National Cyber Security Centre
a part of GCHQ

Atom IT

Cyber Security Training For School Staff

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a part of GCHQ

Atom IT

Agenda

- School cyber resilience in numbers
- Who is behind school cyber attacks?
- Cyber threats from outside the school
- Cyber threats from inside the school
- 4 key ways to defend yourself

School cyber resilience in numbers

* Cyber security schools audit 2019

83%

of schools experienced some form of cyber security incident

49%

of schools confident that they are adequately prepared in the event of a cyber attack

69%

of schools suffered a phishing attack

97%

of schools said that losing access to IT services would cause considerable disruption

65%

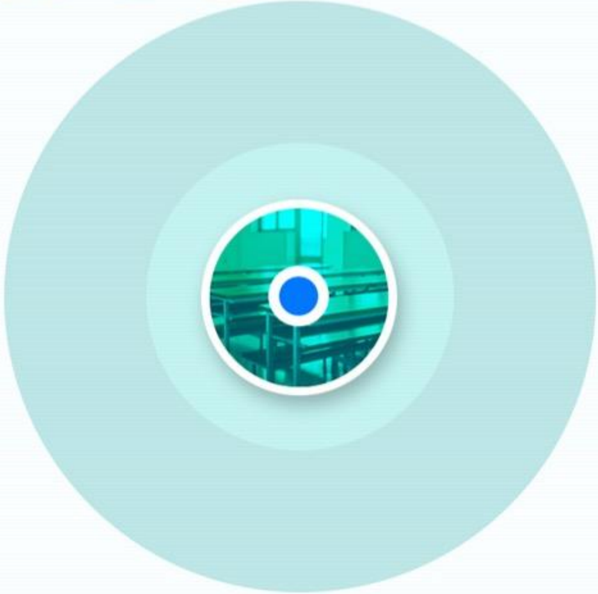
of schools don’t train non-IT staff on cyber security

Who is behind cyber attacks?

- Criminals that might wish to target your school for financial gain.
- Criminals that have identified a potential weakness in the school's technology or processes.
- Staff or pupils that could be responsible for attacks either intentionally or accidentally.

Why would they target my school?

- Schools hold lots of sensitive data that can be very valuable.
- Lots of financial transactions signed off by one person.
- May be seen as a soft target.
- Don’t have dedicated security and fraud teams.
- IT may be older and therefore more vulnerable.



Cyber threats from outside the school

Online criminals

Case Study – Fraud and ransomware

‘Payment fraud’ and ransomware attacks in schools

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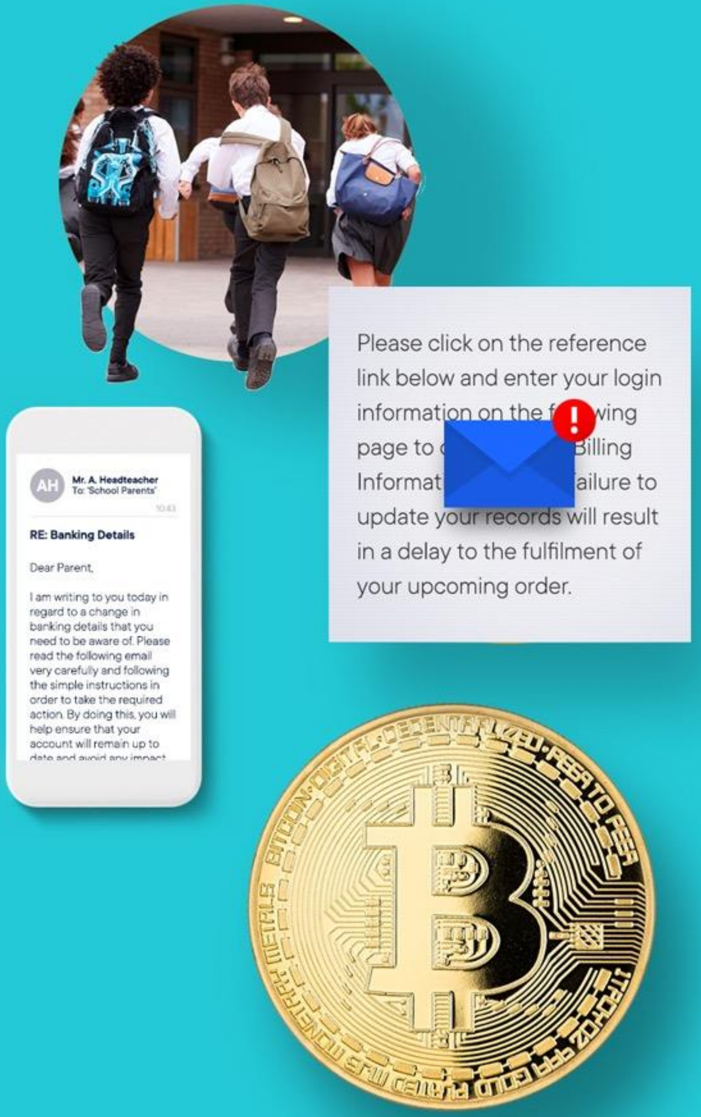


