Year 6 Computing Progression of Knowledge & Skills

KS2 National Curriculum

Computer Science
- Design and debug programs, including those that control physical systems, and solve problems by breaking them down.
- Employ sequence, selection, repetition, variables, input, and output in programs.
- Apply logical reasoning to understand simple algorithms and fix errors in algorithms and programs.
- Gain an understanding of computer networks like the internet, its services such as the World Wide Web, and its uses for communication and collaboration.

Information Technology
- Effectively use search tools, understand result selection, and critically evaluate digital content.
- Choose and combine different software and internet services on various devices to create programs, systems, and content for specific purposes.
- Use digital tools to gather, analyse, evaluate, and present data and information.

Digital Literacy
- Utilise technology safely, respectfully, and responsibly.
- Recognize appropriate and inappropriate online behavior.
- Know how to report concerns about online content and contact.

YEAR 6		
Computer Science	- Turn a more complex programming task into an **algorithm** by identifying the important aspects of the task and then **decomposing** them in a logical way using their knowledge of possible **coding structures** and applying skills from previous programs. - I can **test** and **debug** my program as I go and use **logical** methods to identify the cause of bugs. - I can demonstrate a **systematic** approach to try to identify a particular line of code causing a problem. - I can translate algorithms that include **sequence**, **selection** and **repetition** into code. - I can use a wider range of variables in coding: outputs such as sound and movement, inputs from the user of the program such as **button clicks** and the value of **functions**. - I can interpret a program in parts and can make logical attempts to put the separate parts of a complex algorithm together to explain the program as a whole. - I understand and can explain in some depth the difference between the internet and the **World Wide Web**. - I know what a **WAN** and **LAN** are and can describe how they access the internet in school.	Purple Mash Unit 6.1: Coding - 2Code Purple Mash Unit 6.2: Online Safety 2DIY 3D 2DIY 2Code 2Blog Purple Mash Unit 6.4 Blogging Weeks - 2Blog Purple Mash Unit 6.5 Text Adventures - 2Code, 2Connect, 2Create a Story, Writing Templates Purple Mash Unit 6.6 Networks - 2Connect (Mind Map) Writing Templates

Information Technology	- I can apply **filters** when searching for digital content. - I can explain in detail how **credible** a webpage is and the information it contains. - I can compare a range of digital content sources and are able to rate them in terms of content **quality** and **accuracy**. - I can use **critical thinking** skills in everyday use of online communication. - I can make clear connections to the audience when designing and creating **digital content**. - I can **identify** the purpose of writing a blog and its key features. - I can design and create my own **blogs** to become a content creator on the internet. - I can use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.	Purple Mash Unit 6.1: Coding - 2Code Purple Mash Unit 6.2: Online Safety - 2DIY 3D 2DIY 2Code 2Blog Purple Mash Unit 6.3: Spreadsheets - 2Calculate Purple Mash 6.4: Blogging - 2Blog Purple Mash Unit 6.5: Text Adventures – 2Code, 2Connect, 2Create a Story, Writing Templates Purple Mash Unit 6.7: Quizzing - 2DIY 2Quiz Text Toolkit 2Investigate (database)
Digital Literacy	- I can demonstrate the **safe** and **respectful** use of a range of different technologies and online services. - I can identify more **discreet inappropriate behaviours** through developing critical thinking. - I recognise the value in preserving privacy when online for my own and other people's safety.	Purple Mash Unit 6.2: Online Safety - 2DIY 3D 2DIY 2Code 2Blog Purple Mash 6.4: Blogging - 2Blog

Assessment End Points Year 6	
Knowledge	**Skills**
- I know the difference between the internet and the **World Wide Web**. - I know that digital content design links to the intended audience. - I know the value in preserving privacy when online and what online behaviour is appropriate.	- I can translate algorithms that include **sequence**, **selection** and **repetition** into code. - I can explain in detail how **credible** a webpage is and the information it contains, reflecting on its quality and accuracy. - I can design and create my own **blog** to become a content creator on the internet. - I can decompose coding structures and debug programmes using a systematic approach.