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## Unit introduction

In this unit, learners will evaluate the online world and their own internet activity for safety concerns and equip themselves with tools for protecting their online identities.

As most learners will already have some form of online presence and familiarity with online spaces, the purpose of this course is for them to start thinking more critically about how they, and others, conduct themselves online. Learners will also be asked to discuss key debates around the online world, such as the extent of their right to privacy, and which powers should be granted to organisations and states. As much as possible, learners should be encouraged to develop their own ideas and opinions in order to become engaged citizens when it comes to online rights.

In addition to learners understanding the context of online safety and the potential dangers they are at risk of, a key takeaway of this course is a repository of practical, risk-reducing steps that learners can implement online.

## Overview of lessons

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| **Lesson** | **Brief overview** | **Learning objectives** |
| Lesson 1: An introduction to online safety | This lesson is designed to set the context in which online safety will be discussed and get learners considering their own online safety. In it, learners will be introduced to the online security threats that feature in this unit. Learners will engage critically with these concepts by considering the level of threat each poses. In small groups, they will then be asked to consider how exposed typical online behaviour is to online security threats. Finally, they will use their own experience to discuss how to protect themselves from online safety threats. | * Discuss the main safety concerns of being online * Reflect on online activity from a safety perspective |
| Lesson 2: Online reputation | Learners will be asked to characterise why someone might use the internet and how their online needs change over time. This task will be used to discuss why it might be important to think about their online reputation even when they are still in school. In small groups, learners will be asked to consider different possible attackers and why they might want to damage someone’s online reputation. They will then be asked to come up with strategies on how best to defend their reputation against these attacks. After a class discussion in which different ideas are shared and consolidated, learners will be asked to produce a poster or leaflet that provides information for others on how to protect their online reputation. | * Define online reputation and discuss what it is made up of * Discuss techniques on how to build a positive online reputation * Discuss the ways in which one’s online reputation might be under threat and how to defend it |
| Lesson 3: Big data | In this lesson, learners will be introduced to the concept of big data and learn how it is used and why. They will be tasked with identifying what data they create online is of interest to organisations that analyse big data and determining how it could be used. Through a classroom debate, learners will share their thoughts on the ethics of big data use and develop an opinion on the role it should play in society. | * Define the terms ‘big data’ and ‘data analytics’ * Investigate the stakeholders who use big data and why * Explain how data is collected on and how it is used * Discuss the ethics of big data use |
| Lesson 4: Right to privacy | Having learnt about what kinds of data are being collected online, learners are now presented with the topic of privacy. In this lesson, learners will discover and discuss their rights to privacy in the UK. Learners will be presented with UK laws such as Article 8 of the Human Rights Act, the Investigatory Powers Act (2016), and the Data Protection Act (2018), as well as the terms and conditions of social media platforms. These will inform a class discussion in which learners will decide whether they think their privacy rights are being upheld. Learners will then consider the different possible levels of privacy rights and how they think they should be set for society. | * Investigate the legal rights to privacy within the UK * Discuss which rights are believed to be upheld * Debate whether the right to privacy is important, why this might be the case, and if the right to privacy is in tension with any other rights |
| Lesson 5: Data protection | The theoretical right to privacy is one thing, but ensuring it in practice is another. In this lesson, learners will determine how their data might be stolen, and why. They will then learn how to protect their data from attack.  Building on discussions from previous lessons, learners will first be asked to determine what data they have created or shared online might be valuable, and to whom. They will then be invited to share their own knowledge on how this data could be stolen. After this knowledge sharing, learners will be presented with a series of online attacks such as phishing scams, ransomware, and malware to help formalise their knowledge. Learners will then discuss how they can protect themselves from such attacks and create a script for an online public service announcement that warns users about the threats of malware. | * Evaluate what data created online is valuable, and to whom * Discuss ways in which data might be stolen * Define terms ‘phishing’ and ‘malware’ * Identify ways to protect one’s data online |
| Lesson 6: Fake news | In this lesson, learners will initially be presented with examples of fake and real news and asked to guess which is which. This will be used to have a discussion on the definition of fake news and whether it is always easy to determine whether something can be categorised as fake. They will then discuss who creates fake news and for what purpose. This discussion will be facilitated by some key case studies that appeal to both sides of the political spectrum. The lesson will conclude with an activity on identifying fake news. | * Discuss examples of disinformation spread online * Define the term ‘fake news’ and discuss the quantity of fake news available online * Identify why fake news exists and who creates it * Discuss ways of identifying fake news and other forms of disinformation |
| Lesson 7: Illegal content | In this lesson, learners will first be given some context and examples of what types of content are illegal in the UK, for example websites that facilitate the trade of illegal items, or contain hate speech, terrorist content, or obscene content. They will learn about laws in the UK such as the Digital Economy Act (2017), the Malicious Communications Act (1988), etc. (As opposed to teaching all the laws, the purpose will be to convey that, in the UK, the internet is governed by a piecemeal collection of context-specific laws.) | * Explain why some content online can be potentially harmful * Describe the UK laws governing online content * Discuss why policing online spaces can be difficult * Demonstrate how to report illegal online content |
| Lesson 8: Right to access | Not all internet regulation is the removal of illegal content; some of it may instead be considered censorship. In this lesson, learners will build on their previous discussion of the difficulties in regulating online content, but this time they will focus on how to decide what should and should not be illegal. They will compare the UK context to that of other countries and debate the rights that individuals should have to access content online. | * Discuss how we decide what content should be illegal * Compare UK laws with those in other countries * Discover different technologies used to access and share information online * Debate the right to access information in the context of safety concerns online already discussed in this unit |
| Lesson 9: The bubble | In this lesson, learners will be introduced to the concept of the bubble. They will be asked to draw on their knowledge from the lesson on big data to describe how bubbles might form. This will be illustrated with an exercise in which they recreate the algorithms that reinforce social media bubbles. From this exercise, learners will be asked to discuss why bubbles might be harmful but could also be a positive thing. To do this, they can be prompted with previous topics like fake news and illegal content. Finally, learners will reflect on if they themselves are in a bubble, how they could get out of it, and whether they want to. | * Reflect on how big data and other tools help to target information to specific users * Discuss the impact this might have on different people’s online experiences and the potential disadvantages of living in an online bubble |
| Lesson 10: Protecting myself online | In this final lesson, learners will develop a raft of protection measures they can enact online.  First, learners will be asked to summarise their learning by listing the threats and online safety concerns introduced in the course. Then they will create a list of the ways they want to use the internet. Using the material from previous lessons, they will design a ten-step guide to staying safe online that will help them achieve their online goals in a safe manner. The lesson will conclude with a debate on the topic ‘The internet is too dangerous to use’, to remind students that online spaces can be useful, but their users must be prepared. | * Summarise key aspects of online safety * Contemplate the potential harms of being online * Determine practical actions that can be made to protect oneself online |

