Here's a detailed assignment for the "CSS Box Model" topic that will help students understand how to effectively use margins, padding, and borders in their web design.

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## \*\*Assignment: CSS Box Model\*\*

### \*\*Objective\*\*

The objective of this assignment is to apply the CSS box model to various elements on a webpage. You will use margins, padding, and borders to create distinct visual spaces around elements, allowing you to understand how these properties affect layout and spacing.

### \*\*Task Description\*\*

You are required to create a simple HTML page that utilizes the CSS box model effectively. This page should contain multiple elements, such as headings, paragraphs, images, and containers, each styled to demonstrate the effects of margins, padding, and borders.

### \*\*Requirements\*\*

1. \*\*HTML Structure\*\*:

- Create a new HTML file (e.g., `box-model.html`) with the following elements:

- A main container that wraps all content.

- At least three sections with headings and paragraphs.

- Include at least one image and one list (ordered or unordered).

2. \*\*Styling with CSS\*\*:

- Create an external CSS file (e.g., `box-model.css`) linked to your HTML file.

- Apply the following styles using the box model properties:

\*\*a. Main Container\*\*:

- Use the `.container` class for the main wrapper:

- Add padding of `20px` to create space inside the container.

- Set a border (e.g., `2px solid #333`) around the container to visualize the border area.

- Apply a margin of `20px` to separate it from the browser edges.

\*\*b. Sections\*\*:

- Use a class (e.g., `.section`) for each section:

- Add a margin of `15px` to create space between sections.

- Set padding of `10px` for inner spacing.

- Add a border (e.g., `1px dashed #007BFF`) around each section to distinguish them.

\*\*c. Headings and Paragraphs\*\*:

- Style headings (`h1`, `h2`, etc.) to have specific margins (e.g., `h1 { margin: 10px 0; }`).

- Add margin and padding to paragraphs (`p`) to create clear separation (e.g., `p { margin: 10px 0; padding: 5px; }`).

\*\*d. Images and Lists\*\*:

- For images, apply margin to separate them from surrounding text (e.g., `img { margin: 15px; }`).

- For lists, add padding to the list items to create space around the text (e.g., `ul li { padding: 5px; margin: 5px 0; }`).

3. \*\*Visual Demonstration\*\*:

- Ensure that when you inspect the elements using browser developer tools, you can clearly see how the margins, padding, and borders contribute to the overall layout.

- Experiment with different values for margin, padding, and border to see how they affect the spacing and presentation.

### \*\*Example CSS Structure\*\*

Here’s a sample structure of how your CSS might look:

```css

/\* box-model.css \*/

/\* Main container styles \*/

.container {

padding: 20px; /\* Inner space \*/

border: 2px solid #333; /\* Border around container \*/

margin: 20px; /\* Space outside the container \*/

}

/\* Section styles \*/

.section {

margin: 15px; /\* Space between sections \*/

padding: 10px; /\* Inner space \*/

border: 1px dashed #007BFF; /\* Dashed border around sections \*/

}

/\* Heading styles \*/

h1 {

margin: 10px 0; /\* Vertical spacing for h1 \*/

}

h2 {

margin: 8px 0; /\* Vertical spacing for h2 \*/

}

/\* Paragraph styles \*/

p {

margin: 10px 0; /\* Vertical spacing for paragraphs \*/

padding: 5px; /\* Inner space \*/

}

/\* Image styles \*/

img {

margin: 15px; /\* Space around images \*/

}

/\* List styles \*/

ul li {

padding: 5px; /\* Inner space for list items \*/

margin: 5px 0; /\* Vertical spacing for list items \*/

}

```

### \*\*Submission Guidelines\*\*

- Submit your HTML file (`box-model.html`) and your CSS file (`box-model.css`).

- Ensure that your styles are applied correctly, clearly demonstrating the box model properties.

- Validate your CSS for any errors using a CSS validator.

### \*\*Evaluation Criteria\*\*

- Effective use of CSS box model properties to style elements.

- Proper organization of CSS code with comments explaining each section.

- Clarity of visual layout and spacing in the final webpage presentation.

- Overall user experience and design aesthetics.

### \*\*Additional Tips\*\*

- Use browser developer tools to visualize the box model and understand how changes in margin, padding, and borders affect the layout.

- Experiment with different units (e.g., `px`, `em`, `%`) to see how they influence the design.

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This assignment encourages students to gain hands-on experience with the CSS box model, reinforcing their understanding of how to manipulate spacing and borders effectively.