CSS for Paged Media (Pt 1 HTML and Screen CSS)

Objective: Review CSS techniques for core styling

Scenario: An online publication written in HTML/CSS/JS should look good when printed from a browser. It should also be easily converted to an eBook in PDF format. First, you'll code the screen CSS.

Starter files: Provided in Moodle (Canned Fruit)

Part 1a: Explore the HTML-only Rendering
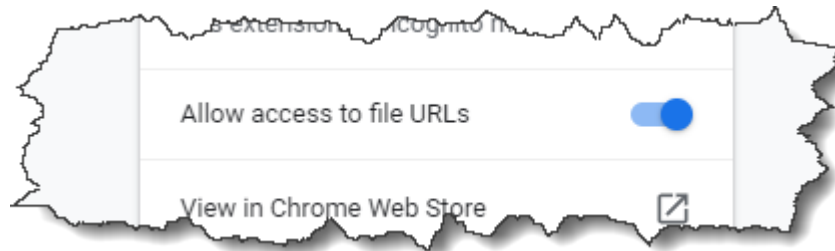
Install a Necessary Browser Extension

1. Install the free **Headings Map** extension in your browser. You'll need to search your browser's 'extension store' to locate it. If you've taken WEB-115 recently, you've done this before. The follow should help you identify the correct extension:
   Extension name: HeadingsMap
   Developer: Jorge Rumoroso
   Icon: [h/]

2. If using Chrome, you must configure the extension (after installation) to **allow access to file URLs.**

Explore the Headings Map Sidebar and Test Page Links

3. Open **index.html** in your browser and enable the Headings Map extension. A left sidebar will open and show you the heading hierarchy of the HTML. The 1st H1 is the book title while each subsequent H1 is a chapter title. Use the links in the headings Map sidebar to navigate a few sections of the page.

4. Use the Headings Map sidebar to navigate to the **Canned Fruit in the Oven** heading. This is an H2 within the 2nd chapter.

5. Locate the hyperlink in the final paragraph in the *Canned Fruit in the Oven* section.
   a. Point to the link to display the *title* pop-up, which indicates where the link goes.
   b. Click the link. It navigates to the *Sugar to Water Syrup Ratios* section.

6. Use the Headings Map sidebar to navigate to the **Selection and Handling of Fruit for Jelly Making** heading. This is an H2 within the 4th chapter.

7. Locate the hyperlink in the next-to-last paragraph in the *Selection and Handling of Fruit for Jelly Making* section.
    a. Point to the link to display the *title* pop-up, which indicates where the link goes.
    b. Click the link. It navigates to the *Use of the Syrup Gauge* section.

8. Use the Headings Map sidebar to navigate to the **Currant Jelly** heading. This is an H2 again within the 4th chapter.

9. Locate the hyperlink in the 5th paragraph in the *Currant Jelly Making* section.
    a. Point to the link to display the *title* pop-up, which indicates where the link goes.
    b. Click the link. It navigates to the *Covering Jellies* section.

Summary

The page, while a bit dull with just black text on a white page, is beautifully accessible with a strong and meaningful heading hierarchy. In-page links offer accessible *title* content and allow users to navigate to a cross-referenced place in the document.

Part 1b: Explore the HTML Code

1. Open **index.html** in your editor and take yourself on a tour of the code.

2. A DIV#WRAPPER wraps all BODY content for future styling.

3. The HEADER introduces the book/document with an H1 and a SPAN, rather than a meaningless H2 or P, for the author's name.

4. Use your editor's code collapsing feature to collapse/expand SECTION tags as necessary so you familiarize yourself with the chapter layout.
    a. Notice each SECTION (chapter) begins with an H1.
    b. Chapters are further split by H2 and H3 tags.
    c. Character codes are used for symbols that don't exist on the keyboard, such as fractions and the degree symbol.
    d. Line 84 has the only SECTION with an ID. DIVs have been used to group FIGURE elements for later styling. Note that this is the only SECTION that's not a child of #WRAPPER.

