

Unit 5.1 – Coding

Lesson	Title	Aims (Objectives)	Success Criteria
1	Coding Efficiently	<ul style="list-style-type: none"> To review existing coding knowledge. To begin to be able to simplify code. To create a playable game. 	<ul style="list-style-type: none"> Children can use simplified code to make their programming more efficient. Children can use variables in their code. Children can create a simple playable game.
2	Simulating a Physical System	<ul style="list-style-type: none"> To understand what a simulation is. To program a simulation using 2Code. 	<ul style="list-style-type: none"> Children can plan an algorithm modelling the sequence of traffic lights. Children can select the right images to reflect the simulation they are making. Children can use their plan to program the simulation to work in 2Code.
3	Decomposition and Abstraction	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Children can make good attempts to break down their task into smaller achievable steps. Children recognise the need to start coding at a basic level of abstraction to remove superfluous details from their program that do not contribute to the aim of the task.
4	Friction and Functions	<ul style="list-style-type: none"> To understand how to use friction in code. To begin to understand what a function is and how functions work in code. 	<ul style="list-style-type: none"> Children can create a program which represents a physical system. Children can create and use functions in their code to make their programming more efficient.
5	Introducing Strings	<ul style="list-style-type: none"> To understand what the different variable types are and how they are used differently. To understand how to create a string. 	<ul style="list-style-type: none"> Children can create and use strings in programming. Children can set/change variable values appropriately. Children know some ways that text variables can be used in coding.
6	Text Variables and Concatenation	<ul style="list-style-type: none"> To begin to explore text variables when coding. To understand what concatenation is and how it works. 	<ul style="list-style-type: none"> Children can create a string and use it in their program. Children can use strings to produce a range of outputs in their program.

Unit 5.2 – Online Safety

Lesson	Title	Aims (Objectives)	Success Criteria
1	Responsibilities and Support when Online	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Children critically about the information that they share online both about themselves and others. Children know who to tell if they are upset by something that happens online. Children can use the SMART rules as a source of guidance when online.
2	Protecting Privacy	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Children think critically about what they share online, even when asked by a usually reliable person to share something. Children have clear ideas about good passwords. Children can see how they can use images and digital technology to create effects not possible without technology. Children have experienced how image manipulation could be used to upset them or others even using simple, freely available tools and little specialist knowledge.
3	Citing Sources	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Children can cite all sources when researching and explain the importance of this. Children select keywords and search techniques to find relevant information and increase reliability.
4	Reliability	<ul style="list-style-type: none"> Ensuring reliability through using different methods of communication. 	<ul style="list-style-type: none"> Children show an understanding of the advantages and disadvantages of different forms of communication and when it is appropriate to use each.

Unit 5.3 – Spreadsheets

Lesson	Title	Aims (Objectives)	Success Criteria
1	Conversions of Measurements	<ul style="list-style-type: none"> To use formulae within a spreadsheet to convert measurements of length and distance. 	<ul style="list-style-type: none"> Children can create a formula in a spreadsheet to convert m to cm. Children can apply this to creating a spreadsheet that converts miles to km and vice versa.
2	Using formulae	<ul style="list-style-type: none"> To use a spreadsheet to model a real-life problem. To use formulae to calculate area and perimeter of shapes. 	<ul style="list-style-type: none"> To use a spreadsheet to model a real-life problem. To use formulae to calculate area and perimeter of shapes.
3	Exploring Probability	<ul style="list-style-type: none"> To use a spreadsheet to investigate the probability of the results of throwing many dice. 	<ul style="list-style-type: none"> Children can create a spreadsheet to answer a mathematical question relating to probability. Children can problem solve using the count tool
4 & 5	Computational Modelling	<ul style="list-style-type: none"> To use spreadsheets to model real-life situations. To use the created spreadsheet to make decisions about these situations. 	<ul style="list-style-type: none"> Children can use spreadsheets to model real-life situations and produce solutions that can be practically applied.
6	Testing a hypothesis	<ul style="list-style-type: none"> To use the count tool to answer hypotheses about common letters in use. 	<ul style="list-style-type: none"> Children can use a spreadsheet to work out which letters appear most often. Children can use the count tool.

Unit 5.5 – Game Creator

Lesson	Title	Aims (Objectives)	Success Criteria
1	Setting the scene.	<ul style="list-style-type: none"> To Introduce the 2DIY 3D tool. To begin planning a game. 	<ul style="list-style-type: none"> Children can review and analyse a computer game. Children can describe some of the elements that make a successful game. Children can begin the process of designing their own game.
2	Creating the Game Environment	<ul style="list-style-type: none"> To design the game environment. 	<ul style="list-style-type: none"> Children can design the setting for their game so that it fits with the selected theme. Children can upload images or use the drawing tools to create the walls, floor, and roof.
3	The Game Quest	<ul style="list-style-type: none"> To design the game quest to make it a playable game. 	<ul style="list-style-type: none"> Children can design characters for their game. Children can decide upon, and change, the animations and sounds that the characters make.
4	Finishing and Sharing	<ul style="list-style-type: none"> To finish and share the game. 	<ul style="list-style-type: none"> Children can make their game more unique by selecting the appropriate options to maximise the playability. Children can write informative instructions for their game so that other people can play it.
5	Evaluation	<ul style="list-style-type: none"> To self- and peer-evaluate. 	<ul style="list-style-type: none"> Children can evaluate my their own and peers' games to help improve their design for the future.

Unit 5.8 – Word Processing (with Microsoft Word)

Lesson	Title	Aims (Objectives)	Success Criteria
1	Making a Document from a Blank Page	<ul style="list-style-type: none"> To know what a word processing tool is for. 	<ul style="list-style-type: none"> Children know what a word processing tool is for. Children will be able to create a word processing document altering the look of the text and navigating around the document.
2	Inserting Images: Considering Copyright	<ul style="list-style-type: none"> To add and edit images to a word document. 	<ul style="list-style-type: none"> Children know how to add images to a word document. Children can edit images to reduce their file size. Children know the correct way to search for images that they are permitted to reuse. Children know how to attribute the original artist of an image.
3	Editing Images in Word	<ul style="list-style-type: none"> To know how to use word wrap with images and text. 	<ul style="list-style-type: none"> Children can edit their images within Word to best present them alongside text. Children understand wrapping of images and text.
4	Adding the Text	<ul style="list-style-type: none"> To change the look of text within a document. 	<ul style="list-style-type: none"> Children can add appropriate text to their document, formatting in a suitable way. Children can use a style set in Word. Children can use bullet points and numbering.
5	Finishing Touches	<ul style="list-style-type: none"> To add features to a document to enhance its look and usability. 	<ul style="list-style-type: none"> Children can add text boxes and shapes. Children can consider paragraph formatting such as line spacing, drop capitals. Children can add hyperlinks to an external website. Children can add an automated contents page.
6	Presenting Information Using Tables	<ul style="list-style-type: none"> To use tables within MS Word to present information. 	<ul style="list-style-type: none"> Children can add tables to present information. Children can edit properties of tables including borders, colours, merging cells, adding and removing rows and columns. Children can add word art for a heading.
7	Writing a Letter Using a Template	<ul style="list-style-type: none"> To introduce children to templates 	<ul style="list-style-type: none"> Children use a word template and edit it appropriately
8	Presenting information – newspaper	<ul style="list-style-type: none"> To consider page layout including heading and columns 	<ul style="list-style-type: none"> Children can format a page using a combination of images, headers and columns