

**TOPIC: Cyber Security Threats: Removable media and Unpatched and/or outdated software**

**LEARNING OBJECTIVES:**

- What is removable media
- Using removable media
- Potential cyber security threats from removable media

	Teacher Activity	Pupil Activity
<b>Starter activity</b> (5-10 mins) [individual/paired or group]	<p><i>What is removable media?</i></p> <p><i>Any type of storage device that can be removed/unplugged from a computer (used to transfer any form of media between computers or devices).</i></p> <p><b>Examples</b> CD, USB, DVD, Blu ray, MP3 player, floppy disk (not that anyone will know what that is), hard drives, memory cards (SD, micro)</p>	<p>Discuss (individual/paired or group)</p> <p>Hands up if you have a memory stick?</p> <p>Hands up if you found a USB on the floor or in a class room, you would plug it in your computer to see if there is coursework with a name on it to return it?</p>

<p><b>Main activity one</b> (15 mins)</p>	<p><i>Using removable media:</i></p> <p><i>Are they secure?</i></p> <p><i>(Could make fake files on a USB and plug it in to show if you did find one and just view it)</i></p> <p><i>Why?</i></p> <p><i>Personal computer - Could contain a virus/worm/Trojan, if you run a Trojan it could steal your details, could delete your files</i></p> <p><i>Large network (e.g. schools/companies) - viruses can infect network, steal data -&gt; could then be used for fraud</i></p> <p><i>What about using a USB in a company that is not password protected do you think this is a bad idea?</i></p> <p><i>If stolen or lost, anyone can access company information could be used against them, leak secrets</i></p>	<p>Discuss (individual/paired or group)</p> <p>Hands up if you saw a file on a USB called "Answers to this week's test" would you open it?</p> <p>Hands up if you saw a file on a USB called "all my passwords" would you open it?</p> <p>Hands up if you saw a file on a USB called "my Christmas list" would you open it?</p> <p>Hands up if you think that plugging in a rouge USB could be bad idea?</p>
<p><b>Plenary one</b> (5-10 mins)</p>	<p><i>Assess learning against the learning objectives</i></p> <p><i>This is an open activity whereby the teacher will decide on the best approach to do this based on the pedagogical approach your school takes on assessment.</i></p>	<p><b>For example:</b></p> <ul style="list-style-type: none"> <li>• 5 minute timed writing exercise on what has been learned so far</li> <li>• Fill in class notes</li> <li>• Have a discussion</li> <li>• Answer open questions</li> <li>• Answer directed questions</li> </ul>

<p><b>Main activity two</b> (15 mins)</p>	<p><b>Potential cyber security threats from removable media:</b></p> <ul style="list-style-type: none"> <li>• Increased risk of data leaks – if lost or stolen</li> <li>• Exploits vulnerabilities – devices that could be used to access and then infect a network</li> <li>• Infections – viruses, worms, Trojans, RATs (remote access tools - remote user has a back door on to the computer)</li> <li>• Swapping files between home and work computers can cause a mix of personal and private data</li> </ul> <p>What ways could a company be protected against removable media?</p> <ul style="list-style-type: none"> <li>• No disk drives in computers</li> <li>• all devices that are connected will need to be encrypted so will either ask for a password or will ask you to encrypt first</li> <li>• AV scans on devices</li> <li>• Have rules and policies in place</li> <li>• Educate employees</li> </ul> <p>Why is outdated software a threat? Vulnerable to attacks Vulnerable to new viruses</p> <p>Protect software: Always update</p>	<p>Discuss (individual/paired or group)</p> <p>What are the cyber threats from removable media</p> <p>Mind storm ideas &gt; note down top 3 ideas and explain why</p> <p>How can companies protect themselves against removable media threats?</p> <p>Mind storm ideas &gt; note down top 3 ideas and explain why</p> <p>Why is outdated software a threat? Mind storm ideas &gt; note down top 3 ideas and explain why</p>
<p><b>Plenary two</b> (5-10 mins)</p>	<p>Assess learning against the learning objectives</p> <p>This is an open activity whereby the teacher will decide on the best approach to do this based on the pedagogical approach your school takes on assessment</p>	<p><b>For example:</b></p> <ul style="list-style-type: none"> <li>• 5 minute timed writing exercise on what has been learned so far</li> <li>• Fill in class notes</li> <li>• Have a discussion</li> <li>• Answer open questions</li> <li>• Answer directed questions</li> </ul>
<p><b>Homework (optional)</b></p>	<p>Teacher choice based on homework policy of school.</p>	

**Key Terms: Removable media and Unpatched and/or outdated software**

<p><b>RATs</b></p>	<p>Remote access tools - remote user has a back door on to the computer</p>
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