AH Mr. A. Headteacher
To: 'School Parents'
10:43

RE: Banking Details

Dear Parent,

I am writing to you today in regard to a change in banking details that you need to be aware of. Please read the following email very carefully and following the simple instructions in order to take the required action. By doing this, you will help ensure that your account will remain up to date and avoid any impact

Please click on the reference link below and enter your login information on the f wing page to c Billing Informat ailure to update your records will result in a delay to the fulfilment of your upcoming order.

Case Study – Ransomware

Phone call from someone pretending to be from the DfE

Phone call from DfE →

Asked for email details of head of finance →

Dear Sir,

I am writing to you following an initial conversation with your sc st, with regard update rtment for Education. The following email outlines several steps that you need to take in

Sent targeted email →

Files encrypted →

Spread through the network →

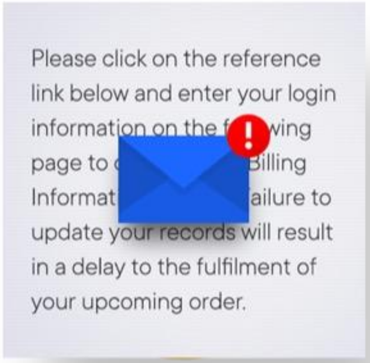
Demanded £8,000 for decryption

Case Study – Fraud

Independent school parents targeted by ‘payment fraud’ scam

Independent school targeted

→



Please click on the reference link below and enter your login information on the f wing page to c Billing Informat ailure to update your records will result in a delay to the fulfilment of your upcoming order.

Phishing attack led to the compromise of email

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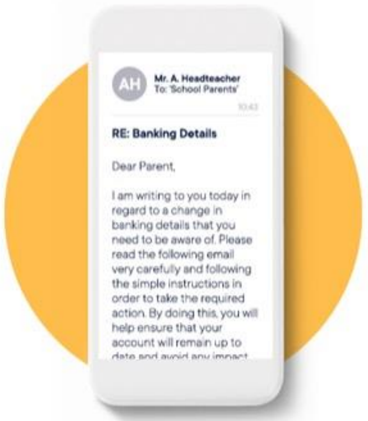

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Email sent to parents informing of banking detail change

→

Parent’s school fees stolen and details sold on for identity fraud

Foreign government actors

Cyber threats from inside the school

Pupils

Case Study – Password management

School hacked by pupil broke Data Protection Act

The case study will automatically play when progressing to the next slide

Case Study – Password management

School hacked by pupil
Broke Data Protection Act

USER

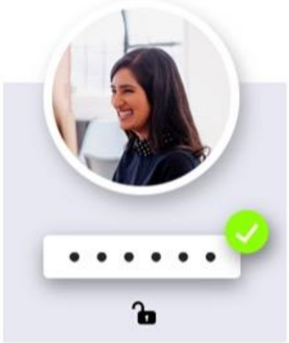
Miss Smith (teacher)

PASSWORD

● ● ● ● ● ●

LOG IN

Accessed school MIS →



Used teacher's password →

20,000 records involved →

Duplicate passwords used →

ico.

