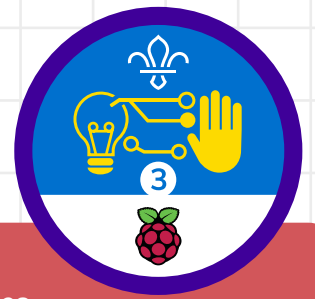


Make a website

1



Overview

This activity meets **requirements one** and **three** of **stage three** of the **Digital Maker Staged Activity Badge** ('In a coding language of your choice, create a basic program to meet a need of Scouting or your section' and 'Design and create digital graphics for use as part of one of the above'). It shows people how to use HTML and CSS code to create a website that will show their group profile, and teach a skill they're interested in.

Key messages

- HTML (Hypertext Markup Language) is a key language with which all websites are built.
- You can add pictures, videos, and other media to your website using HTML code.
- CSS (Cascading Style Sheets) is a language that is used together with HTML code. CSS code changes the way things on website look (for example, colour, size, position, etc.).

Safety

If young people are working online, they should ask for permission before viewing any other websites. It's a good idea to set up parental controls – you can find instructions on the NSPCC website ([rpf.io/scoutsnspcc-online](https://www.nspcc.org.uk/keeping-children-safe/online-safety/)). You should also give each young person a 'Stay safe' leaflet ([rpf.io/scouts-staysafe](https://www.nspcc.org.uk/keeping-children-safe/online-safety/)).

If people are working online, their profiles shouldn't contain any personal details (such as full names, specific locations, or pictures of themselves).



45 to 90 minutes



Individual, pairs, or groups of three



If you're running this activity without internet access, see the offline guide. You'll probably also want to print handouts.



Indoors, wherever you have access to computers

You will need:



- Computers
- Activity handouts (at least one for each group)

If your meeting place has internet

Use the online code editor Trinket in a web browser.

- Here's the starter project on Trinket: [rpf.io/scouts-website-starter](https://trinket.io/scouts-website-starter).
- Here's the finished code for the example website on Trinket: [rpf.io/scouts-website-finished](https://trinket.io/scouts-website-finished).

If your meeting place doesn't have internet

Check out the 'Offline guide' section of this document.

Leader instructions



- 1** Chat about what websites are, and what kind of information people expect to find on them.
- 2** Explain that the challenge is to create a website that will show a profile with badges and favourite activities.
- 3** Explain that everyone will use HTML code to create their website and CSS code to make it look nice.
- 4** Organise young people into groups if they're working in groups, then give everyone (or each group) a copy of the handout.

Alternatives



- See the 'Offline guide' part of this document if you're working offline.
- If young people are working in groups, the first page of their website could be about their group, rather than one person.
- If you don't have much time, people could just make one page of the website – it doesn't matter which page they make.

Adaptability



- Consider pairing young people who have no knowledge of HTML with those who do.
- For a challenge, get young people to add more items to their profiles.
- If any young people get stuck, show them the finished code (found below) so they can see what their code should look like.

Community and sharing



Young people should have the chance to tell everyone else about their code (or how they found or fixed a bug).

There may be times when young people in your group will need to write HTML or CSS code offline. Here's a short guide to writing and editing HTML or CSS code and viewing pages you've coded offline.

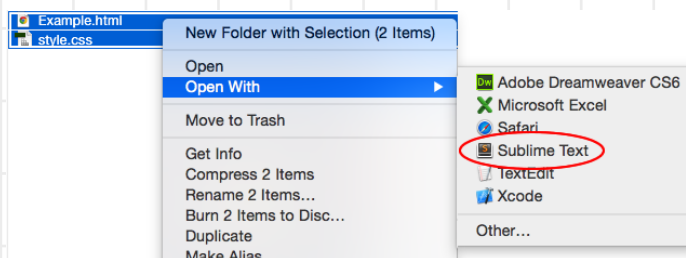
Writing the code

The project's downloadable resources (found here: **rpf.io/scouts-website-downloads**) include all the starter code for the web page, including the following files:

- **index.html**
- **style.css**
- **page2.html**

Make sure that these files (as well as any images) are saved in the same folder. If you're adding any other pages, make sure you also create these in the same folder and save them with the file extension **.html** (for example, **page3.html**).

Open these files in an editor program. We recommend the Sublime Text 3 software (**www.sublimetext.com/3**), but there are lots of other good editors available. A simple, pre-installed text editor (Notepad on Windows, TextEdit on Mac, or Leafpad on Linux) also works. To open all the files for your web page at once, highlight them all and then right-click to open them.



First, you'll need to download the ZIP folder that contains the starter code. You can put this folder on a USB drive and copy it to computers that don't have access to the internet.

Go to this page:

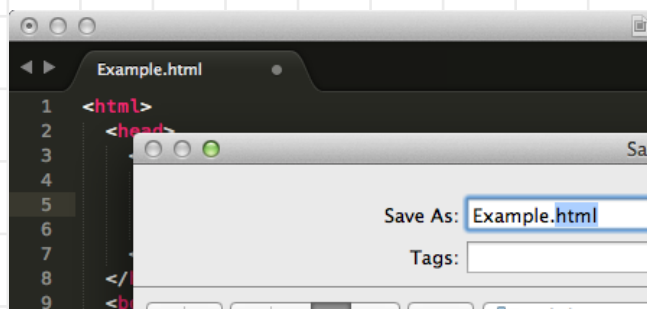
rpf.io/scouts-website-downloads

and click the 'Download' button to copy the ZIP folder to your computer. To access the files in it, just double-click it – your computer will unpack a regular file folder.

