**Grade 8**

**Lesson 1: Introduction to HTML**

**Lesson Objectives (What you will learn):**

* Understand what HTML is
* Learn why we use it
* See how it’s used in real websites

**What is HTML?**

* HTML stands for **HyperText Markup Language**
* It is the language used to **build the structure** of web pages
* It works together with:
  + **HTML** – builds the structure (like headings, paragraphs)
  + **CSS** – makes it look good (colors, fonts, layout)
  + **JavaScript** – adds interactivity (like buttons and forms)

**Real Examples of HTML**

* The headings, text, images, and links on most websites
* Websites like Wikipedia, school portals, and online news use HTML to display content
* Forms and sign-up pages all use HTML to show input boxes and labels

**Try This Example**

<!DOCTYPE html>

<html>

<head>

<title>My First Page</title>

</head>

<body>

<h1>Hello, HTML!</h1>

<p>This is my first web page.</p>

</body>

</html>

Open it in a browser and see what it shows.  
Try changing the heading or paragraph text

**Exercises**

**1. Change the Heading**  
Change <h1>Hello, HTML!</h1> to something about yourself.

**2. Add Another Paragraph**  
Add a second <p> tag with your favorite color or animal.

**3. Add a Page Title**  
Change <title>My First Page</title> to your own page title.

**Gamification:**

**Challenge:** Make your own homepage with a title, heading, and two paragraphs!  
**Stars earned:** 3 stars for creativity and correct tags!

**Summary**

* HTML is the language that gives **structure** to web pages
* You can add headings, text, and page titles using HTML
* Every web page starts with basic HTML tags like <html>, <head>, and <body>

**Quiz**

1. What does HTML stand for?  
   a) Hyperlinks and Text Markup Language  
   b) HyperText Markup Language  
   c) Home Tool Markup Language  
   d) High Text Mode Language
2. What is HTML used for?  
   a) Designing buttons only  
   b) Making web pages interactive  
   c) Building the structure of web pages  
   d) Storing data
3. Which tag is used for a heading?  
   a) <p>  
   b) <title>  
   c) <h1>  
   d) <div>
4. What does this HTML code do?

<p>I love HTML!</p>

a) Adds a picture  
b) Adds a heading  
c) Adds a paragraph  
d) Adds a link

1. Where do you write the title of the page?  
   a) Inside <body>  
   b) Inside <html>  
   c) Inside <head>  
   d) Inside <p>

**Answer Key:**

1 - b, 2 - c, 3 - c, 4 - c, 5 - c

**Lesson 2: HTML Emojis**

**Lesson Objectives**

* Understand how to display emojis on a webpage using HTML
* Learn how to insert emojis using Unicode or HTML character codes
* Explore how to style and use emojis creatively on websites

**What Are Emojis?**

Emojis are small images or symbols that represent emotions, objects, or ideas. They are commonly used in text messages, social media, and now, increasingly in websites and apps to add personality or expression.

In HTML, emojis can be displayed using:

* **Unicode Characters**: Special codes for each emoji
* **HTML Entities**: Codes used to represent characters in HTML

**Using Emojis with Unicode**

Emojis can be inserted directly into your HTML code using their Unicode representation. For example, the emoji for a smiling face is represented by the Unicode U+1F600.

To display an emoji using Unicode, you can directly use the character in the HTML content like this:

<!DOCTYPE html>

<html>

<head>

<title>Emojis in HTML</title>

</head>

<body>

<h1>Welcome to My Website! 😊</h1>

<p>Here are some fun emojis:</p>

<p>😀 😎 🎉 ❤️</p>

</body>

</html>

**Using Emojis with HTML Entities**

Alternatively, you can use HTML entities, which represent the Unicode emoji as a code. For example:

* Smiling face emoji: &#128512;
* Sunglasses emoji: &#128526;

Example with HTML entities:

<!DOCTYPE html>

<html>

<head>

<title>Emojis with HTML Entities</title>

</head>

<body>

<h1>Emojis as Entities</h1>

<p>😀 &#128526; 🎉 ❤️</p>

</body>

</html>

**Styling Emojis with CSS**

You can style emojis just like any other text element using CSS. For example, you can change their size, color, or even animate them.

