



Knowledge Progression in Computing

YEAR 1

NCCE Unit 1

NATIONAL CURRICULUM LINKS

National curriculum links

- Recognise common uses of information technology beyond school
- Use technology purposefully to create, organise, store, manipulate, and retrieve digital content
- 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.

Declarative - By the end of the unit the students will know that:

To identify technology

I can explain technology as something that helps us

I can locate examples of technology in the classroom

I can explain how these technology examples help us

I can explain where to go for help when I have concerns about content or contact when online

Procedural – By the end of the unit the students will know how to:

I can name the main parts of a computer

I can use a mouse to click and drag

I can switch on and log into a computer

To identify a computer and its main parts

To use a mouse in different ways

I can use a mouse to open a program



	<p>I can click and drag to make objects on a screen</p> <p>I can use a mouse to create a picture</p>
<p>I can say what a keyboard is for</p>	<p>To use a keyboard to type on a computer</p> <p>I can type my name on a computer</p>
<p>I can identify rules to keep us safe and healthy when we are using technology in and beyond the home</p> <p>I can give examples of some of these rules</p> <p>I can discuss how we benefit from these rules</p>	<p>I can save my work to a file</p> <p>I can open my work from a file</p> <p>I can use the arrow keys to move the cursor</p> <p>I can delete letters</p>

Unit 1.2 – Grouping & Sorting

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Computer Science</p> <ul style="list-style-type: none"> Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> Items can be sorted using a range of criteria. When sorting items, a logical process should be used. 	<ul style="list-style-type: none"> Describe physical items that are needing to be sorted thinking about all the different ways they could be described. Identify criteria that can be used to sort items into two groups. Explain how items have been sorted. Check that items sorted into two categories are correct using the criteria decided upon.
<ul style="list-style-type: none"> An algorithm is a precise, step-by-step set of instructions used to solve a problem or achieve an objective. Computer programs need clear instructions, in steps, to follow. The instructions written for a computer program are called algorithms. Humans can follow algorithms to sort items such as shapes, just as computer programs can. 	<ul style="list-style-type: none"> Look at an algorithm a human has followed to sort shapes and compare it to the algorithm a computer program has used to identify if the shapes are correctly sorted. Follow a human algorithm to sorting shapes. Follow a computer program algorithm checking shapes have been sorted correctly.



- Computers can be used as a way of sorting on screen objects.

- Open a sorting activity within Purple Mash.
- Become familiar with the layout of computer sorting activities recognising items that need sorting and the areas they can be moved to.
- Identify what each criterion container is.
- Drag objects into the correct criterion container.
- Recognise some objects may fit into an overlap criterion.

Unit 1.1 – Online Safety

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Digital Literacy</p> <ul style="list-style-type: none"> 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. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> It is important to log in to a site safely and the importance of keeping passwords safe. 	<ul style="list-style-type: none"> Access Purple Mash from home and school. Give reasons why it is important to keep a password safe and not share it with other people. Explain why passwords display as ***** on the screen.
<ul style="list-style-type: none"> Many online sites, including Purple Mash, have an area for their work that is accessible only to the user. 	<ul style="list-style-type: none"> Access their work area. Sort their work using a folder system. Save work in their folder.
<ul style="list-style-type: none"> An avatar is a virtual representation of them suitable for use online. 	<ul style="list-style-type: none"> Make and edit their own avatar. Consider why an avatar is better than a photo for an online account.
<ul style="list-style-type: none"> Work can be loaded and saved in an online area in platforms children have access to, including Purple Mash, can be accessed by teachers. 	<ul style="list-style-type: none"> Locate work they have done previously in their work folder. Listen and read teacher comments. Open the file by double clicking on it.

<ul style="list-style-type: none"> • Online platforms, such as Purple Mash, have search functionality which allows users to efficiently find resources and tools. 	<ul style="list-style-type: none"> • Locate the search bar. • Explain why search is more efficient than just looking through all the resources. • Search for a given resource. • Double click to load the resource up.
<ul style="list-style-type: none"> • Different icons in a tools bar carry out different functions. 	<ul style="list-style-type: none"> • Know how to load a specific resource on Purple Mash • Recognise the tools in the toolbar at the top of the program. • Use a variety of tools. • Add images. • Complete a writing frame. • Save their work in their work folder using an appropriate file name.
<ul style="list-style-type: none"> • Many of the tools in sites such as Purple Mash will have a common design theme, and which means familiarity of the functionality of icons across different applications. 	<ul style="list-style-type: none"> • Recognise the common icons for New, Open, Save, Export, Print and Share. • Begin to use these icons in their work.
<ul style="list-style-type: none"> • It is important to log out when they have finished working as a way of securing personal accounts. 	<ul style="list-style-type: none"> • Identify the drop-down menu containing the Log Out icon. • Log out of a program, in this case Purple Mash, as a way of protecting their work and stopping others using their account.

