



# The Basics

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Ground rules, internet safety, typing &  
Radia Joy Perlman



01

## GROUND RULES

What to expect in Girls Code Club for the next year!



# OUR RULES

g i r l s

c o d e

c l u b

ANCASTER SCIENCE F

## In Girls Code Club, we:

- Show kindness to other coders.
- Try our best, and learn from our mistakes.
- Are active listeners, and ask questions.
- Encourage our peers, and help them learn.



**02**

**ICE BREAKER**



# What's an Ice Breaker?

## Ice Breaker

A way for each coder to get a little more comfortable around their peers.

## Algorithms

In code, we sometimes have things called **sorting algorithms**. Algorithms are a set of instructions. **What does sorting mean?**

# Sort Animals By Size (Silently)

## The Game

- Each coder will get a piece of paper with an animal name on it.
- **Goal:** Sort yourselves from largest to smallest animal!
- **Rules:** You cannot say any words, or make any sounds. You cannot show anyone your piece of paper.





**03**

**INTERNET SAFETY**



# Internet Safety

Once you put something online, it's there forever. You can take it down, but someone may have already seen it and saved it. Because of this, we shouldn't be putting anything personal online.

What is an example of personal information that should not go on the internet?



<https://cliqz.com/en/magazine/10-tips-better-internet-safety>

- Safety Video
- Quiz #1
- Quiz #2



# Internet Safety (Exercise)

Come up with a username! This will be used on anything public-facing that we make in Girls Code Club. It can be anything you want it to be, but should **not include personal information**.

## Do NOT Include Your:

- Name
- Nickname
- Age
- Birthday
- Address
- School or grade level

## You COULD Include Your:

- Pet's name
- Favorite Animal
- Favorite # or color
- What you want to be when you grow up
- A username you already use

Example Username: **blue\_f0x\_C0der**



# 04 SHERO OF THE MONTH

Radia Joy Perlman



# Radia Joy Perlman, “Mother of the Internet”



- From New Jersey, and still alive today!
- Only girl in her college classes
- Created a kid-friendly coding language, and pioneered teaching young kids how to code!
- Spanning Tree Protocol created network/internet security



**05**

## **TYPING 101**

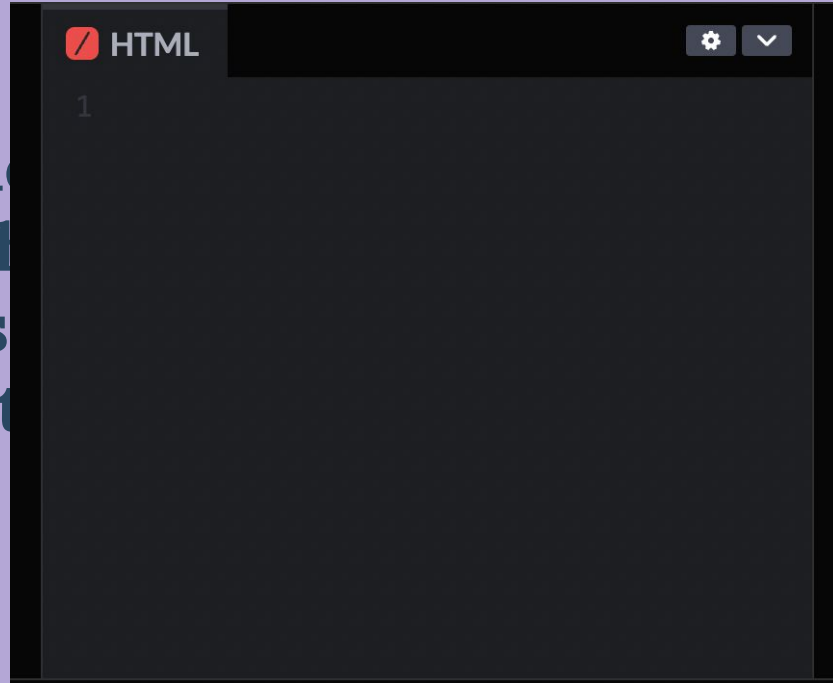
Stretching our Coding Fingers



# Typing Is Tricky – So Many Keys!!!

Typing can be really tricky, but you need to do a lot of it when you're coding! We're going to start stretching our coding fingers with some fun exercises and typing games. Let's start by typing this into Codepen!