<!DOCTYPE html>

<html>

<head>

<title>Styled Emojis</title>

<style>

.emoji {

font-size: 50px;

color: #FF5733;

}

</style>

</head>

<body>

<h1 class="emoji">🎉 Welcome to the Party! 🎉</h1>

</body>

</html>

This will display the emoji at a larger size and in a custom color.

**Exercises**

1. **Add Emojis to Your Page**  
   Create a webpage that uses emojis in a title or paragraph. Experiment with different emojis!
2. **Use HTML Entities**  
   Instead of directly inserting the emoji, use its HTML entity code. Example: &#128578; for a smiling face.
3. **Style Emojis**  
   Style an emoji to be larger and in a bright color of your choice using CSS.

**Challenge Task**

Create a fun webpage with:

* A title that includes multiple emojis (e.g., "Welcome to My Cool Website 😎🎉")
* A paragraph that lists your favorite hobbies using emojis for each activity (e.g., "Reading 📚, Coding 💻, Music 🎶")
* Style the emojis using CSS to change their size and color

**Summary**

* Emojis in HTML can be inserted using Unicode characters or HTML entities
* Use the &#code; format for HTML entities
* Emojis can be styled with CSS just like regular text

**Quiz Questions**

1. How can you insert an emoji into an HTML document?  
   a) Using the <img> tag  
   b) Using the <emoji> tag  
   c) By using Unicode characters or HTML entities  
   d) Emojis can't be inserted in HTML
2. What is the HTML entity for the smiling face emoji?  
   a) &#128512;  
   b) &#128578;  
   c) &#128525;  
   d) &#128526;
3. Which tag is used to add an image of an emoji?  
   a) <img>  
   b) <emoji>  
   c) <emoji-image>  
   d) <icon>
4. Can you change the size of an emoji using CSS?  
   a) No  
   b) Yes  
   c) Only with JavaScript  
   d) Only with a special emoji tag
5. Which HTML element would you use to display an emoji as text in a paragraph?  
   a) <div>  
   b) <span>  
   c) <h1>  
   d) <p>

**Answer Key:**  
1 - c, 2 - a, 3 - a, 4 - b, 5 - d

**Lesson 3: Basic Tags and Structure**

**Lesson Objectives (What you will learn):**

* Learn about the most common HTML tags
* Understand how to create headings, paragraphs, and line breaks
* Practice using tags correctly in a web page

**What Are HTML Tags?**

* Tags are **special keywords** wrapped in angle brackets like <p>, <h1>, and <br>
* They tell the browser what to **show** and **how to show it**
* Most tags come in **pairs**:
  + Opening tag: <p>
  + Closing tag: </p>
  + Some tags are **self-closing**, like <br> (line break)

**Common HTML Tags**

| **Tag** | **Purpose** |
| --- | --- |
| <h1> to <h6> | Headings from biggest (h1) to smallest (h6) |
| <p> | Adds a paragraph |
| <br> | Adds a line break |
| <strong> | Makes text bold |
| <em> | Makes text italic |

**Try This Example**

<!DOCTYPE html>

<html>

<head>

<title>Using Basic Tags</title>

</head>

<body>

<h1>Welcome to My Page</h1>

<p>This is my first paragraph.</p>

<p>This is my second paragraph.<br>Here is a new line.</p>

<p><strong>Bold text</strong> and <em>italic text</em> look cool!</p>

</body>

</html>

Try changing the heading and paragraph content.  
See what happens when you remove a closing tag!

**Exercises**

**1. Add More Headings**  
Use <h2>, <h3>, and <h4> to create subheadings below your main heading.

**2. Use Line Breaks**  
Add <br> tags inside a paragraph to make it look like a poem or list.

**3. Style Text**  
Make your name **bold** and your favorite subject *italic* using <strong> and <em>.

**Gamification:**

**Challenge:** Create a mini story using at least 2 headings, 2 paragraphs, bold text, and a line break.  
**Stars earned:** 3 stars for using 5+ tags correctly

**Summary**

* HTML uses tags like <p>, <h1>, <br> to build web page content
* Tags often come in pairs and must be closed properly
* You can make text bold with <strong> and italic with <em>

