Purple Mash Scheme of Work - Year 2

Unit 2.1 – Coding

Lesson	Title	Aims (Objectives)	Success Criteria
1	Algorithms	• To understand what an algorithm is. • To create a computer program using an algorithm.	• Children can explain that an algorithm is a set of instructions. • Children can describe the algorithms they created. • Children can explain that for the computer to make something happen, it needs to follow clear instructions.
2	Collision Detection	• To create a program using a given design. • To understand the collision detection event.	• Children can plan an algorithm that includes collision detection. • Children can create a program using collision detection. • Children read blocks of code and predict what will happen when it is run.
3	Using a Timer	• To understand that algorithms follow a sequence. • To design an algorithm that follows a timed sequence.	• Children can create a program that uses a timer-after command. • Children can explain what the timer-after command does in their program. • Children can predict what will happen in a program that includes a timer-after command.
4	Different Object Types	• To understand that different objects have different properties. • To understand what different events do in code.	• Children can create a computer program that includes different object types. • Children can modify the properties of an object. • Children can use different events in their program to make objects move.
5	Buttons	• To create a program using a given design. • To understand the function of buttons in a program.	• Children can create a computer program that includes a button object. • Children can explain what a button does in their program. • Children can modify the properties of a button to fit their program design.
6	'Smelly Code' Debugging	• To know what debugging means. • To understand the need to test and debug a program repeatedly. • To debug simple programs.	• Children can explain what debug (debugging) means. • Children can use a design document to start debugging a program. • Children can debug simple programs.

Unit 2.2 – Online Safety

Lesson	Title	Aims (Objectives)	Success Criteria
1	Searching and Sharing	• 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.	• Children can use the search facility to refine searches on Purple Mash by year group and subject. • Children can share the work they have created to a display board. • Children understand that the teacher approves work before it is displayed. • Children are beginning to understand how things can be shared electronically for others to see both on Purple Mash and the Internet.
2	Email Using 2Respond	• 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.	• Children know that Email is a form of digital communication. • Children understand how 2Repond can teach them how to use email. • Children can open and send an email to a 2Respond character. • Children have discussed their own experiences and understanding of what email is used for. • Children have discussed what makes us feel happy and what makes us feel sad.
3	Digital Footprint	• 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	• Children can explain what a digital footprint is. • Children can give examples of things that they would not want to be in their digital footprint.

Unit 2.3 – Spreadsheets

Lesson	Title	Aims (Objectives)	Success Criteria
1	Introduction to Spreadsheets	• To understand what a spreadsheet is used for. • To understand what a spreadsheet looks like. • To be able to navigate around a spreadsheet and enter data. • To learn new vocabulary related to spreadsheets.	• Children can navigate around a spreadsheet. • Children can enter data into cells. • Children can explain what rows and columns are.
2	Adding Images to a Spreadsheet	• To add different types of images to a spreadsheet. • To use image as calculation aids. • To use the 'move cell' tool to make images draggable.	• Children can use the menu buttons to add different types of images. • Children can use the apparatus images to solve maths questions. • Children can use the 'move cell' tool so that images can be dragged around the spreadsheet.
3	Exploring images and values	• To use clipart images in a spreadsheet. • To assign values to images. • To use assigned values in calculations.	• Children can use the clipart gallery to add images to a spreadsheet. • Children can give images a value. • Children can make use of the assigned values in calculations.
4	Totalling tools	• To use 2Calculate totalling tools. • To use 2Calculate to solve a simple puzzle.	• Children can use tools in a spreadsheet to automatically total rows and columns. • Children can use a spreadsheet to solve a mathematical puzzle.
5	Using the 'Speak' and 'Count' Tools to Count Items	• To use the 'speak' and 'count' tools in 2Calculate to count items.	• Children can use the count tool to count items. • Children can use the speak tool so that the items are counted out loud
6	Creating a Table and Block Graph	• To add and edit data in a table layout. • To find out how spreadsheet programs can automatically create graphs from data.	• Children can create a table of data on a spreadsheet. • Children can use a spreadsheet program to automatically create charts and graphs from data.

Unit 2.7 – Making Music

Lesson	Title	Aims (Objectives)	Success Criteria
1	Introducing 2Sequence	• To be introduced to making music digitally using 2Sequence. • To explore, edit and combine sounds using 2Sequence.	• Children understand what 2Sequence is and how it works. • Children have used the different sounds within 2Sequence to create a tune. • Children have explored how to speed up and slow down tunes. • Children understand what happens to the tune when sounds are moved.
2	Making Music	• 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.	• Children have added sounds to a tune they have already created to change it. • Children have considered how music can be used to express feelings. • Children can change the volume of the background sounds. • Children have created two tunes which depict two feelings.
3	Soundtracks	• 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.	• Children have uploaded and used their own sound chosen from a bank of sounds. Children have created, uploaded and used their own recorded sound. • Children have created their own tune using some of the chosen sounds.