (Click event, sound output) • Executing a program • Design view: Planning
1.4
Algorithms • Logical decision making • Sequencing instructions • Following instructions
1.5
Coding a 'turtle' • Creating programs using sequencing and repeat. • Visual use of the Logo programming language. • Program logic and structure.
2.1
Algorithms • Collision detection • Timers • Object types • Buttons • Debugging
2.4
Logical decision processing. • Forward planning to achieve a solution

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To review previous coding knowledge. To understand what a flowchart is and how flowcharts are used in computer programming. To understand that there are different types of timers. To be able to select the right type of timer for a purpose. To understand how to use the repeat command. To use coding knowledge to create a range of programs. To understand the importance of nesting. To design and create an interactive scene.	Knows what a flowchart is and how flowcharts are used in computer programming. Knows how to use a flowchart to create a computer program. Knows that there are different types of timers used in coding environments such as 2Code. Knows which timer should be used for a given purpose. Know what a repeat command is and how to use the repeat command. Know how to create a range of programs using coding knowledge. Know how to run, test and debug their own programs. Know what nesting is and that this should be considered when debugging. Know how to change attributes/properties of any objects in a program they have made.	Action Alert Algorithm Background Bug Button Click events Code Collision detection event Command Debug Degrees Event Flowchart Implement Input Interval Nest Object Predict Properties Repeat Right-angle Run Scene Sequence Test Timer Turtle object
	Assessment of Skills	**Assessment of Knowledge**	
	To be able to select the right type of timer for a purpose. To be able to use the repeat command.	Know what a flowchart is and how flow charts are used in computer programming Know how to use the repeat command Know the importance of nesting Know that there are different types of timers	

3.6 Branching databases		Topic: Information Technology	Year: 3	Term: Spring 1
Foundations of previous learning: 1.2 Sorting data according to criteria 1.3 Collecting and presenting data in a picture format 2.3 Use of 2Calculate to collect data and produce a graph 2.4 Enquiry into different data handling tools • Use of questioning to separate and group data				
Unit Learning				
NC Objective - Coverage	**Skills**		**Knowledge**	**Vocabulary**
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.	To sort objects using just YES/NO questions. To complete a branching database using 2Question. To create a branching database of the children's choice.		Know how to sort objects using just YES/NO. Know how YES/NO questions are structured and answered. Know how to complete a branching database. Know how to edit and adapt a branching database. Know how to create a branching database including debugging it.	Binary tree Branching database Data Database Debugging
	Assessment of Skills		**Assessment of Knowledge**	
	To sort objects using just YES/NO questions. To create a branching database.		Know how to sort objects using yes or no Know how to create a branching database	

3.7 Simulations	Topic: Information Technology	Year: 3	Term: Spring 1

Foundations of previous learning:

1.7
Following instructions • Creating simple programs • Computer simulation of real life events
1.9
Understanding the term 'technology' • Recognising the use of technology around them
2.1
Algorithms • Collision detection - simulating air traffic control • Object types • Debugging
3.1
Flowcharts • Timers and sequence simulation of lightning strike • Code, test, debug process

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To find out what a simulation is and understand the purpose of simulations. To explore a simulation, making choices and discussing their effects. To work through and evaluate a more complex simulation.	Know that a computer simulation can represent real and imaginary situations. Know advantages and problems of using simulations. Know how to use a simple simulation to try out different options and test predictions. Begin to know how to evaluate simulations by comparing them with real simulations and considering their usefulness.	Advantages Analysis Decision Disadvantages Evaluation Modelling Point-of-view Realistic Simulation Solution Unrealistic
	Assessment of Skills	**Assessment of Knowledge**	
	To find out what a simulation is and understand the purpose of simulations. To explore a simulation, making choices and discussing their effects.	Know what simulations are Know how to explore and evaluate a simulation	

3.5 Email	Topic: Digital Literacy	Year: 3	Term: Spring 2

Foundations of previous learning:

1.1
Safe logins • Concept of privacy • Concept of ownership
1.6
Developing ideas about the concept of technology that we are surrounded by and its purpose
2.2
Sharing online • Email simulations • Emotional impact of communications • Digital footprint
2.5
Exploration of what the Internet is • Accessing the World Wide Web • Digital Footprint • Searching and sharing
3.2
Good Passwords and password privacy • Communication methods • Cyberbullying and reporting problems

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	To think about the different methods of communication To open and respond to an email. To write an email to someone from an address book. To learn how to use email safely. To add an attachment to an email. To explore a simulated email scenario.	Know the different methods of communication and know the strengths and weaknesses of his form. Know how to open and responding to email. Know how to use an address book to write an email. Know how to use an email environment safely including the importance of the draft feature. Know how to add attachments to an email. Know what CC means and how to use it.	Address book Attachment BCC – Blind carbon copy CC – Carbon copy Communication Compose Email Inbox Link Mind mapping Node Password Personal information Save to draft Trusted contact
	Assessment of Skills	**Assessment of Knowledge**	
	To open and respond to an email. To write an email to someone from an address book.	Know how to open and respond Know how to use email safely Know how to add an attachment to an email	

3.9 Presenting		Topic: Information Technology	Year: 3	Term: Summer 1

Foundations of previous learning:
1.6
Creating text and the use of illustrations • Genre: animated picture book
2.6
Presenting ideas in art form • 2Paint a Picture: art effects, collage effects
2.8
Creating work for a variety of purposes and different genres • Presenting the same information in different styles: animated story, quiz based on a story, concept map of a story, writing template

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To create a page in a presentation. To add media to a presentation To add animations into a presentation To add timings into a presentation. To use the skills learnt in previous weeks to design and present an effective presentation.	Know what presentation is and how it can be used. Know how to add pages/slides, text and shapes to pages, and also format them. Know how to add media such as images, audio and videos. Know how to use effects and features such as animations and slide transitions. Know how timings can help when presenting and know how to include them in presentations. Know how to effectively present to an audience using presentation software.	Animation Audio Border properties Duration Editing Fill colour Font formatting Layer Media Presentation Presentation design Preview Review Slide Slideshow Sound effect Textbox Theme Timing Transition Video Wordart
	Assessment of Skills	**Assessment of Knowledge**	
	To add media to a presentation To add animations into a presentation	Know how to add pages/slides, text and shapes to pages, and also format them. Know how to add media such as images, audio and videos. Know how to use effects and features such as animations and slide transitions.	

