

Unplugged : Introduction to HTML

This activity introduces students to HTML (Hyper Text Markup Language), which is the *de facto* language of the world wide web. Students begin by writing a blog entry to describe their day in order to establish the base content. Afterwards, they add HTML markup to identify the different pieces of content. Through this activity, students learn what markup is, and how it can be used to describe the layout and hierarchy of information in a logical way.

Activity Overview

Estimated Time: 1h

Materials for each student:

- HTML Sample Student Sheet
- HTML Syntax Student Sheet
- Paper and Pencil
- Computer or Laptop (Optional)
- Self-Assessment Student Sheet (Optional)

Preparation:

- Print out 1 [HTML Sample Student Sheet](#) per student.
- Print out 1 [HTML Syntax Student Sheet](#) per student.
- If students will be using computers or laptops, ensure they are available for the activity.
- Print out 1 [Self-Assessment Student Sheet](#) per student. (Optional)

Warm-up: Brainstorming content (10 minutes)

Ask students to imagine that they're writing a blog post to describe their day. Facilitate a class discussion or ask students to discuss in small groups using the following prompts:

- If you had to give a title to your day, what would it be?
- What can you write about that describes the activities you've done today?
- List three or more people with whom you have communicated today.
- What is one quote you have heard today that you would want to remember? Was it something funny or meaningful that you would want to record?

Part 1: Writing Content (20 minutes)

Based on the warm-up discussion, ask students to write a blog post that describes what they did today. Students with access to computers or laptops may type their blog post using a text editor. The blog post should contain the following elements:

- Title
- Two paragraphs
- One list with three or more elements
- One or more quotations

Ideally, this is an opportunity for students to describe their day and reflect on major events, people, and influences.

Part 2: Adding markup (20 minutes)

In this following activity, students add proper HTML markup to represent the various types of elements in their blog post. Ensure that each student has the HTML Sample Student Sheet and the HTML Syntax Student Sheet.

Review both sheets with the class. Students should use the HTML Sample Student Sheet as a template and the HTML Syntax Student Sheet to explore the purpose of various tags.

For example, the entire blog post should first be surrounded by the `<body>` tag. Then each paragraph within the `<body>` should be surrounded by the `<p>` tag.

The list of people with whom they have interacted should be presented in the `` tag with each person being enclosed by the `` tag as illustrated below:

```
<ul>
  <li>John Doe</li>
  <li>Jane Doe</li>
  <li>John Smith</li>
</ul>
```

Lastly, the title of the blog post should be surrounded by the `<h1>` tag, which is still contained within the `<body>`. Students will need to add the `<head>` tag above the `<body>`, and include the title of their blog post again, but this time surrounded by the `<title>` tag. This way, both the overall page and the displayed content in the browser will have the title.

Reflections: Testing markup (10 minutes)

Have each student review their own blog post or exchange their blog post with another student. Facilitate a review session using the following prompts:

- Is every title, paragraph, list, and list item marked up with the proper tag?
- Is the entire blog post contained inside the `<body>` tag?
- Is there a `<head>` tag above the `<body>`?
- Is everything, including the `<head>` and `<body>` enclosed within the `<html>` tag?

Optionally, if students typed their blog posts in a text editor, have them save their blog posts as HTML files, that is, with the .html extension. Students can then open the HTML files in a web browser. If the browser displays the content of the blog posts without any tags and the content is nicely formatted, for example, the title is in a larger font, the paragraphs are separated, and the list items have bullet points, then the markup has been added correctly.

After the initial review, ask students to make any necessary changes to their blog posts, and to continue the review process until no more changes are needed.

Assessment

Criteria	Approaching	Meeting	Exceeding
Student participated in the brainstorming session by sharing one or more ideas for the blog.			
Student completed his or her blog post, which contained a title, two paragraphs, a list with three or more items, and one or more quotes.			
Student added proper HTML markup to his or her blog post. The result resembles the template provided in the HTML Sample Student Sheet.			
Student reviewed his or her own blog post, or reviewed another student's blog post, made the necessary changes or provided constructive feedback.			

Extensions

Incorporate creative writing

Rather than writing a blog post to describe their day, students may use this activity as a creative writing opportunity or any other writing opportunity which could be part of another learning area.

Explore more tags

Encourage students to explore other formatting tags, such as `` and `` tags listed in the HTML Syntax Student Sheet. Students are also welcome to visit the [w3schools.com](http://www.w3schools.com/) website to discover even more tags: <http://www.w3schools.com/>

Validate the HTML markup

Students can copy and paste their HTML markup or upload their HTML files into the following website to validate their markup: <https://validator.w3.org/>

HTML Sample Student Sheet

```
<!doctype html>
<html>
  <head>
    <title>Title of My Website</title>
  </head>
  <body>
    <h1>Title of My Website</h1>
    <p>First paragraph.</p>
    <p>Second paragraph.</p>
    <ul>
      <li>List Item</li>
      <li>List Item</li>
      <li>List Item</li>
    </ul>
  </body>
</html>
```

HTML Syntax Student Sheet

Tag	Description
<code><!doctype html></code>	Only occurs at the top of a web page and tells the browser to evaluate all of the HTML on the page using HTML5 rules. HTML5 is the fifth version of HTML and represents the newest and best practices for building web content.
<code><html>...</html></code>	Creates an HTML document that the browser interprets and displays according to the tags in the <code><body></code> .
<code><head>...</head></code>	Contains instructions to the browser about how to render the page. This is not content which shows in the main browser window, instead it is meta-content which helps the browser.
<code><title>...</title></code>	Defines the title of a page. This is what shows in the top of the browser when the page loads, and also what is shown when the browser bookmarks the page.
<code><body>...</body></code>	This is the main content which is shown in the browser. All of the content here is shown to the user.
<code><h#>...</h#></code>	Where # is a number from 1 to 6, these represent headings of various sizes. An <code><h1></code> tag is the largest and boldest, whereas an <code><h6></code> is the smallest and least important. New sections of pages should have a header of appropriate level at the top of it. Example: <code><h1>Title of the Page</h1></code>
<code>...</code>	Creates bold text.
<code>...</code>	For this tag, "em" means "emphasis" and text wrapped in this tag is italicized.
<code><p>...</p></code>	This tag is for paragraphs. They will be automatically spaced out from each other.
<code>...</code>	Creates an unordered list using bullet points by default.
<code>...</code>	Generates a list item within a list tag (<code></code> or <code></code>).
<code><section>...</section></code>	Section tags draw an invisible box around elements that you want to group together. They should be related content.

Self-Assessment Student Sheet

Give an example or provide evidence of how you demonstrated or accomplished each of the following statements during this activity. Examples and evidence can include sketches, written descriptions, and references to photos or videos.

Statement	Example or Evidence
At the beginning of the activity, I actively participated in the discussion about wireframes by sharing one or more ideas and/or listening to other students' ideas.	
At the end of the activity, I thought about how wireframes might be helpful in my design process and/or if I was designing the wireframe or app, what improvements I would make based on my wireframes.	