



## Jerry Clay Academy Subject Unit Overview

Subject: Computing Year Group: 5 Term: Autumn 2

### **Core Learning of This Unit: We are cryptographers**

- Be familiar with semaphore and Morse code
- Understand the need for private information to be encrypted
- Encrypt and decrypt messages in simple ciphers
- Appreciate the need to use complex passwords and to keep them secure
- Have some understanding of how encryption works on the Internet.

### **Prior Learning:**

In Unit 1.5: We are rhythmic and Unit 2.1: We are astronauts pupils programmed in ScratchJr.

In Unit 2.2: We are games testers pupils accessed and explored Scratch.

In Unit 3.1: We are programmers pupils created Scratch animations.

In Unit 3.2: We are bug fixers they learned techniques for debugging programs.

In Unit 4.1: We are software developers and Unit 5.1: We are game developers.

### **National Curriculum Statements:**

- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration.
- Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of way to report concerns about content and contact.

### **Key Vocabulary:**

- Cipher
- Codes
- Cryptanalysis
- Cryptography
- Decrypt
- Encode
- Encrypt
- Message
- Morse code
- Semaphore
- Transmit

### **Significant People**

- Samuel Morse – inventor of Morse code
- Claude Chappe – inventor of semaphore