3.8 Graphing		Topic: **Information Technology**	Year: 3	Term: Summer 2

Foundations of previous learning:
1.2
Sorting data according to criteria
1.3
Collecting and presenting data in a picture format
2.3
Use of 2Calculate to collect data and produce a graph
2.4
Enquiry into different data handling tools • Use of questioning to separate and group data
3.3
Collecting data • Producing a graph
3.6
Sorting and interrogating data

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To enter data into a graph and answer questions. To solve an investigation and present the results in graphic form.	Know how to set up a graph with a given number of fields using graphing software (2Graph). Know how to enter data for a graph. Know how to select the most appropriate chart type for their data and explain reasoning. Know how to sort data in graphing software to enable easier analysis.	Axis Chart Column Data Graph Investigation Row Sorting Survey Tally chart Title
	Assessment of Skills	**Assessment of Knowledge**	
	To enter data into a graph and answer questions. To solve an investigation and present the results in graphic form.	Know how to enter data into a graph and answer questions Know how to solve an investigation and present results in graphic form	

3.4 Touch typing		Topic: Information Technology	Year: 3	Term: Summer 2

Foundations of previous learning:
1.1
General use of Purple Mash • Simple text entry • Use of a writing template
2.5
Efficient use of a search engine • Leaflet creation
2.8
Presenting ideas in a variety of styles including through typed text

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To introduce typing terminology. To understand the correct way to sit at the keyboard. To learn how to use the home, top and bottom row keys. To practice and improve typing for home, bottom, and top rows. To practice the keys typed with the left hand To practice the keys typed with the right hand.	Know typing terminology including names of fingers. Know the home, top and bottom row sections on a keyboard. Knows the keys typed with left hand. Knows the keys typed with right hand. Knows the correct way to sit at a keyboard.	Keys Posture Spacebar Typing
	Assessment of Skills	**Assessment of Knowledge**	
	To understand the correct way to sit at the keyboard. To learn how to use the home, top and bottom row keys.	Know how to correctly sit at a keyboard Know how to use the top, middle and bottom row keyboard Know typing terminology	

Computing Curriculum

4.2 Online safety		Topic: Digital Literacy	Year: 4	Term: Autumn 1

Foundations of previous learning:
1.1
Safe logins • Concept of privacy • Concept of ownership • The need to logout
1.6
Developing ideas about the concept of technology that we are surrounded by and its purpose
2.2
Share to a display board • Approval process • Sharing online • Email simulations • emotional impact of communications • digital footprint
2.5
• Search engine • Digital footprint • Privacy
3.2
Good Passwords and password privacy • Communication methods • Shared blog Reliability of information and spoof websites • appropriate ratings • emotional effects • Cyberbullying • reporting problems
3.5
Evaluating communications • email safety • sharing images - safety • not meeting • attachments

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	To understand how children can protect themselves from online identity theft. To understand that information put online leaves a digital footprint or trail and that this can aid identity theft. To identify the risks and benefits of installing software including apps. To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism. To identify appropriate behaviour when participating or contributing to collaborative online projects for learning. To identify the positive and negative influences of technology on health and the environment. To understand the importance of balancing game and screen time with other parts of their lives.	Know that information put online leaves a digital footprint or trail and can expand on prior years' scope of this fact. Know some of the ways children can protect themselves from online identity theft. Know that information put online by users could be used for identity theft. Know the main risks and benefits of installing software and applications. Know that copying work of others and presenting it as their own is plagiarism. Knows the consequences of plagiarism. Knows appropriate behaviour when participating or contributing to collaborative online projects for learning. Know some of the main positive and negative influences technology has on health and the environment. Knows the importance of balancing screen time with non-screen time.	Adfly Attachment Citation Collaborative Collaborative database Cookies Copyright Data analysis Digital footprint Malware Phising Plagiarism Ransomware Report SMART rules Software Spam Virus Watermark
	Assessment of Skills	**Assessment of Knowledge**	
	To understand that information put online leaves a digital footprint or trail and that this can aid identity theft. To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism.	Knows appropriate behaviour when participating or contributing to collaborative online projects for learning. Know some of the main positive and negative influences technology has on health and the environment. Knows the importance of balancing screen time with non-screen time.	

4.6 Animation		Topic: Information Technology	Year: 4	Term: Autumn 1

Foundations of previous learning:
1.1
General use of Purple Mash • Design: avatar creation • Paint Projects: use of the simple paint tools
1.6
2Create a Story: Painting tool. • What animation is • Animating images using built in effects • Concept of background (static) and foreground (can move)
2.6
2Paint a Picture: art effects, collage effects

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To decide what makes a good, animated film or cartoon and discuss favourite animations. To learn how animations are created by hand. To find out how 2Animate animations can be created in a similar way using technology To learn about onion skinning in animation. To add backgrounds and sounds to animations. Introducing 'stop motion' animation. To share animation the class blog.	• Know how animations are created by hand. • Know how animations are created using computers. • Know what onion skinning is when referring to animation. • Know that animations can be enhanced using features in software such as background and sounds. • Know what 'stop motion' animation is.	Animation FPS frames per second Frame Onion skinning Pause Stop motion
	Assessment of Skills	**Assessment of Knowledge**	
	To find out how 2Animate animations can be created in a similar way using technology To add backgrounds and sounds to animations.	Know how animations are created using computers. Know that animations can be enhanced using features in software such as background and sounds.	

4.1 Coding	Topic: Computer science	Year: 4	Term: Autumn 2

Foundations of previous learning:
1.1
introducing block coding • Objects and actions • Events (Click event, sound output) • Executing a program • Design view: Planning
1.4
Algorithms • Logical decision making • Sequencing instructions • Following instructions
1.5
Coding a 'turtle' • Creating programs using sequencing and repeat. • Visual use of the Logo programming language. • Program logic and structure
2.1
Algorithms • Collision detection • Timers • Object types • Buttons • Debugging
2.4
Logical decision processing • Forward planning to achieve a solution
3.1
Flowcharts • Timers • Repeat • Code, test, debug process
3.6
Sequencing and animation in logical steps.

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To review coding vocabulary and knowledge. To create a simple computer program. To begin to understand selection in computer programming. To understand how an IF statement works. To understand how to use coordinates in computer programming. To understand the Repeat until command. To understand how an IF/ELSE statement works. To understand what a variable is in programming. To use a number variable. To create a playable game.	Begin to know what selection is in computer programming. Know how an IF statement works. Know how to interpret an IF statement and therefore know how to create a program that includes an IF statement. Know how to use co-ordinates in computer programming. Know what the 'repeat until' command is. Know how an IF/ELSE statement works. Know what a variable is in programming. Know how to use variables within their programs. To know how to create a playable game using a block coding environment.	action alert algorithm background button code blocks command co-ordinates debug design event execute flowchart If/else statement Input Nest Object Prompt Implement Predict Repeat Repeat until Run Properties Selection Sequence Timer variable
	Assessment of Skills	**Assessment of Knowledge**	
	To understand how an IF statement works. To understand how to use coordinates in computer programming.	Know how an IF statement works. Know how to use co-ordinates in computer programming. Know what the 'repeat until' command is.	