Unit 1.3 - Pictograms

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Information Technology</p> <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> Data is a collection of information, used to help answer questions. 	<ul style="list-style-type: none"> Collect data on a common theme such as how children travel to school. When collecting data, recognise that there are efficient ways of collecting data such as writing it down or entering it into a computer program.
<ul style="list-style-type: none"> A pictogram is a visual way of representing data. 	<ul style="list-style-type: none"> Represent data collected as a class using physically created pictograms. Interpret a pictogram by comparing amounts of different categories.
<ul style="list-style-type: none"> We can look at data represented in pictograms and ask questions as a way of interrogating data. 	<ul style="list-style-type: none"> Interrogate a pictogram by thinking of questions that we would like answers to. Look at a pictogram and compare each category. Identify the totals in each category.
<ul style="list-style-type: none"> Programs such as 2Count enable people to create pictograms on a computer. This has the advantage of being able to easily modify data and share it with lots of people. 	<ul style="list-style-type: none"> Open 2Count. Increase or decrease amounts of items from a column by using the plus or minus buttons. Change an image representing a piece of data. Create a suitable title for a pictogram. Save a pictogram.

Unit 1.4 - Lego Builders

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Computer Science</p> <ul style="list-style-type: none"> Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> To achieve a specific effect when building something, accurate instructions must be followed. 	<ul style="list-style-type: none"> Recognise whether instructions have been followed correctly when comparing two Lego models. Give clear, precise and concise building instructions for someone to follow. Recognise how important it is to have clear, precise and concise instructions and the implications of this. Test that instructions have been followed by comparing the results of something built with the instructions.
<ul style="list-style-type: none"> Computer programs need precise instructions to follow and these are called algorithms. If instructions are vague, outcomes will vary for any given task. 	<ul style="list-style-type: none"> Open a painting activity on Purple Mash. Follow the simple instruction of painting given animals and compare the finished results with others recognises differences due to limited instructions given. Follow a set list of instructions that everyone uses to paint a bird, recognising that the instructions have resulted in everyone's finished pieces are very similar.
<ul style="list-style-type: none"> The order of instructions for a task affects the results. 	<ul style="list-style-type: none"> Identify why a sequence of instructions for making a sandwich is incorrect. Explore the possible outcomes of following incorrectly sequenced instructions.



- Correcting errors in an algorithm or program is called debugging.

- Find simple errors in a simple algorithm for making a sandwich.
- Correct the algorithm sequence by re-ordering it.
- Recognise when an algorithm has been debugged.
- Apply learning about debugging an algorithm to other incorrectly sequenced instructions such as baking cakes.



Unit 1.5 - Maze Explorers

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Computer Science</p> <ul style="list-style-type: none"> • 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. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> • You can move a character (turtle) within specific computer programs around a computer screen such as 2Go by using direction keys. When a direction key is used it is known as a command. 	<ul style="list-style-type: none"> • Open 2Go and be familiar with its environment. • Use the direction keys to make a character (turtle) on the screen move in different directions. • Experiment with moving the character using alternative routes to get it to a desired location.
<ul style="list-style-type: none"> • On screen direction keys can have eight possible directions which includes diagonal movements. 	<ul style="list-style-type: none"> • Make use of diagonal key commands when moving a character to help move the character to a desired location with the least number of commands. • Combine diagonal commands with standard four direction commands and number keys to efficiently move a character to a desired location.
<ul style="list-style-type: none"> • Number keys can be combined with direction keys to give a program more accurate instructions and avoid less command clicks. Each square on a grid relates to 1 unit and that when using number keys this should be referenced. 	<ul style="list-style-type: none"> • In 2Go use the direction keys combined with number keys to get an object to a specific place on a screen. • Reference an onscreen grid with number keys when creating commands.

- Lists can be made with directional instructions within 2Go and these are known as algorithms. These lists can be changed to improve the instructions which is known as debugging.

- Identify where a character needs to go.
- Formulate a list of instructions to move the character from the start to end point.
- Drag instructions into the algorithm box.
- Run the instructions and test they achieve the correct result.
- Debug by modifying the instructions so that the character moves to the correct location.
- Make use of the undo button to help with changes to commands.
- Use the extend algorithm button when more than five commands are needed.

