

# National Girls Learning Code Day: Startup Website

Duration: 2 hours

LEVEL	SUBJECTS	PROVINCES / TERRITORIES	TOOL
Grades 4-6, 7-8	Language Arts; Career Education; Science and Technology	Across Canada	HTML & CSS, Glitch

## Overview

Learners work in teams to choose a problem they'd like to solve, then brainstorm a startup idea together and create a website to share their idea with others.

## Prep Work

- Watch the "Content 101: Glitch" video: <http://bit.ly/content101-videos>
- Review the starter project (click "view source" to view the source code): <https://startup-website-starter.glitch.me/>
- Print the Solution Sheet for the main activity: <http://bit.ly/startup-website-solution>
- You will need computers and access to the internet for this session.
- Learners will need emails to save their projects.

## Materials:

- Paper + markers for brainstorming (anchor chart paper recommended)

## Key Coding Concepts

- ✓ Sequence
- ✓ Debugging

## Terminology

### Entrepreneur

An entrepreneur is someone who is starting a new business. Entrepreneurs are problem-solvers, innovative thinkers, they take initiative, and are risk-takers.

### Startup

A startup is a new business. Neil Blumenthal (CEO of Warby Parker) defines a startup as "a company working to solve a problem where the solution is

## Lesson

### Introduction

Ask: What is an entrepreneur? (A: an entrepreneur is someone who is starting a new business.)

Another word for a new business is a startup.

Think, Pair, Share: What are some qualities of an entrepreneur? What sort of skills or mindset would someone need to begin their own startup? (Think of 1-2 words to describe them)

**Today, we are working in teams to solve a problem.. and creating websites to share our startup ideas with others.**

### Brainstorming in Teams

Divide learners into groups of 2-3. Provide each team with a piece of anchor chart paper and markers.

Have teams create a mind map of possible startup ideas. Consider the following questions:

- What is important to you?
- What issues do you see around you or in the news?
- What is a problem that you'd like to solve?
- If it already exists, can we improve and make it better?

Have learners write all of their ideas down, then start drawing lines between ideas that connect. Give them 5 minutes to brainstorm before circling your team's favourite idea. This is the topic they will focus on for the lesson.

**Prompts:** If any teams have trouble deciding, here are some ideas to get them thinking:

- How might we get people to eat more healthy meals?
- How might we prevent bullying?
- How might we encourage people to recycle?

not obvious and success is not guaranteed”

### **HTML**

HTML (hypertext markup language) is a language used for tagging or “marking up” text files to achieve font, colour, graphics, videos, and links on webpages.

### **CSS**

CSS (cascading style sheets) is the visual language used for presentation or styling of a document written in a markup language. CSS files are what make the web colourful, patterned, responsive, and cool.

### **Tags**

A tag is a piece of code that specifies how the document or piece of the document should be formatted. Tags have angled brackets.

### **Curricular Connections**

Developing and organizing content, Form and style in writing, Understanding media texts, Creating media texts, Continuity and change, tools and technologies, entrepreneurship, innovative thinking, digital citizenship, problem-solving.

- How might we help endangered species?
- How might we keep our desks more organized?

Now that we have our startup ideas, give teams 5 minutes to decide on a startup name.

**Check-in:** Have each team share their idea with the class in 30 seconds or less, or check in with teams individually while they are deciding on a name.

## Building Websites

Ask: What is code? (A: Code is a set of instructions that tells the computer what to do.)  
We are going use code to build our own websites!

Use the HTML Basics slides to introduce learners to HTML: <http://bit.ly/html-basics-slides>

We are going to use Glitch to create and share our websites.

Use the Solution Sheet (<http://bit.ly/startup-website-solution>) to walk learners through the following steps:

1. Signing in (email required)
2. Remixing the starter project
3. Setting up your workspace in Glitch
4. Updating the title
5. Updating the heading
6. Adding information
7. Adding images

Next up is styling! We can use CSS to make our website look beautiful. Open [css.cool](http://css.cool) in a new tab to explore some styling options.

Continue with the Solution Sheet to complete the following steps:

1. Exploring CSS styles
2. Changing colours
3. Changing fonts
4. Styling images (stretch goal)

## Closing

Ensure that learners have updated the name of their website. Have learners bookmark or copy their preview URL (e.g. my-website.glitch.me). This is the link that they can use to share their website with others.

## Assessment

### Learning Outcomes

I can use my skills, strengths, and interests to help others.

I can practice innovative thinking by using original, creative solutions, or taking an existing idea and making it better.

I can add content to my website using HTML.

I can add style to my website using CSS.

I can use websites to share information with others.

I can use Glitch to KEEP CODING!

## Extensions

**Collaborate in Glitch:** Have multiple learners working in the same project on separate computers. Inside of the project, select “Share” > “Invite others to edit” and share this link with the remaining team members.

**Upload additional images:** Instead of using the preloaded images, learners can search for their own images and upload them under “Assets” > “Add asset” > “Upload.” Encourage learners to use creative commons images, for example images found on [pexels.com](https://www.pexels.com).

