Bomere and the XI Towns Federation Knowledge Organiser - Computing

Topic: Computing systems and networks—The internet

Class/Year Groups: Stiperstones

Term: Autumn

What you already know?

This unit progresses students' knowledge and understanding of networks from that developed in the Year 3 Connecting Computers unit. In Year 5, they will continue to develop their knowledge and understanding of computing systems and understand how search engines work via the internet and the world wide web.

What you will learn:

The World Wide Web

The World Wide Web

- -The World Wide Web is the part of the internet where we can visit web pages and websites.
- Information can be shared in the form of things we can see or hear (e.g. things we can read, music, sounds, or videos, etc.).
- -When we use the world wide web, routers help us to journey to different networks in different parts of the world.
- We can use traceroute tools to track the journey between routers.
- -Web browsers, e.g. Coogle Chrome and Internet Explorer, let us look at different pages on the internet.

Website and Webpages

- -Websites are a set of webpages.
- -Webpages may contain different features, e.g. a title, links to other pages, images, videos, and text.
- -Websites and webpages can be found using web addresses (domains), normally split into three parts:
- www (world wide web).
- 2. Name of the organisation/ topic.
- 3. Type of organisation/location.

www.youtube.com

Networks and The Internet

- -<u>Networks</u> connect different devices to one another, allowing for information sharing. -Networks can also connect to other networks in different places, using a router.
- -The internet is a network of networks that are all connected together.

Router: A router is something that finds a route between networks, connecting them.



The Internet: The internet is a network of networks, that is used around the world to share information and communicate.



Protection: Networks have security features that mean they can block or allow messages and requests. This means that information and data can be kept safe.



Ownership and Reliability

- -The content on the internet may belong to different people or companies, for example the person who wrote it or the company who <u>published</u> it.
- The content may be <u>copyrighted</u>, meaning that others cannot copy or use it without permission.
- -Not all of the information that we see or hear on the internet is <u>reliable</u>. Some of it may be <u>inaccurate</u> due to people lying or misunderstanding things.
- Inaccurate information can <u>quickly spread</u>. This has become known as <u>"fake news."</u> We should check multiple sources that we can trust to verify information.



Vocabulary:

| · ocazanany. | | | | |
|-------------------|---|--|--|--|
| router | something that finds a route between networks, connecting them. | | | |
| internet | a network of networks, that is used around the world to share information and communicate. | | | |
| world wide web | part of the internet where we can visit web pages and websites. | | | |
| protection | security features that mean they can block or allow messages and requests. This means that information and data | | | |



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

