

The background is a dark blue and black circuit board pattern with glowing white lines and dots. A glowing green padlock is positioned in the center-left. Several large, irregular teal shapes are scattered around the padlock and the text.

# AUTHENTICATION

Password Safety

# Passwords – Good or Bad?



The image features six teal, hand-drawn brushstroke shapes arranged in two vertical columns of three on either side of the central text. The strokes are irregular and vary in orientation, with some being horizontal and others slightly angled.

Ex 1. Passw0rd!



Ex. 2    !@9YAt#f3h

The image features six teal, hand-drawn brushstroke shapes arranged in two vertical columns of three on either side of the central text. The background is a dark blue gradient with a darker, irregular shape at the bottom.

# Ex. 3 woRA70

The image features six teal, hand-drawn brushstroke shapes arranged in two vertical columns of three on either side of the central text. The background is a dark blue gradient with a darker horizontal band at the bottom.

Ex.

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Ex.

5 Rone\*HK%5

Why are  
Passwords  
so Important?







# Warm Up: Why are passwords so important?

1. Silently think about the question above.
2. Turn to your neighbor and discuss what your ideas.

The background is a solid dark blue color. Scattered across the entire surface are approximately 12-14 teal-colored brushstroke-like shapes. These shapes are irregular, elongated, and have soft, feathered edges, resembling paint strokes or ink blots. They are distributed in a somewhat random pattern, with some appearing horizontally and others at various angles.

# Discuss as a Class

# Learning Objectives

1

Learn about three different password attacks.

2

Learn how to create strong passwords that can defeat these attacks.

3

Practice creating strong passwords that are memorable.



# What is a password?

A secret word or phrase that is used to restrict access to something, usually an online account.

The image features a dark blue background with a subtle gradient. On the left and right sides, there are several teal-colored brushstroke-like shapes of varying sizes and orientations, arranged in a way that frames the central text. The central text is in a white, serif font, reading "The Three Deadly Password Attacks!".

# The Three Deadly Password Attacks!



## Passwords are Compromised by:

- Brute Force Attacks
- Dictionary Attacks
- Password Reuse Attacks



Let's break it down:  
Brute Force Attack

# What does brute mean?

An absence of reasoning or  
intelligence.







# What is Force?

To make a way through or into  
by physical strength

# Putting it back together: Brute Force Attack

An attack that relies on the strength of modern computing to try all possible combinations to find the correct password.



The background features several abstract, hand-drawn style teal shapes. These include a large circle at the top center, a horizontal pill shape below it, and several other irregular pill and oval shapes scattered on the left side of the slide.

Defeating  
brute force  
attacks!

## Strong Password Characteristics:

- Letters (Upper and Lower)
- Numbers (0 through 9)
- Symbols (!, \$, # , %, ?)
- At least 8 characters long



Let's break it down:  
Dictionary Attack

# What is a Dictionary?

A book that list of words and  
their intended meaning.





## Putting it back together: Dictionary Attack

An attack that uses dictionary words and a list of commonly used passwords to guess the correct password.

# Defeating Dictionary Attacks!

## Avoid:

- Commonly used passwords
- Full words or sentences

## Be safe by:

- Breaking up words with numbers or symbols
- Remove vowels
- Replacing letters with symbols or numbers



Let's break it  
down:  
Password Reuse  
Attack





# Reuse

To use something again or  
more than once.



## Putting it back together: Password Reuse

An attack that relies on a reused passwords to gain access to your account.



# Defeating password reuse attacks!



Never reuse your passwords.

Avoid creating passwords that are similar to your other account's passwords.

# Password complexity

## A Bad password:

- Contains personal information (pet names or birthdays)
- Has repeating letters, numbers or symbols
- Is similar or the same as a password from another account
- Has unbroken full words or sentences

## A Good password:

- Has a good variety of letters, numbers and symbols
- Breaks up words with letters or symbols
- Is always 8 characters or longer
- Is Unique

The slide features six teal, hand-painted brushstroke-like shapes arranged in two vertical columns of three on either side of the central text. These shapes vary in orientation and size, adding a creative, artistic touch to the design.

# Password etiquette

Never share your password with  
anyone!



# Memorize your password!

Create a story for your password

Relate passwords to the website or service

Transform a phrase or quote

# Passwords – Good or Bad?





Ex 1.  
Passw0rd!





Ex. 2  
!@9YAt#f3h



Ex. 3 woRA70



Ex. 4  
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Ex. 5  
 $\text{Rone} * \text{HK} \% 5$





# Group Activity – Create a Password

& Worksheet

# Wrapping Up

We learned about three different password attacks.

We learned how to create strong passwords that can defeat these attacks.

We practiced creating strong passwords that are memorable.

The image features a dark blue background with a subtle gradient. In the center, the text "Think about what you learned" is written in a white, serif font. On the left and right sides of the text, there are three teal-colored brushstroke shapes arranged vertically, resembling stylized leaves or petals. The bottom of the image has a dark, irregular horizontal band.

Think about what  
you learned