Unit 1.7 – Coding

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Computer Science</p> <ul style="list-style-type: none"> • 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. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> • Tasks can be given to people and computers by using instructions. Computer programs work by following instructions called code known as algorithms. In both cases, these need to be clear and concise. 	<ul style="list-style-type: none"> • Give clear instructions that others can follow. • Receive instructions that others can follow. • Draw symbols to represent instructions. • Can recognise an object in printed code block form. • Can recognise an action in printed code block form. • Can arrange a printed object block next to a printed action block e.g. 'Tuna left'. • Can recognise the <u>set of code blocks</u> arranged to create actions is known as an algorithm.
<ul style="list-style-type: none"> • There are objects and action code block in the 2Code environment and that you can make a simple program using these. Each single instruction such as 'Object Right' is called a command. 	<ul style="list-style-type: none"> • Recognise object code blocks in 2Code. • Recognise action code blocks in 2Code. • Make a command in 2Code by using an object and action together. • See what happens when a command they have made is executed.

<ul style="list-style-type: none"> An event is something that makes a block of code run such as a user pressing a key or clicking a screen. Event, object and action code blocks can be used together. 	<ul style="list-style-type: none"> Recognise When Clicked code block as an event block. Arrange a When Clicked code block in front of an object. Give an object code block an action when it is clicked. Run code with a When Clicked event and observe what happens when the event occurs.
<ul style="list-style-type: none"> When code is run this is known as code being executed. 	<ul style="list-style-type: none"> Execute code by clicking the Run button. Stop code executing by clicking the Stop button. See the colour change on blocks of code being executed.
<ul style="list-style-type: none"> Debugging is when we fix code that isn't working how it was designed to. 	<ul style="list-style-type: none"> Analyse where their code isn't working properly. Arrange blocks into different places. Change actions attributed to objects. Can execute code and test if changes have debugged a simple program.
<ul style="list-style-type: none"> Scenes can be made using backgrounds and objects. Backgrounds can be changed as well as objects and that these have attributes (properties) that can be modified. 	<ul style="list-style-type: none"> Switch to design view. Select a background using the background icon. Click on an object and change the size of it by changing the value of the scale. Move an object where wanted within design view by clicking and dragging it. Delete an object by clicking on it and then on the bin.
<ul style="list-style-type: none"> A well thought out program should be made from a plan. 	<ul style="list-style-type: none"> Draw a plan of a scene with objects. Plan what the objects in the scene will do. Create a program from a plan that includes objects, actions and a When Clicked event. Execute the program and test if it is doing what is intended in the plan. Debug the program if the program isn't working how it was planned.

Unit 1.6 – Animated Stories

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Information Technology</p> <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> There are differences between traditional books and e-books. 	<ul style="list-style-type: none"> Identify differences and similarities between traditional books and e-books. Explain the advantages of both formats of books and why one format might be favoured over the other in some instances. Identify 2Create a Story as an e-book creator tool.
<ul style="list-style-type: none"> Images can be created within e-book software. 	<ul style="list-style-type: none"> Open 2Create a Story and explain what the common tools such as eraser, undo/redo do and the textured pens. Use the textured pens to create a drawing. Use the eraser, undo/redo buttons when creating the image if a mistake is made. Save the 2Create a Story file.
<ul style="list-style-type: none"> Animations can be included in e-books. 	<ul style="list-style-type: none"> Open previously saved work from within 2Create a Story. Identify the animation tool. Test each animation effect within the animation tool for a selected image. Apply an animation effect. Use the play button to see the effect of the animation within the e-book.

