

## Cyber Security Minecraft Escape Room Guide

This map will have 3 floors, moving from easy activities to more challenging ones as the learner plays the map.

On the first floor there will be selection questions. NPCs will give players information about Cyber Security, and they will have to select the correct answers.

### Activity 1: (15 min)

The learner will begin the world by being introduced to the world as being part of a computer.

#### NPC:

*Welcome to the Motherboard! We need your expertise. This computer is new, and we need to help the owner, Mr. Frostwood, keep his computer safe. Are you ready to go?*

*Learner can select: Let's do this!*

*The learner will move to the next NPC.*

#### NPC:

*Cyber Security is all about protecting computers, networks, and data from criminals who want to steal or damage them. It involves:*

*Keeping Threats Out: Using tools and techniques to stop viruses, hackers, and other threats from getting in.*

*Spotting Problems: Watching for signs of trouble, like unusual activity on your network.*

*Fixing Issues: Quickly respond to and fix any problems that do happen.*

*Managing Risks: Figuring out what could go wrong and taking steps to prevent it.*

*Following Rules: Making sure you follow laws and guidelines to keep data safe.*

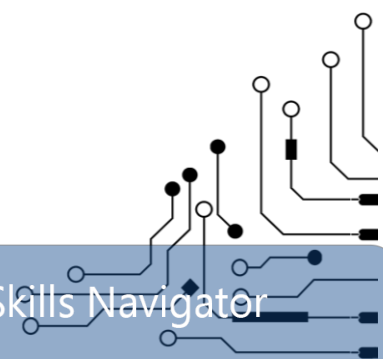
*Cyber Security is important because it helps protect your personal information, money, and privacy from cybercriminals.*

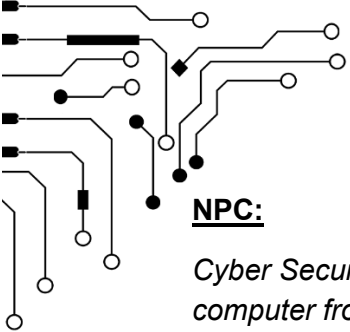
#### Task 1:

*Select the sign that has the correct answers to the following statement: Cyber Security involves:*

- |                               |                           |                                  |
|-------------------------------|---------------------------|----------------------------------|
| 1. <i>Spotting Problems</i>   | <i>Following Rules</i>    | <i>Allows Viruses</i>            |
| 2. <i>Keeping Threats out</i> | <i>Completing Updates</i> | <i>Stops Hackers</i>             |
| 3. <i>Following Rules</i>     | <i>Fixing Issues</i>      | <i>Protects Information</i>      |
| 4. <i>Managing Risks</i>      | <i>Completing Code</i>    | <i>Saves Your Email</i>          |
| 5. <i>Fixing Issues</i>       | <i>Spotting Problems</i>  | <i>Never Share Your Password</i> |

*If the learners answer the question right, they can move onto the next question.*





**NPC:**

*Cyber Security works through different ways. All these methods aim to protect you and your computer from cybercriminals, viruses, and bugs. Cyber Security uses:*

*Prevention: This involves creating measures to prevent cyberattacks from occurring. This can include firewalls, antivirus software, and secure coding practices.*

*Detection: Cyber Security systems continuously monitor networks and systems for signs of suspicious activity. This can involve intrusion detection systems (IDS) and security information and event management (SIEM) systems.*

*Response: When a threat is detected, Cyber Security teams respond to decrease the impact. This can involve isolating affected systems, removing malware, and restoring data from backups.*

*Recovery: After an attack, efforts are made to recover any lost data and restore normal operations. This can also involve analyzing the attack to improve future defenses.*

*Education and Training: Ensuring that employees are aware of Cyber Security best practices and can recognize potential threats, such as phishing emails, is crucial for maintaining security.*

**Task 2:**

There will be 5 buttons for the learners to choose from. 3 of these buttons will be correct and 2 incorrect. The learners will have to choose these 3 correct buttons to move on.