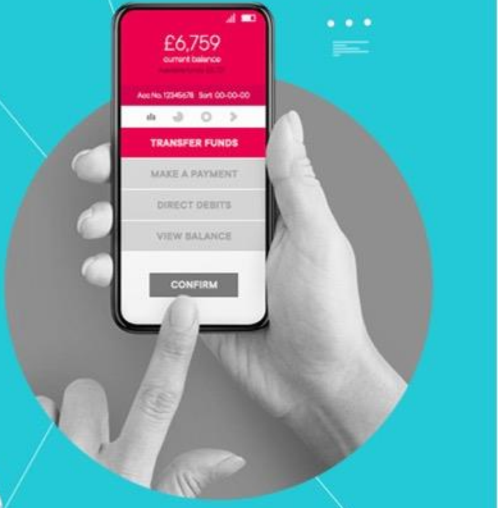
Information Commissioner's Office

Disciplined by ICO

Staff

Case Study – Access control

IT manager convicted after school's computer network hacked



Case Study – Access control

IT manager arrested after school's computer network hacked

School IT manager

→

Taking school money

→

Access to CCTV systems

→

Wiped everything when caught

Accidental cyber incidents

Case Study – Secure storage

School USB stick loss exposes pupil data

The case study will automatically play when progressing to the next slide

Case Study – Secure storage

School USB stick loss exposes pupil data

Unencrypted USB stick with thousands of pupils details

→

Removed from school and lost

→

Handed back in and reported to ICO

4 key ways to defend yourself

- Defend against phishing attempts.
- Use strong passwords.
- Secure your devices.
- If in doubt call it out.