We've also included a copy of the finished code, in case you have no internet access at all. People can use it to build the website from scratch.

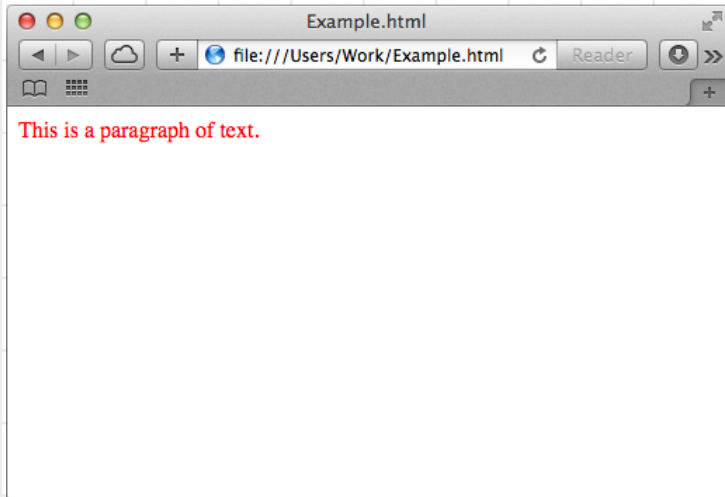
Saving the code

After writing your HTML and CSS code, save your files. Make sure that the files have **.html** and **.css** file extensions.

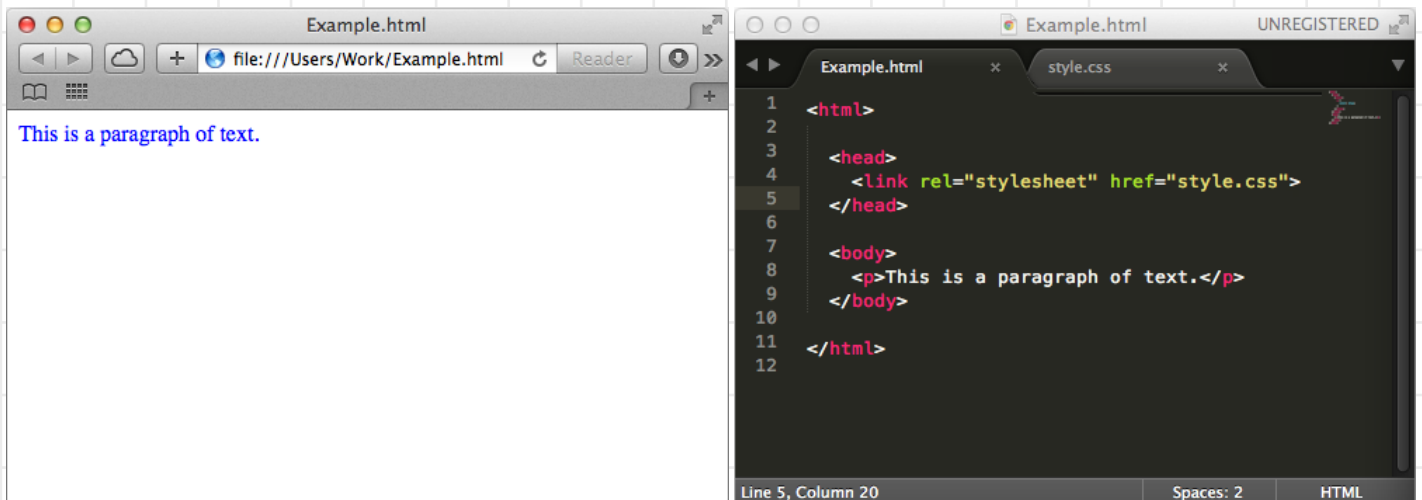


Viewing the web page

To view a web page, double-click the **index.html** file to open it in a browser. If it opens in a text editor and not a browser, make sure that it has a **.html** file extension in the name.



The easiest way to see the changes that you're making to your web page is by opening your files in both a browser and a text editor. You can then make changes in the text editor, save your changes and then click **Refresh** in the browser to see your updated web page.



index.html

```
<html>
<head>
  <link rel="stylesheet" href="style.css">
</head>
<body>

  <h1>Raspberry Pi Scouts profile</h1>

  <p> Hello, my name is Raspberry Pi. I am a very small
  computer. I like being used for a variety of indoor and outdoor
  activities. On this page, you can find information about my
  favourite Scouting activities and badges.</p>
  <div class="column1">
    <div class="item">
      <h2>Top 5 activities</h2>

      <ol>
        <li>Digital Programming</li>
        <li>Camping</li>
        <li>Photography</li>
        <li>Skateboarding</li>
        <li>Geocaching</li>
      </ol>

    </div>
    </div>

    <div class="column2">
      <div class="item">
        <h2>My badges</h2>

        
        
        
        
        
      </div>

      </div>

      <div class="item2"><a href= "page2.html">Page 2</a></div></p>
</body>
</html>
```