<ul style="list-style-type: none"> E-book software allows pages to be added and overwriting of work. 	<ul style="list-style-type: none"> Overwrite any work that was done previously if needed such as changing an image. Add additional pages using the add page button. Scroll between pages using the back and forward arrows. Save any new changes.
<ul style="list-style-type: none"> Audio such as sound effects, voice recordings and music can be included within e-books. 	<ul style="list-style-type: none"> Open previously saved work from within 2Create a Story. Locate the sound button. Record sound using the microphone and apply to a page. Insert a sound effect from the gallery and apply to a page. Insert a piece of music created from the piano synthesizer and apply to a page. Test the effects of adding sound by clicking the play button.
<ul style="list-style-type: none"> Backgrounds can be included in e-books to help engage an audience. 	<ul style="list-style-type: none"> Open previously saved work from within 2Create a Story. Locate the clip art gallery icon. Select a background for a page from the gallery. Create a background for a page using the pen tools. Locate the camera icon and use this to apply an image taken from a camera as a background to a page.
<ul style="list-style-type: none"> Text fonts and sizes can be changed in e-books to suit an intended audience. 	<ul style="list-style-type: none"> Select previously written text from a file. Locate text button. Experiment with changing the font type, colour and size. Apply any text changes to a page that contains text.
<ul style="list-style-type: none"> Copy and paste features in e-book software can be used to speed up creation of additional pages. 	<ul style="list-style-type: none"> Open previous work within 2Create a Story. Locate the copy button. Select copy to perform a copy of a page. Use the next page button to locate where the copied page should be pasted. Locate the paste button. Click on the paste button to insert the copied page. Modify the copied page.



NATIONAL CURRICULUM LINKS	<p>Computing national curriculum links</p> <ul style="list-style-type: none"> ● Use technology purposefully to create, organise, store, manipulate, and retrieve digital content
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
To say how music can make us feel I can identify simple differences in pieces of music I can describe music using adjectives I can say what I do and don't like about a piece of music	I can create a rhythm pattern I can play an instrument following a rhythm pattern
I can explain that music is created and played by humans I can relate an idea to a piece of music I can identify that music is a sequence of notes I can explain how my music can be played in different ways	I can connect images with sounds I can use a computer to experiment with pitch I can refine my musical pattern on a computer
I can review my work I can explain how I changed my work I can listen to music and describe how it makes me feel	I can create a rhythm which represents an animal I've chosen I can create my animal's rhythm on a computer I can add a sequence of notes to my rhythm



Year 2

NCCE Taking photographs

NATIONAL CURRICULUM LINKS	<p>National curriculum computing links</p> <p>Computing</p> <ul style="list-style-type: none"> ● Use technology purposefully to create, organise, store, manipulate, and retrieve digital content ● Recognise common uses of information technology beyond school ● Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
I can recognise what devices can be used to take photographs I can talk about how to take a photograph I can explain what I did to capture a digital photo I can explain the process of taking a good photograph I can explain why a photo looks better in portrait or landscape format	I can take photos in both landscape and portrait format
I can identify what is wrong with a photograph I can discuss how to take a good photograph	I can improve a photograph by retaking it
I can explore the effect that light has on a photo	I can use a tool to achieve a desired effect



<p>I can experiment with different light sources</p> <p>I can explain why a picture may be unclear</p> <p>I can recognise that images can be changed</p> <p>I can explain my choices</p> <p>I can recognise which photos have been changed</p> <p>I can identify which photos are real and which have been changed</p>	<p>I can apply a range of photography skills to capture a photo</p>
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Unit 2.4 – Questioning

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Information Technology</p> <ul style="list-style-type: none"> Use technology purposefully to create, organise, store, manipulate and retrieve digital content. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> Pictograms created through software or physically are of limited use beyond answering simple questions. 	<ul style="list-style-type: none"> Create a class pictogram using 2Count. Identify questions we can ask and find the information for on the pictogram. Identify what questions we can't ask due to a pictogram being limited with the information it can provide.
<ul style="list-style-type: none"> Information can be separated by using yes/no questions. 	<ul style="list-style-type: none"> Create suitable yes/no questions for a collection of physical data such as avatars of children on individual paper records. Can use yes/no questions to find individual paper records. Can recognise that not all yes/no questions will work and you are limited with the information on individual records.
<ul style="list-style-type: none"> A binary tree is a simple way of sorting information into two categories. When using a binary tree, users can only ask yes/no questions to find a specific piece of information. 	<ul style="list-style-type: none"> Design a binary tree physically using paper to sort simple pieces of information such as animals or children. Use a pre-populated binary tree program such as 2Investigate to find answers to yes/no questions.
<ul style="list-style-type: none"> Databases are a computerised system that make it easy to search, select and store information. Databases contain records which have a variety of information about a specific entry. 	<ul style="list-style-type: none"> Open a 2Investigate database. Identify the records which make up a database. Click on individual records. Identify fields as pieces of information collected for a record.



- Users can search a database using simple and more complex search questions.

Reference given questions to find specific records that meet a search query by:

- Locating the find tool.
 - Using the drop-down lists for record fields in the search tool.
 - Combine more than one identifier such as 'has glasses' and 'brown hair'.
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Unit 2.7 – Making Music

NATIONAL CURRICULUM LINKS

Dominant strand for this unit: Information Technology

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

There will be elements from the other two strands due to the nature of the computing curriculum.