**Quiz questions of this lesson**

1. Which tag creates a paragraph?  
   a) <h1>  
   b) <p>  
   c) <div>  
   d) <br>
2. What is the purpose of the <br> tag?  
   a) Makes text bold  
   b) Adds a paragraph  
   c) Breaks the line  
   d) Adds a new heading
3. What does <strong>Hello</strong> do?  
   a) Makes text bigger  
   b) Adds a new line  
   c) Makes text bold  
   d) Underlines the text
4. Which tag is used to make text italic?  
   a) <bold>  
   b) <strong>  
   c) <italic>  
   d) <em>
5. What happens if you forget a closing tag like </p>?  
   a) The page won’t load at all  
   b) The browser guesses, but it may break the layout  
   c) It turns into JavaScript  
   d) Nothing, it still works perfectly

**Answer Key:**

1 - b, 2 - c, 3 - c, 4 - d, 5 - b

**Grade 9**

**Lesson 1: Creating Lists in HTML**

**Lesson Objectives (What you will learn):**

* Understand the difference between **ordered** and **unordered** lists
* Learn how to create lists using <ul>, <ol>, and <li>
* Practice nesting lists (putting one list inside another)

**What Are Lists in HTML?**

Lists are used to display items in a clear, organized way.  
There are two main types:

| **Tag** | **Type of List** | **Description** |
| --- | --- | --- |
| <ul> | Unordered List | Bullets for each item |
|  |  |  |
| <ol> | Ordered List | Numbers or letters for each item |
| <li> | List Item | Each item in a list |

**Try This Example**

<!DOCTYPE html>

<html>

<head>

<title>HTML Lists</title>

</head>

<body>

<h1>My To-Do List</h1>

<ul>

<li>Do homework</li>

<li>Clean my room</li>

<li>Read a book</li>

</ul>

<h2>Steps to Bake a Cake</h2>

<ol>

<li>Mix ingredients</li>

<li>Preheat the oven</li>

<li>Pour into a pan</li>

<li>Bake for 30 minutes</li>

</ol>

</body>

</html>

**Exercises**

1. **Make an Unordered List**  
   Create a list of your 3 favorite sports or hobbies using <ul>.
2. **Create an Ordered List**  
   Write down steps for something you do every day (like your morning routine) using <ol>.
3. **Nested List Challenge**  
   Inside one <li>, add another list (example: a list of school subjects, and under each subject, list the topics you’ve learned).

**Gamification**

**Challenge:** Build a "My Favorites" page with:

* An unordered list of favorite foods
* An ordered list of goals for the year  
  **Stars earned:** 3 stars for using both list types and good formatting!

**Summary**

* Use <ul> for unordered lists (bullets)
* Use <ol> for ordered lists (numbers)
* Use <li> for each item
* You can even nest one list inside another

**Quiz**

1. Which tag creates a bulleted list?  
   a) <ol>  
   b) <ul>  
   c) <li>  
   d) <list>
2. What does <li> stand for?  
   a) List information  
   b) Line item  
   c) List item  
   d) Long item
3. Which list type is numbered?  
   a) <ol>  
   b) <ul>  
   c) <li>  
   d) <list>
4. How do you create a list item?  
   a) <list>  
   b) <ol>  
   c) <li>  
   d) <ul>
5. Can you put a list inside a list?  
   a) Yes, using <ol> only  
   b) Yes, using <ul> and <ol>  
   c) No  
   d) Only in the header section

**Answer Key:**  
1 - b, 2 - c, 3 - a, 4 - c, 5 - b

**Lesson 2: Semantic HTML**

**Lesson Objectives (What you will learn):**

* Understand what semantic HTML means
* Learn about common semantic tags and their purposes
* Practice using semantic tags to structure a webpage

**What Is Semantic HTML?**

**Semantic HTML** means using HTML tags that clearly describe their meaning or role in the page.

Instead of using generic <div> or <span> for everything, we use tags like:

* <header>, <footer>, <article>, <section>, <nav>, and more.
* These tags help **browsers**, **developers**, and **screen readers** understand the structure of a webpage better.

