Beech Hill Primary School Knowledge Organiser

Topic: Computing – Digital literacy	Year group	Term
Computer Systems and Networks	Year 6	Summer 1 5 sessions

Background knowledge
Computer Systems and Networks 6 is designed to equip children with the knowledge and skills to be critical users of the Internet, enabling them to evaluate search results and online content effectively. Over the course of the five steps, children will learn about search engines and how they work. They will also learn how to assess search results and online content critically. Each step in this unit also includes an online safety component, covering the topics of: how to use search engines effectively, understanding influence, manipulation and persuasion online, recognising how companies and news providers target users with online news stories, identifying fake news and learning how to acknowledge online sources. This is a 'Big Question' unit and children will be working towards answering the following question: How can I be a critical user of the Internet?

What should I already know?
Prior Learning: It would be beneficial if children have prior experience using a search engine and clicking on links in the search engine results page that appear after entering a search query. They would also benefit from being familiar with various types of online content, such as advertisements, videos and web pages.

National Curriculum Objectives / Key Skills	The Journey
NC Pupils should be taught to: use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content for communication and collaboration. use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour.	Throughout the unit, children will: 1. To understand the basic concepts of how search engines work, including web crawling and indexing. (Activity 1: Be a web crawler) 2. To understand the basic concepts of how search engines work, including web crawling and indexing. (Activity 1: Search engine comparison) 3 To understand how websites use search engine optimisation (SEO) to influence search engine rankings. (Activity 1: Makeover activity)

Key Skills	
Researching a topic for a project using search engines and critically evaluating the credibility of online content. Comparing multiple online news articles about the same current event to identify bias, verify facts and apply critical thinking skills.	4. To assess the reliability and accuracy of online information by comparing sources and checking for bias. (Activity: Verifying fact) 5. To understand what critical thinking is and how to apply it when viewing information online. (Activity: Create a critical thinking checklist for reviewing online content)

Outcomes

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

Children will learn how a search engine works, including web crawling, indexing and ranking search results.
Children will understand how websites use various elements of SEO to influence search engine rankings.
Children will learn how to critically assess whether online information is trustworthy and reliable.

Throughout the unit, children will:

I can explain what a web crawler (or spider) is and how it visits pages on the World Wide Web.
I can describe how search engines store information from the Internet by creating an index.
I can explain how search engines make it easier for us to find the information we want.

I know some of the criteria that page ranking programs use to decide page ranking.
I know how algorithms are used to rank search results.

I know what Search Engine Optimisation (SEO) is.
I know why web pages use SEO.
I know how SEO can help web pages improve their ranking on a search engine results page.

I know how to check if an online source is reliable.

I can identify reliable online information by checking multiple sources.
I can identify signs of bias by looking for language that reflects opinions rather than facts.
I can analyse online sources to determine which are reliable and which are biased.

I know what critical thinking is.
I understand why critical thinking is important.
I know why I need to think critically when viewing online content.
I can use critical thinking to form my own opinion about online content.

Key Vocabulary
algorithm
bias
content
criteria
critical thinking
digital footprint
echo chamber
engagement
evaluate
evidence
index
Internet
keywords
misinformation

page ranking program

questioning

ranking

ranking, source

reliable

search engine

search engine optimisation (SEO)

search engine results page

web crawler

web page

website

Question of the week.
1. What five words could I use to find information about this school. 2. Which search engine do you use the most and why? 3. Tell me three things we look for when analysing the quality / reliability of a website. 4. "A polar bear has been spotted wandering in the Amazon rainforest." How could you verify if this is true or false? 5. Tell me three things on your critical thinking checklist.