1. Defend against phishing attempts

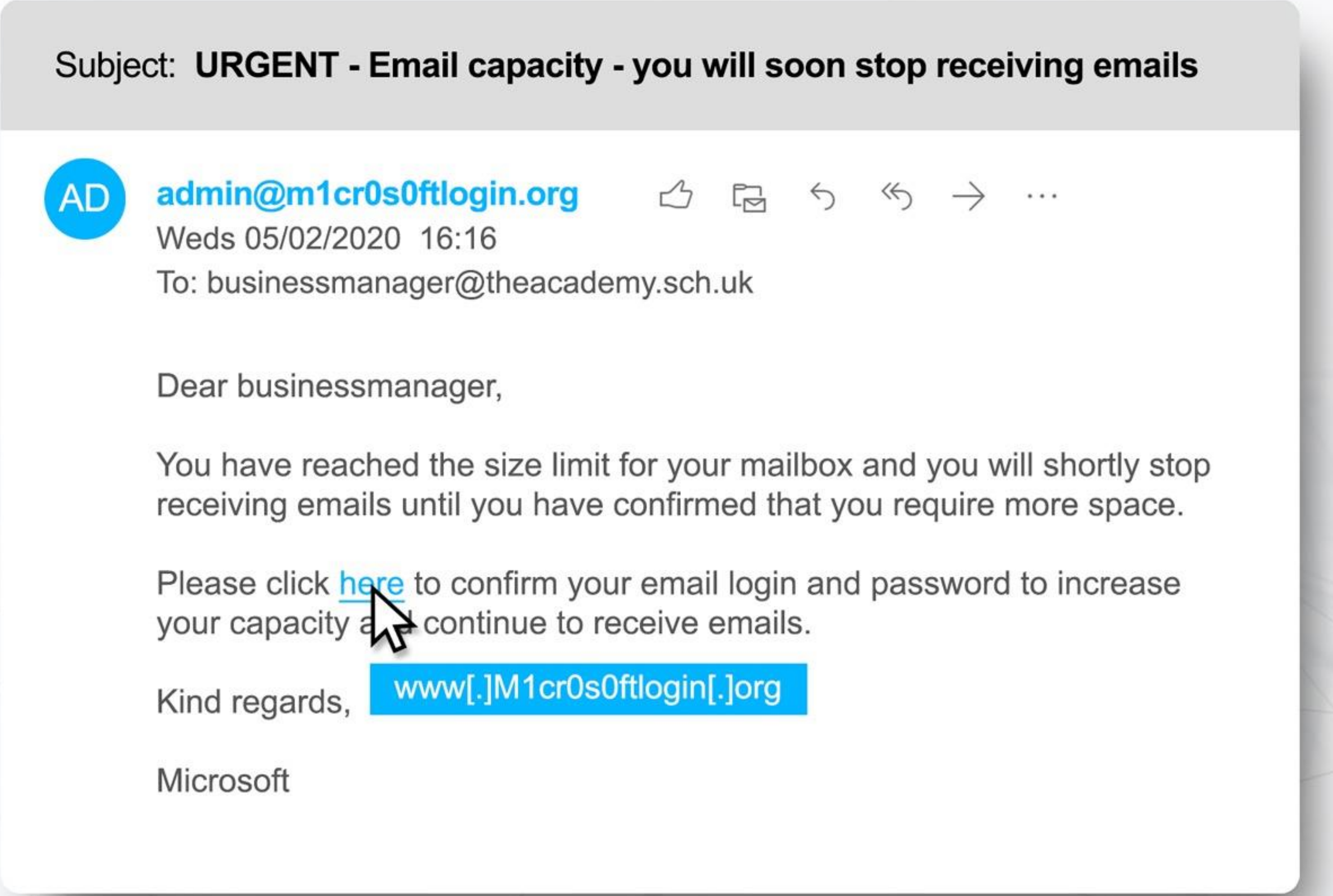
National Cyber Security Centre

Phishing

Untargeted, mass emails sent to many people asking for sensitive information (such as bank details) or encouraging them to visit a fake website.

www.ncsc.gov.uk/glossary

Phishing example



Subject: **URGENT - Email capacity - you will soon stop receiving emails**

admin@m1cr0s0ftlogin.org

Weds 05/02/2020 16:16

To: businessmanager@theacademy.sch.uk

Dear businessmanager,

You have reached the size limit for your mailbox and you will shortly stop receiving emails until you have confirmed that you require more space.

Please click here to confirm your email login and password to increase your capacity and continue to receive emails.