4.3 Spreadsheets	Topic: Information Technology	Year: 4	Term: Spring 1

Foundations of previous learning:
1.8
• Introduce 2Calculate • Spreadsheet navigation • Adding images • Vocab: cell, column, row
1.3
What is data? • Representing data
2.3
Copying and pasting • Totalling tools • Addition • Table layout • Block graph
2.4
Ways to represent data • Pictograms (2Count) • Binary trees (2Question)
3.3
• Pie charts and Bar graphs • Boolean comparison tools (<=>) • Spin tool • Advanced mode • Cell references
3.8
Data representation in 2Graph • Use software to investigate data

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To explore how the numbers entered into cells can be set to either currency or decimal. To explore the use of the display of decimal places. To find out how to add formulae to a cell. To explore how tools can be combined to use 2Calculate to make number games. To explore the use of the timer, random number and spin button tools To use the line graphing tool in 2Calculate with appropriate data. To interpret a line graph to estimate values between data readings. To use the currency formatting tool in 2Calculate. To use 2Calculate to create a model of a real-life situation. To use the functions of allocating value to images in 2Calculate to make a resource to teach place value.	Know what cell formatting is. Know how to format cells as currency, percentage, decimal or fraction. Know how to use formula wizard tools. Know how to combine spreadsheet tools to create a purposeful spreadsheet e.g. a timed times table test. Know how to use a spreadsheet to model a reallife situation e.g. budget planner. Know how to add a formula to a cell in order to create automatic calculations.	Average Budget Calculations Chart Column Data Decimal place Equals to tool Format cell Formula Formula wizard Line graph Percentage Place value Random number tool Resize Row Set image Spinner tool Timer totals
	Assessment of Skills	**Assessment of Knowledge**	
	To explore how the numbers entered into cells can be set to either currency or decimal. To explore the use of the display of decimal places.	Know how to format cells as currency, percentage, decimal or fraction. Know how to use a spreadsheet to model a real-life situation e.g. budget planner.	

4.5 Logo	Topic: **Computer science**	Year: 4	Term: Spring 2

Foundations of previous learning:

1.4
Logical decision making • Sequencing instructions • Following instructions
1.5
Visual use of the Logo programming language. • Program logic and structure
1.7
Familiarity with a code environment • Logical planning of sequences • Debugging skills
2.1
Familiarity with a code environment. • Logical planning of sequences • Debugging skills
2.4
Logical decision processing • Forward planning to achieve a solution
3.1
Familiarity with a code environment • Logical planning of sequences • Debugging skills
3.6
Logical decision processing • Forward planning to achieve a solution

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
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.	To learn the structure of the language of 2Logo. To input simple instructions in 2Logo To use 2Logo to create letter shapes. To use the Repeat command in 2Logo to create shapes. To use and build procedures in 2Logo.	Know the structure of the coding language of Logo. Know how to input simple instructions in Logo language environment. Know how to create letter shapes using Logo. Know what the repeat function in Logo is and its usefulness. Use it to create shapes such as squares. Know what procedures are and use this knowledge to build procedures in Logo.	Debugging Grid Logo Logo commands (FD, BK, RT, LT) Multi line mode Pen down Pen up Prediction Procedure Repeat Run speed SETPC SETPS
	Assessment of Skills	**Assessment of Knowledge**	
	To input simple instructions in 2Logo To use 2Logo to create letter shapes.	Know how to input simple instructions in Logo language environment. Know how to create letter shapes using Logo. Know what the repeat function in Logo is and its usefulness. Use it to create shapes such as squares.	

4.8 Hardware investigators		Topic: Computer science	Year: 4	Term: Spring 2

Foundations of previous learning:
1.9
Developing ideas about the concept of technology that we are surrounded by and its purpose • Understanding that many devices use computational technology
2.5
Exploration of what the Internet is and how devices allow connections to access functions and the World Wide Web • Searching and sharing
3.5
Using device functions for 2-way communication via the World Wide Web

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To understand the different parts that make up a desktop computer. To recall the different parts that make up a computer.	Know there are key parts that make up a computer. Know what each of the key parts is called and the function of them	Components CPU Graphics cards Hard drive Hardware Input Motherboard Network card Output Peripherals RAM Software
	Assessment of Skills	**Assessment of Knowledge**	
	To understand the different parts that make up a desktop computer. To recall the different parts that make up a computer.	Know there are key parts that make up a computer. Know what each of the key parts is called and the function of them	

4.7 Effective searching		Topic: Information Technology	Year: 4	Term: Summer 1

Foundations of previous learning:
1.1
Safe logins • Using Purple Mash search functionality
1.6
Developing ideas about the concept of technology that we are surrounded by and its purpose
2.2
Sharing to a display board • Sharing online • Digital footprint
2.5
Exploration of what the Internet is • Accessing the World Wide Web • Digital Footprint • Searching and sharing
3.2
Reliability of information and spoof websites • Appropriate ratings • Reporting problems
4.2
• Phishing • Digital footprint • Malware and viruses • Plagiarism

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
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.	To locate information on the search results page. To use search effectively to find out information. To assess whether an information source is true and reliable.	Know how to find information from a search results page. Know how to search effectively to find out information. Know how to identify if an information source is true and reliable.	Balanced view Easter eggs Internet Key words Reliability Results page Search engine
	Assessment of Skills	**Assessment of Knowledge**	
	To locate information on the search results page. To use search effectively to find out information.	Know how to find information from a search results page. Know how to search effectively to find out information. Know how to identify if an information source is true and reliable.	

4.9 Making music		Topic: Information Technology	Year: 4	Term: Summer 1

Foundations of previous learning:
1.6
Adding simple sound effects to stories in 2Create a Story
2.7
Digitally creating music and sound effects on 2Sequence

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To identify and discuss the main elements of music: Pulse, Rhythm, Tempo, Pitch, Texture To understand and experiment with rhythm and tempo To create a melodic phrase. To compose a piece of electronic music	Know the main elements of music. Know what rhythm and tempo is and able to use this knowledge to experiment with it. Know that computers can be used to create music compositions. Know how to apply knowledge of music to create own composition using software.	BPM Dynamics Harmonious Melody Pitch Pulse Rhythm Tempo Texture Synths
	Assessment of Skills	**Assessment of Knowledge**	
	To understand and experiment with rhythm and tempo To create a melodic phrase	Know that computers can be used to create music compositions. Know how to apply knowledge of music to create own composition using software.	

