SUBJECT: Computing

UNIT: 8.4 Internet Safety

Digital footprint Everything that you post online on a social media platform leaves a digital footprint. This is the data that you leave behind such as posts, photos, location data, which can be used to create a profile of someone.

SANDHILL VIEW

Privacy settings should always be set so that only people you know and trust can see your posts.

Passwords The most commonly used passwords are: password, qwerty, 12345, 1111, password1. The names of local football teams and celebrities are also commonly used passwords.

It's a terrible idea to use one of the most commonly used passwords. They are easy to guess and can be quickly identified with a brute force attack. If someone wants to log into your account but doesn't know the password, they can use a computer program that tries every possible combination of letters, numbers, and symbols until it breaks in. The software will try the most common passwords first, so the more common your password the quicker it will be identified.

Shoulder surfing It is surprisingly easy for someone to look over your shoulder as you enter your password. This is why you should be especially careful entering passwords into your devices in public places.

Password policy This is a set of rules for passwords, that everyone in the organisation has to follow. Here are some rules that many organisations have: Passwords must be a minimum length. Password must contain a mixture of upper-case and lower-case letters, digits and special characters. There is a time limit on each password and users are forced to change their password frequently. This means that, even if a password is compromised, it will be changed shortly.

Malware There are many different types of malicious software that can target a digital device or system.

Malware prevention includes trying to stop malware infecting a system in the first place, and software to detect and remove any suspicious files. Updating operating systems and software regularly is important to fix security flaws.

Encryption Encryption is used to scramble data so that it cannot be understood if it is intercepted. Computers systems use very sophisticated encryption methods.

Some simple ciphers (encryption algorithms) include the Atbash Cipher, Caesar Cipher and Keyed Caesar Cipher.

Use a grid like the one below to write out the Ciphertext for each Plaintext letter, so that you can encrypt and decrypt messages.

Plaintext	А	В	С	D	Е	F	G	Н	Ι	J	К	L	М	Ν	0	Ρ	Q	R	S	Т	U	V	W	Х	Υ	Ζ
Ciphertext																										