*What does Cyber Security use to protect you and What does Cyber Security use to protect you and your computer?*

Response     Scan     Detection     Prevention     Bugs

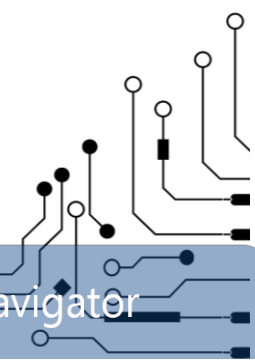
*If the learners answer the question right, they can move onto the next question. If not, they can be transported back to the NPC/ a position where the learner can be forced to reread what the NPC said. The learner can move to the next NPC.*

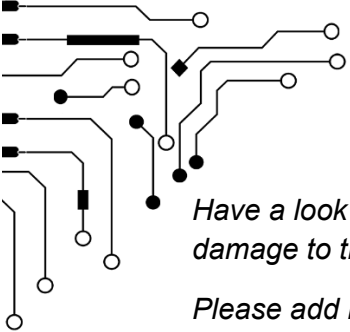
**NPC:**

*Don't worry about all these cybercriminals – you can protect yourself and your computer. You can do this by:*

- 1. Identify Risks: Find out what could be a threat to your data and systems.*
- 2. Create a Security Plan: Make rules for how to protect your data, like using strong passwords and encrypting sensitive information.*
- 3. Use Security Tools like firewalls and antivirus software*
- 4. Update Regularly: Keep your software and systems up to date.*
- 5. Backup Data: Regularly save copies of your data.*
- 6. Monitor and Respond: Watch for suspicious activity and have a plan to respond to security incidents.*

*Remember not to share your personal information online and to use strong passwords!*





*Have a look at the firewall in front of you. Can you see the holes in it? This could cause some damage to the computer. Can you fix it? Follow the pattern to complete the wall.*

*Please add in a sign that explains how to place and break blocks. Please also give a key to which blocks represent what.*

**Task 3:**

Learners will see a “firewall.” The wall will be blocking mobs. The learners must follow a set pattern to complete the wall. To complete this pattern, they will place various blocks into the required places, which will be indicated by holes in the wall. For this we will need modified blocks that will represent the required parts of the “firewall.” Pattern example:



*If the learners answer the question right, they can move onto the next question. If they do not, they can repeat the activity until it is correct.*

**NPC:**

*You can protect yourself and your computer by using strong passwords. There are some passwords that are easy to guess like 123456 or QWERTY1, so you should try make your passwords difficult to guess. Try not use your birthday, pets names or anything that someone can guess about you. Many places have requirements for passwords which are usually:*

- *Your password must be longer than 8 characters*
  - *Your password must include atleast one capital letter.*
  - *Your password must include at least one number.*
  - *Your password must include at least one character.*
- Your password can look something like this: 0oj%7KT@*

**Task 4:**

*The learners should look at the buttons presented to them. There will be three NPC within a small maze with different passwords on them and they will have to select the strongest password. This will be repeated three times. Everytime the learner selects the correct password it will open the way further into the maze. On the third time, the learner will have to select the strongest password and the door will open and allow them into the next room.*

A1b@cD2

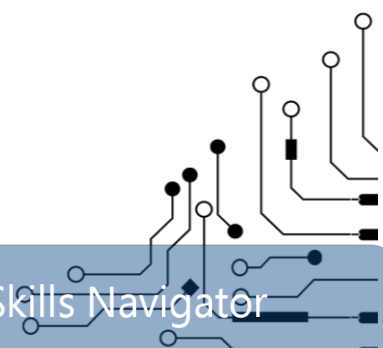
#Fluffy234

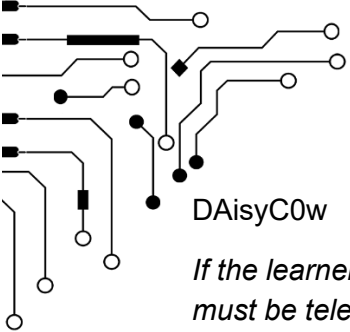
QwErTy7!

123456789!

12Jan2003#

X3y#Z4w





DAisyC0w

P5q\$R6t

M!neCraft#

*If the learners answer the question right, they can move onto the next question. If they do not, they must be teleported back to the NPC where they will have to reread the information.*

**NPC:**

*Sometimes, people try to trick you into giving them your personal information, like passwords or credit card numbers, this is called phishing. You can prevent falling for phishing scams by:*

*Check the Sender's Email Address: Phishing emails often come from addresses that look similar to legitimate ones but have slight variations. For example, instead of support@bank.com, it might be support@b4nk.com.*

*Look for Generic Greetings: Phishing emails often use generic greetings like "Dear Customer" instead of your actual name.*

*Beware of Urgent or Threatening Language: Phishing emails often create a sense of urgency or fear, such as "Your account will be suspended unless you act now."*