4.4 Writing for different audiences		Topic: Information Technology	Year: 4	Term: Summer 2
Foundations of previous learning: 1.1 General use of Purple Mash • Simple text entry • Use of a writing template 1.6 Creating text and the use of illustrations • Genre: animated picture book 2.8 Creating work for a variety of purposes • Further understanding of genres • Presenting the same information in different styles: animated story, quiz based on a story, concept map of a story, writing template • Altering fonts • Share to a displayboard 3.4 Keyboard skills • Typing fluency 3.5 Considering communication style • Email simulations 3.7 Use of 2Simulate • Familiarity with two simulations: Locked Out and The Dark Side of Elpmis • Use of Email simulations 3.9 Use of either MS PowerPoint or Google Slides to learn about good presentations: both content and delivery				

Unit Learning				
NC Objective - Coverage	**Skills**		**Knowledge**	**Vocabulary**
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.	To explore how font size and style can affect the impact of a text. To use a simulated scenario to produce a piece of writing suited to the audience. To use a simulated scenario to write for a community campaign.		Know how font size and style can affect the impact of a text. Know how to use a simulated scenario to produce a news report and campaign using technology.	Campaign Format Font Genre Opinion Reporter Viewpoint
	Assessment of Skills		**Assessment of Knowledge**	
	To explore how font size and style can affect the impact of a text. To use a simulated scenario to produce a piece of writing suited to the audience.		Know how font size and style can affect the impact of a text. Know how to use a simulated scenario to produce a news report and campaign using technology.	

5.2 Online safety		Topic: Digital Literacy	Year: 5	Term: Autumn 1

Foundations of previous learning:
1.1
Safe logins • Concept of privacy • Concept of ownership • The need to logout
1.6
Developing ideas about the concept of technology that we are surrounded by and its purpose
2.2
Share to a display board • Approval process • Sharing online • Email simulations • emotional impact of communications • digital footprint
2.5
• Search engine • Digital footprint • Privacy
3.2
Good Passwords and password privacy • Communication methods • Shared blog Reliability of information and spoof websites • appropriate ratings • emotional effects • Cyberbullying • reporting problems
3.5
Evaluating communications • email safety • sharing images - safety • not meeting • attachments
4.2
• Phishing • Digital footprint • Malware and viruses • Plagiarism • Screen time
4.7
Reliable sources • Search algorithms - impact on what you see

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	To gain a greater understanding of the impact that sharing digital content can have. To review sources of support when using technology. To review children' responsibility to one another in their online behaviour. To know how to maintain secure passwords. To understand the advantages, disadvantages, permissions, and purposes of altering an image digitally and the reasons for this. To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online. To learn about how to reference sources in their work. To search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information. Ensuring reliability through using different methods of communication.	Know of the impact that sharing digital content can have. Know how to think critically about information they share online. Know responsibilities they have for themselves and others regarding online behaviour. Know and have developed knowledge from prior years about maintaining secure passwords. Know about image manipulation using software and the advantages or disadvantages of this when shared online. Know what is meant by appropriate and inappropriate text, photographs and videos. Know about the impact of sharing media such as photographs and videos online. Know about the importance of citing content online from others and know how to do this. Know how to select keywords and search techniques to find relevant information to increase reliability.	Appropriate Avatar Bibliography Collaborative Communication Copyright Creative commons licence Critical thinking Digital footprint Encrypt Identity theft Image manipulation Malware Ownership PEGI ratings Phishing Password Personal information Plagiarism Reference Reliability Responsibility Reliable source Screenshot SMART rules Spoof validity
	Assessment of Skills	**Assessment of Knowledge**	
	To know how to maintain secure passwords. To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online.	Know how to think critically about information they share online. Know responsibilities they have for themselves and others regarding online behaviour. Know what is meant by appropriate and inappropriate text, photographs and videos. Know about the impact of sharing media such as photographs and videos online.	

5.6 3D modelling		Topic: **Information Technology**	Year: 5	Term: Autumn 1

Foundations of previous learning:

1.1

General use of Purple Mash • Design: avatar creation • Paint Projects: use of the simple paint tools

1.6

• 2Create a Story: Painting tool. • Animating images using built in effects • Concept of background (static) and foreground (can move)

2.6

2Paint a Picture: art effects, collage effects

4.6

Create a stop motion animation using 2Animate • Use of art tools to create backgrounds and effects

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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	To be introduced to the 2Design and Make tool. To explore the effect of moving points when designing. To design a 3D model to fit certain criteria. To refine and print a model.	Know what modelling software is and the skills of computer aided design. Know the effect of moving points when designing. Know how to design a 3D model to fit certain criteria. Know how to refine and print a model.	2D 3D 3D printing CAD – Computer Aided Design Design brief Net Pattern fill Points Template
	Assessment of Skills	**Assessment of Knowledge**	
	To design a 3D model to fit certain criteria. To refine and print a model.	Know what modelling software is and the skills of computer aided design. Know how to design a 3D model to fit certain criteria. Know how to refine and print a model.	

5.5 Game creator		Topic: Computer science	Year: 5	Term: Autumn 2

Foundations of previous learning:
1.1
• General use of Purple Mash • Design: avatar creation • Paint Projects: use of the simple paint tools
1.6
Animating images using built in effects in 2Create a Story • Concept of background (static) and foreground (can move).
2.6
• 2Paint a Picture: art effects, collage effects
2.7
• Digitally creating music and sound effects
4.6
Create a stop motion animation using 2Animate • Use of sounds, backgrounds and effects
4.9
Electronically compose a themed piece of music on Busy Beats

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To begin to use the 2DIY 3D tool. To plan a game. To design the game environment. To design the game quest to make it a playable game. To finish and share the game. To self- and peer-evaluate.	Know what some of the main elements are that make a successful game. Know how to plan a playable game. Know how to incorporate media such as sound and images. Know how to manipulate media including adding animation. Know how to successfully evaluate games.	Evaluation Feedback Image Instructions Promotion Quest Scene Screenshot Texture Theme
	Assessment of Skills	**Assessment of Knowledge**	
	To plan a game. To design the game quest to make it a playable game	Know how to plan a playable game. Know how to incorporate media such as sound and images. Know how to manipulate media including adding animation.	

