Mugginton CE Primary Knowledge Organiser

Computing Knowledge Organiser: Computing Systems and Networks – Systems and Searching

Search Engine

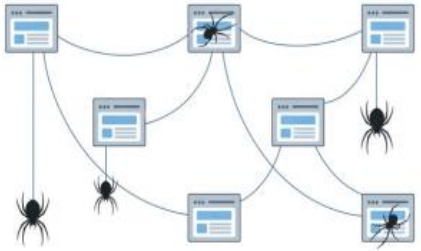
A search engine is a service you use on the Internet to help you find information via the World Wide Web.

They allow us to input words or phrases into the search bar or address bar. The search engine then provides a list of websites or web pages that link to the words or phrases that were inputted.

How Do Search Engines Work?

When a user inputs their search terms, a search engine will scan its index of web pages to find results that relate to the search terms. A search engine makes its own index through a program called spider or web crawler.

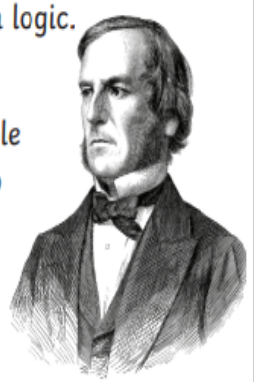
A spider or web crawler is programmed to visit web pages through hyperlinks and store information about each website they visit.



Boolean Operators

George Boole, who was a British mathematician and computer scientist, created the idea of Boolean logic.

A user can alter their search results by using Boolean operators. Boolean operators are simple words (AND, OR, NOT) used as conjunctions to combine or exclude keywords in a search. Using Boolean operators can help to narrow or broaden the search in a search engine.



Key Vocabulary

Inputs – A message sent to a device
Process – The way the device acts on the message
Outputs – Something that is sent out by the device
Search Engine Results Page (SERP) – Tis is a list of web pages, images and videos generated by search engines in response to inputted search terms
Screen Time – Time spent using a device such as a computer, phone, TV or games console
Web Crawler – A computer program that crawls across the world wide web to find and index pages for search engines, it's sometimes called a spider
Search Engine Optimisation (SEO) – The process of getting more clicks onto a webpage from a search engine by improving the webpage content.
Cookies – A small amount of data generated by a website and saved by a web browser, so they can remember information about a user

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Overview

Systems

-You should also know that Information technology (I.T.) includes computers and things that work with computers.

-You should also know that computers have Input, Process and Output (IPO) components.

-Computer systems are built using a number of parts.

-Computer systems can communicate with other devices.

-There are many, many different kinds of computer systems all around the world, ranging from small-scale to large scale.

Systems

-Systems are a set of things working together as parts of a whole.
-Computer systems are made up of inputs (something that sends a message to the device), processes (the way the device acts on the message) and outputs (something that is sent out by the device). Below are some examples.

Washing Machine:

Input: Dials and buttons.

Process: The computer inside follows a program.

Output: The clothes are washed and the display shows the remaining time.

DVD Player:

Input: The disc is inserted and play is pressed on the remote.

Process: The system reads the information on the disc

Output: The screen displays the movie/ show.

Smart Locker:

Input: The customer scans in a barcode.

Process: The code is recognised by the system.

Output: The correct locker is opened.

Router

A router is something that finds a route between networks to connect them.

Internet

The internet is a network of networks used all around the world to share information and communicate

Name:_____ Year:_____ Assessment mark: (1-9)_____

Assessment Questions: To be completed at the start of the unit and then repeated at the end of the topic

1. What is an input, process and output?

Beginning of the Unit	End of the Unit

2. Can you give an example of an input, process and output system?

Beginning of the Unit	End of the Unit

3. How does a router work?

Beginning of the Unit	End of the Unit

4. What is a search engine and name 3 different search engines.

Beginning of the Unit	End of the Unit

5. What is a spider or web crawler used for?

Beginning of the Unit	End of the Unit

6. Who is George Boole?

Beginning of the Unit	End of the Unit