**Common Semantic Tags**

| **Tag** | **Description** |
| --- | --- |
| <header> | Top section of a page or article |
| <nav> | Contains navigation links |
| <main> | The main content of the page |
| <section> | A thematic group of content |
| <article> | A self-contained piece of content |
| <aside> | Extra content (like a sidebar or note) |
| <footer> | Bottom part of the page |

**Try This Example**

<!DOCTYPE html>

<html>

<head>

<title>My Blog</title>

</head>

<body>

<header>

<h1>Welcome to My Blog</h1>

</header>

<nav>

<a href="index.html">Home</a> |

<a href="about.html">About Me</a>

</nav>

<main>

<article>

<h2>My First Blog Post</h2>

<p>Today I learned about semantic HTML. It helps make websites easier to understand!</p>

</article>

<section>

<h3>More Posts Coming Soon!</h3>

<p>Stay tuned for updates every week.</p>

</section>

</main>

<footer>

<p>&copy; 2025 My Blog</p>

</footer>

</body>

</html>

**Exercises**

1. **Create a web page with semantic tags**  
   Make a page with <header>, <nav>, <main>, and <footer>.
2. **Write an article**  
   Use the <article> tag to create a short story or blog post.
3. **Add sections**  
   Break your main content into at least two <section>s with headings.

**Gamification**

**Challenge:** Design a simple “News Website” layout using semantic tags.  
Include:

* A top <header>
* A left <nav> with links
* A <main> with two <article>s
* A <footer> at the bottom  
  **Stars earned:** 3 stars for using at least 5 semantic tags correctly!

**Summary**

* **Semantic HTML** uses meaningful tags to describe page structure
* Tags like <header>, <main>, <article>, and <footer> make code clearer and more accessible
* Helps screen readers and search engines understand your page

**Quiz**

1. What does “semantic” mean in HTML?  
   a) Fancy text  
   b) Meaningful structure  
   c) Styling with colors  
   d) Making links
2. Which tag is best for the top of a webpage?  
   a) <top>  
   b) <header>  
   c) <main>  
   d) <start>
3. What tag do we use for main navigation links?  
   a) <footer>  
   b) <article>  
   c) <nav>  
   d) <menu>
4. Which tag is used for the primary content of the page?  
   a) <center>  
   b) <body>  
   c) <main>  
   d) <page>
5. What’s the purpose of <article>?  
   a) Adds a video  
   b) Describes the footer  
   c) Holds independent content like blog posts  
   d) Creates a link

**Answer Key:**  
1 - b, 2 - b, 3 - c, 4 - c, 5 - c

**Lesson 3: HTML Images**

**Lesson Objectives**

* Learn how to insert images using the <img> tag
* Understand image attributes like src, alt, width, and height
* Practice adding images and captions to web pages

**What Is the <img> Tag?**

The <img> tag is used to add pictures to a webpage. It is a **self-closing tag**, which means it doesn’t need a closing </img>.

**Basic Syntax:**

html

Copy code

<img src="image.jpg" alt="Description">

| **Attribute** | **Purpose** |
| --- | --- |
| src | The path or URL to the image file |
| alt | Alternative text (shows if image doesn't load and helps with accessibility) |
| width / height | Controls the size of the image (in pixels or percent) |

**Try This Example**

html

Copy code

<!DOCTYPE html>

<html>

<head>

<title>My Favorite Animal</title>

</head>

<body>

<h1>The Cheetah</h1>

<img src="cheetah.jpg" alt="A fast cheetah" width="400">

<p>The cheetah is the fastest land animal in the world!</p>

</body>

</html>

You can also add a caption using <figure> and <figcaption>:

html

Copy code

<figure>

<img src="sunset.jpg" alt="Sunset over the sea" width="500">

<figcaption>Sunset at the beach</figcaption>

</figure>

**Exercises**

1. Insert an image of your favorite animal with width="300" and a proper alt text.
2. Use <figure> and <figcaption> to describe an image.
3. Try displaying one image at full width and one as a small thumbnail.

**Challenge Task**

Create a mini photo gallery with three images and captions using <figure> and <figcaption>. Use different sizes and alt texts for each.

**Summary**

* Use <img> to display images
* The src is the image location
* The alt describes the image (used if image doesn't load)
* Use <figure> and <figcaption> for captions

**Quiz Questions**

1. Which tag is used to add images in HTML?  
   a) <pic>  
   b) <img>  
   c) <image>  
   d) <media>
2. What does alt stand for in an image tag?  
   a) Alternative browser  
   b) Altitude  
   c) Alternate text  
   d) Alert text
3. What does width="400" do?  
   a) Sets the image to 400 pixels wide  
   b) Zooms in  
   c) Makes the text bigger  
   d) Changes the background
4. What happens if the image file is missing?  
   a) The browser crashes  
   b) The page turns white  
   c) The alt text is displayed  
   d) Nothing is shown
5. What is <figcaption> used for?  
   a) Styling text  
   b) Making links  
   c) Adding a title to an image  
   d) Describing an image with a caption

