

## COMPUTER SCIENCE ONLINE ENRICHMENT

**1.** Covers linear and binary searching, algorithms in detail for different key stages. Click <u>here</u> to listen.

2. GCSE Computer Science revision podcasts, short and effective (KS4). Click here to listen.

## **Websites**

**1.** Have access to free online material that covers the whole of GCSE and A-levels specifications with a range of resources to use (KS4-5). Click <u>here</u> to view.

**2.** Videos for Fundamentals of Algorithms including algorithms, data types, data structures, encryption, and databases (KS4-5). Click <u>here</u> to view.

**3.** Videos for Computer Systems including: Computers, Memory Storage, Computing fundamentals, Types of programming language, Networks and Network security (KS4). Click <u>here</u> to view.

4. Videos for Computational thinking and problem solving found (KS3-5). Click here to view.

- 5. Videos for more information on decomposition (KS3-5). Click here to view.
- 6. Videos for more information on abstraction (KS3-5). Click here to view.

7. Videos for more information on pattern recognition (KS3-5). Click here to view.

**8. GCSE Computer Science OCR Videos (KS4)** — Craig and Dave provide videos for every topic that we cover giving students extra knowledge and consolidation on content taught. Click <u>here</u> to view.

9. Exam paper breakdown, previous OCR Computer Science paper (KS4). Click here to view.

## Virtual Experiences

1. Virtual tour of National Museum of Computing. Click here to view.

**2.** Scratch for KS3 users to get started. Primarily for year 7 and 8 as a stepping stone before attempting Python. An introduction to block based programming. Click <u>here</u> to view.

**3.** Code Studio allows students to access resources online and use a virtual environment to code ranging from all ages (KS3-5). Click <u>here</u> to view.

4. CodeCademy allows students to access coding in a virtual environment (KS3 & KS4). Click here to view.

**5.** W3 schools gives students tutorials on how to code. There is a Python section relevant to our learners and other options to give students a real insight in to coding (KS3 & KS4). Click <u>here</u> to view.











## **Books and Magazines**

- 1. Free PDF books on Algorithms and Data structures (KS4). Click <u>here</u> to view.
- 2. Keep up to date with the latest in computer science (KS3-5). Click <u>here</u> to view.