5.4 Databases		Topic: **Information Technology**	Year: 5	Term: Autumn 2

Foundations of previous learning:
1.2
Sorting data according to criteria
1.3
Collecting and presenting data in a picture format
2.3
Use of 2Calculate to collect data and produce a graph
2.4
Enquiry into different data handling tools • Use of questioning to separate and group data
3.3
• Use of 2Calculate to collect data and produce a variety of graphs
3.6
Sorting and interrogating data
3.8
Displaying and interrogating data in a graph form.
4.3
• Inputting and Interrogating data • Presenting data through line graphs

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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	To be able to search for information in a database. To contribute to a class database. To create a database around a chosen topic.	Know how to search for information within a database. Know the different ways to search for information in a database. Know how to add information into a shared database. Know how to create own database. Know how to create new records. Know what fields are and know how to correctly add information. Know how to phrase questions so they can be correctly answered using a search of database	Arrange Avatar Chart Collaborative Data Database Database report Field Group Record Search Sort statistics
	Assessment of Skills	**Assessment of Knowledge**	
	To be able to search for information in a database. To create a database around a chosen topic.	Know how to search for information within a database. Know how to add information into a shared database. Know how to create own database.	

5.8 Word processing		Topic: Information Technology	Year: 5	Term: Spring 1

Foundations of previous learning:
1.1
General use of Purple Mash • Simple text entry • Use of a writing template
2.5
Efficient use of a search engine • Leaflet creation
2.8
Presenting ideas in a variety of styles including through typed text
3.4
Introducing typing terminology • Development of typing efficiency
3.5
Considering communication styles • Responding to email simulations
4.4
Discussion of effectiveness of different written material. • Opportunities to type in a variety of styles
4.7
Efficient structure of search queries • Answering written questions

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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	To know what a word processing tool is for. To add and edit images to a word document. To know how to use word wrap with images and text. To change the look of text within a document. To add features to a document to enhance its look and usability. To use tables within MS Word to present information. To introduce children to templates. To consider page layout including heading and columns.	Know what a word processing tool is for. Know how to create a word processing document. Know how to alter the look of text and navigate around a document. Know how to alter page layout including heading and columns. Know how to add and edit images. Know how to add features to enhance look and usability within a document. For example: textboxes, hyperlinks, contents pages. Know how to use tables to present information.	Attributing Image editing Bulleted lists Image transparency Breaks Merge cells Caps lock Numbered lists Column (table) Page orientation Column (newspaper) Readability Copy and paste Row Copyright Selecting/highlighting Creative commons Sharing Cropping Spell check Cursor Styles Distributing columns Template Drop capitals Text box Editor options Text formatting Font Text wrapping Front screen Word art Grammar check Word processing tool Hyperlink Zoom
	Assessment of Skills	**Assessment of Knowledge**	
	To add and edit images to a word document. To use tables within MS Word to present information.	Know what a word processing tool is for. Know how to alter the look of text and navigate around a document. Know how to use tables to present information.	

5.1 Coding	Topic: Computer science	Year: 5	Term: Spring 2

Foundations of previous learning:

1.1
Introducing block coding • Objects and actions • Events (Click event, sound output) • Executing a program • Design view: Planning
1.4
Algorithms • Logical decision making • Sequencing instructions • Following instructions
1.5
Coding a 'turtle' • Creating programs using sequencing and repeat • Visual use of the Logo programming language • Program logic and structure
2.1
Algorithms • Collision detection • Timers • Object types • Buttons • Debugging
2.4
Logical decision processing • Forward planning to achieve a solution

3.1
Flowcharts • Timers • Repeat • Code, test, debug process
3.6
Logical decision processing • Modelling selection on a binary model.
4.1
Code, test, debug process • IF statements • Repeat Until and IF/ ELSE Statements • Number Variables
4.5
Text-based coding • Utilize understanding of coding structures
4.6
Sequencing and animation in logical steps

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
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.	To begin to be able to simplify code. To create a playable game. To understand what a simulation is. To program a simulation using 2Code. To know what decomposition and abstraction are in Computer Science. To take a real-life situation, decompose it and think about the level of abstraction. To use decomposition to make a plan of a real-life situation. To understand how to use friction in code. To understand what a function is and how functions work in code. To understand what the different variable types are and how they are used differently. To understand how to create a string. To begin to explore text variables when coding. To understand what concatenation is and how it works.	Begin to know how to simplify code in order to make own programming more efficient. Know how to create a simple simulation using 2Code. For example, a traffic light sequence. • Know what decomposition and abstraction are in computer science. Know the need to start coding at a basic level of abstraction to remove superfluous details from own programs. Know how to use decomposition to make a plan of a real-life situation. Know what a function is in coding and know how to use a function in own program to make it more efficient. Know what different variable types are. Know what strings are and how to use them. Know how to set and change variable values in code. Know some of the common ways that text variables can be used in programming. Know and use concatenation in own programs.	Abstraction Action Algorithm Command Concatenation Co-ordinates Debug Decomposition Efficient Event Flowchart Friction Function Input Nest Object Output Physical system Predict Print to screen Properties Random Repeat Selection Sequence Simplify Simulation String Tabs Timer Variable
Lesson breakdown	**Assessment of Skills**	**Assessment of Knowledge**	
Unit 5.1 lesson 1 Coding efficiently	To program a simulation using 2Code. To understand what a function is and how functions work in code.	Begin to know how to simplify code in order to make own programming more efficient. Know what a function is in coding and know how to use a function in own program to make it more efficient. Know what different variable types are.	
Unit 5.1 lesson 2 Simulating a physical system			
Unit 5.1 lesson 4 Friction and functions			
Unit 5.1 lesson 5 Introducing strings			
Unit 5.1 lesson 6 Text variable and concatenation			
Unit 6.1 Lesson 5 User input			

5.3 Spreadsheets	Topic: Information Technology	Year: 5	Term: Summer 1

Foundations of previous learning:
1.8
Introduce 2Calculate • Spreadsheet navigation • Adding images • Vocab: cell, column, row
1.3
What is data? • Representing data
2.3
• Copying and pasting • Totalling tools • Addition • Table layout • Block graph
2.4
Formula wizard • Cell formatting • Timer, random number and spin buttons • Budget planner sheet • Line graphs 3.3
3.8
Data representation in 2Graph • Use software to investigate data
4.3
Formula wizard • Cell formatting • Timer, random number and spin buttons • Budget planner sheet • Line graphs

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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	To use formulae within a spreadsheet to convert measurements of length and distance. To use the count tool to answer hypotheses about common letters in use. To use a spreadsheet to model a real-life problem. To use formulae to calculate area and perimeter of shapes. To create formulae that use text variables. To use a spreadsheet to help plan a school cake sale.	Know how to use formulae within a spreadsheet to convert measurements of length and distance. Know how to use more advanced formulae effectively. For example, to use formulae to calculate area and perimeter of shapes. Know how to create formulae that use text variables. Know how to use tools within a spreadsheet e.g. 2Calculate and the count tool to answer hypotheses. For example, to answer hypotheses about common letters in use	Advance mode Area Budget Columns Computational model Data Format cell Formula Formula bar Formula wizard 'How many?' tool Perimeter Profit Rows Spreadsheet Totalling tool Variable
	Assessment of Skills	**Assessment of Knowledge**	
	To use the count tool to answer hypotheses about common letters in use. To use formulae to calculate area and perimeter of shapes.	Know how to use formulae within a spreadsheet to convert measurements of length and distance. Know how to use more advanced formulae effectively. For example, to use formulae to calculate area and perimeter of shapes. Know how to create formulae that use text variables.	

