Security, privacy and data integrity

A-Level Computer Science · Vocabulary in context

Word	Example
security /sɪ'kjʊərɪti/	Passwords help keep the data's **security**.
privacy /'prɪvəsi/	**Privacy** means people control who sees their information.
integrity /ɪn'tegrɪti/	Data **integrity** means the data is correct and complete.
unauthorised /ʌn'ɔ:θəraɪzd/	**Unauthorised** users must not see the data.
validation /ˌvælɪ'deɪʃn/	**Validation** checks that an age is between 0 and 120. 0 120
verification /ˌverɪfɪ'keɪʃn/	**Verification** checks that the data was typed in correctly.
malware /'mælweə/	A virus is a kind of **malware**.
ransomware /'rænsəmweə/	**Ransomware** locks your files until you pay.
networks /'netwɜ:ks/	Hackers attack **networks** to steal data.
man-in-the-middle /mæn ɪnðə 'mɪdl/	In a **man-in-the-middle** attack, someone reads messages between two people.
virus /'vaɪrəs/	A **virus** copies itself into other files.
worm /wɜ:m/	A **worm** spreads by itself across a network.
Trojan horse /'trəʊdʒn hɔ:s/	A **Trojan horse** looks like a useful program but is harmful.

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spyware /'spaɪweə/	**Spyware** watches what you type.
adware /'ædweə/	**Adware** shows unwanted adverts.
phishing /'fɪʃɪŋ/	A **phishing** email asks for your password.
pharming /'fɑ:mɪŋ/	**Pharming** sends you to a fake website.
social engineering /'səʊʃl ˌendʒɪ'nɪərɪŋ/	**Social engineering** tricks people into giving away secrets.
hacking /'hækɪŋ/	**Hacking** means getting into a computer without permission.
hackers /'hækəz/	**Hackers** tried to break into the school's network.
denial of service /dɪ'naɪəl ɒv 'sɜ:vɪs/	A **denial of service** attack floods a website with requests.
eavesdropping /'i:vzdrɒpɪŋ/	**Eavesdropping** means secretly listening to messages.
firewall /'faɪəwɔ:l/	A **firewall** blocks unsafe data.
two-factor authentication /tu: 'fæktə ɔ:ˌθentɪ'keɪʃn/	**Two-factor authentication** asks for a password and a code from your phone.
authentication /ɔ:ˌθentɪ'keɪʃn/	A password is a kind of **authentication**.
encryption /en'krɪpʃn/	**Encryption** makes the message unreadable to others.
backup /'bækʌp/	Make a **backup** of your work every day.
user accounts /'ju:zə ə'kaʊnts/	The school system has **user accounts** for all students.

Word	Example
audit logs /'ɔ:dɪt lɒgz/	**Audit logs** record who opened each file.
ciphertext /'saɪfətekst/	The encrypted message is **ciphertext**.
access rights /'ækses raɪts/	Students have **access rights** to read the file, but not change it.
anti-spyware /'ænti 'spaɪweə/	**Anti-spyware** finds and removes spyware.
biometrics /ˌbaɪəʊ'metrɪks/	A fingerprint scanner uses **biometrics**.
VPN /ˌvi: pi: 'en/	A **VPN** keeps your connection private.
digital signatures /'dɪdʒɪtl 'sɪgnɪtʃəz/	**Digital signatures** show who sent a message.
private key /'praɪvət ki:/	Keep your **private key** secret.
public key /'pʌblɪk ki:/	Anyone can use your **public key**.
authorisation /ˌɔ:θəraɪ'zeɪʃn/	**Authorisation** decides what a user is allowed to do.
least-privilege /li:st 'prɪvɪlɪdʒ/	Under **least-privilege**, users get only the access they need.
plaintext /'pleɪntekst/	The message before encryption is **plaintext**.
Symmetric encryption /sɪ'metrɪk en'krɪpʃn/	**Symmetric encryption** uses the same key to lock and unlock.
asymmetric encryption /ˌeɪsɪ'metrɪk en'krɪpʃn/	**Asymmetric encryption** uses a public key and a private key.

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Word	Example
access control /'ækses kən'trəʊl/	**Access control** decides who can open a file.
check digit /tʃek 'dɪdʒɪt/	The last number in a barcode is a **check digit**.
parity check /'pærɪti tʃek/	A **parity check** counts the number of 1s. 1
checksum /'tʃeksəm/	The **checksum** shows if the data changed on the way.
cyclic redundancy check /'saɪklɪk rɪ'dʌndənsi tʃek/	A **cyclic redundancy check** finds errors in sent data.
parity block check /'pærɪti blɒk tʃek/	A **parity block check** can find which bit is wrong.