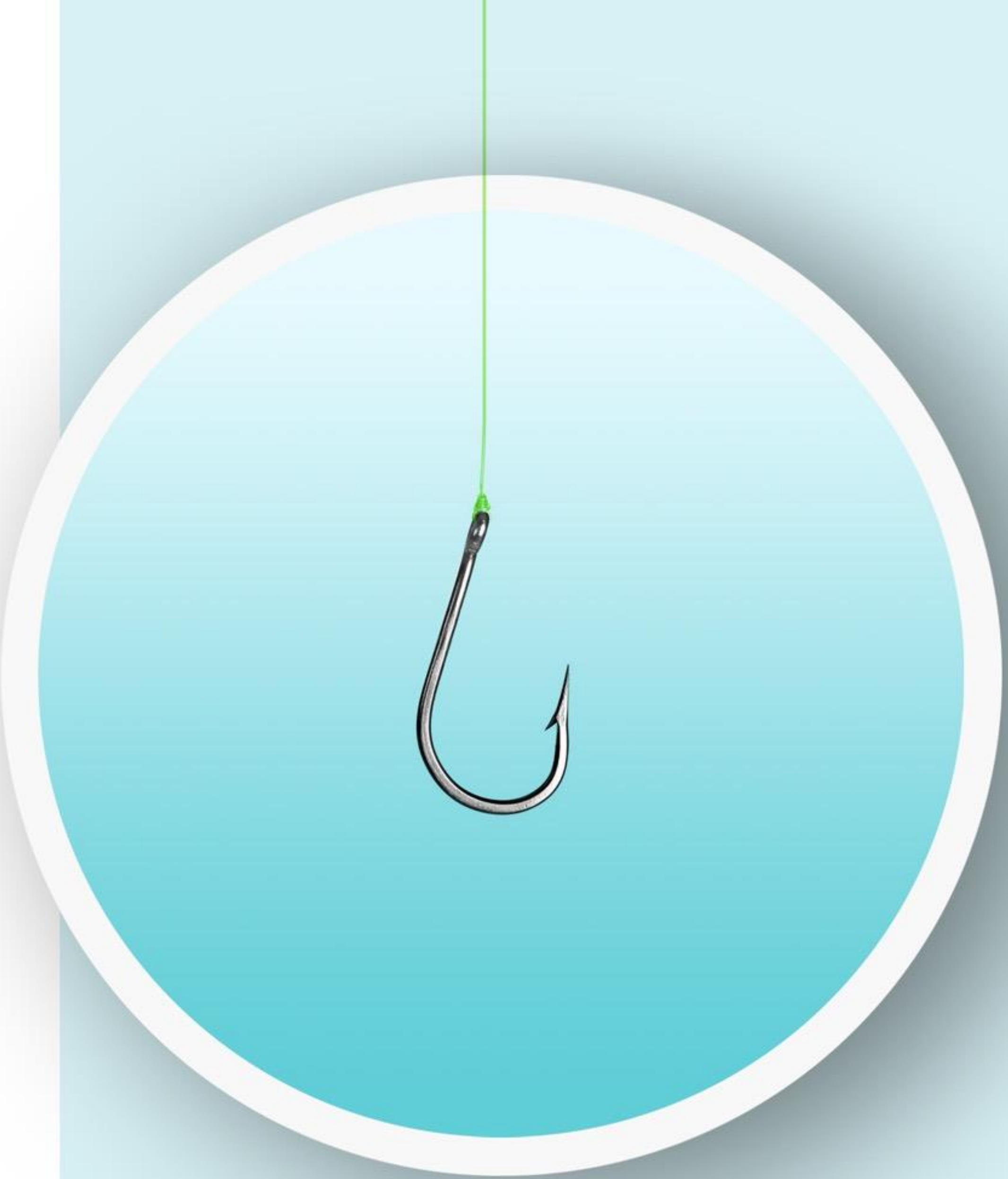
Kind regards,

www[.]M1cr0s0ftlogin[.]org

Microsoft

1. How do I defend myself against phishing attempts?

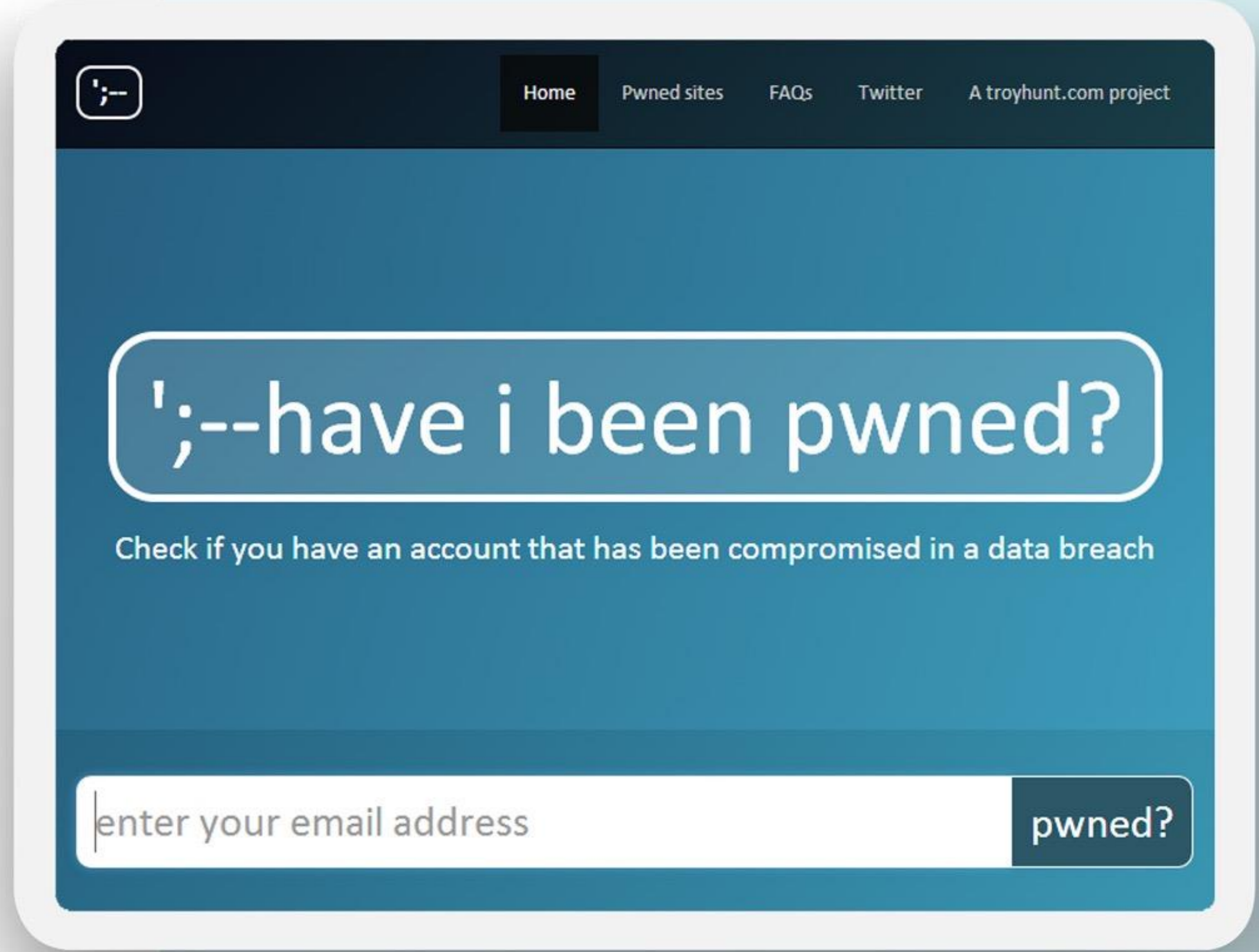
1. Reduce the information available to attackers.
2. Know the influence techniques.
3. Know what ‘normal’ looks like.
4. Don’t be embarrassed to ask for help.
5. Report if you click!