*Check for Spelling and Grammar Mistakes: Many phishing emails contain spelling and grammar errors.*

*Verify Links Before Clicking: Hover over links to see the actual URL. Phishing links often lead to websites that look legitimate but have different URLs.*

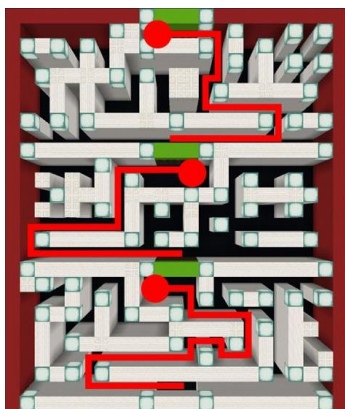
*Be Cautious with Attachments: Avoid opening attachments from unknown or suspicious sources, as they may contain malware.*

*Look for Unusual Requests: Be wary of emails asking for personal information, passwords, or financial details.*

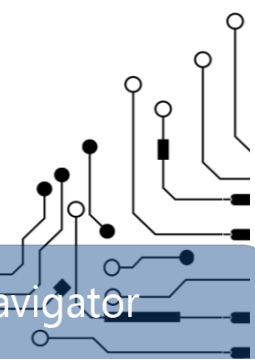
*Check the Email's Tone and Style: If the email's tone or style seems off or inconsistent with previous communications from the sender, it might be a phishing attempt.*

*Use Anti-Phishing Tools: Many email providers and browsers offer tools to help detect and block phishing attempts.*

**Maze:**



• *The red dots represent the NPC and the green dash represents a wall that will disappear when the NPC is answered correctly.*





**Task 5:**

The learner will go speak to different NPCs. The NPCs will speak to the learner as if they are trying to convince them to be scammed. The learner will have to select an answer between “Accept” or “Deny”.

**NPC1:**

Email: customerservice@b4ankss.co.za

Subject: Urgent: Verify Your Bank Account

Dear Customer,

We have detected unusual activity on your account. To ensure your account's security, please verify your information by clicking the link below:

[Verify Account]

Thank you,

Your Bank

Phishing

Not Phishing

**NPC2:**

Email: support@burgers.as.za

Subject: Alert: Suspicious Login Attempt

Hi Mr J. Frostwood,

We noticed a suspicious login attempt on your account from an unknown location. If this was not you, please secure your account immediately by clicking the link below:

[Secure Account]

Regards,

Support Team

Phishing

Not Phishing

**NPC3:**

Email: support@onlinelibrary.co.za

Dear Mr J Frostwood.

We regret to inform you that there has been suspicious activity on your Online Library account. Please will you confirm if this activity is you or not.

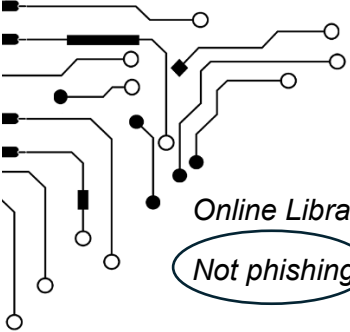
Yes, it is me.

No, it is not me.

If it is not you, please be aware that we will be contacting you shortly to discuss the situation.

Kind regards,

Jeremy Mcfloat



Online Library Support Team

Not phishing

Phishing

**Signpost/pop-up:**

*Congratulations! You now know the basics of cyber security.*

*We have gathered some intel that a virus might be present somewhere in the computer. We need you to find where it is and protect Mr Frostwood's personal information and files Go through the computer and find the information.*

*Protect it, Mr Frostwood is counting on you!*

**Activity 2:** (10 Min)

The maze will join the first and second floors. To enter the maze, the learner will have to select the strongest password, and it will open a door to the maze.

A7t9cR\*n

100Ducky2!

18OcToBeR200!

As the player makes their way through the map, they will find questions that they can answer and the correct answer will open a wall will open to allow them to move through the maze easier. These questions can be placed throughout the maze.

*Please see the questions below:*

*Select the strongest password by clicking the button underneath:*

Buddy@15

Z8@jK4xQ

P4sSw0rD!