**Answer Key:** 1 - b, 2 - c, 3 - a, 4 - c, 5 - d

**Lesson 3: HTML Hyperlinks**

**Lesson Objectives (What you will learn):**

* Understand what a hyperlink is
* Learn how to create links to websites, other pages, and sections within a page
* Use hyperlink attributes like href and target
* Practice linking content with text and images

**What Is a Hyperlink?**

A **hyperlink** is a connection that takes you to another web page, website, or a section on the same page.  
We create hyperlinks using the <a> tag.

**Basic Syntax**

<a href="URL">Link Text</a>

* <a>: The anchor tag
* href: The destination URL
* Link Text: What users click on

**Try These Examples**

**1. Link to Another Website**

<a href="https://www.google.com">Visit Google</a>

**2. Open in a New Tab**

<a href="https://www.wikipedia.org" target="\_blank">Wikipedia in new tab</a>

**3. Link to Another Page (internal)**

<a href="about.html">Go to About Page</a>

**4. Link to a Section on the Same Page**

<a href="#contact">Jump to Contact</a>

<!-- Later on the page -->

<h2 id="contact">Contact Us</h2>

**5. Link an Image**

<a href="https://www.nust.na">

<img src="nust-logo.png" alt="NUST Logo">

</a>

**Exercises**

1. **Create a Link to Your Favorite Website**  
   Use <a> to create a hyperlink that opens your favorite website.
2. **Make a Multi-Page Site**  
   Create two simple HTML pages and link them together.
3. **Jump to a Section**  
   Make a web page with a heading at the top and a link that jumps to the bottom section.

**Gamification**

* **Challenge:** Make a personal homepage with:
* A heading
* A link to your favorite website
* A link to another page (like “My Hobbies”)
* A “Back to Top” link  
  **Stars earned:** 3 stars for all working links!

**Summary**

* Use <a> to create a hyperlink
* Use href to set the destination
* Use target="\_blank" to open links in a new tab
* You can link to websites, other pages, and even places on the same page

**Quiz**

1. Which tag is used to create a hyperlink?  
   a) <link>  
   b) <href>  
   c) <a>  
   d) <url>
2. What does href mean in a hyperlink?  
   a) The color of the link  
   b) The address where the link goes  
   c) The name of the website  
   d) The type of text shown
3. How do you make a link open in a new tab?  
   a) target="new"  
   b) href="blank"  
   c) target="\_blank"  
   d) link="newtab"
4. What happens when you click this?

<a href="#top">Back to top</a>

a) It opens a new tab  
b) It scrolls to the top of the page  
c) It does nothing  
d) It reloads the page

1. Can you turn an image into a link?  
   a) No  
   b) Yes, with <image>  
   c) Yes, using <a> around <img>  
   d) Only if it's a PNG

**Answer Key:**  
1 - c, 2 - b, 3 - c, 4 - b, 5 - c

**Grade 10**

**Lesson 1: HTML Forms – Getting User Input**

**Lesson Objectives (What you will learn):**

* Understand what an HTML form is
* Learn how to collect user input using <input>, <label>, and <form>
* Use different input types like text, password, checkbox, and submit

**What Is an HTML Form?**

An HTML form lets users type things in – like their name, password, or choices – and send that information somewhere.

**Common Form Tags:**

| **Tag** | **Description** |
| --- | --- |
| <form> | Starts a form |
| <label> | Describes what the input is for |
| <input> | The field where the user types or clicks |
| type="" | Tells the browser what kind of input it is (e.g., text, password) |
| <button> or <input type="submit"> | Sends the form data |

**Try This Example**

<!DOCTYPE html>

<html>

<head>

<title>Simple Form</title>

</head>

<body>

<h1>Sign Up</h1>

<form>

<label for="name">Name:</label><br>

<input type="text" id="name"><br><br>

<label for="password">Password:</label><br>

<input type="password" id="password"><br><br>

<label>

<input type="checkbox"> I agree to the terms

</label><br><br>

<input type="submit" value="Sign Up">

</form>

</body>

</html>

**Exercises**

1. **Create a Login Form**  
   Use two input fields: one for username and one for password.
2. **Add a Checkbox**  
   Ask a user to agree to something (e.g., terms and conditions) with a checkbox.
3. **Build Your Own Form**  
   Create a form that asks for:

* Name
* Favorite color
* Whether the user is a student (yes/no checkbox)
* A submit button

**Gamification**

**Challenge:** Make a feedback form for your class website with name, opinion, and a checkbox for “Was this helpful?”  
**Stars earned:** 3 stars for using 3+ types of input!