**Add more HTML elements:** Have learners open the HTML reference in a new tab and use this as a reference for new sorts of elements - like links, iframes/videos, etc:

<https://www.w3schools.com/tags>

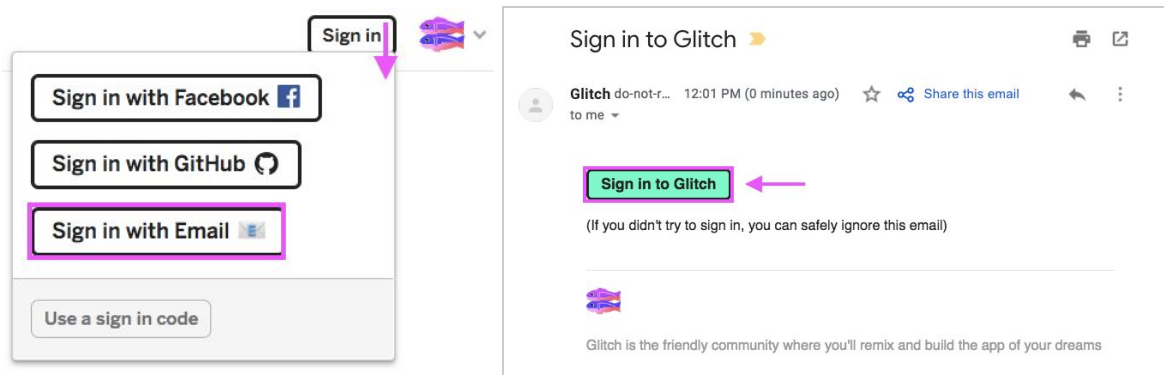
**Design your own logo:** If time, learners can create a logo for their startup using [canva.com](https://www.canva.com), and add it to their website.

**Pitch your startup ideas:** Have each team present their startup idea and website to the class. You can even turn it into a pitch competition, to see which group came up with the most innovative idea.

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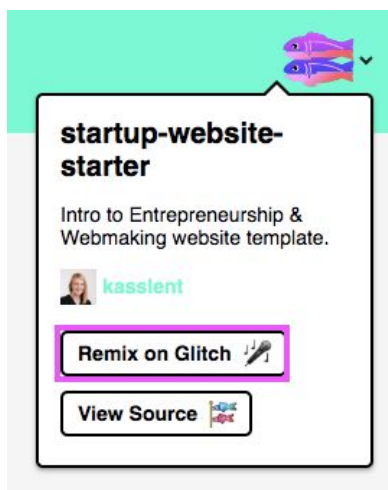
## STEP 1: Sign in

1. Have learners go to <https://glitch.com> and sign in with email.
2. They will need to go to their inbox and click on the confirmation button to begin.

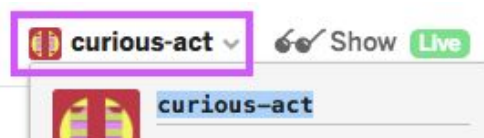


## STEP 2: Remix the Starter Project

1. Open the starter project: [startup-website-starter.glitch.me](https://startup-website-starter.glitch.me)
2. Select "Remix on Glitch"

