Autumn

Spring

Summer

PD Opportunity

Substantive Concept

Computing Long Term Overview

KS3

Y6

Online Safety 6.2
To identify secure sites by looking for privacy seals of approval, e.g., https, padlock icon.
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.

Links to the rule of law and supporting children to make the right choices.

Quizzing 6.7
To create a picture-based quiz for young children.
To make a quiz that requires the player to search a database.
To develop skills in creating surveys and questionnaires.

Networks 6.6
To find out what a LAN and WAN are.
To find out how we access the internet in school.
To research and find out about the age of the internet.

Demonstrate safe use on online technologies

Blogging 6.4
To identify the purpose of writing a blog.
To understand how to write a blog and a blog post.
To understand how to contribute to an existing blog.

Develop socially through working together collaboratively.

Coding 6.1
To use functions and understand why they are useful.
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.

Spreadsheets 6.9
To demonstrate how spreadsheets can make complex data clearer by manipulating the way it is presented.
To use formulae for percentages, averages, max and min into spreadsheets.
To apply spreadsheet skills to solving problems.

Game Creator 5.5
Children can review and analyse a computer game.
To design the game environment.
To design the game quest to make it a playable game.
Children can write informative instructions for their game so that other people can play it.

Identifying the most appropriate form of online communication

Databases 5.4
To learn how to search for information in a database.
To create a database around a chosen topic.

3D Modelling 5.6
To explore the effect of moving points when designing.
To design a 3D model to fit certain criteria.

Word Processing 5.8
To add and edit images to a document.
To change the look of text within a document.
To use tables within Google Docs to present information.

Spreadsheets 5.3
To use formulae within a spreadsheet to convert measurements of length and distance.
To use spreadsheets to model real-life situations.
To use formulae to calculate area and perimeter of shapes.

Coding 5.1
To begin to be able to simplify code.
To understand how to use friction in code.
To understand what the different variable types are and how they are used differently.

Online Safety 5.2
To gain a greater understanding of the impact that sharing digital content can have.
To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online.

Concept Maps 5.7
To understand the uses of a 'concept map'.
To create a collaborative concept map and present this to an audience.

Y5

Artificial Intelligence 4.10
To understand the basic concept of artificial intelligence.
To recognise the impact of artificial intelligence in daily life.
To understand how artificial intelligence is being used to create music and art.

Animation 4.6
To learn how animations are created by hand.
To add backgrounds and sounds to animations.

Making Music 4.9
To identify and discuss the main elements of music: Pulse, Rhythm, Tempo, Pitch, Texture.

Effective searching 4.7
To locate information on the search results page.
To assess whether an information source is true and reliable.

Writing for different audiences 4.4
Children learn that technology can be used to organise, reorganise, develop, and explore ideas, and that working with information in this way can aid understanding.

Online Safety 4.2
To understand how children can protect themselves from online identity theft.
To identify the positive and negative influences of technology on health and the environment.

Exploring different cultural approached to new technology.

Understand network and communication components

Touch Typing 3.4
- To understand the correct way to sit at a computer.
- To practise typing with the left and right hand.

Graphing 3.8
- To enter data into a graph and answer questions.

Simulations 3.7
- To explore simulations and understand what they are.
- To analyse a simulation

Y4

Using 2Logo 4.5
Develop their ability to compose algorithms for drawing mathematical structures and turn these into Logo code.

Hardware 4.8
To understand the different parts that make up a desktop computer.

Coding 4.1
The coding lessons in these units are structured around the PRIMM approach
Predict… what this code will do
Run… the code to check your prediction
Investigate… trace thought the code to see if you were correct
Modify... the code to add detail, change actions/outcome
Make… a new program that uses the same ideas in a different way.

Computing Long Term Overview

Y3

Coding 3.1

- To understand what a flowchart is and how it is used.

Understanding timers, repeat command and nesting

Spreadsheets 3.3

- Using symbols of more than,less than or equal to.

- To use 2Calculate to produce graphs and charts.

Exploring how programs can be utilised in the workplace and wider community.

Online Safety 3.2

- To keep passwords safe

- Using the internet effectively and safely.

- Understand the meaning of age restrictions

Identify an error within a program

Branching Database 3.6

- To sort objects using 'Yes' and 'No' questions

To create a branching database

Email 3.5

- How to use email safely

KS2

2.1 Coding
To begin to understand the function of buttons within a program to ensure an outcome. (Continued)

2.7 Making music
To explore, edit and combine sounds using an online program.

2.1 Coding

To begin to understand the function of buttons within a program to ensure an outcome.

2.3 Spreadsheets

To begin to use different tools within a spreadsheet.

2.5 Effective searching
Understand and use terminology related to searching online.

2.8 Presenting Ideas.

Explore how a story can be presented in different ways.

2.2 Online Safety

Communicating using email and investigating digital prints.

Understand concept of sharing content digitally

Y2

1.6 Animated Books

To understand the different between a real book and an e book.

1.8 Spreadsheets

To begin to understand what a spreadsheet is and navigate around this.

2.4 Questioning

To begin understand a binary tree and present information in different ways. To begin to understand databases

2.2 Online Safety
Lesson 1 - How to searches effectively and refine searches.

2.6 Creating Pictures

Use a range of paint tools to represent different genres of Art. To learn about different Artist.

2.5 Effective Searching

Understand terminology with searching on the internet.

1.7 Coding

Understand what coding is. To design before coding.. How to make characters move

Store, manipulate and retrieve digital data

Y1

1.5 Maze Explorers

To understand and follow directional language in a simulated environment.

1.1 Online Safety

To log in safely and understand why internet safety is important.

1.3 Pictograms

To understand that data can be presented in different ways.

1.4 Lego Builders

To follow instructions and consider the order of instructions.

1.2 Grouping and Sorting

In what ways can we sort objects.

To sort items using a range of criteria.

1.9 Technology outside of school
Understand where and how technology is used outside of school

Summer 2
Publishing for a purpose

To begin to log onto Mini mash using icon on desktop

Simulation continued- Recycling Centre and water cycle.

Summer 1
Publishing

Keyboard – Capital letter, Full stop, space bar for finger spaces. Using the different inputs of a computer keyboard.

Explain the concept of an algorithm

FS2

Area of EYFS

Autumn 1
Paint
Unit : Paint

Mouse control

Click and Drag

2simple paint

Autumn 2
Navigation
Unit : Navigation
Log into class page and Log off.

Start to use Purple Mash

Access Mini mash.

Spring 1
Music Explorers
Unit : Music Explorers.
Double click
Open a program from desktop
2simple 2explore- music - Making music using toolbar.

Spring 2
Early Coding & Pictograms
To be able to describe a route that is in progress.

To be able to plan and input instructions for a floor robot one step at a time.