**Summary**

* HTML forms collect information from the user
* Use <form> to start, <label> to describe, and <input> to collect data
* Different input types include: text, password, checkbox, and submit

**Quiz**

1. What tag is used to create a form?  
   a) <input>  
   b) <form>  
   c) <label>  
   d) <submit>
2. What input type hides the typed text (like a password)?  
   a) text  
   b) checkbox  
   c) submit  
   d) password
3. What tag is used to label an input field?  
   a) <name>  
   b) <input>  
   c) <form>  
   d) <label>
4. Which input type is used to make a checkbox?  
   a) check  
   b) box  
   c) checkbox  
   d) tick
5. What does <input type="submit"> do?  
   a) Prints the form  
   b) Submits the form  
   c) Clears the form  
   d) Hides the form

**Answer Key:**  
1 - b, 2 - d, 3 - d, 4 - c, 5 - b

**Lesson 2: HTML Iframes**

**Lesson Objectives**

* Understand what an iframe is and when to use it
* Learn how to embed external content using the <iframe> tag
* Explore common attributes like src, width, height, and frameborder

**What Is an Iframe?**

An **iframe** (inline frame) is used to embed another HTML document inside the current document. It allows you to display content like another webpage, a video, or a map, within your page.

**Basic Syntax:**

<iframe src="https://www.example.com" width="600" height="400"></iframe>

| **Attribute** | **Description** |
| --- | --- |
| src | The URL of the content to display |
| width | Sets the width of the iframe |
| height | Sets the height of the iframe |
| frameborder | Controls the border around the iframe (0 for no border, 1 for a border) |
| title | Provides a title for accessibility |

**Try This Example**

<!DOCTYPE html>

<html>

<head>

<title>Embedded YouTube Video</title>

</head>

<body>

<h1>Check Out This Cool Video!</h1>

<iframe src="https://www.youtube.com/embed/dQw4w9WgXcQ" width="560" height="315" frameborder="0" allowfullscreen></iframe>

</body>

</html>

This will embed a YouTube video directly into your webpage.

**Common Use Cases for Iframes**

* **Embedding Videos**: YouTube, Vimeo, etc.
* **Embedding Maps**: Google Maps, OpenStreetMap, etc.
* **Displaying External Websites**: Embed another website inside your webpage.

**Exercises**

1. **Embed a Video**  
   Embed a video from YouTube or Vimeo on your webpage using an iframe.
2. **Show a Google Map**  
   Find a location on Google Maps, click the “Share” button, and embed the map using the iframe code.
3. **Create an Embedded News Section**  
   Embed an external news website inside an iframe on your page.

**Challenge Task**

Create a webpage with:

* An iframe showing a video (YouTube or Vimeo)
* An iframe displaying a Google Map of your favorite place
* A title and description for each iframe

**Summary**

* Use the <iframe> tag to embed external content inside a webpage
* The src attribute defines the URL of the content to be displayed
* You can adjust the width and height to control the iframe's size
* The frameborder attribute allows you to control the border of the iframe

**Quiz**

1. Which tag is used to embed content from another webpage?  
   a) <embed>  
   b) <iframe>  
   c) <object>  
   d) <frame>
2. What does the src attribute do in an iframe?  
   a) Sets the border of the iframe  
   b) Defines the width and height  
   c) Specifies the URL of the content to be embedded  
   d) Adds a title to the iframe
3. What does frameborder="0" do?  
   a) Hides the iframe  
   b) Adds a border around the iframe  
   c) Removes the border around the iframe  
   d) Sets the iframe's content
4. What is the purpose of the allowfullscreen attribute?  
   a) Allows the iframe to be resized  
   b) Enables fullscreen mode for embedded videos  
   c) Disables the iframe  
   d) Sets the iframe's title
5. Which type of content can be embedded using an iframe?  
   a) Only images  
   b) Only videos  
   c) Only text  
   d) Webpages, videos, maps, and more

**Answer Key:**  
1 - b, 2 - c, 3 - c, 4 - b, 5 - d

**Lesson 3: HTML Layout**

**Lesson Objectives**

* Learn the basics of HTML layout structure
* Understand how to create a simple webpage layout with sections
* Practice using containers like <div> and semantic tags to structure content

**What Is HTML Layout?**

HTML layout refers to the structure and arrangement of content on a webpage. Proper layout makes websites more user-friendly, accessible, and visually appealing.