## Progression

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

## Curriculum links

[**National curriculum links**](https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study/national-curriculum-in-england-computing-programmes-of-study)

* Understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to report a range of concerns

[**Education for a Connected World links**](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/683895/Education_for_a_connected_world_PDF.PDF)

**Online relationships**

* I can describe actions I could take if I or someone else experiences or is targeted by illegal online behaviour
* I can explain the difference between freedom of expression and legal accountabilities and can discuss appropriate balance between them

**Self-image and identity**

* I can explain how online content can be shaped to influence behaviour and body image (e.g. fashion,

pornography, lifestyle sites)

* I know how to appropriately challenge negative comments or expectations concerning my online identity

**Online reputation**

* In cases where my online reputation may be viewed negatively, I am able to offer reasons and provide context as to why it may not always reflect who I am
* I can describe and assess the benefits of the laws that govern online behaviour and reputation

**Online bullying**

* I can identify and assess behaviours that might be seen as bullying in different online contexts (e.g. close friend groups versus public forums) and adjust my own behaviour accordingly
* I can demonstrate how I would affect positive change in the online groups to which I belong when bullying behaviours arise

**Managing online information**

* I can recognise when and analyse why online content has been designed to deliberately mislead or misinform (e.g. fake news or propaganda)
* I can describe what is meant by ‘big data’ and ‘data analytics’ and how political parties, commercial and other organisations use these; I can evaluate the ethics of such use

**Privacy and security**

* I can describe how data drawn from users of online services can be used or sold to inform other services and organisations; I can give examples of this

## Assessment

Assessment opportunities are highlighted in individual lessons.

## Subject knowledge

This unit focuses on the following key areas of online safety:

* Online reputation
* Right to privacy
* Data protection
* Fake news
* Illegal content
* Right to access
* Big data

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