

## Lesson 1.3: Super Password

### Objectives

In this lesson, students will be able to:

- ❖ Define what a password is and its purpose
- ❖ Explain why a strong password is important
- ❖ Create a memorable and strong password

### Agenda

- |                            |         |
|----------------------------|---------|
| 1. Combination Lock        | 10 mins |
| 2. Passwords               | 10 mins |
| 3. Create strong passwords | 15 mins |
| 4. Wrap-up and discussions | 10 mins |

### Preparation

- ❖ Activity “Create a strong password” (1 per student)

### Resources & Links

- ❑ <http://www.crazy4computers.net/password-power-up.html>
- ❑ Assessment: <https://drive.google.com/file/d/1BXZNg77wH8R-3CSYHO2c3rt9tPsw4Qwk/view>

### Alignment to CA CS Standards


Standards

- ❑ NI.5

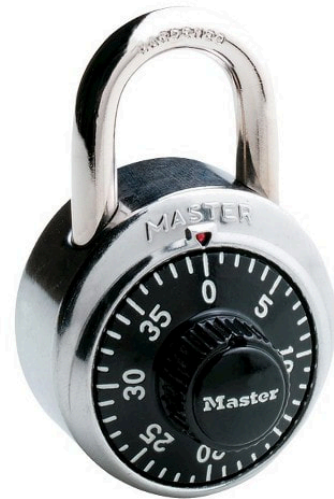
Core Practices


- ❑ (Communication) Communicating About Computing

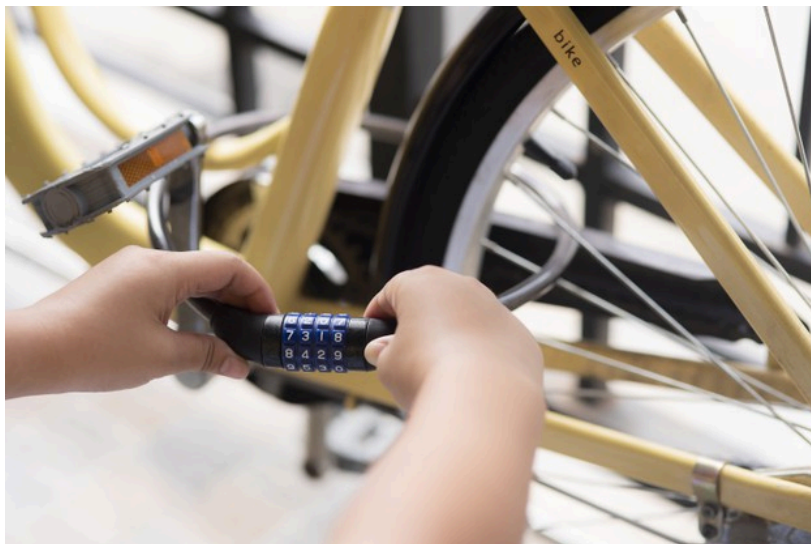
## 1. Combination Lock

 Engage a discussion with students about what a combination lock is:

- What is a combination lock?
- Do you know how it works?
- Why would someone use a combination lock?
- Why would you use a combination lock?



 Explain: Combination locks are locks that require a special combination of numbers to be turned in a specific order on a dial to be opened. The combinations are meant to be secret and hard to guess. Combination locks are used to keep physical property safe in a locker or cabinet. Different styles exist, you might have seen a different style to lock a bicycle for example



## 2. Passwords

When using computers and applications, you need to keep your information safe.

What is a password?

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Have you ever used a password?

Password- A secret string (combination) of letters, symbols, and numbers that you can use to restrict who can access something digital



Explain: Passwords are a lot like combination locks because passwords are secret combinations of letters, numbers, and symbols that only you know. Passwords keep other people from seeing your private information on the Internet.

For example, passwords allow gamers to save their points after playing an online game. When students are older, they will use passwords to do many things, such as keep track of their money or shop online.



### 3. Create strong passwords

Give an example of a weak password:

- First and last name
- Your birthday
- The word "password"

Give an example of a strong password:

- tUlip!@
- 3caTsDRinkM!!k

A strong password is made of

- Letters (upper and lower case)
- Numbers
- Special characters

Name of the Character	Character
at sign	@
percent sign	%
plus sign	+
backslash	\
slash	/
single quotation mark	'
exclamation point	!
number sign	#
dollar sign	\$
caret	^
question mark	?
colon	:
comma	,
left parenthesis	(
right parenthesis	)
left brace	{
right brace	}
left bracket	[
right bracket	]
tilde	~
grave accent	The grave accent cannot be reproduced in this document.
This character is also known as the backquote character.	
hyphen	-
underscore	_



**Activity:**

Distribute the Activity “Build a strong password” to students

Instructions: Come up with your favorite animal, desert, activity and write it on the first line (My weak password is). You will transform your password using 2 steps:

1. Change 2 lowercase letters to capital letters
2. Change some letters to number or add numbers
3. Change some letters to special characters or add special characters

Run through an example with your students and then let them work on their own password.

**4. Additional Content**



Watch some of the following video

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<https://youtu.be/yjeW9G7j-6I>

<https://youtu.be/IhIXtBNNuKs>

You can print the “Assessment” from the Common Sense Lesson on Strong Password and have students take the assessment to verify their level of understanding

<https://drive.google.com/file/d/1BXZNg77wH8R-3CSYHO2c3rt9tPsw4Qwk/view>

## 5. Wrap-Up and Reflections



### Reflection Points:

- Why are passwords important?
- What can help you make a strong password?
- Who should you share your password with?

## Build a strong password

Name: \_\_\_\_\_

My weak password is: \_\_\_\_\_

Change 2 lowercase letters to capital letters

\_\_\_\_\_

Change letters to numbers or add numbers

\_\_\_\_\_

Change letters to special characters or add special characters

\_\_\_\_\_

My strong password is: \_\_\_\_\_