

Bomere and the XI Towns Federation Knowledge Organiser - Computing

Topic: Computing systems and networks -
Communication and collaboration

Class/Year Groups: Wrekin

Term: Autumn

What you already know?

This unit progresses childrens' knowledge and understanding of computing systems and online collaborative working. They should already know that the internet is a network of networks. They should also know that the World Wide Web is the part of the internet where we can visit websites and webpages

What you will learn:

Selecting and Ranking Search Results

Selecting Search Results

- Search engines use programs known as crawlers to index the World Wide Web.
- They 'crawl' websites for searchable information – they then store where it is found in a huge index.
- Search engines select information from this index when we type in key words.
- Searching for some search terms can bring many millions of results.
- We need to make sure that our search terms are as refined as possible, in order to allow the search engine to select the information that is most relevant.

Ranking Search Results

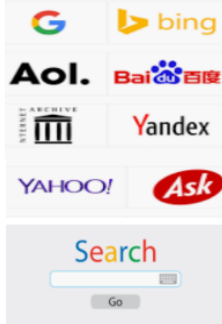
- Search engines 'rank' the web pages (the highest ranked page is at the top).
- Search engines use algorithms to do this – algorithms look at a number of different factors and give web pages a score for each.
- The web page with the highest score ranks the highest.
- Some factors include if the search term is in the title of the page (high points) or if it appears in the paragraphs of the text on the page (lower points).
- Web designers consider algorithms when making when pages.

Vocabulary:

search engine	a program that finds websites & webpages based on key words entered by the user.
World Wide Web	the part of the internet where we can visit websites and webpages.
algorithms	look at a number of different factors and give web pages a score for each.
communication	when we share information with one another

Search Engines - Introduction

- We can find information on the World Wide Web by using search engines.
- A search engine is a program that finds websites & webpages based on key words entered by the user.
- When the World Wide Web was invented by Tim Berners-Lee in 1989, there was only 1 website. By 2018, there were 1,630, 322, 579! The World Wide Web is a big place, and we need search engines to be able to find what we need.
- Some examples of search engines are Bing, Google, Yahoo, DuckDuckGo and Kiddle.
- You can also type searches into the address bar of the browser (e.g. Google Chrome or Microsoft Internet Explorer).



Online Communication

- Communication is when we share information with one another. We can communicate in lots of different ways on the internet, e.g. messaging services, emails, social media, video calling and gaming platforms.
- Public communication is visible to all, whilst private communication is restricted to only some people.
- Some communications are one-way (e.g. Youtube) whilst others are two-way (e.g. Skype).
- Some communications are to one person, whilst others are to many.
- We should consider which type of communication is most appropriate to our needs, safety and privacy.



National Curriculum Objectives:

- 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
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
- Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

