

YoCWR Kids: What's in a Great Password?

Author: Graham Jackson

Toolkit inspired by Mozilla Foundation

# YEAR of {code}

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What's in a great password?  
Toolkit for children, beginner level  
One-hour lesson  
Last update: May 11, 2015

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## Big Picture Details

**Purpose:** Show the importance of passwords and learn how to create stronger passwords

## Target audience:

X	Kids	Adults	Seniors
	Pre teen	Family event	Seniors - RC
	Teen	Public event	Seniors - LTC

**Location:** School, Home School, Community (i.e. Library)

**Level:** Beginner

## Logistical Details

**Specific Learning outcomes:** After attending this session participants will

- Learn why passwords are important
- Understand how easy it can be to guess bad passwords
- Demonstrate knowledge on what makes a strong password
- Utilize password strength testers to test their own password strength

## Class size and Instructor Ratio:

- Flexible class size and instructor ratio
- Standalone kit
- No special assistance required

**Cost:** Free

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## Materials:

YoC/Hackademy will provide

- Electronic copy of course materials (to be distributed by course/site coordinator to participants)

Sponsor/Location will provide

- Tables and chairs - specify desired room type (groups of 4, U, classroom, etc.)
- Projector
- Computer for each participant or # computer for every # participant if working in small groups
- Flip chart paper or white board
- Markers
- Internet/wifi

## Course duration:

- 1 hour
- Minimal set up / tear down

## Instructor Qualifications:

- Working knowledge of internet usage, and prior experience with password generators / strength testers

## Lesson Plan

### What's in a Great Password?

Passwords are the first line of defence for all of your technology. Without a strong password, it's easy to lose control of your email address, personal photos, your phone, and so much more. With a strong password, even the most powerful programs on the inter web will struggle to break into your accounts. Think about the last time you made up a new password for something - did you just select whatever word came to mind? Did you type a simple "123456"? If so, what do you think other people will guess when they try to enter your accounts? Let's learn about passwords, and make sure that you never have to use a bad password again.

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### Test your Password Strength

Let's look at some **bad** passwords. [SplashData](#) is a website that ranks the most common passwords online, using information from leaked passwords. Look below, and



try to think about what is common among these passwords.

- |              |              |
|--------------|--------------|
| 1. 123456    | 13. letmein  |
| 2. password  | 14. abc123   |
| 3. 12345     | 15. 111111   |
| 4. 12345678  | 16. mustang  |
| 5. qwerty    | 17. access   |
| 6. 123456789 | 18. shadow   |
| 7. 1234      | 19. master   |
| 8. baseball  | 20. michael  |
| 9. dragon    | 21. superman |
| 10. football | 22. 696969   |
| 11. 1234567  | 23. 123123   |
| 12. monkey   | 24. batman   |
|              | 25. trustno1 |

### The Worst Passwords of 2014:

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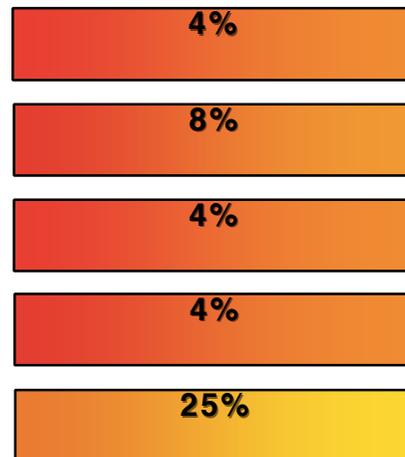
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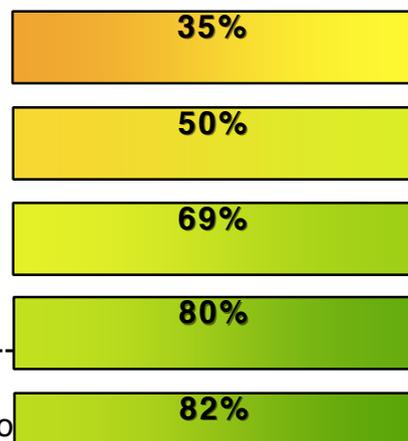
**Discussion:** What do you notice about these passwords? How long are they? Are they mostly numbers, letters, or a combination of both? Are they simple words?

Let's test some passwords! Test your own passwords at [passwordmeter.com](http://passwordmeter.com). All you have to do is enter your password and see how it ranks. How did the worst passwords of 2014 fare?



123456	
password	
12345	
12345678	
trustno1	

EEK - not even a passing grade! Try some different passwords and see what makes for a better password. Here are some stronger password examples:



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letters43	
Letters4	
L-etters4	
L-ett3rs4	
L-ett3rS4	

**Try It:** Can you make a password score 100% and still be easy to remember?

### Remember your Great Passwords

You might have noticed that it can be hard to create a 100% strong password without it seeming like long random mess that you'll never remember. Don't worry! That doesn't have to be the case. Here are some ways you can remember great passwords.

### The Passphrase Password

The passphrase approach means all you have to remember is four words. It makes for a longer password, but they are very hard to crack when the passwords are so long. Create some random passphrases using [this generator](#).

**railroad doing earlier union**

Generate Another!

### The Pronounceable Password

You can create random words at [Pass Creator](#) that you can actually pronounce! Just select the pronounceable option, and see what passwords you create. These passwords can be nice and strong, and usually easy to remember, too. Try it out!

**NUNavaPuk**

### The Personal Password

It's easy to remember things that are personal to you. Select some numbers and words that are important to you, but are combined together in a way that other people wouldn't understand. Think of your favourite objects, places, birthdays, and so on.

**France** (favourite country) + **1984** (birth year) + **green** (favourite colour)  
=  
**France1984green**

### The Random Password

It's going to be harder to remember these passwords, but nobody could guess these easily without using complicated computer programs. Use [Pass Creator](#) without the pronounceable option, add in some numbers, and see what you get!



### Activity: Can you remember your password?

Create a password from each style above. Once you create a password, write it down on the same sheet for each password. Take 60 seconds to try and remember the first password, then spend another 60 seconds for the next password, and so on. Turn the paper over and continue to the last part of this workshop before flipping them over. After, we'll go over them together and see which kind of password works for you.

### Tips for Great Passwords

By this point, you should be able to guess what makes a good password, and what makes a bad password. What do you think are some rules for good passwords? After you've given it some thought or talked it over, see how it compares to this simple list below.

- Is at least 8 characters long
- Isn't a simple personal detail about yourself, like your name
- Contains both numbers, uppercase letters, lowercase letters, and symbols

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- Isn't the same password you use for other sites
- Is not too hard to remember

Now, on the back of your piece of paper, try to write the four passwords you just memorized. Which were easy? Which were hard? Consider this when you choose your passwords in the future.

By following some of those rules, your passwords will be safer than ever, and that means all of your private information. A strong password means you don't have to worry about people breaking into your online life, and now you will be able to create a variety of strong passwords to suit all of your accounts.

### **Version control:**

Updated by Graham on May 11, 2015:

- Inspired and ideas from:  
<https://stacy.makes.org/thimble/MjAxMjlxNzYwMA==/whats-wrong-with-your-password>

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