page2.html

```
<html>
<head>
  <link rel="stylesheet" href="style.css">
</head>
<body>

  <h1>Make a stop-motion video</h1>

<div class="item2"><a href= "page2.html">Page 1</
a></div></p>

  <div class="column1">
    <div class="item">

      <h2>Instructions</h2>

      <ol>
        <li>First, get your section to make the
        'set' where their animation will be filmed. It's
        a simple set comprising a couple of pieces of
        white foam board, one for the base and one for the
        background. You'll need to prop the background board
        up against a heavy object. </li>
        <li>Using your smartphone or tablet,
        download free stop-motion software, such as JellyCam
        or qStopMotion. If you're using an iPhone or iPad,
        you can download Stop Motion Studio from iTunes.</
        li>
        <li>Show your section the demo run of
        the software you'll be using to make the film to
        familiarise yourselves with the process.</li>
        <li>Start shooting the movie! Each young
        person can have a go at creating a scene or short
        animation.</li>
      </ol>

    </div>
  </div>

  <div class="column2">
    <div class="item2">

      <h2>Picture</h2>

      
      <iframe width="560" height="315" src="https://
      www.youtube.com/embed/cMGyuucCmuY" frameborder="0"
      allow="autoplay; encrypted-media" allowfullscreen></
      iframe>
    </div>

  </div>
</body>
</html>
```

In this activity, you're going to make a website that shows your Scouts profile and teaches a skill to others. Here's an example of what someone's profile could look like:


Raspberry Pi Scouts profile

Hello, my name is Raspberry Pi. I am a very small computer. I like being used for a variety of indoor and outdoor activities. On this page, you can find information about my favourite Scouting activities and badges.

Top 5 activities

1. Digital Programming
2. Camping
3. Photography
4. Skateboarding
5. Geocaching

My badges



[Page 2](#)



Make a stop-motion video

[Page 1](#)

Instructions

1. First, get your section to make the 'set' where their animation will be filmed. It's a simple set comprising a couple of pieces of white foam board, one for the base and one for the background. You'll need to prop the background board up against a heavy object.
2. Using your smartphone or tablet, download free stop-motion software, such as JellyCam or qStopMotion. If you're using an iPhone or iPad, you can download Stop Motion Studio from iTunes.
3. Show your section the demo run of the software you'll be using to make the film to familiarise yourselves with the process.
4. Start shooting the movie! Each young person can have a go at creating a scene or short animation.

Picture



Trivia

The internet and the World Wide Web are different things. The internet's a network of computers; the World Wide Web acts as a bridge for accessing and sharing information across the internet. Websites are part of the World Wide Web. You can check out the first website ever made here: info.cern.ch.

1 Open the project at rpf.io/scouts-website-starter.

The code that you can see on the left is in a language called **HTML**. On the right, you can see the web page that the HTML code has made. HTML uses **tags** to build web pages.

2 Can you see this HTML at line 7 of your code?

```
<h1> Write your website title here </h1>
```

`<h1>` is an example of a tag, and it stands for **heading 1**. You start the heading with a `<h1>` and end it with `</h1>`.

If you want a smaller heading, you can try `<h2>` or `<h3>` instead of `<h1>`.

3 Give your website a proper heading. **Don't share personal details such as your full name. Use a nickname (or a code name) instead.**

index.html style.css page2.html + ↕ 📄

```
1 <html>
2 <head>
3   <link rel="stylesheet" href="style.css">
4 </head>
5 <body>
6
7   <h1>Raspberry Pi Scouts profile</h1>
8
9   <p> Hello, my name is Raspberry Pi. I am a very small compu
10 <div class="column1">
11 <div class="item">
12
13   <h2>Title one</h2>
```

Raspberry Pi Scouts profile

Hello, my name is Raspberry Pi. I am a very small computer. I like being used for a variety of indoor and outdoor activities. On this page, you can find information about my favourite Scouting activities and badges.

Title one

Title two

4 On line 9, under the heading you just changed, code your own introductory paragraph using these tags: `<p>write your introduction in between the tags</p>` Here's an example:

index.html style.css page2.html + ↕ 📄

```
1 <html>
2 <head>
3   <link rel="stylesheet" href="style.css">
4 </head>
5 <body>
6
7   <h1>Raspberry Pi Scouts profile</h1>
8
9   <p> Hello, my name is Raspberry Pi. I am a very small compu
10 <div class="column1">
11 <div class="item">
12
13   <h2>Title one</h2>
```

Raspberry Pi Scouts profile

Hello, my name is Raspberry Pi. I am a very small computer. I like being used for a variety of indoor and outdoor activities. On this page, you can find information about my favourite Scouting activities and badges.

Title one

Title two

- 5** Now change 'Title one' on line 13 to 'Top 5 activities', and change 'Title two' on line 22 to 'My badges'.



```
index.html style.css page2.html + ↕ 🖨
```

```
5 <body>
6
7 <h1>Raspberry Pi Scouts profile</h1>
8
9 <p> Hello, my name is Raspberry Pi. I am a very small compu
10 <div class="column1">
11 <div class="item">
12
13 <h2>Top 5 activities</h2>
14
15
16 </div>
17 </div>
18
19 <div class="column2">
20 <div class="item">
21
22 <h2>My badges</h2>
23
```

Raspberry Pi Scouts profile

Hello, my name is Raspberry Pi. I am a very small computer. I like being used for a variety of indoor and outdoor activities. On this page, you can find information about my favourite Scouting activities and badges.

