# Knowledge Mats – Information Technology – Year 5

**National Curriculum Links: KS2 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

## Information Technology Vocabulary

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| **Information technology** | Information technology (IT) is the use of computers to store, retrieve, transmit, and manipulate data or information |
| **computer networks** | Two or more computers that are connected with one another for the purpose of communicating data electronically |
| **internet** | The internet is a huge network of computers all connected together |
| **World Wide Web** | The world wide web ('www' or 'web' for short) is a collection of webpages found on this network of computers |
| **communication** | There are many different types of communication technology. They all have different strengths. It is important to think about which type of communication is best for each occasion |
| **collaboration** | The action of working with someone to produce something |
| **evaluate** | To judge something for its value, reliability and use |
| **search engine** | A great way to find things on the web using key words or filtering results |
| **online information** | Online information is found, on the internet, viewed and interpreted |
| **privacy** | Someone's right to keep their personal matters and relationships secret |
| **security** | To keep all the information stored on a computer or on the internet safe from people who want to steal it or change it |
| **copyright & ownership** | Copyright is a legal protection extended to those who produce creative works. The act or right of possessing something |

**I will know…**

- the key internal parts of a computer – CPU / processor, motherboard, RAM and can describe what each part does
- how to identifying the most relevant results from a search engine – not just 'sponsored' links
- key concepts including: Data, information, fact, opinion belief, true, false, valid, reliable and evidence
- the difference between online mis-information (inaccurate information distributed by accident) and dis-information (inaccurate information deliberately distributed and intended to mislead)
- and give examples of when and why it is important to be 'sceptical' when online
- I can create and use strong and secure passwords
- I can explain how many free apps or services may read and share my private information with others
- when searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it

**CPU / Processor**
Central processing unit - the brain of the computer that processes program instructions. The CPU and memory work together to run programs

**Motherboard**
The circuit board inside a computer that houses the CPU, memory and connections to other devices. This lets them work together.

**RAM**
RAM is the main place for storing instructions and data whilst a program is being executed. RAM is usually measured in gigabytes. The more gigabytes of RAM a computer has, the more programs and operations it can handle at the same time

### Website Evaluation  5W's

1 - Who wrote it?
2 - What is the purpose of the resource?
3 - When was the resource published?
4 - Where is the information from?
5 - Why is this resource reliable?

Can you share five facts about **Bletchley Park & the Enigma Code**?

### How does a Search Engine work?

A **search engine** will scan its index of webpages for content related to your **search**. A search engine makes this index using a program called a **'web crawler'**. This automatically browses the web and stores information about the pages it visits. You need to think about the important **keywords** you us.

**Reference sources taken from:**     Red / Blue / Purple – Education for a Connected World     BBC Bitesize Computing