



Computing Topic: Coding 4.1 and Online safety 4.2

Year: 4 Term: Autumn 1

Key Knowledge/Content Coding:

- To understand how an IF statement works.
- To understand how to use co-ordinates in computer programming.
- To understand the 'repeat until' command.
- To understand how an IF/ELSE statement works.
- To understand what a variable is in programming.
- To use a number variable.
- To create a playable game.

Key Knowledge/Content Online Safety:

- To understand how children can protect themselves from online identity theft.
- To understand that information put online leaves a digital footprint or trail and that this can aid identity theft.
- To identify the risks and benefits of installing software including apps.
- To understand that copying the work of others and presenting it as their own is called 'plagiarism' and to consider the consequences of plagiarism.

Links to:

Prior and future learning:

Online Safety is embedded throughout the whole of the curriculum. The progression of Coding is built into the curriculum.

Key vocabulary with definition:

Prior Vocabulary Coding:

- 'If/Else' Statement - A conditional command. This tests a statement. If the condition is true, then the commands inside the 'if block' will be run. If the condition is not met, then the commands inside the 'else block' are run.
- Debug/Debugging- Fixing code that has errors so that the code will run the way it was designed to.

New Vocabulary Coding:

- Code blocks - A way to write code using blocks which each have an object or an action. Each group of blocks will run when a specific condition is met or when an event occurs.
- Nest - When coding commands are put inside other commands. These commands only run when the outer command runs

New Vocabulary Online Safety:

- AdFly - An online advertising marketplace that allows publishers to monetize their website traffic by placing advertisements on their site.
- Malware - Software that is specifically designed to disrupt, damage, or gain unauthorised access to a computer system
- Ransomware - A type of malicious software designed to block access to a computer system until a sum of money is paid.

By the end of this unit

All children can: **decide** upon the most important online safety messages to communicate and **share** these ideas in their Top Tips for Online Safety publication

Most children can: **design** shows that are thinking of the required task and how to accomplish this in code using coding structures for selection and repetition

Some children can: **reflect** upon positive and negative aspects of a digital footprint and can **give** examples of the care they would take when sharing online in relation to their and others' digital footprint

Background understanding for teachers and parents:

Autumn 1 is based around the children developing an understanding of online safety concepts and repeating this to valid sources and not phishing scams. Children then begin to work on coding and developing and investigating errors.

Curriculum Driver (one):

Communication.

Evidence outcome:

Children understand the concept how to stay safe online including the importance of valid sources and phishing scam emails.