

## Year 7- HT3 – Internet Safety, Cyber-Security and Encryption

Keywords:	
<b>Antivirus software</b>	A software program that scans the computer for known malware and prevents it from harming the device.
<b>Firewall</b>	hardware or software that monitors communications coming in from and going out to the internet. Looks for and blocks unauthorised communications from malware, preventing the malware from completing its task.
<b>Encryption</b>	converts information or data into a code preventing unauthorised users from understanding the information. Original message- Plain text, Encrypted message- Ciphertext. An encryption algorithm uses ciphers.
<b>Spam</b>	Unwanted emails that are sent to large number of recipients, usually advertising a product or service. Spam emails can also be used to spread malware or for phishing.
<b>Phishing</b>	Try to gain information through deception over email or text. Sender may pretend to be a reputable company or your bank.
<b>Malware</b>	Various programs that try to do something unwanted to your computer. Examples are <b>Virus, Trojan, Spyware, Worm</b>
<b>Virus</b>	Harms your computer by deleting or altering files and stopping programs from running.
<b>Trojan</b>	Begins by pretending to be a trusted file, however, gives unauthorised access (using a computer without permission) to your computer when you run it.
<b>Spyware</b>	Collects information from your computer and passes it on to a third party.
<b>Worm</b>	A virus that replicates itself. Worms may multiply many times and take up all the memory on your computer.
<b>Digital footprint</b>	Everything online is monitored; data is saved about you even if you delete it.
<b>Cyber bullying</b>	When technology is used to bully someone
<b>Brute force attack</b>	Trying every possible combination of letters, numbers, and symbols to 'guess' your password and eventually able to login to your account- can be done via a computer program/software.
<b>Shoulder surfing</b>	Someone looks over your 'shoulder' as you enter your password on a computing device.
<b>Password policy</b>	A set of rules for passwords, that everyone in an organisation must follow. <i>E.g., 'Your password will expire today- you must change your password now.'</i>

### Tips to stay safe online:

1. Use **strong passwords**- a good password includes 3 random words, upper and lower case, numbers and special characters. Have different passwords for different accounts and applications and use two-factor authentication. Always keep a different password for your email- your password can be reset through your email!
2. **Install and run antivirus software** on your computer/devices.
3. **Check/update software regularly and firewall settings (if needed).**
4. **Encrypt your USB/pen drive/flash drive.**
5. **Be aware of security risks** such as spam, phishing, malware.
6. **Follow/apply on-line etiquettes.**



# Computing - Knowledge Organiser



How to identify a phishing e-mail:

Were you expecting an email from this sender?

Sender email address is from your organization, but could be spoofed.

From: IT <IT@madani.leicester.sch.uk>  
Reply-to: IT <IT@madani.leicester.sch.uk>  
Subject: Create your new password now

Ambiguous salutation. (Example: "Dear user")

Dear Google User,

Your organization has initiated a password reset. Please create your password within 72 hours or your account may be suspended and will need to be reactivated by your administrator.

Warns of negative consequence if you don't complete request.

[Create Your New Password](#)

Hover over the link. Link does not take you to the site the email content says it will.

Do not forward or give your new password to anyone. Please check your security settings to ensure your account is safe.

Sincerely,  
The Google Accounts Team

General etiquettes and considerations when on-line:

- ✓ Be careful when sharing personal information and only use websites you trust.
- ✓ Always be respectful and polite
- ✓ Remember that nothing is private online
- ✓ Use correct grammar and punctuation
- ✓ Be accurate and factual

Everything you do online is monitored in some way, this could be in school, on social media or when gaming. The things you upload will remain forever, even if you delete them later, you don't know who has saved your uploads.

**Cyber bullying** can involve:

- Sending offensive texts or emails
- Posting lies or insults on social networking sites
- Sharing embarrassing videos or photos online

If you are being bullied online, follow these steps:

Don't retaliate- the bully usually wants a reaction.

Save the evidence for proof of what has happened.

Talk to an adult you trust, like a parent or teacher.

Report, block and mute the bully.

**No one deserves to be bullied**

References (Licence- free to share and use):

[Online dangers - Online safety - KS3 Computer Science Revision - BBC Bitesize](#)

[AVG-ResellerLogo.jpg \(2500×1377\) \(electrorincon.com\)](#) [norton-security-box-image-from-nortondotcom.png \(406×591\) \(exactdn.com\)](#) McAfee Total Protection 2021 | Beyond Antivirus