*Select the correct answer by clicking the correct button:*

*To identify phishing, look for generic greetings.*

*Identify phishing by seeing your name on the message.*

*You can only be phished on an email.*

*Decide if the statement below is true or false, and select the correct button:*

*A firewall will not protect you from hackers, viruses or Cyber Security.*

True

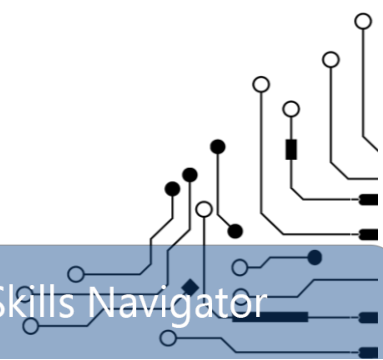
False

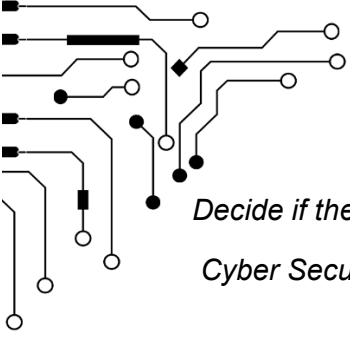
*Decide if the statement below is true or false, and select the correct button:*

*You cannot prevent cybercrime from attacking your computer.*

True

False





Decide if the statement below is true or false, and select the correct button:

Cyber Security use prevention to avoid cyberattacks from happening.

True

False

Is the message below an example of phishing or not? Select the correct button.

Dear Mr. J. Frostwood,

I hope you're doing well. This is a friendly reminder about our upcoming quarterly financial review meeting.

Date: Thursday, 30th January 2025

Time: 10:00 AM SAST

Location: Zoom Meeting (Link)

Please ensure you have all relevant financial documents and reports ready for discussion. If you have any questions or need further information, do not hesitate to reach out to me.

Looking forward to our productive meeting.

Best regards,

John Smith

Financial Analyst

Company ABC

Email: john.smith@companyabc.com

Phone: +27 123 456 789

Phishing

Not Phishing

Which option below is NOT an example of how Cyber Security protects your computer?

Spotting Problems

Allows Viruses

Following Rules

Do you think this email is safe to interact with or not?

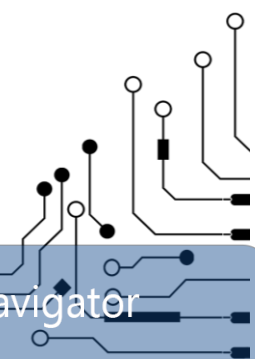
www.support@b4nks.co.za

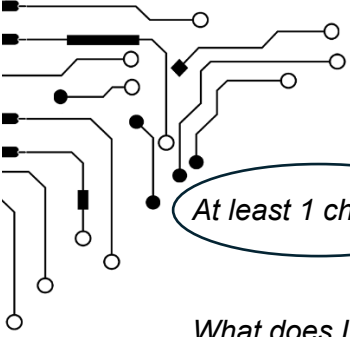
yes

no

Read the options below and choose the correct three:

Which options below create a strong password?





At least 1 character

123

At least 1 number

BOB

At least 8 characters long

What does IDS stand for?

Intrusion Detection Systems

I Don't Save

Intricate Design System

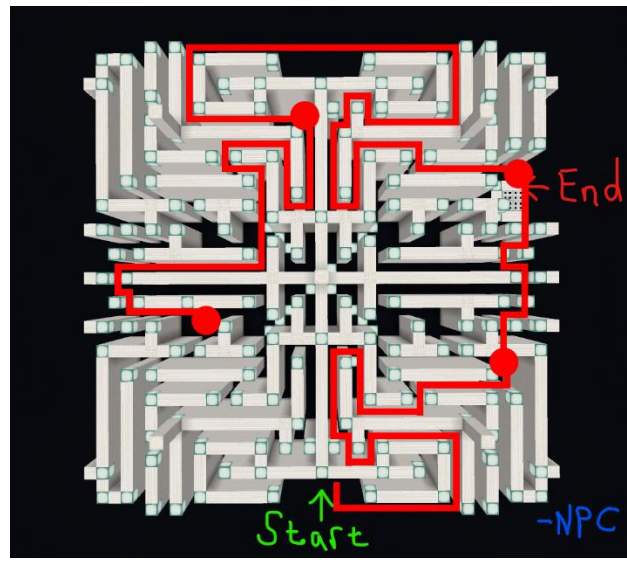
To exit the maze, the learner will repeat the activity of opening the door by choosing the strongest password.

lzhbtrj uJJbY1P3

<8fca|B@

EHIMRB38

bjyxuuhh



**Activity 3:** (35 min)

A sign will be visible stating the instructions for the game.