Summary

Be sure you're clear on how SECTION tags are used (SECTIONs that are children of #WRAPPER represent chapters; one SECTION that's a grandchild of #WRAPPER is used to group FIGURE tags).

Part 1c: Code the Screen CSS

Ready the HTML

1. Edit the HTML to link to a CSS file. Note the MEDIA attribute is used to restrict the CSS to screen devices only. No CSS will "be in play" when the page is printed.

```
<link href="css/screen.css" rel="stylesheet" media="screen">
```

2. Create the CSS file and folder as per the previous path.

Style Page Defaults

3. At the top of the CSS file, import the Google font **Open Sans** at the **Light 300** weight. You'll need to head to the Google fonts website to get that @import code.

4. Skip a line and add the follow comment and code to style the default page font:

```
/*** Page styling ***/
html {
    font: 17px/1.3 'Open Sans', Verdana, sans-serif;
}
```

5. **This will be the only time I give this instruction. After every CSS rule, save your changes and preview your page so you can see what the CSS rule just did! So – do that now. And do that after every rule you code.**

6. Skip a line and add a rule to set a width on the WRAPPER and center it in the viewport.

```
#wrapper {
    margin: 0 auto;
    width: 85%;
}
```

Style the Book Cover

7. Skip a line and add a comment and rule to begin styling the HEADER (book cover):

```
/***** Book cover *****/
header {
    background-color: ▢rgb(243, 184, 106);
    border: 10px solid ■#333;
    padding: 2rem;
    text-align: center;
}
```

8. Skip a line and style the book title:

```css
header h1 {
    color: ■#333;
    font-size: 3rem;
}
```

9. Style the author's name:

```css
header span {
    font-style: italic;
    font-weight: bold;
}
```

Style the Chapters

10. Style each chapter wrapper:

```css
/***** Chapters *****/
#wrapper > section {
    border-bottom: 10px dotted ■#333;
    margin-bottom: 2rem;
    padding: 2rem;
}
```

11. When previewing this change, be sure to scroll to see that each chapter ends with a thick dotted line – even the final chapter.

12. Replace the dotted line on the final chapter with double lines:

```css
#wrapper > section:last-of-type {
    border-bottom: 10px double ■#333;
}
```

13. Style the chapter headings. Be sure to target only the H1s that are chapter titles (children of SECTION) and not the book title (child of HEADER):

```css
section h1 {
    background-color: ■#333;
    color: □#fff;
    font-variant: small-caps;
    margin-top: 0;
    padding: 1rem;
}
```

14. Chapters are split into subsections with H2 tags. Add some space to the top of those H2s to more clearly delineate those sections. But don't add space to the first H2 in a chapter (the one that follows the chapter H1 title).

```css
h2:not(:first-of-type) {
  margin-top: 3rem;
}
```

Style the Figures

15. Limit the width of the figure wrapper and center it. You may want to also add (and then delete) a temporary border to see what this rule does.

```css
/***** Figures *****/
#figures {
  margin: 0 auto;
  max-width: 1000px;
}
```

16. Position the figures. You may want to check back in the HTML to see why the selector for the following rule is what it is.

```css
#figures > div {
  display: flex;
  justify-content: space-around;
}
```

17. Align the figures symmetrically:

```css
figure {
  text-align: center;
}
```

18. Make the figure images responsive for narrow viewports:

```css
img {
  height: auto;
  max-width: 100%;
}
```

Part 1d: Add Dynamic Chapter Numbers

Let's use CSS counters to dynamically insert chapter numbers before each chapter title. This way, if chapters are ever added/deleted, the chapter numbers will re-number themselves automatically.

1. Add a comment and a rule to define a new counter named *chapter-num*:

```css
/***** Chapter Numbering *****/
body {
  counter-reset: chapter-num;
}
```

2. Inject the chapter number, along with some text, before each H1 chapter title:

```css
#wrapper > section h1::before {
  content: "Chapter " counter(chapter-num) " : ";
  counter-increment: chapter-num;
}
```

Summary

The screen CSS is complete and the page looks awesome. Be sure to save your work because you'll use what you've done as the starter files for the next part!