



Cyber Attack

Digital Services



Classroom Clash: Cyber Attack

Introduction

Welcome to Classroom Clash! This suite of nine games has been designed to inspire pupils to think about possible future careers.

Each game is linked to an industry important to Scotland's economic growth and where there are lots of opportunities for interesting and successful careers. By playing Classroom Clash, your pupils will be introduced to meta-skills and will start to recognise how these skills can be used in lots of different jobs.

Industries explored within Classroom Clash include:

- **Early Learning and Childcare**
- **Health and Social Care**
- **Construction**
- **Digital Technology**
- **Finance**
- **Manufacturing**
- **Life and Chemical Sciences**



Classroom Clash: Cyber Attack

Learning objectives

Using the Cyber Attack game and [My World of Work](#), you will explore digital careers and discover what skills are required to work in these important job roles. You will learn what a cyber attack is, why they are important and why organisations and governments need to prevent them.

Protect your computer system from cyber attacks by picking the correct anti-virus software and deflecting the viruses as they enter the network.



Success in this lesson will look like:

- I can identify what digital skills I have
- I can identify the different meta-skills needed to work within the digital technologies industries
- I can give examples of careers where digital skills are used
- I understand the difference between different types of cyber attacks
- I understand what digital career opportunities there are in Scotland

Classroom Clash: Cyber Attack

Curriculum links

Technologies: TCH 2-05a; TCH 2-09a; TCH 2-12a

Numeracy & Mathematics: MNU 2-11a

Literacy: LIT 2-04a; LIT 2-07a; LIT 3-07a

Meta-skills

Self-management: [Focusing](#); [Adapting](#)

Social Intelligence: [Collaborating](#); [Communication](#)

Innovation: [Critical thinking](#); [Sense making](#); [Creativity](#)

How did your school do?

- Once the game is finished, input your score to the leaderboard
- Check how well your school has scored compared to others across the nation
- Play again to try and beat your high score!



Well done!

Your final score is

8000

Enter your details to submit your score to the leaderboard

Please note by entering your details, your information will display on the leaderboard and be visible to everyone who selects your school. If you do not want your name displayed, please choose an alias to use instead.

Select your year group

Please select a school

Type your first name here

Submit my score

[Privacy notice](#)

Classroom Clash: Cyber Attack

Follow on learning – 10 min activity

- Using the **Explore careers** profiles on **My World of Work**, find three careers related to digital services and give a brief description of each and where they might work
- Find one career that you might not initially think is a digital role, and demonstrate what digital skills are required for this job role
- From the careers you've found on **My World of Work**, list some of the skills you need to work in the digital services industry
- What subjects do you think would be most useful for working in the digital services industry??

Why not play these additional cyber related games?

- **Cyber Skills Live:** Defend the hospital
- **Google Presents:** Interland – Be internet awesome
- **National Cyber Security Centre:** Cyber Sprinters



Classroom Clash: Cyber Attack

Additional classroom activities

- **Group work cyber challenge:** split class into groups and each research a different type of cyber attack. Challenge each group to create their own social media video, detailing key information on their chosen cyber attack, e.g how it can attack a device, what can be done to prevent it?
- **Design a cyber security campaign:** using either posters/videos/social media, challenge pupils to create a public awareness campaign, promoting safe online practices. Points for the most creative or visually appealing!
- **Cyber security debate:** debate the pros and cons of current defences against cyber attacks and their use in a public setting. What can be done to improve security? Has anyone experienced a cyber attack and what did they do so it wouldn't happen again?



Classroom Clash: Cyber Attack

Different types of cyber attack



Trojan horses

Appears legitimate, but performs some malicious activity when it is run



Adware

Software that causes pop-ups or windows that will not close



Worms

Spreads copies of itself to infect other computers

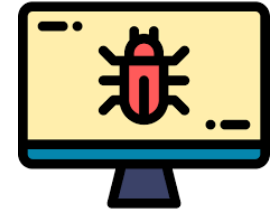


Spyware

Program that is secretly installed on a computer to automatically collect information about the user over a period of time

Viruses

Computer program designed to replicate and damage other computer systems and software



Phishing

An attempt to gain personal information about someone by way of deception, e.g. sending an email pretending to be from their bank asking them for their bank details



Malware

Software that is designed to cause harm or damage to a computer. This includes viruses that might damage files, adware that causes pop-ups, and spyware that collects and shares login details



Ransomware

Encrypts a user's files, then demands a ransom payment to decrypt them



Classroom Clash: Cyber Attack

Related careers

- Ethical hacker
- Finance analyst
- Data analyst
- Forensic computer analyst
- Criminal intelligence analyst
- Data scientist

Useful digital links

- Digital World
- Cyber Skills Live
- Code Academy
- Digital Extra Fund
- Cyber Scotland




Sectoral Skills Assessments

- Digital Technologies



Find your route...

When it comes to your career, there are so many possibilities

- Use [My World of Work](#) to find out about different options
- Research different colleges or universities for any courses that interest you:
 - [Colleges in Scotland – list of members](#)
 - [Universities Scotland – list of members](#)
- Look at [Apprenticeships.scot](#) to learn about the pathways that are available. You can start an apprenticeship whilst still at school and you work towards gaining a qualification while on the job. There are 3 options available:
 - **Foundation Apprenticeship** 
 - **Modern Apprenticeship** 
 - **Graduate Apprenticeship** 



Next Steps

Interested in learning more about this sector?

- Make an appointment to speak to your school careers adviser
- Check out the related [Digital technologies](#) industry pages on [My World of Work](#)
- Do some research on related careers by checking out the Explore careers pages on [My World of Work](#)
- Listen to industry experts explain their roles within the sector by watching the [Virtual Meet the Expert](#) videos
- Find out about routes into work and careers by checking out [Apprenticeships.scot](#)