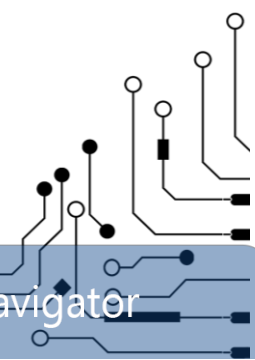
**Signpost:**

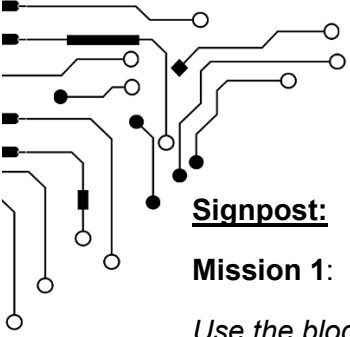
You have now made it to the Operating System (OS) where you will find Mr. Frostwood's personal data and documents. You will need to protect this information from viruses and bugs.

You will need to complete three missions:

- 1) Complete and fix a firewall.
- 2) Scan the area to identify if there are any more bugs or viruses.
- 3) Save Mr. Frostwood's personal information.

Good luck!





### **Signpost:**

#### **Mission 1:**

*Use the blocks in the chest to fix the firewall. Copy the pattern to accurately place the blocks. You will need to fix the firewall as it is broken. As the player fixes the wall, it will automatically fill the gaps with obsidian blocks.*

### **NPC:**

*Malware is short for “malicious software.” It’s a broad term that refers to any software designed to harm, exploit, or otherwise compromise the functionality of computers, networks, or devices. Malware can be used to steal data, disrupt operations, gain unauthorized access, or force money from victims. Common types of malware includes viruses, worms, trojans, ransomware, spyware, adware, and botnets. Malware can spread through phishing emails, infected files, malicious websites, or even compromised USB drives. It can slow down your device, cause crashes, display unwanted ads, steal sensitive information, or even lock you out of your system until a ransom is paid. To protect against malware, it’s important to keep your software updated, use antivirus programs, and be cautious about the links and attachments you open.*

### **NPC:**

*A Trojan is a type of malicious software that disguises itself as legitimate software to trick users into installing it. Once installed, it can perform a variety of harmful actions, such as: stealing personal information, creating backdoors (which let hackers gain access to your computer), spreading other malware or disrupting your computers performance like making it slow down, crash or deleting important files. It’s important to have good antivirus software and be cautious about downloading and installing programs from untrusted sources to protect against Trojans. For this one, a creeper or other mob can spawn, and the learner will have to destroy it.*

### **NPC:**

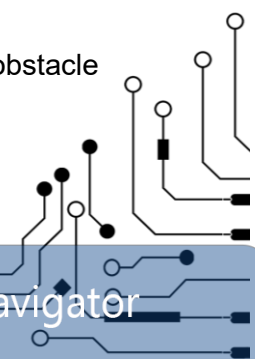
*Spyware is a type of bad software that secretly watches what you do on your computer or phone. It collects information about you, like what websites you visit, what you type, and your personal details. It runs quietly in the background, so you don’t know it’s there. It can come from clicking on bad links, downloading infected files, or even from some apps. It can steal your personal information, slow down your device, and cause other problems. To stay safe, use good antivirus software, keep your device updated, and be careful about what you download or click on.*

#### **Mission 2**

### **Signpost/NPC:**

*Well done! You protected Mr. Frostwood’s personal data and documents! But now, you need to scan the area to make sure that there are no more bugs or viruses around. You can do this using Microsoft Defender. Microsoft Defender is a security solution developed by Microsoft to protect your devices from various online threats. It includes antivirus and anti-malware protection, real-time threat detection, and safe browsing features. Move through the obstacle course and search for any remaining viruses or bugs. Destroy them before they damage the computer.*

The learner will find and destroy viruses and bugs. They must be hidden all around the obstacle course.





### Mission 3

#### Signpost/Pop-up:

*Congratulations: you have destroyed all the viruses and bugs! Some sort of alarm would be cool.*

#### NPC:

*Oh no! While you were dealing with the viruses and bugs, a hacker came in and stole Mr. Frostwood's personal information and files.*

*You can do this by collecting pages/blocks and placing them in the correct chests and it will open a bridge for you to cross and defeat the hacker.*

Once all the correct items and place them in the correct boxes, a bridge could appear/come down. The player will cross the bridge and meet the hacker. The player will have to use the armor and the sword and bow and arrows to defeat the hacker. Once the hacker has been defeated the learner will be teleported to the finish where they can access the certificate.