I love <code>  
computer  
computers  
who build t



me “tell” a  
ter all,  
umans

## Typing – Additional Practice

{Emma} has a dog named “Moirā”. Her dog  
<loves> to eat... chicken nuggets!

Find all of the coding symbols: !#\$%&'()\*+,-./:;<=>?

# Typing Games

These games are already up on your laptop. Please **do not** open any games that you are not being asked to play. If a coach or volunteer sees you on a website or game you're not supposed to be on, you'll be asked to stop playing and will instead need to keep typing examples like earlier.

## Games:

- Keyboard Climber 2
- Flappy Typing
- Keyboard Ninja

## Typing – Additional Practice

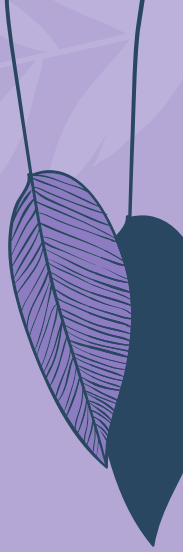
What can you do with coding? It's not just building websites! Some things you can do: [web developer, military, software for space ships, building apps for medicine...]

Type 3 sentences telling me what you want to learn in Girls Code Club.



## Typing - Lorem Ipsum “Filler” Code

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.





**06**

## **Variables**

(If we have time.)



# Variables



## A variable...

Stores information so you can use it later. The **value** of your variable can change, but the **type** must stay the same. Types:

- Number
- String (text)
- Boolean (true or false, yes or no)

# Variables



## A variable...

Is also kind of like putting something in a box!

var stands for “variable”

```
var cats = 1;
```

How many cats do I have in my box?

# Variables



What if...

```
var cats = 5;
```

How many cats do I have in  
my box now?

# Variables



## A variable can also...

Be a string. Strings are just text wrapped in quote marks – “ “.

Let's use **dogCostume** to describe what my dog is wearing!

```
var dogCostume = "hot dog"
```



# Variables



Another example...

```
var dogCostume = "harness"
```

**Question:** Can I change the variable **dogCostume** to **false**, to show that she doesn't have clothes on anymore?

**Answer:** No! That would be changing the variable **type** from a string to a boolean. Now that **dogCostume** is a string, it must always be a string.

# Variable Expressions

Variables can be written as an **expression**, just like in math! See if you can figure out what the values of these variables are:

**var apples = 5 + 3**

var cats = 4

var dogs = 1

var geckos = 1

**var pets = cats + dogs + geckos**



# Variable Expressions

Even though strings are text, you can add them too!

```
var color = "green"
```

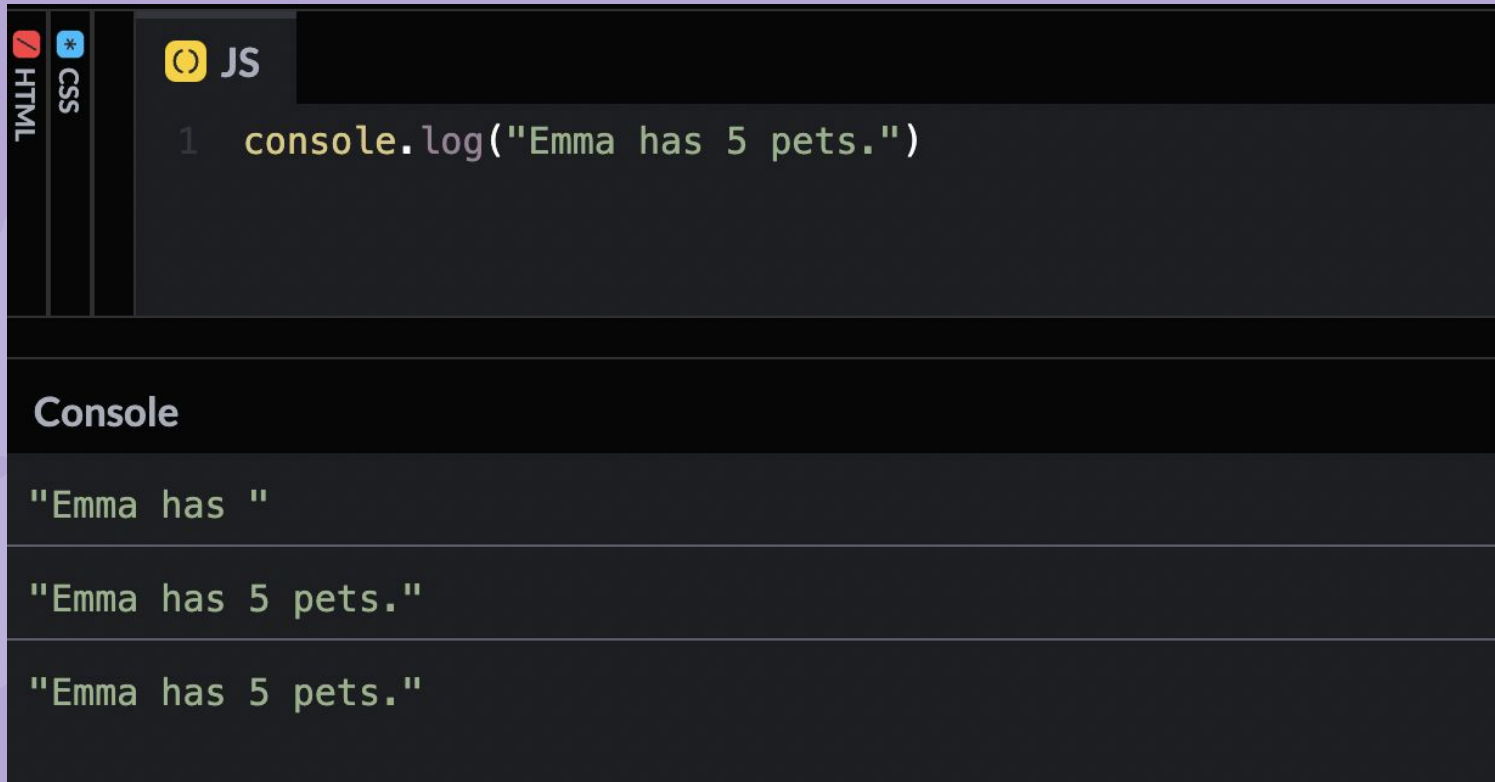
```
var food = "bean"
```

```
var word = color + food
```

That makes "greenbean", but what if I want to include a space between the words "green" and "bean"?

# Try it Yourself!

Using the **JavaScript side of CodePen**, tell us how many pets you have.



The image shows a screenshot of the CodePen web application. On the left, there are three tabs: 'HTML' (with a red icon), 'CSS' (with a blue icon), and 'JS' (with a yellow icon). The 'JS' tab is selected. The main editor area is dark and contains a single line of JavaScript code: `1 console.log("Emma has 5 pets.");`. Below the editor, there is a 'Console' section. It contains three log entries, each on a new line: `"Emma has "`, `"Emma has 5 pets."`, and `"Emma has 5 pets."`. The background of the entire slide is a light purple color with faint, stylized leaf patterns. On the right side, there is a larger, more detailed illustration of a leaf hanging from a stem.

```
JS
1 console.log("Emma has 5 pets.");
```

Console

```
"Emma has "
```

```
"Emma has 5 pets."
```

```
"Emma has 5 pets."
```

# THANKS!



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