Privacy and security: what is it?

As described in the UKCCIS 'Education for a Connected World' framework, this unit "explores how personal online information can be used, stored, processed and shared. It offers both behavioural and technical strategies to limit impact on privacy and protect data and systems against compromise."

Introduction to the unit

This lesson covers how personal information can be found online and can be used, saved and shared by others. As a result, students will be able to understand and implement behavioural and technical strategies to help keep their personal information private.

Key learning outcomes

- ✓ To understand why it is important to read terms and conditions of websites.
- ✓ To understand key terms such as viruses, trojans and ransomware.
- ✓ To know how to make browser settings secure and additional ways to secure my data on devices.
- ✓ Understand that there are laws governing privacy and security.
- ✓ Understand that there can be a conflict between national security and privacy.

Key words

- Privacy
- Security
- National security
- Consent
- Malware

Resources

- Weblinks to articles and videos included within activities

Challenge for more able pupils:

Activity 2 – To debate on the advantages and disadvantages of a surveillance systems.

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Learning style predominance of pupils:
(This space is left blank for the teacher to fill in)

SEN provision:
(This space is left blank for the teacher to fill in)

Learning style:
Discussion, assessment

Approximate time altogether:
50 mins

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Activity 1

What is privacy online?

Ask pupils to come up with their own definition of the term 'privacy' and write it down. Next, ask pupils to answer the question 'What role does the internet play in our privacy and personal security?'

Split the class into three groups. Give each group one of the statements listed below. In their groups, they must research their topic and list their findings in order to debate their cause with the opposing teams. Each group must persuade you (the teacher) to choose their side.

Key learning objectives:
To be able to…
- ✓ Define what is meant by 'Privacy'.
- ✓ Understand that there are laws that govern national security.
- ✓ Be able to suggest ways in which people can protect their data on personal devices.

Key learning outcomes:
Pupils will understand and explain what is meant by the term 'privacy'. They will understand that there can be a conflict between national security and privacy. Pupils will be able to give specific examples of how national security could be compromised and specific ways in which the risks could be minimised. They will know how to create a secure password or PIN. They will be able to create an example of a strong password. They will know what steps to take if you suspect your password or PIN has been compromised.

The three statements:
- National Security is more important that personal privacy because…
- Personal privacy is more important than National Security because…
- Both National Security and personal privacy are equally as important because…

After the debate, take a moment to discuss everybody's personal opinions on this matter. Discuss why they believe there is a conflict between national security and personal privacy (there is no right or wrong answers)

Key questions:
- What is privacy?
- What role does the internet play in our privacy and personal security?

Extension activity:
Ask pupils to create a guide that teaches others how to protect and manage data on their personal devices. Pupils can be as creative as they want – they may choose to create a video, poster or a piece of instructive writing that lists strategies and methods to help keep personal data private. Pupils can also choose their own target audience.

Time taken:
20 minutes

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Activity 2

Key learning objectives:
To be able to…
- ✓ Define what GDPR is and the role it plays online.
- ✓ Discuss the unethical use of individuals' data.
- ✓ Explain how the security of data can be compromised and list strategies for ensuring secure management of data.

Key learning outcomes:
Pupils will understand that their private information online could be compromised and can list preventative techniques that they can implement to reduce the risk. Pupils will evaluate the importance of backing up data and will demonstrate how to do this with the work they complete at school.

Key questions:
- What is GDPR?
- What role does GDPR play online?
- What is the purpose of GDPR?
- What are the benefits of GDPR?

General Data Protection Regulation

Ask pupils to work individually to answer the question 'what is GDPR?' (2 minutes). Pupils to feed back to their partner (2 minutes). Nominate pairs to explain what they think 'GDPR' is and the role GDPR plays online in all contexts.

In pairs, pupils must work together to research the consequences of not complying to GDPR from the point of view of a (1) educational institution (2) business/company (3) an individual. Ask pupils to discuss the ethics of companies that use and sell individual's data to inform other services/organisations.
- What's the purpose of this?
- Is it against GDPR?
- What are the benefits of this?
- What are the negative impacts of this?

Extension activity:
Explain that, in some situations, a person or companies' security may be compromised. For example hacking, proxy-bypass, distro, DDOS.
1. Ask pupils to research what the above terms mean and write them down.
2. Ask pupils to research services/programs that promote secure management of devices. For example, two-factor authentication, firewalls, biometrics, user monitoring, VPNs.
3. Explain and evaluate the value of regular data backups. Ask pupils to demonstrate how they might do this for their IT work in school.

Time taken:
30 minutes