Please ask the learners to complete the skills assessment at the end of the map.

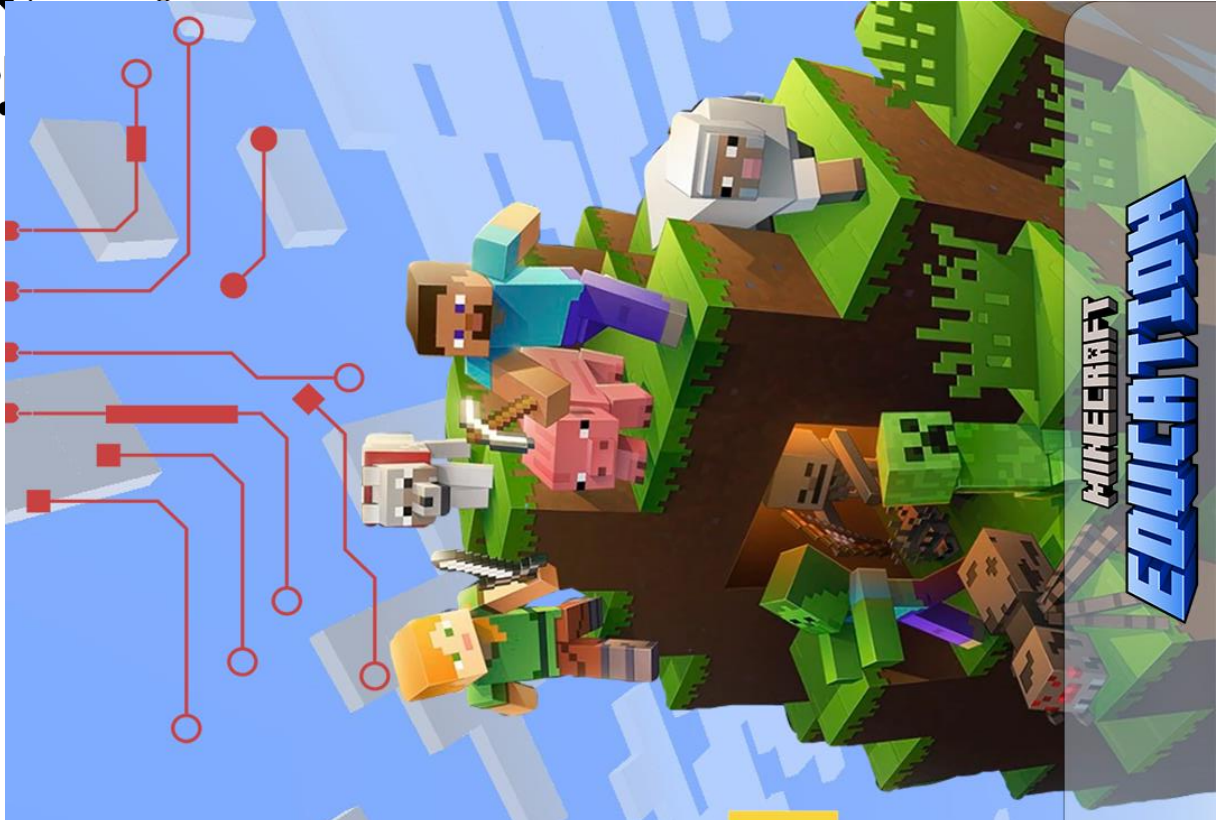
\* Should your learners be unable to complete the world in one lesson, please ask them to export the world and save it so that they can access their work at a later stage. This is due to a temporary snag and once the snag is resolved your learners will be able to access their work in the "My Worlds" folder on Minecraft.

**This certificate is awarded to:**



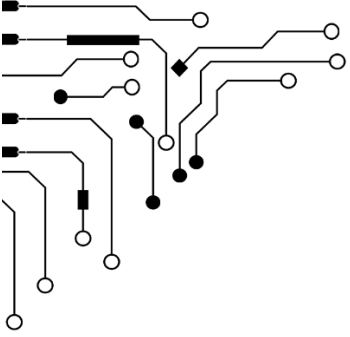
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**for successful completion of the Minecraft  
Cyber Security Escape Room  
demonstrating an understanding of Cyber Security.**



**scadco**  
PASSION FOR INNOVATION

**MINECRAFT  
EDUCATION**



*We would like to express our gratitude to:*

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*Kayla Gallus – World Designer*