To create a webpage layout, we commonly use:

* **Containers**: <div>, <section>, <article>, and other semantic tags
* **Elements**: <header>, <nav>, <main>, <footer>, etc.
* **Styling**: CSS (Cascading Style Sheets) is often used to visually arrange and style the content, but for now, we’ll focus on HTML layout structure.

**Basic Layout Structure**

A basic webpage layout often includes:

* **Header**: Contains the title or logo of the website
* **Navigation**: Links to other pages or sections of the site
* **Main content**: The core information or functionality of the page
* **Footer**: Additional information, such as contact details or copyright

**Example Layout:**

<!DOCTYPE html>

<html>

<head>

<title>Simple Webpage Layout</title>

</head>

<body>

<!-- Header Section -->

<header>

<h1>My Website</h1>

<p>Welcome to my website!</p>

</header>

<!-- Navigation Section -->

<nav>

<ul>

<li><a href="#home">Home</a></li>

<li><a href="#about">About</a></li>

<li><a href="#contact">Contact</a></li>

</ul>

</nav>

<!-- Main Content Section -->

<main>

<section id="home">

<h2>Home</h2>

<p>This is the home page content.</p>

</section>

<section id="about">

<h2>About</h2>

<p>Information about the website or company.</p>

</section>

<section id="contact">

<h2>Contact</h2>

<p>Contact details go here.</p>

</section>

</main>

<!-- Footer Section -->

<footer>

<p>&copy; 2025 My Website</p>

</footer>

</body>

</html>

**Using <div> for Layout**

In addition to semantic tags like <header>, <nav>, <footer>, and <main>, you can also use the <div> tag to group and structure your layout. While not as descriptive, <div> is very flexible and widely used.

For example, you can use <div> to create different sections within a page:

<div class="container">

<div class="header">

<h1>My Website</h1>

</div>

<div class="content">

<p>This is the main content area.</p>

</div>

<div class="footer">

<p>Footer content goes here.</p>

</div>

</div>

You can style these <div> elements with CSS to create various layouts like grids, columns, and more.

**Exercises**

1. **Create a Simple Layout**  
   Create a webpage with a <header>, <nav>, <main>, and <footer>. Add some content to each section.
2. **Use <div> for Sections**  
   Use the <div> tag to create a container for the page and separate the header, content, and footer into different <div> elements.
3. **Experiment with <section>**  
   Try using multiple <section> tags inside <main> to create different areas, such as "About Us," "Services," and "Contact."

**Challenge Task**

Build a more complex layout with:

* A navigation bar at the top
* A sidebar to the left (use <aside>)
* Main content area with multiple sections
* A footer at the bottom

**Summary**

* Layout in HTML organizes content into sections like <header>, <nav>, <main>, and <footer>
* The <div> tag is used to group content, but semantic tags are more descriptive
* Use CSS (later in lessons) to style and arrange the layout visually

**Quiz**

1. What is the purpose of <header> in a webpage layout?  
   a) To display images  
   b) To contain navigation links  
   c) To hold introductory content, like the title and logo  
   d) To define the main content of the page
2. Which tag is commonly used to group content within a section?  
   a) <group>  
   b) <container>  
   c) <div>  
   d) <section>
3. Which HTML element is typically used for the main navigation links?  
   a) <footer>  
   b) <header>  
   c) <nav>  
   d) <aside>
4. What is the function of the <footer> tag?  
   a) It defines the page layout  
   b) It contains additional information like copyright or contact details  
   c) It holds the navigation links  
   d) It defines the content area
5. Which tag is used to separate different sections within a page?  
   a) <div>  
   b) <section>  
   c) <article>  
   d) <header>

**Answer Key:**  
1 - c, 2 - c, 3 - c, 4 - b, 5 - b