Beech Hill Primary School Knowledge Organiser

Topic: Computing – Digital literacy	Year group	Term
Computer Systems and Networks	Year 4	Summer 1 5 sessions

Background knowledge

Computer Systems and Networks 4 aims to provide children with the foundational knowledge of a variety of online tools. The children will explore how technology can help us work, collaborate and communicate effectively in our daily lives. The steps in this unit are designed to build on childen's understanding of networks, communication technology and the impact that the invention of the Internet has had on communication and collaboration.
The online safety starters for this unit aim to encourage children to recognise when content makes them feel worried and what to do; understand that not all opinions shared may be accepted as true or fair by others; to recognise the risks and benefits of technology that is designed to impersonate; to know that the Internet is never fully private; and how to safely share information with others if necessary.
This is a 'Big Question' unit and children will be working towards answering the following question: How does the Internet change our everyday lives?

To teach this unit it is recommended that you familiarise yourself with the CPD for this unit to support your subject knowledge in this area. The subject knowledge required is:
* An understanding of the changes that have occurred in technology that have allowed for communication to become more efficient and effective.
* Knowledge of how digital devices have changed the way we work with a variety of settings.
* An understanding of how networks work and how they help us to collaborate and communicate on a variety of digital devices.
* Knowledge and understanding of safe and effective ways to collaborate and communicate when working in a team.
* Knowledge of a variety of online tools and software that allow us to communicate and collaborate in the classroom and in our everyday lives.

What should I already know?

It would be beneficial if children had some foundational knowledge of networks, the Internet and different examples of digital devices to recognise and build on understanding of how these interlink with communication and collaboration within this unit. It would also be beneficial if children were aware of how technology can have a positive impact on our lives and allows us to communicate in ways we haven't been able to before. Understanding what technology is and how it can improve our lives is covered in Computer Systems and Networks 1.

National Curriculum Objectives / Key Skills	The Journey
NC Pupils 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; 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 the children with the skills, knowledge and understanding that can be applied in their use of technology throughout the curriculum, for example: Being able to use collaborative online tools in class to view, edit and peer check work. Being able to communicate and collaborate in a respectful, professional and appropriate manner with peers.	Throughout the unit, children will: 1. To recognise the changes in communication technology. To understand how communication technology has become more effective over time. (Activity: Communication technology matching sheet) 2. To understand how digital devices can change the way we work. (Task 1: Digital Devices Past and Present Activity Sheet) (Task 2: To research old pieces of tech and which jobs used them.) 3. To understand how networks help us to communicate and collaborate. (Create a class network mural – displaying children's work opportunity) 4a and 4b (two weeks). To understand the key skills for effective communication and collaboration. (Task 1: Effective communication activity sheet group task) (Task 2: Collaborative presentation – plan a presentation on collaboration and communication) (Task 3: Make the actual presentation using Powerpoint) 4b replaces Step 5.

Being able to recognise areas of positive improvement within their work and choose the best tools to address this. Being able to safely, effectively and efficiently use online collaborative tools, such as an online cloud storage service. Being able to apply a variety of skills to complete a collaborative task.	

Outcomes

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

Children will understand the changes in communication technology and how they help us communicate more effectively today.

Children will explore and recognise how digital devices impact and help us to work and learn.

Children will understand what a network, including the Internet, is and how these allow us to communicate and collaborate.

Children will explore and recognise the skills needed to effectively communicate and collaborate in a team.

Children will apply effective communication and collaboration skills to take part in a team project using an online cloud storage service.

Throughout the unit, children will:

I know how communication technology has become more effective.
I can give examples of changes in communication technology.

I know some ways that digital devices have changed the way we work.
I can identify some different digital devices.

I know what a network is.
I can explain how networks help us to communicate and collaborate with each other.

I can identify the key skills for communicating and collaborating.
I know the effective ways of communicating and collaborating with more than one person.

I can recognise and identify the different collaborative elements of online communication software.
I can safely and effectively use online communication software to collaborate.

Key Vocabulary

communication collaboration

technology Internet evolution

email digital device network

telegraph workplace

appliances impersonation

efficiency data teamwork

effective feedback support

respect document

edit share presentation

Question of the week.

1. Matching question using technology of your choice. Which technology matches which description. Use 3 examples from the previous week.
2. Name a piece of technology from the past and who used it.
3. Tell me three pieces of equipment you need in a network.
4. Tell me three ways we can communicate through technology.