Declarative - By the end of the unit the students will know that:

- Music can be made digitally using programs like 2Sequence.
- Sounds can be incorporated into music programs to make a melody.
- The speed of a digital musical composition known as tempo can be altered.
- The volume of instruments/sounds on a track can be changed when using music programs.

Procedural – By the end of the unit the students will know how to:

- Open 2Sequence.
- Listen to a premade composition by pressing the play button.
- Observe what happens on the screen when composition is playing including the placement of sounds.
- Open 2Sequence.
- Explore the sounds and instruments category.
- Drag sounds into the playable area.
- Play and experiment with the organisation of sounds on each track.
- Locate the beats per minute slider.
- Experiment with changing the slider's position.
- Listen in play mode to how changing the position of the slider affects a composition.
- Locate each bar in a composition.
- Locate the volume sliders for each bar.
- Adjust the volume on individual bars.
- Play the composition and test the effect of altering the volume of individual tracks.

<ul style="list-style-type: none"> • Additional features, such as changing the number of bars and looping a composition, are available in music programs. 	<ul style="list-style-type: none"> • Locate the bar selector. • Change the number of bars for a composition and observe how the composition changes when played. • Experiment with the looping feature. • Identify how this affects a composition. • Manipulate a composition so that it sounds correct when looping and doesn't have a noticeable jump when it restarts each repeat.
<ul style="list-style-type: none"> • Music programs let users incorporate their own sounds into a composition. 	<ul style="list-style-type: none"> • Locate the My Sounds section. • Click on the record icon. • Use the record button to incorporate own sound from a microphone. • Test the recording back by pressing play. • Click done when happy with recording.

Unit 2.1 – Coding

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Computer Science</p> <ul style="list-style-type: none"> • 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. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> • In computing, a set of instructions is known as an algorithm. Steps in an algorithm must be followed in order to achieve the intended outcome. 	<ul style="list-style-type: none"> • Follow a written algorithm on a plan and interpret it. • Identify events, objects and actions in a plan of an algorithm. • Predict what will happen if the planned algorithm was converted to code. • Use the correct code within 2Code to implement the algorithm which includes event 'when clicked', objects and actions.
<ul style="list-style-type: none"> • Code can be created that detects when two objects have collided. This code can have an action associated with it. For example, if an alien ship (object) collides with a planet (object) a crash sound is heard (Action). We call this collision detection in 2Code. 	<ul style="list-style-type: none"> • Recognise the collision detection block as part of the event category blocks. • Drag a collision detection block into a program. • Assign two objects within the collision detection command for it to detect collisions. • Assign an event for when the two objects collide such as when princess collides with frog, princess says 'hello'.

<ul style="list-style-type: none"> Programs follow a sequence of instructions (commands) in order. Timers can be introduced into programs to make parts of the program run after a set time. In 2Code, you can use a timer after command to delay the number of seconds until specific parts of a program are run. 	<ul style="list-style-type: none"> Recognise the timer block as part of the control category blocks. Drag a timer command block into a program. Use the time after command and set a number of seconds. Place code within a timer after command that will run once the timer has reached the set seconds after execution. Observe placing two separate timer commands in a program and identify that they will run independently of one another if a timer isn't nested inside another timer.
<ul style="list-style-type: none"> A computer program in 2Code can include objects that are different types. Each object type will have attributes (properties) that can be modified. 	<ul style="list-style-type: none"> Go into design mode of 2Code and find the different objects. Place up to four different objects into a design scene of a program including the 'Turtle' object. Change an object image by clicking on an object and selecting image from the attributes table. Change an objects size by clicking on an object and selecting scale from its attributes table.
<ul style="list-style-type: none"> Events in computer programs cause a block of code to be run. Events could be the result of a user pressing a key or clicking the screen. Event commands in 2Code are used to create blocks of code that are run when an event happens. There are different event command blocks in 2Code. 	<ul style="list-style-type: none"> Recognise the event command blocks – When Key Event, When Swiped Event, When Clicked Event and Collision Detection. Include a When Key Event or When Clicked Event in a program. Assign up to four objects to the When Key Event or When Clicked Event that have been created in design mode. Give each object a movement. Run code and test that when the event occurs e.g. 'click up arrow', all four objects move.