5.7 Concept maps		**Topic: Information Technology**	**Year: 5**	**Term: Summer 2**

Foundations of previous learning:
1.6
Creating text and the use of illustrations to convey meaning • Genre: animated picture book
2.6
Creating work for a variety of purposes • Presenting the same information in different styles: animated story, quiz based on a story, concept map of a story, writing template
3.5
Keyboard skills • Typing fluency
3.6
Learning about good presentations: both content and delivery
4.4
• Understanding importance of text formatting and organisation • Transferring information from a concept map into a written report

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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	To understand the need for visual representation when generating and discussing complex ideas. To understand the uses of a 'concept map'. To understand and use the correct vocabulary when creating a concept map. To create a concept map. To understand how a concept map can be used to retell stories and information. To create a collaborative concept map and present this to an audience.	Know the need for visual representations when generating and discussing complex ideas. Know the uses of a 'concept map'. Know what is meant by 'concept map', 'stage', 'nodes' and 'connections.' Know how to create a concept map using software such as 2Connect. Know that concept maps can be used to retell stories and information. Know how to present a concept map to an audience.	Concept Concept map Connection Collaborative Heading Sub-heading Node Presentation mode Story mode
	Assessment of Skills	**Assessment of Knowledge**	
	To create a concept map. To create a collaborative concept map and present this to an audience.	Know what is meant by 'concept map', 'stage', 'nodes' and 'connections.' Know how to create a concept map using software such as 2Connect. Know how to present a concept map to an audience.	

6.2 Online safety		Topic: Digital Literacy	Year: 6	Term: Autumn 1

Foundations of previous learning:
1.1
Safe logins • Concept of privacy • Concept of ownership • The need to logout
1.6
Developing ideas about the concept of technology that we are surrounded by and its purpose
2.2
Share to a display board • Approval process • Sharing online • Email simulations • emotional impact of communications • digital footprint
2.5
• Search engine • Digital footprint • Privacy
3.2
Good Passwords and password privacy • Communication methods • Shared blog Reliability of information and spoof websites • appropriate ratings • emotional effects • Cyberbullying • reporting problems
3.5
Evaluating communications • email safety • sharing images - safety • not meeting • attachments
4.2
• Phishing • Digital footprint • Malware and viruses • Plagiarism • Screen time
4.7
Reliable sources • Search algorithms - impact on what you see
5.2
• Responsibility to others when sharing • Sources of support • SMART rules • Sharing passwords Image manipulation • Citing sources • Searching • Reliability
5.8
Use of images • Plagiarism • Citing sources

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concern about content and contact.	To identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g., apps accessing location. To identify secure sites by looking for privacy seals of approval, e.g., https, padlock icon. To identify the benefits and risks of giving personal information and device access to different software. To review the meaning of a digital footprint and understand how and why people use their information and online presence to create a virtual image of themselves as a user. To have a clear idea of appropriate online behaviour and how this can protect themselves and others from possible online dangers, bullying and inappropriate behaviour. To begin to understand how information online can persist and give away details of those who share or modify it. To understand the importance of balancing game and screen time with other parts of their lives, e.g., explore the reasons why they may be tempted to spend more time playing games or find it difficult to stop playing and the effect this has on their health. To identify the positive and negative influences of technology on health and the environment.	Know the benefits and risks of mobile devices broadcasting the location of the user/device, e.g., apps accessing location. Know what secure sites are. Know that secure sites will have industry standard seals of approval. Know how and why people use their information. Know the dangers of promoting inappropriate content online. Know the effects on individual health when having too much screen time.	Data analysis Digital footprint Inappropriate Location sharing Password PEGI rating Phishing Print screen Screen time Secure websites spoof
	Assessment of Skills	**Assessment of Knowledge**	
	To identify benefits and risks of mobile devices broadcasting the location of the user/device, e.g., apps accessing location. To identify the benefits and risks of giving personal information and device access to different software.	Know that secure sites will have industry standard seals of approval. Build on knowledge of appropriate online behaviours and how this can protect themselves and others from possible online dangers. For example, the dangers of promoting inappropriate content online. Know the effects on individual health when having too much screen time.	

6.7 Quizzing		Topic: **Information Technology**	Year: 6	Term: Autumn 1

Foundations of previous learning:
1.2
Sorting data according to criteria on 2Quiz
1.3
Asking questions to collect data in picture format
2.4
Enquiry into different data handling tools • Use of questioning to separate and group data
2.8
Recognising that digital content can be represented in many forms • Presenting ideas in 2Quiz
3.6
Understanding structure of YES/NO questions in a branching database
4.4
Considering understanding and abilities of an audience
5.4
Creating and searching a database for information • Wording of questions to be effectively answered by searching a database
5.5
Creating game environment • Writing instructions • Considering playability and challenge for audience

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To create a picture-based quiz for young children. To learn how to use the question types within 2Quiz. To explore the grammar quizzes. To make a quiz that requires the player to search a database. To make a quiz to test your teachers or parents.	Know how to use create activities for younger children using software such as 2DIY. Know about different question types within quizzing software tools such as 2Quiz. Know how to give and respond to feedback based on quizzes made. Know how to create their own grammar games. Know how to use multiple pieces of software to enhance a quiz. For example, creating a quiz that requires children to look up information on a database.	Audience Audio Case-sensitive Clipart Clone Cloze Copy/paste Database Database record Database field Image Image filter Selfie Statistics Undo/redo Preview Quiz
	Assessment of Skills	**Assessment of Knowledge**	
	To create a picture-based quiz for young children. To make a quiz that requires the player to search a database.	Know about different question types within quizzing software tools such as 2Quiz. Know how to give and respond to feedback based on quizzes made. Know how to create their own grammar games.	