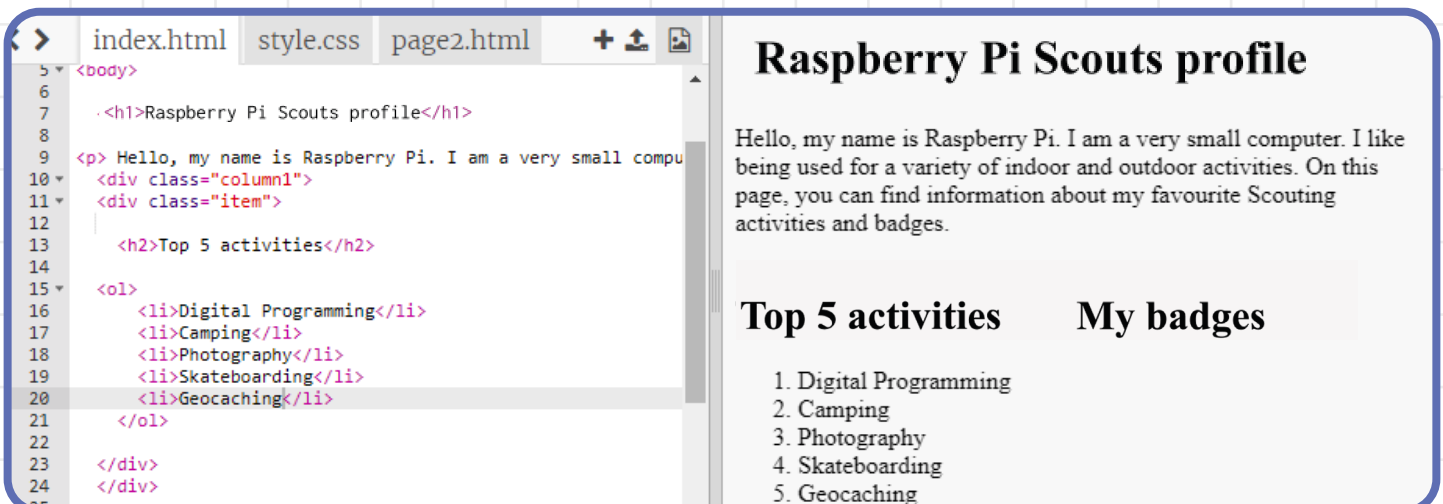
Top 5 activities

My badges

- 6** Under the heading 'Top 5 activities', add your top five favourite Scouts activities using an ordered list (a list that's numbered). To create your ordered list, use the following HTML tags:

```
<ol>
  <li>first item</li>
  <li>second item</li>
  <li>third item</li>
  <li>fourth item</li>
  <li>fifth item</li>
</ol>
```

You should end up with something similar to this:



```
index.html style.css page2.html + ↕ 🖨
```

```
5 <body>
6
7 <h1>Raspberry Pi Scouts profile</h1>
8
9 <p> Hello, my name is Raspberry Pi. I am a very small compu
10 <div class="column1">
11 <div class="item">
12
13 <h2>Top 5 activities</h2>
14
15 <ol>
16 <li>Digital Programming</li>
17 <li>Camping</li>
18 <li>Photography</li>
19 <li>Skateboarding</li>
20 <li>Geocaching</li>
21 </ol>
22
23 </div>
24 </div>
25
```

Raspberry Pi Scouts profile

Hello, my name is Raspberry Pi. I am a very small computer. I like being used for a variety of indoor and outdoor activities. On this page, you can find information about my favourite Scouting activities and badges.

Top 5 activities

1. Digital Programming
2. Camping
3. Photography
4. Skateboarding
5. Geocaching

My badges

- 7** Now it's time to add images of your badges below the 'My badges' heading. Add this HTML code below the heading:

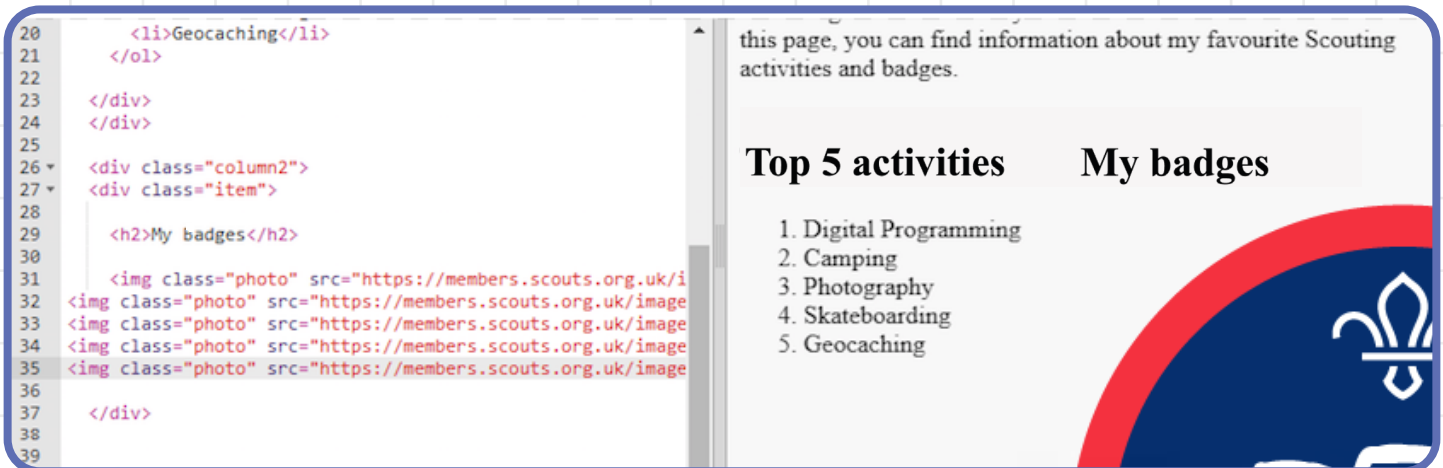
```

```

- 8** Find the image of a badge you have by searching online. Once you've found it, right-click the image. In the menu that appears, click on the option to 'open the image in a new tab'. Switch to that new browser tab, copy the web image address from the address bar, and paste it into the code where it says paste the image address here.

Note: Make sure you don't remove the "" quotation marks!

As an example, we've added a few different images:

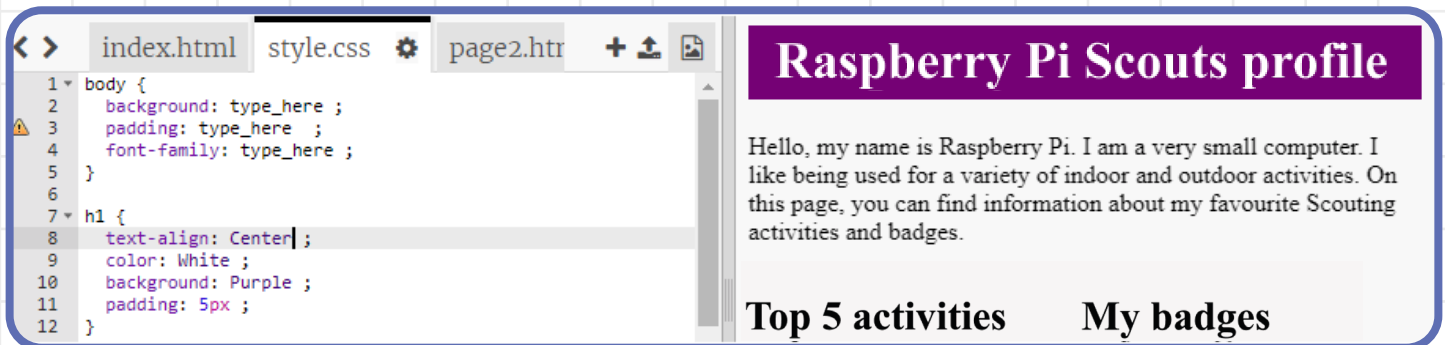


To change the look of your web page, you need to use a separate file to write code in a language called CSS. We've created this file for you already. It's called **style.css**. You'll find it above the window with the HTML code, to the right of the **index.html** tab:



9 Switch to the **style.css** tab to begin styling your website.

10 Now find where the h1 style rules go. This is where you will fill in your own style rules. This is just an example, you can choose your own rules:



```
1 body {  
2   background: type_here ;  
3   padding: type_here ;  
4   font-family: type_here ;  
5 }  
6  
7 h1 {  
8   text-align: Center ;  
9   color: White ;  
10  background: Purple ;  
11  padding: 5px ;  
12 }
```

Raspberry Pi Scouts profile

Hello, my name is Raspberry Pi. I am a very small computer. I like being used for a variety of indoor and outdoor activities. On this page, you can find information about my favourite Scouting activities and badges.

Top 5 activities **My badges**

11 Find where the body style rules go. These are the rules that set what your text on your web page will look like.

12 Style your **background** colour and choose the font you will use.

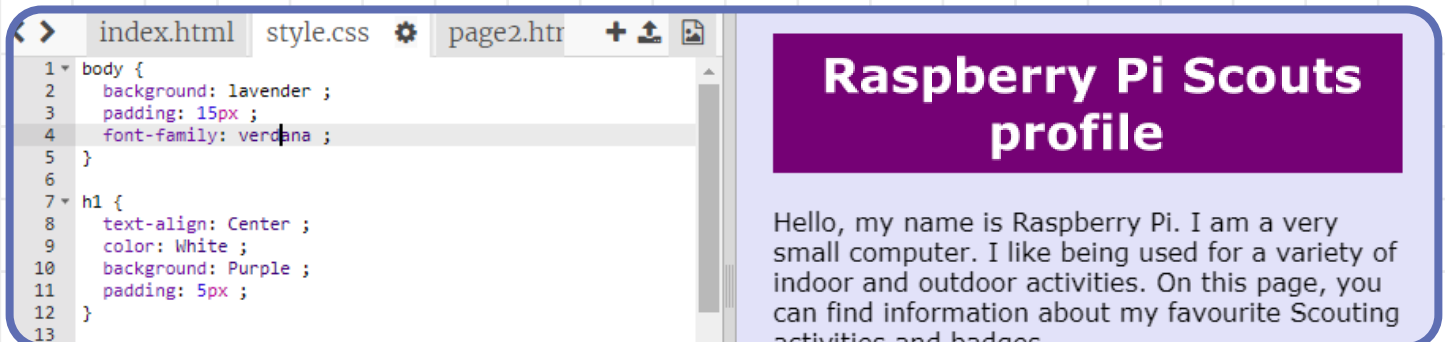
- Here are some colours you can use: trinket.io/docs/colors
- Here are some example fonts:

