# Year 4 – The internet

## Unit introduction

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 will be given opportunities to explore the World Wide Web for themselves in order 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.

This unit requires devices with an internet connection. Chrome Music Lab is used in one lesson to demonstrate content which can be produced on the World Wide Web.

## 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 will also discuss what should be kept in and out of a network to keep safe. | To describe how networks physically connect to other networks <br> • I can describe the internet as a network of networks <br> • I can demonstrate how information is shared across the internet <br> • I can discuss why a network needs protecting |
| 2   What is the internet made of? | Learners will describe the parts of a network and how they connect to each other to form the internet. They will use this understanding to help explain how the internet | To recognise how networked devices make up 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. | • I can describe networked devices and how they connect<br>• I can explain that the internet is used to provide many services<br>• I can recognise that the World Wide Web 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 (WWW)<br>• I can explain the types of media that can be shared on the WWW<br>• I can describe where websites are stored when uploaded to the WWW<br>• I can describe how to access websites on the WWW |
| 4  What is a website? | Learners will analyse a website and identify the key parts. They will then consider what content can be added to websites and what factors they should consider before adding content to a website. Finally, they will use a website which enables them to create their own content online. | To describe how content can be added and accessed on the World Wide Web (WWW)<br>• I can explain what media can be found on websites<br>• I can recognise that I can add content to the WWW<br>• I can explain that internet services can be used to create content online |
| 5  Who owns the web? | Learners will explore who owns the content on the World Wide Web (or 'web' for short). They will explore a variety of websites and will investigate what they can | To recognise how the content of the WWW is created by people<br>• I can explain that websites and |

| | and cannot do with the content on them. They will also relate this to principles of ownership and sharing in the real world. | their content are created by people<br>• I can suggest who owns the content on websites<br>• I can explain that there are rules to protect content |
|---|---|---|
| 6  Can I believe what I read? | 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 whether or not they are real, before looking at why web searches can return ambiguous (and sometimes misleading) results. Finally, learners will complete a practical activity, demonstrating how quickly information can spread beyond their control. | To evaluate the consequences of unreliable content<br>• I can explain that not everything on the World Wide Web is true<br>• I can explain why some information I find online may not be honest, accurate, or legal<br>• 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

- 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.

**PSHE (Lesson 6)**
- Evaluating content for honesty and accuracy

[Education for a Connected World links]

**Managing online information**
- I can analyse information to make a judgement about probable accuracy, and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others.
- I can explain what is meant by fake news, e.g. why some people will create stories or alter photographs and put them online to pretend something is true when it isn't.
- I can describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, or influencers).
- I can describe how fake news may affect someone's emotions and behaviour, and explain why this may be harmful.

# Assessment

Formative assessment opportunities are provided throughout each of the lesson plan documents. For summative assessment, please see the MCQ document for this unit.

# Subject knowledge

Teachers will need a knowledge of computer networks, including how data is routed around the internet. Teachers will need to be aware that the World Wide Web is one of many services which are offered over the internet. They will need to know the difference between a web page and a website, and a knowledge of where websites are stored. A knowledge of what content you can find on websites will also be useful. An awareness of copyright (and the reasons for it) and that people create and share false and inaccurate information is important for the last two lessons in this unit.

The YouTube video titled 'A Packet's Tale' (www.youtube.com/watch?v=ewrBalT_eBM) provides an overview of networks and the internet.

That the World Wide Web is part of the internet is explained in this video: www.bbc.co.uk/newsround/47523993

**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 — the latest version is available at: ncce.io/tcc.

This resource is licensed under the Open Government Licence, version 3. For more information on this licence, see ncce.io/ogl.