6.1 Coding		Topic: Computer science	Year: 6	Term: Autumn 2

Foundations of previous learning:	
1.1 Introducing block coding • Objects and actions • Events (Click event, sound output) • Executing a program • Design view: Planning 1.4 Algorithms • Logical decision making • Sequencing instructions • Following instructions 1.5 Coding a 'turtle' • Creating programs using sequencing and repeat • Visual use of the Logo programming language • Program logic and structure 2.1 Algorithms • Collision detection • Timers • Object types • Buttons • Debugging 2.4 Logical decision processing • Forward planning to achieve a solution	3.1 Flowcharts • Timers • Repeat • Code, test, debug process 3.6 Logical decision processing • Modelling selection on a binary model.4.1 Code, test, debug process • IF statements • Repeat Until and IF/ ELSE Statements • Number Variables 4.5 Text-based coding • Utilize understanding of coding structures 4.6 Sequencing and animation in logical steps 5.1 Efficient Coding • Simulating a Physical System • Decomposition and Abstraction • Friction and Functions • Introducing Strings • Text Variables and Concatenation

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To design a playable game with a **timer** and a **score**. To plan and use selection and **variables**. To understand how the **launch command** works. To use **functions** and understand why they are useful. To understand how **functions** are created and **called**. To use **flowcharts** to test and **debug** a program. To create a **simulation** of a room in which devices can be controlled. To understand the different options of generating **user input** in 2Code. To understand how **user input** can be used in a program. To understand how 2Code can be used to make a text-based adventure game.	Know how to implement a game which includes timers and a score. Know what the launch command is. • Build on knowledge of functions. Know how to use multiple functions in own program. Know how to arrange code in multiple tabs. Know how to develop creativity when coding to generate novel effects. Know the different options of generating user input in 2Code. Know how to attribute variables to user input. Know the need to code for all possibilities when using user inputs. Know how 2Code can be used to make a text-based adventure game. Know with improving understanding of how they can alter existing programs to reflect their own ideas. Building on existing knowledge of debugging, children know how to debug more effectively.	Action Algorithm Command Concatenation Co-ordinates Debug Decomposition Event Execute/run Flowchart Function Input Launch command Object Output Predict Procedure Properties Repeat Repeat until Selection Sequence Simulation String Tabs Text object Text adventure Timer Turtle object Variable X and y properties
Lesson Breakdown	**Assessment of Skills**	**Assessment of Knowledge**	
Unit 6.1 lesson 1 Designing and writing a more complex program	To design a playable game with a **timer** and a **score**. To plan and use selection and **variables**.	Know how to implement a game which includes timers and a score. Know how to use multiple functions in own program. Know how to arrange code in multiple tabs. Know how to debug more effectively.	
Unit 6.1 lesson 2 Designing and writing a more complex program			
Unit 5.1 lesson 3 Decomposition and Abstraction			
Unit 6.1 lesson 3 Using functions			
Unit 6.1 Lesson 4 Flowcharts and control simulations			
Unit 6.1 Lesson 6 Text adventure			

6.6 Networks	Topic: Computer science	Year: 6	Term: Autumn 2

Foundations of previous learning:
1.9 Developing ideas about the concept of technology that we are surrounded by and its purpose • Understanding that many devices use computational technology 2.5 Exploration of what the Internet is and how devices allow connections to access functions and the World Wide Web • Searching and sharing 3.5 Using device functions for 2-way communication via the World Wide Web 4.7 Understanding of the 2- way communication technologies using algorithms that run of the hardware connections 4.8 Understanding of the hardware components that make devices function including those for networking

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
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.	To discuss what you know about the Internet. To find out what a LAN and WAN are. To know how we access the internet in school. To research and find out about the age of the internet. To think about what the future might hold.	Know the difference between the World Wide Web and the Internet. Know what a WAN and LAN is and the key differences between them. Know how a school network accesses the Internet. Know the history of the Internet. Know some of the major changes in technology which have taken place in their lifetime.	Data DNS (Domain Name Server) Ethernet Hosting Hub/switch Internet IP address ISP (Internet service provider) LAN (Local area network) Network Search engine WAN (Wide area network) Web page Web server Website WLAN (Wireless Local Area Network) Wi-fi World Wide Web
	Assessment of Skills	**Assessment of Knowledge**	
	To research and find out about the age of the internet. To think about what the future might hold.	Know the difference between the World Wide Web and the Internet. Know how a school network accesses the Internet.	

6.3 Spreadsheets		Topic: Information Technology	Year: 6	Term: Spring 1

Foundations of previous learning:
1.8
Introduce 2Calculate • Spreadsheet navigation • Adding images • Vocab: cell, column, row
1.3
What is data? • Representing data
2.3
• Copying and pasting • Totalling tools • Addition • Table layout • Block graph
2.4
Formula wizard • Cell formatting • Timer, random number and spin buttons • Budget planner sheet • Line graphs 3.3
3.8
Data representation in 2Graph • Use software to investigate data
4.3
Formula wizard • Cell formatting • Timer, random number and spin buttons • Budget planner sheet • Line graphs
5.3
• Converting measures • Count tool • Formulae • Variables in formulae • Event planning
5.4
Data representation in 2Investigate • Creating and interrogating data • Use of filter, sort and search

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
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.	To use a spreadsheet to investigate the probability of the results of throwing many dice. To use a spreadsheet to calculate the discount and final prices in a sale. Create a formula to help work out the prices of items in the sale. To use a spreadsheet to plan how to spend pocket money and the effect of saving money. To use a spreadsheet to plan a school charity day to maximise the money donated to charity.	Know how to create a spreadsheet to help answer a mathematical question relating to probability. Know how to take 'copy' and 'paste' shortcuts. Know how to problem solve during mathematical investigations when using spreadsheets by using tools such as the 'Count tool'. Know how to create a spreadsheet to produce computational models. For example, creating a spreadsheet that works out discounts and final price sales. Children will know how to use advanced formula to assist with this. Know how to use a spreadsheet to help plan actions. For example, create a spreadsheet to plan how to spend pocket money and the effect of saving.	Advanced mode Budget Chart Columns Count (How many?) tool Data Dice tool Expense Format cell Formula Formula bar Formula wizard Move cell tool Percentage Probability Profit Rows Spreadsheet
	Assessment of Skills	**Assessment of Knowledge**	
	To use a spreadsheet to calculate the discount and final prices in a sale. Create a formula to help work out the prices of items in the sale.	Know how to create a spreadsheet to help answer a mathematical question relating to probability. Know how to take 'copy' and 'paste' shortcuts. Know how to use a spreadsheet to help plan actions. For example, create a spreadsheet to plan how to spend pocket money and the effect of saving.	