Arial

Comic Sans

Impact

Tahoma

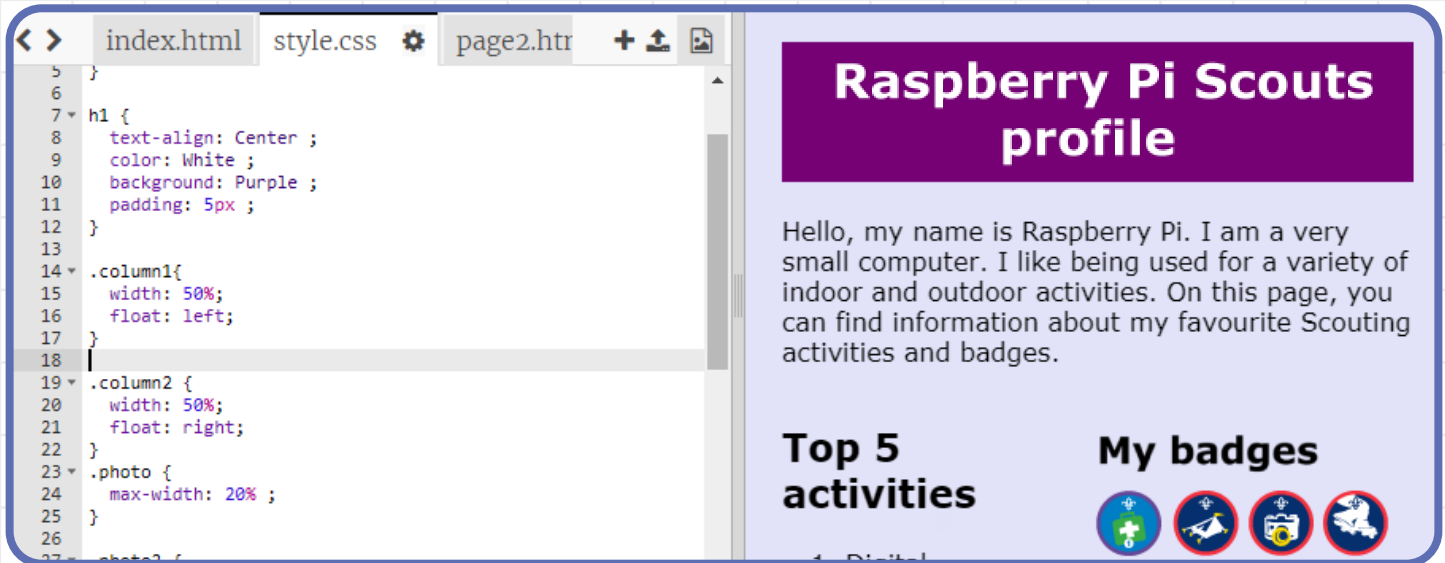


```
1 body {  
2   background: lavender ;  
3   padding: 15px ;  
4   font-family: verdana ;  
5 }  
6  
7 h1 {  
8   text-align: Center ;  
9   color: White ;  
10  background: Purple ;  
11  padding: 5px ;  
12 }  
13
```

Raspberry Pi Scouts profile

Hello, my name is Raspberry Pi. I am a very small computer. I like being used for a variety of indoor and outdoor activities. On this page, you can find information about my favourite Scouting activities and badges.

- 13** The badge images you added earlier might be a bit too big on your page. You can change that by adding style rules for them in the **style.css** tab. In the example, the `photo` width is set to 20% of the column width. If you're not including badges and only have one picture, you can make this number 100%.




```
5 }
6
7 h1 {
8   text-align: Center ;
9   color: White ;
10  background: Purple ;
11  padding: 5px ;
12 }
13
14 .column1{
15   width: 50%;
16   float: left;
17 }
18
19 .column2 {
20   width: 50%;
21   float: right;
22 }
23
24 .photo {
25   max-width: 20% ;
26 }
27
```