2. Use strong passwords

2. Using strong passwords

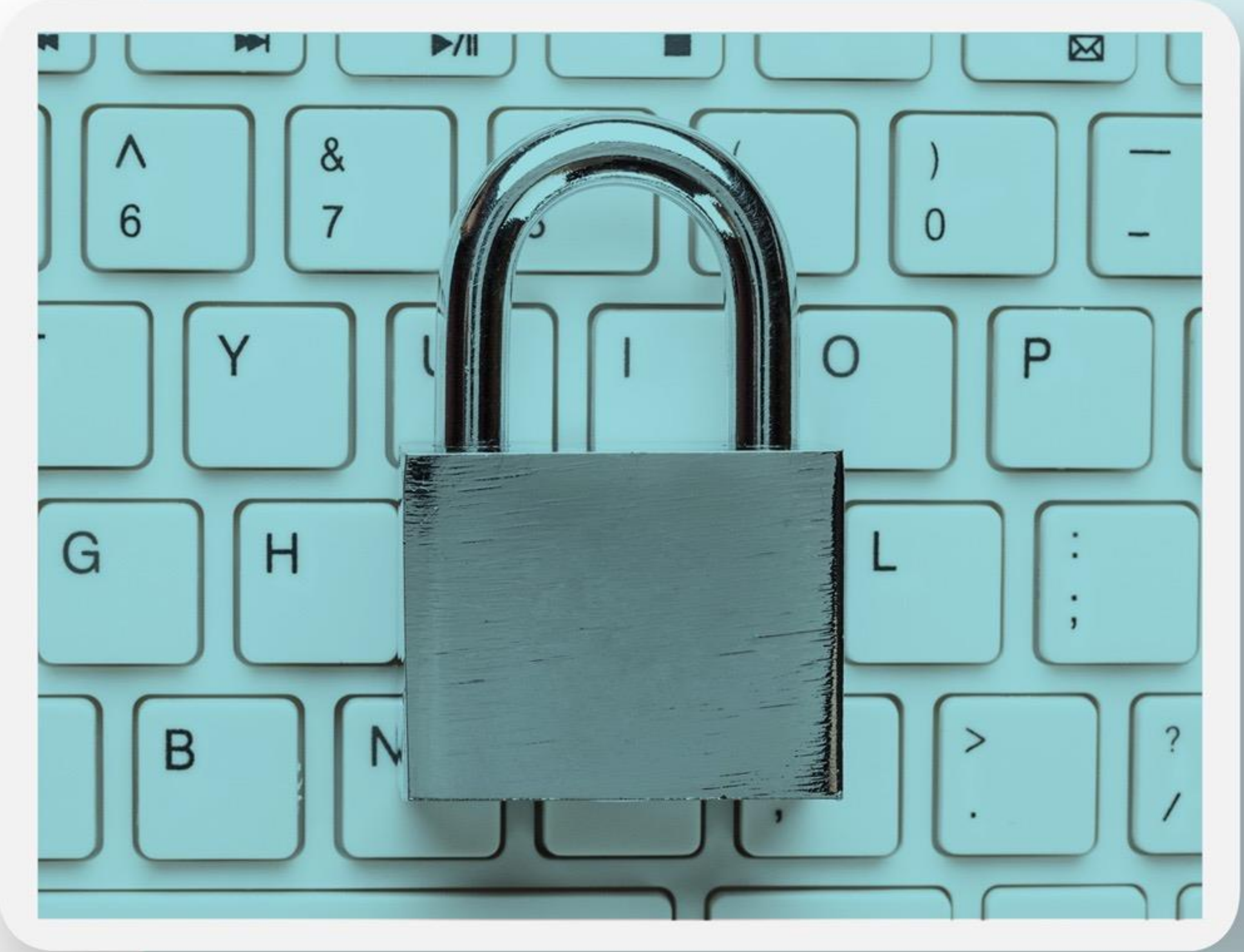
- Avoid commonly used passwords.
- Avoid passwords relating to personal information.
- Avoid passwords that have been breached previously.



Check if you have an account that has been compromised in a data breach

2. Using strong passwords

1. Create a strong password for important accounts.
2. Use a separate password for your work account.
3. Where available, switch on two-factor authentication for important accounts.
4. Store passwords securely.



3. Secure your devices

3. Secure your devices

1. School owned devices.
2. Your own devices.
3. Removable storage.

3. Secure your devices

1. Do not ignore updates.
2. Only download apps from trustworthy sources.
3. Physically protect your device.
4. If you need to use USB storage, ensure it is encrypted.

4. If in doubt call it out

4. If in doubt call it out

1. Report any suspicious activity.
2. Report as soon as possible.
3. Don’t be afraid to challenge.

Summary

Your checklist

Review

Review the privacy settings for your social media, professional networking sites and app accounts.

Know

Know who to report any unusual activity to. If you're not sure, ask your line manager or IT team.

Check

Check your device is set to receive updates automatically.

Set

Set a strong password and switch on two-factor authentication, if available, for your most important accounts.

Remove

Remove any apps that have not been downloaded from official stores.

Check

Check that the password for your work account is unique.

Flag it

If it's not possible to follow security advice, process or policy - flag it to your IT team.

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Thank you

To download your cyber security training certificate please click on this link*:*
https://www.ncsc.gov.uk/cyber-security-schools-training-certificate