Overview

Learners develop their understanding of computer systems and how information is transferred between systems and devices. Learners consider small-scale systems as well as large-scale systems. They explain the input, output, and process aspects of a variety of different real-world systems. Learners discover how information is found on the World Wide Web, through learning how search engines work (including how they select and rank results) and what influences searching, and through comparing different search engines.

Key Vocabulary and Definitions:

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| Algorithm | a process or set of rules to be followed |
| Connection | how a hardware or software devices can communicate with other devices |
| Crawler | a type of bot that is typically operated by search engines  |
| Digital | electronic technology that generates, stores, and processes data  |
| Index | a list of data, such as group of files or database entries. |
| Input | data that is entered into or received by a computer. |
| Output | how the computer presents the results of the process, |
| Process |  a program that is running on your computer |
| Ranking | the position of a website or page in a list of search engine |
| Search engine | an information retrieval system designed to help find information stored on a computer system. |
| System | a programmable electronic device that can accept input; store data; and retrieve, process and output information. |

System, connection, digital, input, process, output

National Curriculum:

**Computing**

* 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

**Internet safety**

Use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour

Teaching Sequence

Systems and Searches

1. To explain that computers can be connected together to form systems
2. To recognise the role of computer systems in our lives
3. To identify how to use a search engine
4. To describe how search engines, select results
5. To explain how search results are ranked
6. To recognise why the order of results is important, and to whom

Online Safety – Self-image an identity

1. To explain how identity online can be copied, modified or altered.
2. To demonstrate how to make responsible choices about having an online identity, depending on context.

Blooms Taxonomy – Specific Verbs to Use in Lesson Aims

Knowledge: Describe, find, identify, list, locate, name, recognise, retrieve Comprehension: Classify, compare, explain, infer, interpret, paraphrase, summarise Application: Carry out, implement, use Analysis: Deconstruct, Organise, outline, structure Synthesis: Construct, design, devise, invent, make, plan, produce, Evaluation: Appraise, assess, choose,