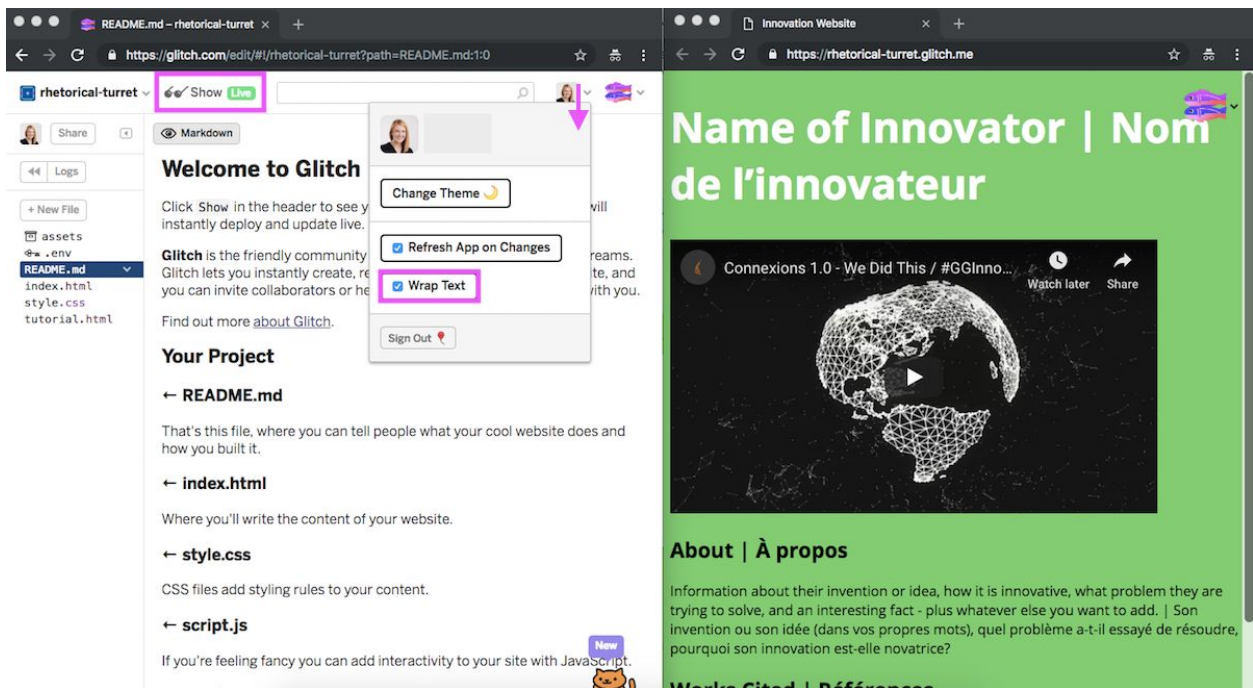


3. Change the project name (top left)



### STEP 3: Set Up Your Workspace in Glitch (optional)

1. Select your profile image, then “Wrap Text” to make the code easier to read.
2. In order to view changes as you go, select “Show Live,” then arrange the code and preview pages beside each other like the image below.

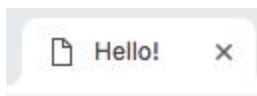


### STEP 4: Update the title

1. In the **index.html** tab, find the **<title>** element (line 4)
2. Update the **<title>** to the name of your startup idea

4 ✓ `<title>Hello!</title>`

\*You'll notice that this doesn't change anything on the website (visually). That's because this is a 'behind-the-scenes' name that is used when users search for our site or bookmark/save it in their browser.



## STEP 5: Update the heading

1. The title that we actually see on the page is called a Heading. Find the `<h1>` tag on line 13.
2. Update the text with the name of your startup idea.

```
13 <h1>Name of Startup</h1>
```

## STEP 6: Add information

1. Update the paragraphs `<p>` with information about your startup idea
2. Optionally change the names of the headings `<h2>` or add new ones!

```
23 <h2>About Our Startup Idea</h2>
24 <p>
25     More info here.
26 </p>
```

## STEP 7: Add an image

1. Open the "assets" tab and select the image that you'd like to use. (Optionally upload your own image under "add asset" > "computer")
2. Click on the image, then "copy url" so we can add it to our webpage.



3. Back in the "index.html" replace the `src` by pasting your new image URL. (see below)

```

```

- Update the **alt** attribute to describe your new image. This will help make your website more accessible to people who are blind or have other disabilities.

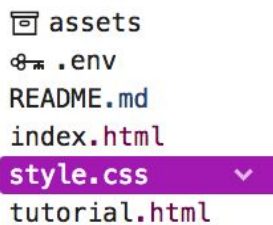
```

```

- Images are formatted a bit differently than other html elements. You'll notice that the **<img>** element doesn't have a separate opening and closing tag - both tags have been squished into one!
- Optionally, add more images. Learn more about images here: [w3schools.com/tags/tag\\_img.asp](http://w3schools.com/tags/tag_img.asp)

## STEP 8: Explore CSS styles

- The CSS file is where the styles for the website are kept. Open the **style.css** tab to see the existing styles. What do you see?



- Explain that CSS uses different formatting than HTML. It uses curly brackets instead of angled ones. It uses colons and semicolons to organize **what** is being styled and **how**.
- Open [css.cool](http://css.cool) in a new tab.
- Show learners how to click on a style on css.cool (which automatically copies the code for us!) then paste the code into style.css using CTRL+V





## STEP 9: Change the colour

1. Find a colour that you like on [css.cool](#) ("Colors" page) and click to copy.
2. Try changing the colour of the **header** section. Which part of the website is updated when you do this?

```

9  header {
10  background-color: Aquamarine;
11  text-align:center;

```

3. Try changing the **background-color** in the **body** with a new colour.

```

3  body {
4  font-family: Verdana, Geneva, sans-serif;
5  background-color: WhiteSmoke;
6  margin:0px;
7  }

```

## STEP 10: Change the font

1. Find a font that you like on [css.cool](#) ("Font families" page) and click to copy.
2. Try changing the font of all the text in the **body** or one specific element (e.g. **h1** or **h2**)

```

3  body {
4  font-family: Verdana, Geneva, sans-serif;
5  background-color: WhiteSmoke;
6  margin:0px;
7  }

```

## Stretch Goal: Style the images

1. Find a border or shadow style that you like from [css.cool](#) and click to copy.
2. Add it to the **img** styles by pasting it between the { curly brackets }
3. Add as many as you'd like!

```
31 ✓ img{  
32     max-width: 100%;  
33     border: 5px solid plum;  
34 }
```

### Finished? Share your website!

1. Remind learners to rename their project (top left) with their first names. Have them check with a partner to make sure they both renamed their projects.
2. The link to their website is the same as the preview link ("show live")
3. Have them copy the URL and share it with you online (Twitter, Google Classroom, etc.).

