Computing End Points

YEAR 2		
UNIT 2.1 Coding	Children will understand what an algorithm is and create a computer program using one. They will be able to create a program using a given design and include a collision detection event. Children will understand that algorithms follow a sequence, how to design an algorithm that follows a timed sequence, that different objects have different properties and what different events do in code. They will be able to create a program using a given design, understand the need to test and debug a program repeatedly and learn to debug simple programs.	• I can explain that an algorithm is a set of instructions. • I can plan and use algorithms in programs successfully to achieve a result. • I can create a program that uses a timer-after command. • I can create a computer program using different objects. • I can code a program using a variety of objects, actions, events and outputs successfully. • I can explain what debug (debugging) means. • I can debug simple programs.
UNIT 2.2 Online Safety	Children use digital technology to share work on Purple Mash to communicate and connect with others locally. They have some knowledge and understanding about sharing more globally on the Internet. They will understand how we talk to others when they are not there in front of us and open and send simple online communications in the form of email. Children will understand that information put online leaves a digital footprint or trail and begin to think critically about the information they leave online. They will be able to identify the steps that can be taken to keep personal data and hardware secure.	• I am beginning to understand how things can be shared electronically for others to see both on Purple Mash and the Internet. • I know that Email is a form of digital communication. • I can open and send an email to a 2Respond character. • I have discussed my own experiences and understand what email is used for. • I can explain what a digital footprint is and give examples of things that I would not want to be in my digital footprint.
UNIT 2.3 Spreadsheets	Children will review the work done in 2Calculate in year 1, revise spreadsheet related vocabulary and use some 2Calculate tools that were introduced in year 1. They will be able to use copying, cutting and pasting shortcuts in 2Calculate, use the 2Calcuate totalling tools and solve a simple puzzle. Children will explore the capabilities of a spreadsheet in adding up coins to match the prices of objects and be able to add and edit data in a table layout. They will use the data to manually create a block graph.	• I can use copying, cutting and pasting to help make spreadsheets. • I can use tools in a spreadsheet to automatically total rows and columns. • I can use a spreadsheet to solve a mathematical puzzle. • I can create a table of data on a spreadsheet. • I can use the data to create a block graph manually.
UNIT 2.4 Questioning	Children will learn that the information provided on pictograms is of limited use beyond answering simple questions. They will use yes/no questions to separate information and construct a binary tree to separate different items. They will use a database to answer more complex search questions and find information.	• I understand that the information on pictograms cannot be used to answer more complicated questions. • I have used a range of yes/no questions to separate different items. • I have designed a binary tree to sort pictures of or animals. • I understand I understand that the user cannot use 2Question to answer more complicated questions. • I have used a database to answer simple and more complex search questions.
UNIT 2.5 Effective Searching	Children will understand the terminology associated with the Internet and searching it. They will create a leaflet to help someone search for information on the Internet.	• I can recall the meaning of key Internet and searching terms. • I can search the Internet for answers to a quiz. • I have created a leaflet to consolidate knowledge of effective Internet searching.

UNIT 2.6 Creating Pictures	Children will begin to explore 2Paint A Picture whilst looking at the work of Impressionist artists and try to recreate their work. They will look at the work of artists such as Seurat, Piet Mondrian and William Morris abd describe the main features of art that uses repeating patterns. Children will use 2Paint a Picture to create their own art by repeating patterns in a variety of ways and combine more than one effect to enhance their patterns.	• I can use 2Paint A Picture to create my own art based upon impressionist art. • I can describe the main features of Piet Mondrian's work and can use 2Paint a Picture to create my own art based upon his style. • I can describe the main features of art that uses repeating patterns and use 2Paint a Picture to create my own art by repeating patterns in a variety of ways. • I can combine more than one effect in 2Paint a Picture to enhance my patterns.
UNIT 2.7 Making Music	Children will be introduced to making music digitally using 2Sequence and explore, edit and combine sounds using it. They will add sounds to a tune to improve it and think about how music can be used to express feelings and create tunes which depict feelings. Children will upload a sound from a bank of sounds into the Sounds section and create their own tune using the sounds which they have added to the Sounds section.	• I have used the different sounds within 2Sequence to create a tune. • I have explored how to speed up and slow down tunes. • I have added sounds to a tune to change it. • I have considered how music can be used to express feelings. • I have created two tunes which depict two feelings. • I have uploaded and used their own sound chosen from a bank of sounds. • I have created my own tune using some of the chosen sounds.
UNIT 2.8 Presenting Ideas	Children will explore how a story can be presented in different ways and make a quiz about a story. They will also make a fact file on a non-fiction topic and make a presentation to the class.	• I know that digital content can be represented in many forms. • I have added appropriate clipart and photos. • I can use a variety of software to manipulate and present digital content and information. • I can collect, organise and present data and information in digital content.