

## YEAR 5

	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
Computing Systems and Networks	<p><b>The three Prime ELGS of Communication and Language, PSED and Physical Development provide the foundations of which all other learning is built upon.</b></p> <p>No Specific ELG links.</p>	To become familiar with different components of a computer, linking technology to their everyday lives.	To develop understanding of IT, linking technology to the wider world and the importance of using it responsibly.	To develop understanding of digital and non-digital devices with a focus on inputs, processes and outputs. To be introduced to computer networks.	To apply knowledge of networks to the internet and explore the World Wide Web, ownership, content, access and creation.	To develop understanding of computer systems and learn how information is transferred between systems. To participate in a collaborative online project.	To learn about the World Wide Web as a communication tool. To explore how search engines, work and what influences searching.

### Computing Systems and Networks COMPOSITES

Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

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

Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

### COMPONENTS

	1	2	3	4	5	6	End Point
	Can I effectively use a search engine?	How do search engines select results?	Can I explain how search results are ranked?	Why is the order of results is important, and to whom?	How do we communicate using technology?	Can I evaluate different methods of online communication?	In this unit, the class will learn about the World Wide Web as a communication tool. First, they will learn how we find information on the World Wide Web, through learning how search engines work

							(including how they select and rank results) and what influences searching, and through comparing different search engines. They will then investigate different methods of communication, before focusing on internet-based communication. Finally, they will evaluate which methods of internet communication to use for particular purposes.
<b>CONCEPTS</b> <a href="#">Link to concept map</a>	Computing Systems and Networks Information Technology Computer Science	Computing Systems and Networks Information Technology Computer Science	Computing Systems and Networks Information Technology Computer Science	Computing Systems and Networks Information Technology Computer Science	Computing Systems and Networks Information Technology Computer Science Digital Literacy	Computing Systems and Networks Information Technology Computer Science Digital Literacy	
<b>SKILLS</b>	Complete a web search to find specific information Refine my search Compare results from different search engines	Recognise the role of web crawlers in creating an index Relate a search term to the search engine's index	Choose methods of communication to suit particular purposes	Choose methods of communication to suit particular purposes	Choose methods of communication to suit particular purposes	Compare different methods of communicating on the internet Decide when I should and should not share	Children will learn how we find information on the World Wide Web. They will then investigate different methods of communication, before focusing on internet-based communication. Pupils will evaluate which methods of internet communication to use for particular purposes.
<b>KNOWLEDGE</b>	Explain why we need tools to find things online	Explain why we need tools to find things online	Explain that search results are ordered Explain that a search engine	Describe some of the ways that search results can be influenced	Explain the different ways in which people communicate	Explain that communication on the internet may not be private	Children will learn about the World Wide Web as a communication tool. They will develop an understanding of

			follows rules to rank relevant pages Suggest some of the criteria that a search engine checks to decide on the order of results	Recognise some of the limitations of search engines  Explain how search engines make money	Identify that there are a variety of ways of communicating over the internet		search results; what comes up and why. Pupils will expand their knowledge regarding on-line communicating.
<b>LESSON LINK</b>	<a href="#">1 - Computing systems and networks – Communication</a>	<a href="#">1 - Computing systems and networks – Communication</a>	<a href="#">1 - Computing systems and networks – Communication</a>	<a href="#">1 - Computing systems and networks – Communication</a>	<a href="#">1 - Computing systems and networks – Communication</a>	<a href="#">1 - Computing systems and networks – Communication</a>	
<b>PROGRESSIVE VOCABULARY</b>	search, search engine, Google, Bing, Yahoo!, Swisscows, DuckDuckGo, refine	index, crawler, bot, search engine	ranking, search engine, search engine optimisation, links, web crawlers	searching, search engine, web crawler, content creator, selection, ranking	communication, internet	communication, public, private, one-way, two-way, one-to-one, one-to-many, SMS, email, WhatsApp, blog, YouTube, Twitter, BBC Newsround	Children will be able to understand, articulate and use the vocabulary
<b>CURRICULUM EXPERIENCES</b>		Indexing the Classroom Activity  <a href="#">The Internet: How Search Works - YouTube</a>					
<b>END POINT</b>	In this lesson, children will be introduced to a range of search engines. They will be given the opportunity to explain how we search, then they will write and test instructions. Next, they will learn that searches do not always return the results that we are looking for, and will	In this lesson, pupils will gain an understanding of why search engines are necessary to help us find things on the World Wide Web. They will conduct their own searches and break down, in detail, the steps needed to find things on the web. They will then	This lesson includes an unplugged activity in which the class will learn about some of the main factors that influence how a search engine ranks a web page. Children will create paper-based 'web pages' in groups, on a topic that	In this lesson, pupils will explore how the person performing a web search can influence the results that are returned, and how content creators can optimise their sites for searching. They will also explore some of the limitations of searching, then	In this lesson, the children will deepen their understanding of the term 'communication'. They will explore different methods of communication, then they will consider internet-based communication in more detail. Finally, they will evaluate which	In this lesson, the children will use information provided and their own prior knowledge to categorise different forms of internet communication. They will then choose which method they would use for the scenarios discussed in the	

	<p>refine their searches accordingly. Finally, they will be introduced to the two most common methods of searching: using a search engine and the address bar.</p>	<p>emulate web crawlers to create an index of their own classroom. Finally, they will consider why some searches return more results than others.</p>	<p>they are currently studying. They will then discover how their web pages would rank when searching for keywords relating to their content.</p>	<p>discuss what cannot be searched.</p>	<p>methods of communication suit particular purposes.</p>	<p>previous lesson. During these activities, they will explore issues around privacy and information security.</p>	
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