Beech Hill Primary School Knowledge Organiser

Topic: Computing – Digital literacy	Year group	Term
Digital Foundations 5	Year 5	Autumn 1 6 sessions

Background knowledge

Digital Foundations 5 has been designed to provide children with a strong foundation in the knowledge and skills required for their computing journey over the coming year. The six steps in this unit contain concepts and activities that will develop children's understanding of: technology over time; computer systems and networks; organising files; formatting tools; keyboard shortcuts; hyperlinks and common icons. The steps in this unit can be covered flexibly in order to meet the specific needs of the children. Teachers may choose to teach all six steps or choose those most relevant to their setting. The online safety starters within this unit cover topics such as digital footprints, copyright and attributions, app permissions and security and evaluating web content.

To make sure that you can teach this unit with confidence, included in each step is a CPD in 3 Video and a CPD Quick Guide. These aim to support teachers in building a strong subject knowledge prior to embarking on the step with the children. The subject knowledge required for this unit is: an understanding of how technology has changed over time including some of the key developments; an understanding of the components of computer networks and their functions; the ability to demonstrate how to create, name and move files and folders; an understanding of keyboard shortcuts and a solid grasp of formatting tools including creating external hyperlinks.

What should I already know?

It would be beneficial for children to have prior knowledge of what a computer system is and how it operates. It would also be useful for the children to have previously saved and opened files within a familiar operating system, as well as edited files using basic formatting tools such as font style, columns and inserting images.

National Curriculum Objectives / Key Skills	The Journey
NC **Children should be taught to:** 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content; use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. **Key Skills** This unit provides children with knowledge and skills that can be applied in their use of technology throughout the curriculum, for example: creating, formatting and organising digital content across the curriculum finding and accessing files or programs needed for learning using their knowledge of computer systems and networks to troubleshoot and resolve technical difficulties	1. To recognise the evolving nature of technology. (Create a 'Tech then and now' powerpoint presentation about how tech has changed over time, using the internet and the Fact File resource to help with research). 2. To understand the role of networks in connecting computers. (Computer network hunt activity) 3. To use folders to organise files. To navigate the operating system using the search function. (How to create better file names than Doc1, document2, Bob) 4. To use more advanced formatting tools within a document. To know and understand the role of combining certain keys on a keyboard. (Computer keyboard shortcut matching task, then try them out practically on screen). 5. To use hyperlinks within a document. To use two hands on a keyboard to type letters, numbers and symbols with increasing speed. (Helpful hyperlinks activity) 6. To recognise a wide range of common icons used in computing and their functions. (Icon scavenger hunt)

Outcomes

This unit begins your children's journey towards the following milestone concepts:

* Children will recognise the ever-changing landscape of technology and its impact on society.
* Children will understand the function and importance of computer networks in connecting computers and facilitating communication and collaboration.
* Children will develop proficiency in using folders to organise files efficiently.
* Children will navigate an operating system adeptly using the search function to locate files and applications swiftly.
* Children will recognise specific key combinations on a keyboard while also using both hands to type letters, numbers and symbols at an accelerating pace.
* Children will be proficient in identifying and understanding a broader array of common icons, particularly those encountered in online services, discerning their respective functions effectively.
* Children will utilise advanced formatting tools within documents and effectively incorporate hyperlinks to enhance document interactivity and ease of navigation.

Throughout the unit, children will:

I know that technology has changed over time.
I can name at least three key developments in technology.

I know what a computer network is.
I know the key components involved in a computer network.
I know the types of connections used in a computer network.

I know that files are organised in folders on a computer.
I know how to create a new folder.
I know how to move a file from one folder to another.
I know how to use the search function to perform basic searches.

I know how to copy and paste text and images into a document.
I know how to crop and align text and images in a document.
I know how to insert and edit a table in a document.
I know a range of keyboard shortcuts.

I know how to link text and images within a document to an external website.
I know which fingers are best used for each key when typing.
I know the location of the home keys.

I know the name and function of the refresh, share, link, back and forward icons.
I can recognise the padlock, bookmark and attachment icons.