Unit 2.2 – Online Safety

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Digital Literacy</p> <ul style="list-style-type: none"> 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. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> Searches can be refined so it is easier to find something. 	<ul style="list-style-type: none"> Locate the search bar and type in simple terms. Say why a Purple Mash search is known as a safe search. Look at the ways to narrow down the search to a specific year group or subject. Carry out search terms using specific parameters. Explain why a search on the Internet may not be a safe search. Tell a trusted adult if they search for something the results are inappropriate or upsetting.
<ul style="list-style-type: none"> Work can be shared in a variety of ways. 	<ul style="list-style-type: none"> Define what is meant by sharing work. Share work on Purple Mash in a variety of ways. Share work to a specific display board.
<ul style="list-style-type: none"> Email is a way of communicating and know that in this form of communication, as with others, you need to be considerate of the user. 	<ul style="list-style-type: none"> Explain what email is and advantages of it over other forms of communication. Find the email program within Purple Mash. Locate the different features on 2Email such as reply etc. Reply to an email



- The term digital footprint relates to information that a user puts online, and that this footprint may remain even when we think we have removed the information.

- Talk about what a Digital Footprint is.
 - Explain what kind of information may be left on a digital footprint and how this could be used to identify them.
 - Talk about how they are protected on Purple Mash in comparison to the wider web.
 - Keep personal information private and stop posting information that may lead others to identify them.
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Unit 2.5 – Effective Searching

NATIONAL CURRICULUM LINKS	<p>Dominant strand for this unit: Digital Literacy</p> <ul style="list-style-type: none"> Recognise common uses of information technology beyond school. <p>There will be elements from the other two strands due to the nature of the computing curriculum.</p>
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> The Internet is a global network of connected computers around the World. 	<ul style="list-style-type: none"> Answer questions accurately about what the Internet is by completing a quiz. Explain the difference between the Internet and the World Wide Web, recognising that the World Wide Web is powered by the Internet.
<ul style="list-style-type: none"> The World Wide Web refers to the documents and pages someone sees when using a browser. Websites can be found using a browser that contains a search engine. 	<ul style="list-style-type: none"> Recognise a web browser. Recognise a search engine and the key elements they contain. With guidance, enter a search query in a search engine. Review results from a search query. Find the number of results for a query entered into a search engine. With guidance, use some of the search tools on a search engine such as: all, images and news.
<ul style="list-style-type: none"> Search engines use millions of people’s digital footprints to help provide more accurate results. 	<ul style="list-style-type: none"> Review a search results page. Discuss with others that a digital footprint is a record of individuals interactions online and that this is used to help search engines provide better results for individuals.



- To find results that we want on a search engine, we need to search effectively.

- Search using words.
 - Search using questions.
 - Compare using words to questions in a search engines results page.
 - Share information about searching effectively by creating a leaflet for others.
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Unit 2.8 – Presenting Ideas

NATIONAL CURRICULUM LINKS

Dominant strand for this unit: Information Technology

- Use technology purposefully to create, organise, store, manipulate and retrieve digital content.

There will be elements from the other two strands due to the nature of the computing curriculum.

Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to:
<ul style="list-style-type: none"> • Digital content can be presented in many forms. 	<ul style="list-style-type: none"> • Compare a traditional book with an e-book and can talk about the differences. • Recognise digital concept maps and their use for organising ideas. • Discuss the differences between a traditional book, e-book, concept map and digital quiz including the advantages and limitations of each format.
<ul style="list-style-type: none"> • Quizzes can be made using programs such as 2Quiz. 	<ul style="list-style-type: none"> • Open 2Quiz. • Explore the front screen of 2Quiz and identify the key areas such as introductory screen, delete, clone, add questions, preview and play quiz. • Add a question type to 2Quiz. • Recognise some of the differences between question types.
<ul style="list-style-type: none"> • Digital content should be presented using a suitable format 	<ul style="list-style-type: none"> • Compare a digital mind map in 2Connect with a digital fact file in 2Publish. • Discuss and explain the two formats. • Identify the format that is of most use when presenting to an audience.



<ul style="list-style-type: none">• Digital content in one format can be re-used in other formats to present to audiences	<ul style="list-style-type: none">• Open a 2Connect file with information on it.• Open a 2Publish file.• Use the 2Connect file to support creating content in the 2Publish file.• Use font tools, clipart, page settings and images to enhance digital content in the digital publishing file.
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Word Processing

NATIONAL CURRICULUM LINKS	
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Declarative - By the end of the unit the students will know that:	Procedural – By the end of the unit the students will know how to: