# DIGITAL BANKING

Activity Pack

# DIGITAL BANKING

In today's online world it is possible to buy almost anything using just a click of a button or using face ID on your mobile phone. Digital banking is a way to manage your money by using the internet, allowing us to do things digitally, rather than having to travel into bank branches in towns or cities. You can do things like check your account balance, transfer money between accounts, pay bills, and even deposit checks using just your device.

Digital banking is convenient because you can do it anytime and anywhere, as long as you have an internet connection. It certainly makes things more sustainable by removing some of the paperwork and the need to travel to a physical bank! Overall, digital banking is a modern and convenient way to manage your finances.

However, when it comes to such a crucial thing such as our money, how can we ensure that what we have in our bank accounts is safe and can't be stolen? Furthermore, how can we make sure that the communications we receive online asking for our personal details or payment are genuine?

Hackers are constantly at work, trying to find new ways to get around security measures. But the banks take security very seriously and invest lots of time and money, keeping one step ahead to help look after your hard-earned cash.

There are many cyber risks when banking digitally such as the threat of phishing attacks, man-in-the-middle attacks, or spoofing - all aimed at getting your money or personal data. These involve tricking you into giving away your account details or sending money to places you think are real but are actually a scam.

That is why banks use things like encryption and multi-factor authentication. As annoying as it may be to enter another code to login, it really is important, as it confirms to the bank that you are who you say you are!

If you would like the answers for Activity 1, please email computerscience@bt.com stating your school and key stage.

We'd also love to see pictures of you all getting involved with the activities. Tell us how many phishing / smishing clues you found, and what Digital Banking role did you end up with?

Email these to us at computerscience@bt.com
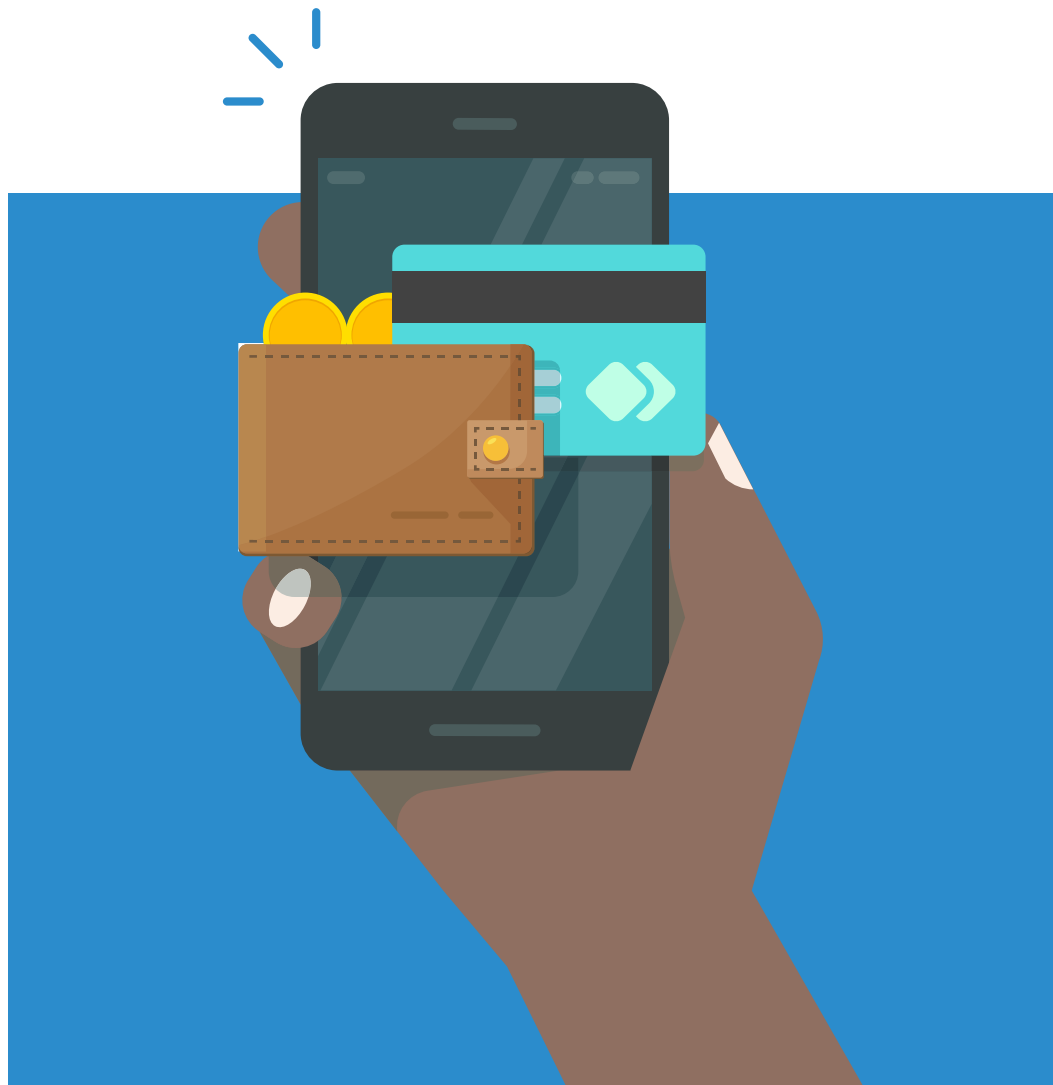
## Links

- KS3 / GCSE: Real Life Maths <https://tinyurl.com/bdht6y74>
- Hello World: Maths & Computer Science <https://tinyurl.com/49ytmvp5>

Find Out More:
- Bank Card – The Secret Genius of Modern Life <https://tinyurl.com/mr46zzcr>
- Nationwide Building Society Educational Partnerships <https://tinyurl.com/375j6uhe>
- Avoiding SPAM and Phishing <https://tinyurl.com/2nemd6zt>
- Phishing: Spot and Report Scams <https://tinyurl.com/3hx95pm7>
- My Data & Privacy Online: A Toolkit for Young People <https://tinyurl.com/bdzjrenu>
- Nationwide Building Society: Guide to Avoiding Scams <https://tinyurl.com/3d7rezx2>

Have A Go:
- Santander & Scuderia Ferrari Formula 1 Maths & Science <https://tinyurl.com/59jfwbzt>
- BBC Bitesize GCSE Maths <https://tinyurl.com/3r7r6av8>
- Online quiz: Can You Spot These Scams? <https://tinyurl.com/2rpw8aa9>

# ACTIVITY 1

**Kit List**

- Paper
- Pen or pencil
- Colouring pens or pencils

Keeping your bank details and data safe is super important. We know we shouldn't share our passwords, but when we receive messages from the bank, how can we tell if they're real or a scam?

If you were put on the spot, do you have what it takes to SPOT THE FAKE? Have a go at seeing if you would have noticed the clues in these REAL fakes!

**Challenge 1:** **How many clues can you spot in these REAL phishing emails?**

Phishing is when someone tries to steal your personal information by tricking you into clicking on links in emails. If you do click the link, then it might trigger your device to download some malicious software or take you to fake websites which may capture your login details.

Phishing scams don't just come from people pretending to be banks, they could be from other scam organisations or people pretending to be your friend or long-lost family member. But if someone can steal your login details, then they could try and use them on your accounts for other sites or take you to links which contain harmful content.

What could be wrong in these two examples?

**Example 1**

**From:** Amazon Billing <amazon-refundz.com>
**Sent:** 15 August 2022 13:47
**To:** Scott Jason Scott.Jason@iclud.com
**Subject:** Refund – Valid Billing information needed.

**amazon**.co.uk prime
Your Orders | Your Account | Amazon.co.uk

Hello,

Thanks for your order. Due to a system error, you were double charged for your last order. A refund process was initiated, BUT could not be completed due to errors in your billing information.

REF CODE: 16490J

Your required to provide us with valid billing information to complete the refund process.

**Update Billing information**

After your information has been validated, your should received your refund withing 3 business days

Thanks Amazon

**Example 2**

**You have been mentioned in a group**

Teams <noreply@email-teams-micrsoft.com>
**Sent:** 18 January 2023 13:36
**To:** Mathew Connor
**Subject:** LM and S sent 2 messages to your chat

**Hi,**

Your teacher is trying to reach you in **Microsoft Teams**.

You have been mentioned in group "**late Maths homework**"

> Your late homework does not meet school standards.
> Please take a look...

**Reply in Teams**

**Install Microsoft Teams now**

| iOS | Android |

This email was sent from an unmonitored mailbox. Update your email preferences in Teams. Activity > Settings (Gear Icon) > Notifications.

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**Challenge 2:**     **How many clues can you spot in these REAL smishing messages?**

Smishing is when cyber criminals send messages via text or on social media to trick you into sharing information or downloading malware onto your device. As with phishing emails, texts can also include malicious links or attachments to get you to do something bad.

Remember that, like email phishing, smishing is a crime of trickery. It is a form of social engineering and relies on the good nature of humans and our inherent trust for others. But this is all about fooling the victim into cooperating, by clicking a link or providing information as most people would just assume (wrongly) that it is ok to do so.

The simplest protection against these attacks is to do nothing at all. So long as you don't respond or click on the links, a malicious text or email can't do anything. If you're unsure… ask someone else about it, report it and delete it.

How many clues can you find as to why this text is actually a scam?
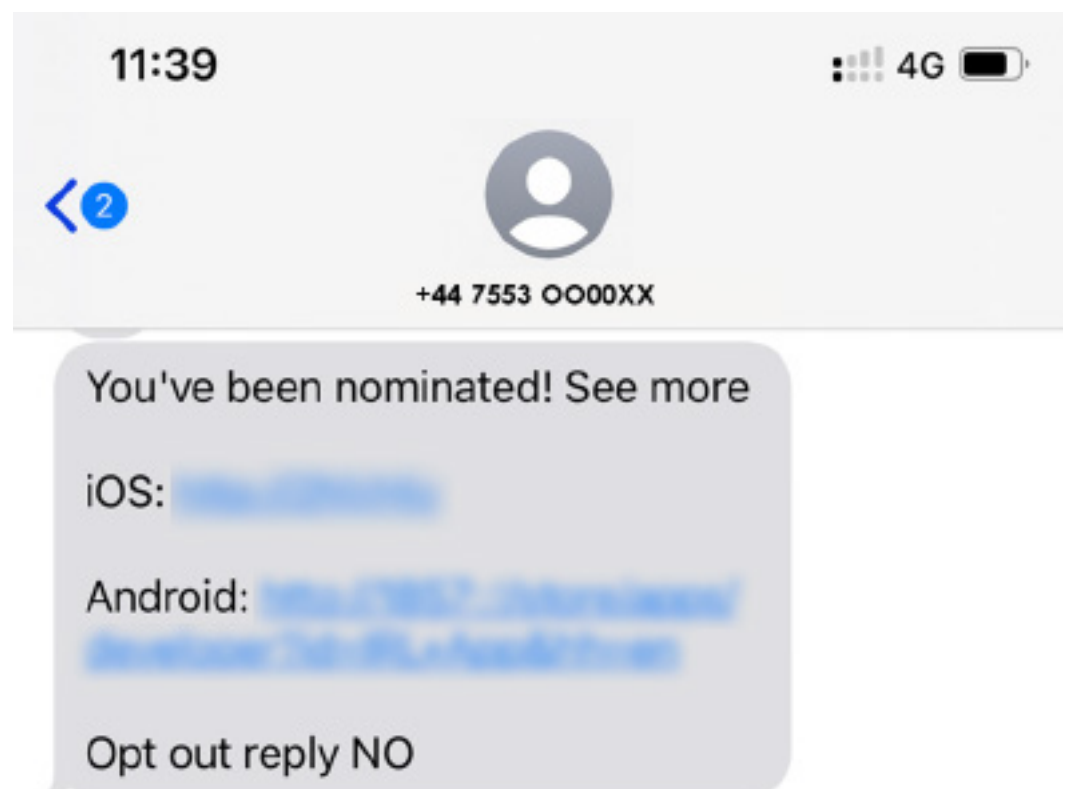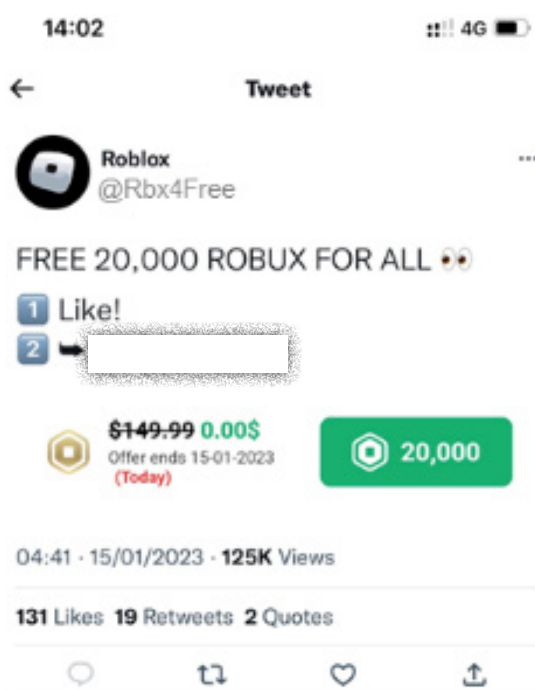
<span style="color:red">Caution: these are real scams.
Please do not type these links into a web browser.</span>

Here are a couple of scams from social media below. These could be trying to get you to log into your accounts and steal your:

- Credentials
- Personal information
- In-game currency even, such as Robux!

# ACTIVITY 1

**Now it's your turn**

How can you help make sure others don't fall for these tricks?

In your pairs or groups, create a campaign poster to raise awareness of these scams with some advice on how to stay safe online.

In the future, you could work in cybersecurity or fraud prevention within a bank, using technology to reduce scams and keep people safe. Try out Activity 2 to see if a career in Digital Banking is for you!



## Tips & Advice

- Keep your online accounts secure and private.
- Watch out for suspicious emails, text messages or websites.
- Don't click on links if you don't trust them.
- Decline payments when prompted from people you don't know.
- Choose carefully where you shop online.

- Use a credit card for online payments.
- Only provide enough information to complete your purchase, and no more.
- If things go wrong, speak to an adult who can support you and help you to report it.  <https://atadastral.co.uk/go/bswbfc>

**ACTIVITY 2**

### Kit List

- Printed worksheet on page DB12
- Colouring pens or pencils
- Pen or pencil

### Is Digital Banking for me?

Digital Banking opens a world of opportunities with roles in all sorts of areas. You could be designing how customers interact with the mobile app, answering questions to an e-chat, keeping customers safe or using the newest technology to design the future of banking!

### Instructions:

1. Print out the worksheet on page DB12.

2. Answer the following 10 questions (adapted from www.techskills.org/careers/), to see what type of role you might take in technology.

3. Jot down your answer (A, B, C or D) to each question in the 'Your Answer' column of the table on your print-out.

4. For each question, colour in the letter of your answer wherever it appears along that row.

5. For each column, add up the number of coloured circles there are and make a note of this in the box at the bottom.

6. Answer these questions:

   a. Which column had the highest number of bubbles coloured in? (add the role code below)

      **This is the role that seems to suit you the most**!
      _____

   b. Which column has the second highest number of bubbles coloured in? (add the role code below)

      **This is the next-best role that could suit you too!**
      _____

What do these codes mean? Have a look at the table on pages DB13 - 15 to see the descriptions of each role. All of these roles exist within a potential Digital Banking career.

**Is a career in Digital Banking for me?**

**Q1** Which of these statements do you agree with most?

| A | B | C | D |
|---|---|---|---|
| I'm an artistic person - I love drawing or designing | I'm a creative thinker and have an active imagination | I love coming up with new ideas for things | I'm a logical person – I love Maths & Science |

**Q2** When you see a cool new thing like a gadget or an app, do you think:

| A | B | C | D |
|---|---|---|---|
| Amazing – whoever thought that up is a genius | Wow – I wonder how that works | Awesome – I'd love to create something like that | Clever, but I wouldn't give a moment's thought |

**Q3** What are you like at fixing or building things?
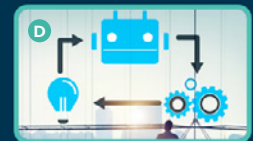
| A | B | C | D |
|---|---|---|---|
| I can design things, but wouldn't have a clue how to build it | Brilliant - I'm always the go to person when something is broken | I only do it for fun - I liked Lego and The Sims as a kid | I'd rather build something than design it |

**Q4** Which of these statements best describes you during a group discussion?

| A | B | C | D |
|---|---|---|---|
| I try and listen to everyone's opinion before I communicate my own | If I don't understand something I keep it to myself and find out later | If I don't understand something I ask at the time | I tend to say what's on my mind and stick to my guns |

**Q5** Would you say you're good at maths?

| A | B | C | D |
|---|---|---|---|
| Yes, it's my best subject | I'm quite good I but have to work hard | It's not my strongest subject but I get along ok | I prefer creative subjects like languages, English or art |

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**Q6** Creating a new product as a team, would you...

**A** Make sure the team have everything they need to develop it

**B** Design the look of the product

**C** Build a working model of the product

**D** Teach other team members how to make the product

**Q7** What would your dream job look like?

**A** I would like to do something different everyday

**B** I'd like to solve problems

**C** I'm happy to follow instructions - I like structure and routine

**D** Whatever I'm working on, I want to be leading

**Q8** What level of challenge do you like?

**A** I perform best when under pressure

**B** I'm at my best when I'm thinking creatively

**C** If I can't solve it quickly, I get bored and move on to something new

**D** I have an eagle eye and work on something until it's perfect

**Q9** When invited to a party where you only know the host, do you?

**A** Accept the invitation and look on it as an opportunity to make new friends

**B** Accept - but I'd ask if I can bring a friend

**C** Go to the party, but I tend not to mingle easily with people I don't know

**D** Refuse - I wouldn't go to a party where I hardly know anyone

**Q10** Organising a camping trip with your friends, what role would you take?

**A** The leader - I'd take care of scheduling the travel and activities

**B** Entertainer - keeping people's spirits up when it rains

**C** Reading out the instructions for building the tent

**D** I'd just pitch in wherever I was needed

# ACTIVITY 2

**Is a career in Digital Banking for me?**

| Question | Your Answer | BM | CR | M | BA | DS | DA | UX | WD | TE | CS | NE | SE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | D | B C | A B | D | D | C D | A B | B | D | C | D | B |
| 2 | | A D | B | A D | B D | B | B C | C | C | B | B | B | A |
| 3 | | B C | B D | A | B | A D | B C | A | C | B | | B | A |
| 4 | | A | A | C | B D | B | B C | C | C | C | C | C | C |
| 5 | | A B | C D | C D | A | A | A | C | C | B | A | A | A |
| 6 | | A | C D | B | A C | C | B | B | B | C | C | C | B D |
| 7 | | B | B D | A | C | B | B | A | C | C | B | C | B |
| 8 | | A | A B | B | D | D | A | A | D | D | A | D | D |
| 9 | | A B | A | B | B | C | C | B | B | C | D | C | C |
| 10 | | A C | B | D | A | A D | A D | D | C | D | D | D | D |
| Total of coloured boxes in each column | | | | | | | | | | | | | |
| Role code | | BM | CR | M | BA | DS | DA | UX | WD | TE | CS | NE | SE |

Don't forget to check out the online version of this activity from TechSkills at:
www.techskills.org/careers/.

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## What are the different types of roles you could have?