Key Vocabulary

advancement	The act of improving something or making progress towards a goal.
development	The change and growth of something to improve it, make it stronger and more secure.
technology	Tools that can be used to solve problems or complete tasks.
clients	Computers or computer-controlled devices that can connect to the server are called clients.
component	A part of something bigger. For example, a switch, a router and clients are all components in a network.
connection	A link between devices that can either be wired or wireless.
device	An electronic piece of equipment that has been designed to carry out a particular job or function.
Internet	The Internet is a vast network of computers connected to each other all around the world.
peripheral	A peripheral part is an input or output device that can give a digital device additional functions. Peripheral parts can be wired or wireless.
printer	Can be a wired or wireless external output device that can create a hard copy of data stored on a computer or electronic device.
router	Routers are small computers that communicate between the Internet and devices that connect to the Internet. They keep the packets in a network moving to their destination as smoothly and quickly as possible.
server	A piece of hardware that has a large memory drive where lots of files and resources are stored. It also responds to requests across a computer network.
switch	A device that has lots of connection ports for lots of other devices to connect to a computer network.
wired	A device that uses a cable to connect to another device.
wireless	Instead of using cables to connect, wireless devices send information through electronic signals, such Wi-Fi, radio waves or Bluetooth.
workstations	A wired computer or group of computers connected to the server.
copy	Copying a piece of data or information in order to place it somewhere else on a document.

data	A collection of information. Data in spreadsheets or databases often show calculations, graphs and the sorting or filtering of information.
file	A way to store information on a computer. Different software programs create different types of files.
folder	An electronic place to store files.
move	Place a file from one folder to another.
operating system	Software that controls how a computing device works and manages all the programs you want to use.
organise	Sorting in a way that is clear and accessible.
rename	Changing the name of a file or folder so it is easily recognised and found.
search	You can search for information using a search engine. OR You can use the Internet to search for information on a website.
align	To line up text or objects with each other on a page.
copy	Copying a piece of data or information in order to place it somewhere else on a document.
crop	A tool to reduce the size of an image.
edit	To make changes to or correct errors in digital content, such as text, images or videos.
format	The appearance or presentation of text, objects or images.
insert	To add something into a document or file.
key	An input button on a keyboard used for typing.
keyboard	A device to input text, numbers and symbols and perform other functions.
paste	Taking data (a word, phrase or image) from one part of a document and placing it somewhere else.
shortcut	One or more keys used to perform a function that can save time and work efficiently.
home keys	The F and J keys are used as a starting point for touch typing. They can be found on the middle row of the keyboard.
hyperlink	These can be text, images, buttons or moving images that are used to move from web page to web page or document to document. They can even move from one place to another in the same document. A hyperlink can be underlined.
link	A connection between web pages and documents.
type	To add text into a PC device using the keys on a keyboard.

URL	Uniform Resource Locator - the unique web address for individual web pages. This is the address given to find web pages on a web browser, for example www.ttrs.co.uk
attachment	When a file or document is sent along with an email, message or post. A paperclip icon is often used to represent an attachment.
back	A back arrow icon used on Internet browsers to allow users to return to previous pages.
bookmark	An icon that allows you to save the URLs of your favourite websites.
forward	A forward arrow icon used on Internet browsers to navigate between recently viewed pages.
icon	A small image or symbol representing a file, function or program.
link	A connection between web pages and documents.
padlock	An icon to show that something is locked or secure.
refresh	Updating or reloading the web page you are looking at.
share	An icon used to send a document, image or link to another person.

Question of the week.

1. Give me the name of a piece of technology and tell me how it has changed over time (eg. A telephone turned into a smartphone)
2. What are the five pieces of equipment that can make up a network?
3. Give me an example of a bad file name that will make it difficult to find my work. (eg. Doc1, document2, Bob).
4. Match the shortcut to the command (ctrl + c, ctrl + v, ctrl + x / copy, paste, cut)
5. What do you call an image or a word that takes you to another webpage? (Hyperlink)
6. Tell me the names of any common icons and what they look like (eg. Lock looks like a padlock, bookmark looks like a star).