

# Computing Subject Knowledge Organiser

Summer Term - App Creators

Year 6

Strands covered: Computer Science

### What prior knowledge should pupils have?

- Designing apps and programs to solve an identified problem (Autumn Term).
- Algorithmic thinking and algorithm design using block-based coding platforms such as Scratch.
- Knowledge of the Design process/product life cycle introduced through Design and Technology units throughout the year.

Key Vocabulary	Definition
Algorithm	A set of step-by-step instructions or rules to solve a problem or perform a task.
Debugging	Debugging involves identifying problems in the code and correcting them to make the program work correctly.
Pseudocode	A way of describing algorithms using simple, easy-to-understand language. Pseudocode helps programmers plan and organise their code before writing it in a specific programming language.
Flowchart	A visual representation of a process or algorithm, using different shapes and arrows to show the sequence of steps.
Online Content	Information, images, videos, and other media available on the internet.
SEO (Search Engine Optimization)	Techniques used to improve the visibility and ranking of a website on search engines like Google.
Hosting Platform	A service or software that allows users to store and publish their websites on the internet.

#### What skills will pupils learn? (Disciplinary Knowledge)

- Designing, writing, and debugging programs to achieve specific goals.
- Using app development platforms to create simple games and apps using components, designing screens, coding algorithms, and testing/debugging apps.
- Computational Thinking: breaking down programming problems into smaller parts, write pseudocode or flowcharts to plan algorithms, and translate algorithms into code.
- Develop debugging skills and apply logical reasoning to identify and correct errors in their programs.
- Using software and internet services to design and create digital content that accomplishes specific goals.

## What key knowledge will be taught? (Substantive Knowledge)

- The various stages of app development, including planning, designing, coding, testing, and marketing. Develop skills in project management, teamwork, and communication.
- Pupils explore marketing strategies for apps, including creating marketing materials such as leaflets and flyers. They learn to identify target audiences, communicate key features and benefits, and present their apps effectively to potential users.
- the relationship between web presence and marketing, exploring existing websites for apps and considering design features.
- How the use of multimedia elements in digital marketing, including videos, and learn about creating storyboards and using video editing software.

## **Online Safety Opportunities**

- Digital Literacy: Responsible internet use, and critical evaluation of online content.
- Highlights the dangers of meeting strangers online, communicating effectively and respectfully with others, and recognising age restrictions and inappropriate online content.
- Online Reputation: Discuss online safety implications to adding interactive and social features to websites and consider ways to minimise risks.