COMPUTING SYSTEMS AND NETWORKS KNOWLEDGE ORGANISER

Overview

What we have learnt before in Computing and what we will learn next?

In Year 1 we considered how technology can help us

In Year 2 we looked at how technology is used beyond school.

In Year 3 we looked at how computers were connected and comparing digital and non-digital devices.

In Year 5 we will investigate computer systems and how information is transferred between systems and devices.

The Internet

Information technology (I.T.) includes computers and things that work with computers. Information and data can be shared by devices across networks. The internet is a network of networks that is used around the world.

-The World Wide Web is a system on the internet that has websites and webpages.

-Some content is protected on the internet. It is important to know that not all information on the internet is accurate.

Networks and The Internet

-Networks 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.

The World Wide Web

The World Wide Web

-The World Wide Web is the part of the internet where you can visit web pages and websites.

-Information can be shared in the form of things we can see or hear (e.g. things you can read, music, sounds, or videos, etc.).

-When you use the world wide web, routers help us to journey to different networks in different parts of the world.

-You can use traceroute tools to track the journey between routers.

-Web browsers, e.g. Google Chrome and Internet Explorer, let us look at different pages on the internet.
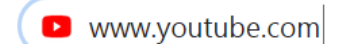
Website and Webpages

-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:

1. www (world wide web).

2. Name of the organisation/ topic.

3. Type of organisation/ location.

www.youtube.com

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 published it.

-The content may be copyrighted, meaning that others cannot copy or use it without permission.

-Not all of the information that we see or hear on the internet is reliable. Some of it may be inaccurate due to people lying or misunderstanding things.

-Inaccurate information can quickly spread. This has become known as 'fake news.' We should check multiple sources that we can trust to verify information.

Important Vocabulary

| Network | Internet | World Wide Web | Router | Security | Website | Webpage | Browser | Domain | Reliable |