Raspberry Pi Scouts profile

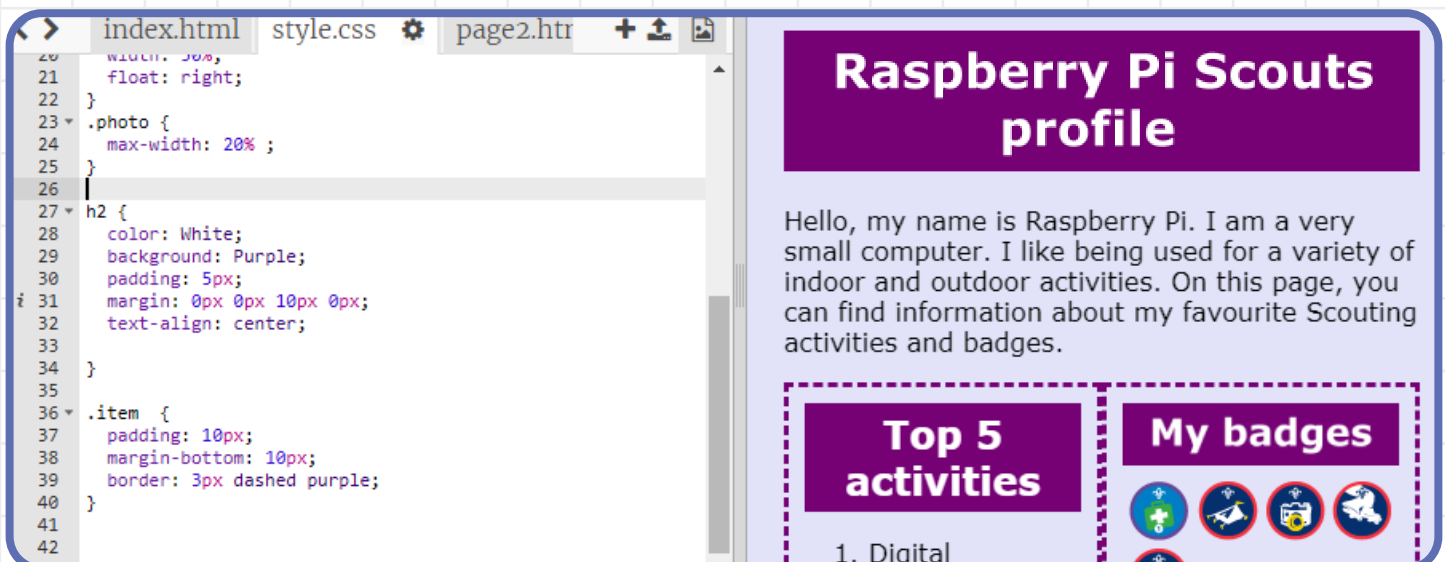
Hello, my name is Raspberry Pi. I am a very small computer. I like being used for a variety of indoor and outdoor activities. On this page, you can find information about my favourite Scouting activities and badges.

Top 5 activities

My badges



- 14** Style your headings and items however you want! Here's an example:




```
20 width: 50%;
21 float: right;
22 }
23
24 .photo {
25   max-width: 20% ;
26 }
27
28 h2 {
29   color: White;
30   background: Purple;
31   padding: 5px;
32   margin: 0px 0px 10px 0px;
33   text-align: center;
34 }
35
36 .item {
37   padding: 10px;
38   margin-bottom: 10px;
39   border: 3px dashed purple;
40 }
41
42
```

Raspberry Pi Scouts profile

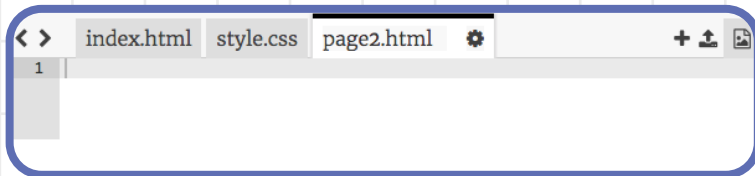
Hello, my name is Raspberry Pi. I am a very small computer. I like being used for a variety of indoor and outdoor activities. On this page, you can find information about my favourite Scouting activities and badges.

Top 5 activities

My badges



- 15** Now, begin adding code to your website's second page. You can go to the second page by clicking on the tab called **page2.html**.



- 16** This second page will be similar to your first page, so you can start by copying and pasting all the code from **index.html** into **page2.html**. To do this quickly:
- Press the keys **CTRL and A** to select all the code in index.html
 - Then press **CTRL and C** to copy the code you've selected
 - Switch to the **page2.html** tab
 - Then press the keys **CTRL and V** to paste the code you've copied

- 17** For **page2.html**, change the main heading `<h1>` to the skill you're going to teach. Then change the heading `<h2>` and the list items in the first column into a set of instructions for your skill.



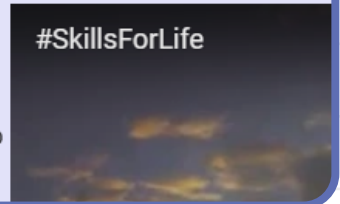
18 Include some pictures (or even videos) to help people who visit your website learn.

```
8 <li>First, get your section to make the 'set' where their
9 <li>Using your smartphone or tablet, download free stop-mo
0 <li>Show your section the demo run of the software you'll
1 <li>Start shooting the movie! Each young person can have a
2 </ol>
3 </div>
4 </div>
5
6 <div class="column2">
7 <div class="item">
8
9 <h2>Picture</h2>
0
1 
4
```

section to make the 'set' where their animation will be filmed. It's a simple set comprising a couple of pieces of white foam board, one for the base and one for the background. You'll need to prop the background board up against a heavy object.



