

Website Layout and Iframes

Web Development

Time: 60 mins

Introduction

In this class, students learn about the CSS flexbox used to layout the HTML elements, embedding a webpage into another web page using the <iframe> tag as they style the about section as well as the footer section of the school website.

HTML Tags & CSS Properties Introduced

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| • display | Defines whether an HTML element should be treated as a block or an inline element. |
| • <iframe> | Used to embed another HTML webpage into the current one. |
| • margin-top | Sets the top margin of an element. |
| • margin-left | Sets the left margin of an element. |
| • margin | Sets the margin around an element. It can take one to four values. |

Vocabulary

- **Flexbox:** Flexbox is a one-dimensional layout method for arranging HTML elements in rows or columns on a website. The elements flex i.e. expand to fill additional space or shrink to fit into smaller spaces.
- **Embed:** Refers to the integration of links, text, images, or video files from one webpage into another webpage.

Learning Objectives

Student/s should be able to:

- **Recall** how to use the dot operator and # symbol to style HTML elements in the CSS file.
- **Demonstrate** how to style a specific element using the id selector of its container in the CSS file.
- **Explain** how to embed another webpage into a given webpage.
- **Create** an attractive website with a well-structured layout.

Activities

1. **Class Narrative:** (2 mins)

- Brief the student/s that the school website now has a navigation bar to navigate through the Home, About, and Events sections. In this class, we will look into the content organization in the About section. Further add a footer section consisting of contact, activities at school, and location details to the school website.

2. Concept Introduction Activity: (10 mins)

- The school website needs to be redesigned to have a well-structured layout for visual appeal and better space utilization. Let the student/s navigate through the website provided in explore-activity and observe the positioning of content in the about and footer sections.
- Using the slides, explain they will learn:
 - the use of display property to organize the HTML elements within the available space for efficient space utilization.
 - the use of id selectors to style a particular element within a given <div> tag.
 - the use of <iframe> tag to embed one webpage into another webpage.

3. Activity 1: Align the About Section: (12 mins)

Teacher Activity: (5 mins)

- Explain to the student/s how the layout can be organized using CSS flexbox. Demonstrate how to style a specific element using the id selector of its container in the CSS file. In this activity, the image inside the about section alone is styled for its width by mentioning the tag name suffixed after the id selector for the About section with a space.

Student Activity: (7 mins)

- Guide students to add styling properties to the id “about” that are used to arrange the about section contents in a row.
- Guide the student/s to adjust the width of the image in the <div> tag with id “about”.
- Guide the student/s to add id “about” to the <div> tag containing the about section.

4. Activity 2: Style the About Section: (10 mins)

Student Activity: (10 mins)

- Guide the student/s to style the id “about-content”.
- Guide the student/s to add width and margin properties such that there is a space between the about section image and the text.
- Explain how margin can be used as a shorthand property for margin-top, margin-right, margin-bottom, and margin-left properties similar to the padding property used in the previous class. Encourage the students to assign one to four values to the margin and observe the effect of it.

CSS Property	No. of Values	Description
margin	1 value	Applies the same margin to all four sides.
	2 values	First value applies to the top and bottom margins, and the second to the left and right margins.
	3 values	The first value applies to the top, the second to the right and left, and the third to the bottom margin.

	4 values	The margins apply to the top, right, bottom, and left in the same order..
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- Guide the student/s to style the <h4> and <h3> by changing their font size and color.
- Guide the student/s to add the id “about-content” to the <div> tag containing the about section’s headings and description in the index.html file.

