

3.6.1.2 Malicious code

Lesson plan and printable activities

Materials needed

1. 3.6.1.2 [Lesson](#) PowerPoint.
2. 'What is malware?' [cartoon strip](#).
3. 'Malicious code taboo' [game](#).

Starter activity (5 minutes)

1. Slide 2: Activity – Thought shower

Students should go onto Wordle.net and select 'create'. They should think of as many words as possible associated with the term 'malicious code'.

2. **Slide 3:** Check key words that students have included in their Wordle. Leading on from the key words that the students feedback, ask if they know what 'malware' is.

Differentiation: Students make the definition for the term 'malware', sentence starters or a gap fill could be given for students who need additional support.

3. **Slide 4:** Discussion and questions leading into the topic. There is a video link on malware for students to confirm the definitions that they have created.

Main activities (35 minutes)

1. **Slide 5:** Introduction to the objectives of the lesson.

2. **Slide 6:** Forms of malware that students need to know about are listed in the notes section, with some supporting links.

3. Slide 7: Activity – What is malware?

Students should develop a cartoon strip for the forms of malware. This can either be printed for students to write on, or they can edit their own Word documents. Students should find images to represent each section of the cartoon strip. The cartoon strip will also need students to add notes about preventing the form of malware.

Assessment opportunity: Assess the completion of the cartoon strip.

Alternatives: Depending on the ability of the class, the teacher may wish to give students a brief outline of the four forms of malware that need to be covered (using the notes section from slide 6 or independent research).

3.6 Fundamentals of cyber security

Extension opportunity: Students research and read up on other forms of malware, such as ransomware, and also research antivirus software and its limitations.

Plenary (5 minutes)

4. Slide 8: Activity – Malicious code taboo

Students must describe the word at the top of the card, but they cannot use the five words listed below. The audience must guess the word they are describing. A time limit could be added to give an element of competition. This is a good activity to consolidate the learning that has taken place and would be good to use again at revision time. Students could hot seat and have one person at the front of the class that attempts all cards, or cards could be duplicated and the task could be completed in small groups. Another alternative would be to create teams, eg Team A versus Team B.

Lesson

3.6 Fundamentals of cyber security

3.6.1.2 Malicious code

Lesson

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Starter activity: Thought shower

Create your own Wordle using this link:
wordle.net

Try to think of as many key words as possible related to the term 'malicious code'.

TIME UP

Start

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Starter activity

What key words did you include in your Wordle?

What is 'malware'?

Could you make a definition for the term 'malware'?

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Discussion

Now you have a definition of malware:

- What are the threats of malware?
- Can you think of examples of malware?
- What are the ways that malware can be protected against?
- Were you right?

[youtube.com/watch?v=UFPCEVgTq38](https://www.youtube.com/watch?v=UFPCEVgTq38)

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Objectives

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Forms of malware

Computer virus	Trojan
Spyware	Adware

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Activity: What is malware?

Create a cartoon strip for the different forms of malware.

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Plenary: Malicious code taboo

Guess the word that the person is describing – they must not use the five words on their card!

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'What is malware?' cartoon strip

Malware is	
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What is it?	What does it do?	How can you protect against it?
Describe pictures here	Describe pictures here	Describe pictures here
Computer virus		

What is it?	What does it do?	How can you protect against it?
Describe pictures here	Describe pictures here	Describe pictures here
Trojan		

What is it?	What does it do?	How can you protect against it?
Describe pictures here	Describe pictures here	Describe pictures here
Spyware		

What is it?	What does it do?	How can you protect against it?
Describe pictures here	Describe pictures here	Describe pictures here
Adware		

Malicious code taboo

<p>Malware</p> <p>Software Intrusive Computer Virus Worms</p>	<p>Trojan</p> <p>Malware Access Disguise Software Install</p>	<p>Adware</p> <p>Advert Pop-ups Software Program Downloads</p>
<p>Virus</p> <p>Code Corrupt Destroy Computer Malicious</p>	<p>Spyware</p> <p>Information Gather Covert Record Software</p>	<p>Antivirus Software</p> <p>Detect Prevent Remove Viruses Malicious</p>