6.8 Understanding binary		Topic: Computer science	Year: 6	Term: Spring 2

Foundations of previous learning:
1.1
Introducing block coding • Objects and actions • Events (Click event, sound output) • Executing a program • Design view: Planning
1.4
Algorithms • Logical decision making • Sequencing instructions • Following instructions
1.5
Coding a 'turtle' • Creating programs using sequencing and repeat • Visual use of the Logo programming language. • Program logic and structure
2.1
Algorithms • Collision detection • Timers • Object types • Buttons • Debugging
2.4
Logical decision processing • Forward planning to achieve a solution
3.1
Flowcharts • Timers • Repeat • Code, test, debug process
3.6
Logical decision processing • Modelling selection on a binary model
4.1
Code, test, debug process • IF statements • Repeat Until and IF/ ELSE Statements • Number Variables
4.5
Text-based coding • Utilize understanding of coding structures
5.1
Efficient Coding • Simulating a Physical System • Decomposition and Abstraction • Friction and Functions • Introducing Strings • Text Variables and Concatenation

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To examine how whole numbers are used as the basis for representing all types of data in digital systems. To recognise that digital systems represent all types of data using number codes that ultimately are patterns of 1s and 0s (called binary digits, which is why they are called digital systems). To understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics. To examine how whole numbers are used as the basis for representing all types of data in digital systems. To represent whole numbers in binary, for example counting in binary from zero to 15, or writing a friend's age in binary. To examine how whole numbers are used as the basis for representing all types of data in digital systems. To explore how division by two can be used as a technique to determine the binary representation of any whole number by collecting remainder terms.	Know that all data in a computer is saved in the computer memory in a binary format. Know that binary uses only the integers 0 and 1. Know that we can relate 0 as an 'off' switch and 1 to an 'on' switch. Know how to count up from 0 in binary using visual aids if required. Know that bits are related to computer storage. Know how to convert numbers to binary using the division by two method. Know how to use a converter tool to check binary conversions	Binary Bit Decimal Denary Digit Game states Integer Microprocessor Nanotechnology Nibble Byte Kilobyte Gigabyte Tetrabyte Switch Transisitor Variable
	Assessment of Skills	**Assessment of Knowledge**	
	To understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics. To represent whole numbers in binary, for example counting in binary from zero to 15, or writing a friend's age in binary.	Know that all data in a computer is saved in the computer memory in a binary format. Know that binary uses only the integers 0 and 1. Know that we can relate 0 as an 'off' switch and 1 to an 'on' switch.	

6.5 Text adventures		Topic: Computer science	Year: 6	Term: Summer 1

Foundations of previous learning:
1.1
• Familiarity with the functionality of 2Code • Planning and designing for a logical outcome. • Debugging
1.4
Algorithms • Logical decision making • Sequencing instructions • Following instructions
1.6
Use of 2Create a Story tool.
2.1
Familiarity with the functionality of 2Code • Planning and designing for a logical outcome. • Debugging
2.4
Logical decision processing. • Forward planning to achieve a solution. • Binary decision making.
2.8
Presenting a narrative in alternative ways.
3.1
Familiarity with the functionality of 2Code • Planning and designing for a logical outcome. • Debugging
3.6
Logical decision processing • Modelling selection on a binary model.
4.1
Familiarity with the functionality of 2Code • Planning and designing for a logical outcome. • Debugging
5.1
Familiarity with the functionality of 2Code • Planning and designing for a logical outcome.
5.5
Game Design planning • Refining and reviewing games
5.7
Use of 2Connect in a variety of ways for different purposes

Unit Learning

NC Objective - Coverage	Skills	Knowledge	Vocabulary
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.	To find out what a text-based adventure game is and to explore an example made in 2Create a Story. To use 2Connect to plan a 'Choose your own Adventure' type story. To use 2Connect plans for a story adventure to make the adventure using 2Create a Story. To introduce an alternative model for a text adventure which has a less sequential narrative. To use written plans to code a map-based adventure in 2Code.	Know what a text based adventure is. Know how to convert a simple story with 2 or 3 levels of decision making into a logical design. Know how to use the functionality of 2Create a Story Adventure mode to create, test and debug using plans. Know the difference between a map-based game and a sequential story-based game. Know how to use written plans to code a map-based adventure using 2Code. Know how to recall existing knowledge to support coding a map-based adventure game. For example, using functions, two-way selection (IF/ELSE statements) and repetition.	Debug Function Link QR code Repeat Sprite Text adventure Selection Variables
	Assessment of Skills	**Assessment of Knowledge**	
	To use 2Connect to plan a 'Choose your own Adventure' type story. To use written plans to code a map-based adventure in 2Code.	Know what a text based adventure is. Know how to convert a simple story with 2 or 3 levels of decision making into a logical design. Know the difference between a map-based game and a sequential story-based game.	

6.4 Blogging	Topic: Information Technology	Year: 6	Term: Summer 2

Foundations of previous learning:
1.1
Safe logins • Concept of privacy • Concept of ownership • The need to logout 1.6
1.6
Developing ideas about the concept of technology that we are surrounded by and its purpose
2.2
Share to a display board • Approval process • Sharing online • Email simulations • Emotional impact of communications
2.5
Search engine • Digital footprint • Privacy
3.2
Communication methods • Shared blog • Reliability of information and spoof websites • Emotional effects Cyberbullying • Reporting problems
3.5
Evaluating communications • Email safety • Sharing images - safety • Attachments • Email simulations
4.2
Phishing • Digital footprint • Malware and viruses • Plagiarism
4.7
Reliable sources • Search algorithms - impact on what you see
5.6
Responsibility to others when sharing • Sources of support • SMART rules • Sharing passwords mage manipulation • Citing sources • Searching • Reliability
5.8
Use of images • Plagiarism • Citing sources

Unit Learning			
NC Objective - Coverage	**Skills**	**Knowledge**	**Vocabulary**
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.	To identify the purpose of writing a blog. To identify the features of successful blog writing. To plan the theme and content for a blog. To consider the effect upon the audience of changing the visual properties of the blog. To understand the importance of commenting on blogs. To peer-assess blogs against the agreed success criteria. To understand how and why blog posts and comments are approved by the teacher.	Know the purpose of writing a blog. Know the features of successful blog writing. Know how to plan a blog. Know how to write a blog. Know how to write a blog post. Know that the way information is presented within a blog has an impact upon the audience. Know how to contribute to others' blogs. Know the importance of having an approval process when creating blog content or modifying it. Know from Online Safety knowledge that content within blogs applies. For example, children know the issues surrounding inappropriate posts and cyberbullying.	Approval Archive Blog Blog post Collaborative Commenting Connections Nodes Vlog
	Assessment of Skills	**Assessment of Knowledge**	
	To identify the features of successful blog writing. To plan the theme and content for a blog.	Know the purpose of writing a blog. Know the features of successful blog writing. Know how to write a blog post.	