Computing 24-25

Year 6 – Computing system and networks- Communication and collaboration

Remember when: Computing systems and networks Y5	Key vocabulary
By the end of the unit children must be able to: I can describe how computers have and use addresses to access websites. I can explain that all data transferred over the internet is in packets and what a packet is I can explain that the internet allows different media to be shared I can identify that there are a variety of ways to communicate over the internet I can decide when I should and should not share information online	Communication, protocol, data, address, Internet Protocol (IP) address, Domain Name Server (DNS) Packet, header, data payload Chat, explore, slide deck Communication, public, private, one-way, two-way, one-to-one, one-to-many, search engine

Prior learning in Year 5:

- I can describe the input, process, and output of a digital system
- I can explain that computer systems communicate with other devices
- I can identify tasks that are managed by computer systems
- I can give examples of criteria used by search engines to rank results
- I can explain why we need tools to find things online
- I can make use of a web search to find specific information
- I can refine my web search
- I can compare results from different search engines

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

Software

Title / Focus	Lesson outline
Lesson 1- Internet addresses LO- To explain the importance of internet addresses SK-I can describe how computers have and use addresses to access websites	Learners explore what is necessary for effective communication and the importance of agreed protocols. They apply this understanding to IP addresses and the rules (protocols) that computers have for communicating with one another. Learners also use a Domain Name Server (DNS) to translate web addresses into IP addresses.
Lesson 2-Data packets LO- To recognise how data is transferred across the internet SK- I can explain that all data transferred over the internet is in packets and what a packet is	Learners are introduced to the concept of packets. They complete an activity based on transferring an image across the internet, to see that as well as messages (text), other types of data (images, video, and audio) are also transferred over the internet. They gain an understanding of the key parts of a packet: the header and the data payload.
Lesson 3 Working together LO- To explain how sharing information online can help people to work together SK- I can explain that the internet allows different media to be shared	Learners consider how people can work together when they are not in the same location. They discuss ways of working and complete a collaborative online project. The online activity assumes that learners can make simple slides, including text and images. If your learners are unsure how to do this, you may wish to spend some time on the Year 3 – 'Desktop publishing' unit before this lesson.
Lesson 4 How we communicate LO- To recognise how we communicate using technology SK- I can identify that there are a variety of ways to communicate over the internet	Learners deepen their understanding of the term 'communication'. They explore different methods of communication, before they consider internet-based communication in more detail. Finally, learners evaluate which methods of communication suit particular purposes.

Lesson 5- Communicating responsibly LO- To evaluate different methods of online communication SK- I can decide when I should and should not share information online	Learners use information provided in the lesson and their own prior knowledge to categorise different forms of internet communication. They then choose which method(s) they would use for the scenarios discussed in the previous lesson. Through these activities, learners explore issues around privacy and information security.	
Lesson 6- Assessment	Children to complete an assessment quiz made by the teachers Assessed against the checklist.	
Working towards	**End of Unit Assessment** Working at Age related expectations	Working at a greater depth