# User Access Levels & Passwords

What are some key defences we can put in to prevent a Brute Force Attack?

Think about actions that might happen in your school. The table below lists some actions that different people might have authority to perform. Highlight each box with whom should have the authority for each action.

|  |  |  |  |
| --- | --- | --- | --- |
| **Action** | **Student** | **Teacher** | **IT Department** |
| Take the register in a Lesson. |  |  |  |
| Change System Settings. |  |  |  |
| Access a shared folder for students. |  |  |  |
| Add or delete users from the Network. |  |  |  |
| Access a student’s personal files and make changes to it. |  |  |  |
| Access a shared area for teachers. |  |  |  |
| Install new Software. |  |  |  |

**Extension: Head over to this link:** [**https://www.security.org/how-secure-is-my-password/**](https://www.security.org/how-secure-is-my-password/)

**And try out your passwords e.g. school passwords. How secure are they?**

# Anti-Malware & Firewalls

Identify whether each of the following threats could be tackled using anti-malware software, a firewall or neither.

You may need to research any words that you don’t know.

|  |  |  |  |
| --- | --- | --- | --- |
| **Threat** | **Anti-Malware** | **Firewall** | **Neither** |
| A Virus hidden inside a program downloaded from the Internet. |  |  |  |
| A hacker using a network port scanner to try and find vulnerabilities in a Network. |  |  |  |
| A school student accidentally accessing sites known to contain viruses. |  |  |  |
| A user writing their password down on a piece of paper. |  |  |  |
| A worm being sent from computer to computer across a network. |  |  |  |
| DoS Attack |  |  |  |
| DDoS Attack |  |  |  |
| A Keylogger sending information back to its creator. |  |  |  |

**Extension: If we have anti-malware and firewalls then why do we still have Network Security issues? Why can they never be 100%?**

# Brute Force Attacks

We’ve got the following 3 user accounts that I want you to try and break into. I’ve given you the usernames and given hints about what the password might be. Write the passwords underneath:

**EASY: admin account**

Username: admin

HINT: The admin was forced to make a password but isn’t very creative and couldn’t really think of anything.

**MEDIUM: teacher account**

Username: teacher

HINT: This teacher has a poor memory for passwords. So, they wanted to not have to remember a password, so they chose some text that was already on the screen.

**HARD: student account**

Username: student

HINT: This student has a pet named “Frixos” and they were born in 2007. They’ve been more secure and included a special character in their password.