| | |
|---|---|
| **Business Manager (BM)** | A business manager is a person who manages people, resources and budgets to make projects a success. They need to build good working relationships with internal and external customers within organisations and will have excellent interpersonal, negotiation, motivation and presentation skills. |
| **Sales and Client Relations (CR)** | Job roles in Sales and client relations includes building and managing relationships with clients, helping customers solve their technical problems, or translating complex technical information into language that can easily be understood by non-technical people.<br><br>The Sales team help to grow businesses and are responsible for increasing the number of customers and the number of services the organisation provides to a customer. Sales people are often out meeting new people every day, selling inventive digital solutions to help them solve their business problems. |
| **Marketing (M)** | Marketing roles are focused on raising the visibility of a company's brand and working with the Sales teams to increase business. They are usually involved in promoting a brand and raising its profile online using social media and digital marketing tools to help a new brand, product or service go viral. |
| **Business Analyst (BA)** | A business analyst is responsible for assessing the business impact of change, capturing, analysing and documenting requirements and supporting the communication and delivery of requirements with relevant stakeholders. They create detailed analysis of systems and make recommendations for improvement. They produce specifications of user requirements that enable software engineers to develop the right software solutions. They require a broad foundation of skills and knowledge to be able to be effective as their work incorporates all aspects of digital technology systems. |
| **Data Analyst (DA)** | The primary role of a data analyst is to collect, organise and study data to provide new business insight. They are responsible for providing up-to-date, accurate and relevant data analysis for the organisation. They are typically involved with managing, cleansing, abstracting and aggregating data across the network infrastructure.<br>They have a good understanding of data structures, software development procedures and the range of analytical tools used to undertake a wide range of standard and custom analytical studies, providing data solutions to a range of business issues. They document and report the results of data analysis activities making recommendations to improve business performance. They need a broad grounding in technology solutions to be effective in their role. |

| | |
|---|---|
| **Data Scientist (DS)** | Data Scientists find information in diverse datasets to address complex problems and improve organisational processes. They are inquisitive, they explore and visualise data of all kinds, find and present 'stories' within the data in a meaningful way to a range of technical and non-technical audiences.<br><br>They make recommendations to inform strategic and operational decision making through sourcing, accessing and manipulating data, and engineering data processes. They identify and address data bases and handle private data ethically and appropriately, complying with (inter)national privacy regulations. |
| **UX Designer (UX)** | The broad purpose of this occupation is to investigate, analyse and design the experience that people have with digital products and services, both current and emerging. They do this in order to find ways these interactions can be implemented, improved and optimised over time.<br><br>Digital User Experience (UX) Professionals are responsible for the continuous improvement of the experiences that digital products and services offer to their users and for leading and advocating the use of user-centred design practices within multi-disciplinary teams. |
| **Web Developer (WD)** | A web developer will create reliable and high-performing web-based applications and services. Focusing solely on the underlying software and databases (known as the 'back end') is most common. However, some web developers work on the interface and visual design (the 'front end'), and others combine both ('full-stack development').<br><br>The job's purpose is to create products that meet clients' needs. The work can be varied and might mean several projects being run simultaneously. Web developers have regular meetings with clients to discuss their requirements and update them on progress. |
| **Technical Engineer (TE)** | A technical engineer is a person that is able to architect, install, service and repair the computer hardware and/or communication systems within or between organisations. From designing equipment such as routers, switches, multiplexers and other specialized computer/electronics equipment to maintaining computer networks and hardware, a technical engineer is the backbone of an organisation's technology systems. |

ACTIVITY 2

| | |
|---|---|
| **Cyber Security Analyst (CS)** | A cyber security analyst is responsible for the implementation, maintenance and support of the security controls that protect an organisation's systems and data assets from threats and hazards. They ensure that security technologies and practices are operating in accordance with the organisation's policies and standards to provide continued protection.<br><br>They require a broad understanding of network infrastructure, software and data to identify where threat and hazard can occur. They are responsible for performing periodic vulnerability assessments to evaluate the organisation's ongoing security posture and will provide visibility to management of the main risks and control status on an ongoing basis. They respond to security incidents and implement resolution activities across the organisation. |
| **Network Engineer (NE)** | The primary role of a network engineer is to design, install, maintain and support communication networks within an organisation or between organisations. They need to maintain high levels of network performance and availability for their users, such as staff, clients, customers and suppliers. They will understand network configuration, cloud, network administration and monitoring tools, and be able to give technical advice and guidance.<br><br>As part of their role, they need to be proficient in technology solutions as they will analyse system requirements to ensure the network and its services operate to desired levels. They will need to understand the data traffic and transmission across the network, and they have a major role to play in ensuring network security. |
| **Software Engineer (SE)** | The primary role of a software engineer is to be able to design, build and test high-quality software solutions. The software engineer role is broader, with higher levels of responsibility than a software developer as they need to apply engineering principles to all stages of the software development process, from requirements, analysis and design, development and data requirements whilst ensuring security robustness is built in. They will typically be working as part of a larger collaborative team and will have responsibility for significant elements of software projects. |