

Lesson 2: What are the effects of cybercrime?

Key stage 3: Year 8

This is the second of two lessons on cybercrime, designed with the support of the National Crime Agency (NCA) and National Cyber Crime Unit (NCCU) for teachers to explore the causes and effects of cybercrime for young people and increase their resilience to cybercrime.



Learning objective

To learn about the impact of cybercrime and strategies to avoid or exit risky situations relating to cybercrime



Learning outcomes

By the end of the lesson, students will be able to:

- explain the consequences of cybercrime, for the perpetrator and the target
- recommend alternative pathways for someone at risk of committing cybercrime



Climate for learning

Make sure you have read the accompanying teacher guidance notes before teaching this lesson for guidance on establishing ground rules, the limits of confidentiality, communication and handling questions effectively.



Resources required

Box or envelope for anonymous questions



Lesson 2: PowerPoint



Resource 1: Consequences diamond 9



Resource 2: Who can help scenarios



Resource 3: Comparing online & off-line crime



Resources from lesson 1 - Explain to an alien sheets completed by students, Exit cards completed by students

Key words

Cybercrime, consequences, Computer Misuse Act, criminal record, hacking, DDoS, online, off-line

Activity	Description	Timing
1. Introduction	Outline the objectives, outcomes and ground rules.	-
2. Reconnecting activity	Students can select their level of response to remind themselves of Bobbie's story from lesson 1	10min
3. Responding to questions	Answer students' questions from exit cards completed in lesson 1	5min
4. Attitude continuum	Students debate attitudes about the consequences of cybercrime	10min
5. Diamond 9	Students use a card sort to evaluate the consequences of committing a cybercrime	10min
6. Who can help?	In four groups, students reflect on who could help Bobbie and the different help they could provide	10min
7. Endpoint assessment	Summarise student progress by revisiting the 'explain to an alien' baseline assessment from lesson 1	10min
8. Reflection	Remind students where they could access sources of support	5min

Baseline assessment

Introduction

Revisit ground rules and remind students of the anonymous question box where they can submit questions during the lesson. Share the learning objectives and outcomes with students using **slide 2**.



Reconnecting activity



Show **slide 3** and allow students to select their level of response to reconnect with Bobbie's story from lesson 1, either:

- Recall basic facts about the story
- Explain the reasons behind what happened
- Predict what might happen next
- Advise what Bobbie could do next

Take feedback, encouraging students to recount details of Bobbie's story.

Core activities



Responding to student questions



Using the exit cards from lesson 1, respond to any student questions that were identified and have not already been answered or won't be answered by later content.

If it has not already been discussed, show **slide 5** and introduce the Computer Misuse Act 1990. Explain that Bobbie is breaking the law under the final bullet point, because he is creating a Distributed Denial of Service (DDoS) and using it to attack the bank's website.



Attitude continuum



Using **slide 6**, present students with each statement about the impact of cybercrime. Students could move to different sides of the room to represent their attitudes, or could copy the continuum into their books and add statements along the line from 'strongly agree' to 'strongly disagree'.

Ask for volunteers to share their views about each statement and highlight the following key points:

- *Hacking is never a victimless crime – the use of computers in people's everyday lives means that cyber-attacks affect lots of individuals in terms of their security, personal details, trust in public services, ability to use online accounts, security software on personal devices etc.*
- *Many hacking groups claim to be carrying out cyber-attacks for political or moral reasons, but this is often not the case, they are also often profiting from the attacks. Whatever the reason, cybercrime is an offence and there are far better ways for someone to express their discontent legally.*
- *Whether banks have the money or not to manage a cyberattack does not change the illegality of Bobbie's actions. Profits that banks generate are – like any other business- used to keep the bank open, pay their employees etc. and should not have to be used to respond to criminal attacks.*
- *Customers will suffer, and are likely to experience disrupted service. In some previous cases, customers' personal information has been leaked, their bank accounts have been frozen so they cannot access money to make essential payments, etc.*
- *Regardless of Bobbie's age or reasons for carrying out the attack, this is just as real as any cyberattack and will cause the bank significant problems with their customers, reputation and expense.*



Diamond 9



Show **slide 6** and ask students to reflect on what might happen to Bobbie if he carries out a cyber-attack on a bank's website. Students should order the cards of consequences into a diamond 9, showing which consequences they think are most likely to happen down to the least likely.

Take feedback, emphasising that there's no one correct answer and that while some consequences are more likely than others, all are possible consequences of committing a cybercrime.



Who can help?



Divide the class into four groups and assign each group a character (either Friends, parents, ICT teacher or police). The characters are displayed on **slide 7** or hand out **Resource 2: Who can help** scenarios.

Working in groups, ask students to discuss the following questions (also shown on **slide 8**):

- i. How might they be thinking and feeling about Bobbie's actions?
- ii. What could they do to help?
- iii. What might they say to Bobbie?
- iv. Why might Bobbie be worried about talking to them?

Take feedback from the class, highlighting the importance of other people in Bobbie's life noticing his change in behaviour and that these may be clues that something is wrong. Bobbie's parents and friends might not be clear about what is happening, but if they are concerned, they should talk to someone about their worries. Both Bobbie's teacher and the police will want to find ways to redirect Bobbie's talents and skills into more positive routes.



Challenge question

Overall, whom might be best for Bobbie to talk to and why?

Plenary/ Assessment of learning



Endpoint assessment



Hand students back their 'Explain to an alien' baseline assessments from lesson 1 and ask them to revisit their initial ideas. With a different coloured pen, students should add new knowledge, understanding or make any changes to their original ideas as a result of their learning.



Reflecting on today's learning & signposting support



Using **slide 11**, highlight sources of support for young people, including both anyone who thinks they may have been a target of cybercrime, and anyone who thinks they might have perpetrated (or been encouraged to perpetrate) a cybercrime.

Sources of support should include both in-school support and local or national organisations.

Extension activity →

Comparing online and off-line crime



Using the prompts **Resource 3: Comparing online and off-line crime**, ask students to consider the impact of committing both an online (identity theft) and an off-line (burglary) crime. Ask students to reflect on the similarities and differences between online and off-line crime.

Taking learning online



If time allows, students can free access online learning modules on www.cyberaces.org

Or visit <https://coderdojo.com/> where students can visit a Dojo to learn to code, build a website, create an app or game and explore technology in an informal, creative and social environment.

www.cyberfirst.ncsc.gov.uk – This GCHQ-led initiative hosts a range of whole school projects and competitions to engage students in developing their computing skills, including Cyber Discovery for 14-18 year olds and the Girls competition, aimed at encouraging girls into computing careers.

The benefits of a cyber career



Ask students to list the benefits for Bobbie of pursuing a career in cyber security – why might he benefit from a job like this?

You may wish to share the Digital Defenders poster with students to prompt ideas.

www.inspirecareers.org/DigitalDefenders.pdf