5. Activity 3: Add the Footer and Iframe : (15 mins)

Teacher Activity: (7 mins)

- Explain to the student/s what is a footer and the uses of the footer section in a website in brief. The website footer is a section/area that is placed at the bottom of every page on a website, below the main body content. A footer has information that is not necessarily found in other sections of the website. Information provided in a footer improves a website’s overall usability. It typically contains contact details, a sitemap, organization policies, a logo, links to social media, a feedback form, an email sign-up form, and, other vital navigation links of a website.
- Show how a footer is designed for the school website.
- Explain how using <iframe> tags a webpage can be embedded into another webpage.
- Demonstrate how an <iframe> is generated for a searched location in Google Maps and the same is used in an HTML document.
- Explain the attributes allowfullscreen, loading, and referpolicy of <iframe> tag.
Note: In the Google Maps iframe, in the top-left corner there is a link: View larger map. Instruct the students to perform right-click on the link and then select Open Link in the New tab to view Google Maps. Note that, we get a service request error if the link is opened by directly clicking on it.

Student Activity: (8 mins)

- Guide the student/s to generate the <iframe> from Google Maps for a registered location
- Add the generated iframe in the HTML document to embed Google Maps in the footer of the school website.
- Guide the students to style the footer section with id “footer” by adding background color, and text color, displaying the address, contact details, and location in a row.

6. Introduce the Post class project: (3 min)

- In the Bluestone Zoo website, embed the given Youtube video that gives a tour of the zoo into the zoo website to attract visitors using <iframe> tag.

7. Test and Summarize the class learnings: (5 mins)

- Check for understanding through quizzes and summarize learning after respective missions.
- Summarize the overall class learning towards the end of the class.

8. Additional activities:

- Encourage the student/s to add the fourth core value in the about section of the school website and style it.
- Encourage the student/s to change the layout of the core values flexbox.

9. State the Next Class Objective: (1 min)

- We will learn to add image sliders and cards in the next class.

U.S. Standards:

Links Table		
Activity	Activity Name	Link
Class Presentation	The School Website	https://s3-whjr-curriculum-uploads.whjr.online/b6612adf-a124-4541-93dd-e65f27e32f7e.html
Explore Activity	: Explore Activity	https://tynker.com/code/project/636cca92085d2a62080d6e92
Teacher Activity 1	Align the about section	https://tynker.com/code/project/636cc45b6cb77130e17f4662
Teacher Activity 1 Solution	Align the about section - Solution	https://tynker.com/code/project/636cc19dab10e10c0c49c872
Student Activity 1	Align the about section	https://tynker.com/code/project/636cc58d55e5ec42f81ab702
Teacher Reference: Student Activity 1 Solution	Align the about section - Solution	https://tynker.com/code/project/636cc55d4277a7358e42e302
Student Activity 2	Style the About Section	https://tynker.com/code/project/636cc92444278c28191765e2
Teacher Reference: Student Activity 2 Solution	Style the About Section - Solution	https://tynker.com/code/project/636cc76792109d74493f2042
Teacher Activity 3	Add the Footer and Iframe	https://tynker.com/code/project/636cce3e63339d34711a44d3
Teacher Reference:Teacher Activity 3 Solution	Add the Footer and Iframe - Solution	https://tynker.com/code/project/636ccdfa40746308322e80f2
Student Activity 3	Add the Footer and Iframe	https://tynker.com/code/project/636ccd47a4fc6048316b632
Teacher Reference: Student Activity 3 Solution	Add the Footer and Iframe - Solution	https://tynker.com/code/project/636cca92085d2a62080d6e92
Student's Additional Activity 1	Add a Core Value	https://tynker.com/code/project/636cd8e4100cd10f7a618ca2
Teacher Reference: Student's Additional Activity 1 Solution	Add a Core Value - Solution	https://tynker.com/code/project/636cd72af6909362355220e2
Student's Additional Activity 2	Style the Core Values	https://tynker.com/code/project/636cd9fc50e2415d847ddce2
Teacher Reference: Student's Additional Activity 2 Solution	Style the Core Values - Solution	https://tynker.com/code/project/636ccfd a6c54e636ef545642

Post Class Project	The Bluestone Zoo	https://tynker.com/code/project/63617103e4419f2d86090772
Teacher Reference: Post Class Project Solution	The Bluestone Zoo - Solution	https://tynker.com/code/project/63616b18c6924a4625024352