

Year 4 – The internet

Unit introduction

During this unit learners will apply their knowledge and understanding of networks, to appreciate the internet as a network of networks which need to be kept secure. They will learn that the World Wide Web is part of the internet, and be given opportunities to explore the World Wide Web for themselves to learn about who owns content and what they can access, add, and create. Finally they will evaluate online content to decide how honest, accurate, or reliable it is, and understand the consequences of false information.

Overview of lessons

Lesson	Brief overview	Learning objectives
1. Connecting networks	Learners will explore how a network can share messages with another network to form the internet. They will consider some of the network devices involved in this, such as routers, and then discuss what we should keep in and out of a network to keep safe.	To describe how networks physically connect to other networks <ul style="list-style-type: none">• I can describe the internet as a network of networks• I can demonstrate how information is shared across the internet• I can discuss why a network needs protecting
2. What is the internet made of?	Learners will describe parts of a network and how they connect to each other to form the internet. They will use this to help explain how the internet lets us view the World Wide Web and recognise that the World Wide Web is part of the internet which contains websites and web pages.	To recognise how networked devices make up the internet <ul style="list-style-type: none">• I can describe the different networked devices and how they connect

		<ul style="list-style-type: none">• I can explain how the internet allows us to view the World Wide Web• I can recognise that the World Wide Web is the part of the internet that contains websites and web pages
3. Sharing information	Learners will explore what can be shared on the World Wide Web and where websites are stored. They will also explore how the World Wide Web can be accessed on a variety of devices.	To outline how websites can be shared via the World Wide Web <ul style="list-style-type: none">• I can explain the types of media that can be shared on the World Wide Web (WWW)• I can describe where websites are stored when uploaded to the WWW• I can describe how to access websites on the WWW
4. What is a website?	Learners will analyse the contents of websites, before designing their own website, offline. They will consider the content they would like to include on a website of their own, and then decide how they could create that content. They will then use an existing website to create some of their own content online, using tools introduced in Year 2.	To describe how content can be added and accessed on the World Wide Web <ul style="list-style-type: none">• I can create media which can be found on websites• I can recognise that I can add content to the WWW• I can explain that new content can be created online

5. Who owns the web?	Learners will explore who owns the content on websites. They will explore a variety of websites, investigating what they can and cannot do with the content on them. They will also relate this to principles of ownership and sharing in the real world.	To recognise how the content of the WWW is created by people <ul style="list-style-type: none">• I can explain that websites and their content are created by people• I can suggest who owns the content on websites• I can explain that there are rules to protect content
6. Can I believe what I read?	In this lesson, learners will gain an appreciation of the fact that not everything they see on the internet is true, honest, or accurate. They will review images and decide they may not be real, before conducting a web search which will return ambiguous and sometimes misleading results, looking for why this is the case. Finally, learners will complete a practical activity, demonstrating how quickly information can spread, beyond your own control.	To evaluate the consequences of unreliable content <ul style="list-style-type: none">• I can explain that not everything on the World Wide Web is true.• I can explain why some information I find online may not be honest, accurate, or legal.• I can explain why I need to think carefully before I share or reshare content

Progression

This unit progresses students' knowledge and understanding of networks in Year 3. In Year 5, they will continue to develop their knowledge and understanding of computing systems and online collaborative working.

Please see the learning graph for this unit for more information about progression.

Curriculum links

[National curriculum links](#)

Computing

- 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

PSHE (Lesson 6)

- Evaluating content for honesty and accuracy

Art (Lesson 3)

- To improve their mastery of art and design techniques, including drawing, painting, and sculpture with a range of materials

Assessment

Formative assessment

Assessment opportunities are detailed in each lesson plan. The learning objectives and success criteria are introduced in the slide deck at the beginning of each lesson and then reviewed at the end. Learners are invited to assess how well they feel they have met the learning objective using thumbs up, thumbs sideways, or thumbs down.

Summative assessment

There are ten multiple choice questions in the quiz at the end of the unit. The questions are drawn from all six lessons.

- Please see the assessment question and answer documents for this unit.

Subject knowledge

Lesson 1:

Knowledge of computer networks is required for this lesson. It builds on concepts introduced in the Year 3 Computer systems and networks unit, in particular, the definition of a network which is covered in Lesson 4.

Lesson 2:

This lesson builds on Year 3, Computing systems and networks, in particular the parts of a network, covered in Lessons 4 and 5.

You will need an understanding of how data is routed around the internet. Some of the concepts covered in this lesson are explained in 'A Packet's Tale' (a YouTube video): https://www.youtube.com/watch?v=ewrBaIT_eBM

You will also need a clear understanding that the World Wide Web is part of the internet — this is explained in this video: <https://www.bbc.co.uk/newsround/47523993>

Lesson 3:

You will need an understanding of where websites are stored, this is also explained in 'A Packet's Tale' (a YouTube video): https://www.youtube.com/watch?v=ewrBaIT_eBM

Lesson 4:

An understanding of the elements common to many websites (text content, images, video, etc.). A knowledge of websites which can be used to generate content on the World Wide Web, in particular Chrome Music Lab.

Lesson 5:

A knowledge of copyright and the reasons for it. A useful short summary is here: <https://www.gov.uk/copyright> and a useful guide to creative commons: <https://creativecommons.org/licenses/>

Lesson 6

An awareness that there is a high volume of inaccurate, misleading, or false content on the internet. An understanding that search results are influenced by adverts and sponsored content. An awareness of how quickly information spreads around the World Wide Web.

Enhance your subject knowledge to teach this unit through the following training opportunities:

Online training courses

- [Raspberry Pi Foundation online training courses](#)

Face-to-face courses

- [National Centre for Computing Education face-to-face training courses](#)

Resources are updated regularly — please check that you are using the latest version.

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