#SkillsForLife

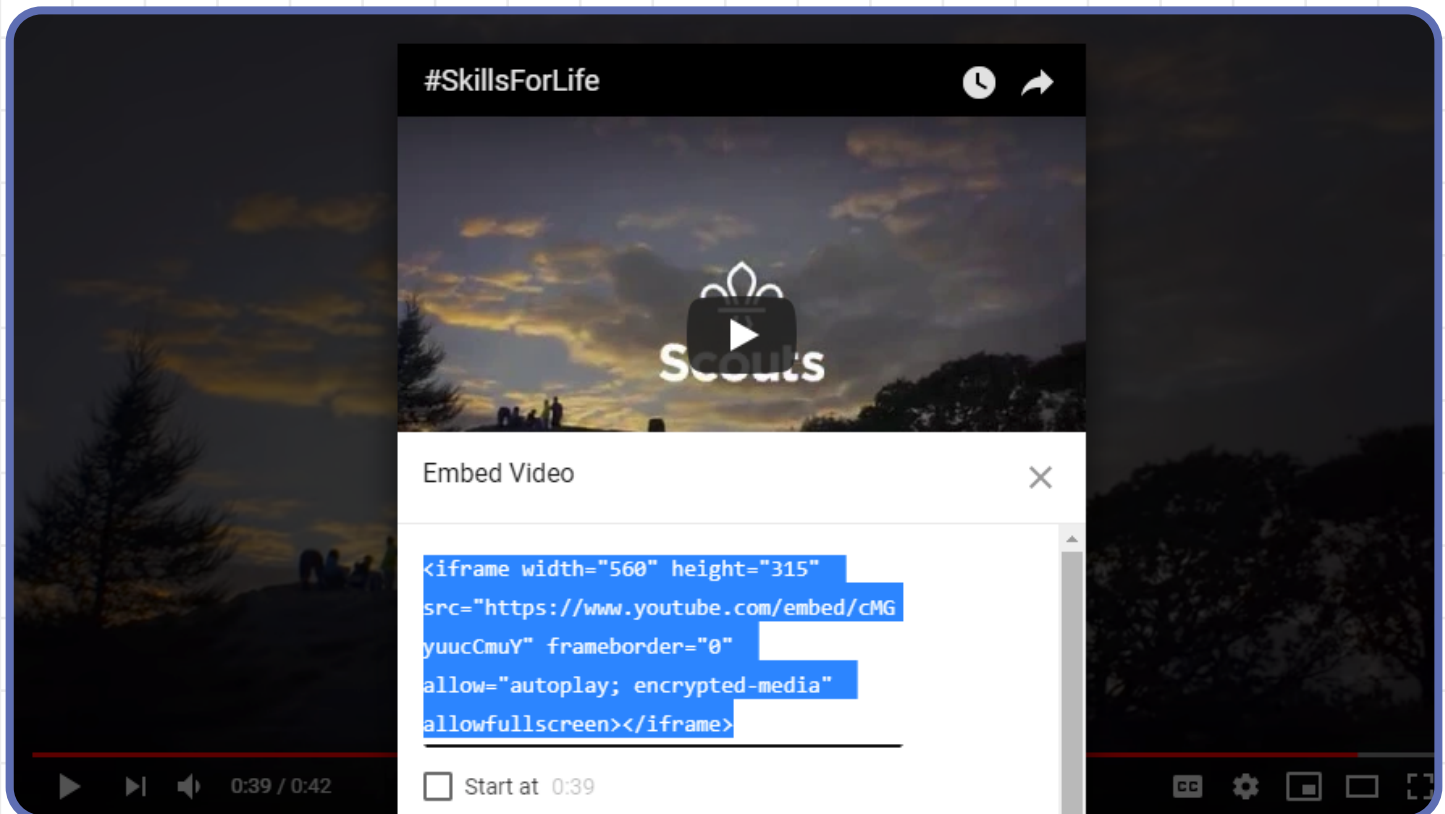


19 Here is the example code. Notice that here in the `` tags, we've added the code `class = "photo2"` instead of `class="photo"`, which we used for **index.html**.

```
29 <h2>Pictures/Video</h2>
30 
31 
32 <iframe width="280" height="200" src="https://www.youtube.com/embed/_zHSfEhEqKU">
33 </iframe>
```

You need this new code because on this page you have different types of images to the ones of the badges on the website's first page, and you'll want to use CSS code to style them differently later on.

- 20** To add a YouTube video, you can get the embed code from the YouTube page. Under the video you want to insert, click **Share**, and then click **Embed**. Copy the code in the box that appears, and paste it into your **page2.html** code.



- 21** Make sure your newly added images are styled properly by going back to the **style.css** tab and adding style rules for them.

- 22** Add code to both **index.html** and **page2.html** to create links that will let you move between the two pages.

You could use this code on **index.html**:

```
<div class="item"><a href= "page2.html">Page 2</a></div></p>
```

```
32 
37 |
38 </div>
39
40 <div class="item"><a href= "page2.html">Page 2</a></div></p>
41
42 </body>
43
```

activities

1. Digital Programming
2. Camping
3. Photography
4. Skateboarding
5. Geocaching



[Page 2](#)

Your website should end up looking similar to the one shown at the top of these instructions. Now that you've made your website, you can keep it up-to-date, as you get more badges or try new activities.