Medium Term Plan: Supporting Implementation of LTP/Progression Grid

Subject: Computing – Autumn 1

Year: Year 6 – Bletchley Park and the history of computers

NC/PoS:

- The importance of having a secure password and what brute force hacking is.
- The first computers were created at Bletchley Park to crack the Enigma code to help the war effort in World War 2.
- About some of the historical figures that contributed to technological advances in computing.
- What techniques are required to create a presentation using appropriate software.
- Sound clips can be recorded using sound recording software.
- Sound clips can be edited and trimmed.

Prior Learning (what pupils already know and can do)

- Explain what a search engine is, suggest several search engines to use and explain how to use them to find websites and information.
- Suggest that things online are not always true and recognise what to check for.
- Explain why keywords are important and what TASK stands for, using these strategies to search effectively.
- Recognise the terms 'copyright' and 'fair use' and combine text and images in a poster.
- Make parallels between book searching and internet searching, explaining the role of web crawlers and recognising that results are rated to decide rank.

End Points (what pupils MUST know and remember)

- Explain that codes can be used for a number of different reasons and decode messages.
- Explain how to ensure a password is secure and how this works.
- Explain the importance of historical figures and their contribution towards computer science.
- Present information about their historical figures in an interesting and engaging manner.
- Develop an idea for a computer of the future and create a simple design.
- Produce a simple audio advert with simple edits, which demonstrate an understanding of how to use the software.

Key Vocabulary

- acrostic code
- audio advert
- brute force hacking
- Caesar cipher
- chip and PIN system
- cipher
- combination
- date shift cipher
- discovery
- invention
- Nth letter cipher
- password
- pigpen cipher
- scrambled

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Session 1 – To understand there are many different types of secret codes.

Secret codes

Exploring a variety of different codes from simple Caesar ciphers to the Enigma code.

Session 2 - To understand the importance of having a secure password.

Brute force hacking.

Learning about brute force hacking and the importance of secure passwords.

Session 3 - To recognise the importance of the history of computers and create a well-researched presentation.

Computers of the past

Researching and presenting about technological advancements and their impact on the modern world.