

HTML5 Layout Notes

1. Overview

- HTML5 introduces semantic elements to define webpage structure, replacing `<div>` for clarity.
- Key points:
 - Elements describe content purpose (e.g., `<header>`, `<article>`).
 - Easier with CSS layout knowledge.
 - Widely used despite evolving standards.
- Goals:
 - Learn HTML5 layout elements and uses.
 - Explore `<div>` alternatives.
 - Ensure older browser compatibility.

2. Traditional HTML Layouts

- Used `<div>` with `class/id` to group content (e.g., header, article, sidebar, footer).
- Example: Blog layout:
 - Header (logo, navigation).
 - Articles (posts/summaries).
 - Sidebar (search, links, ads).
 - Footer (copyright, links).
- `<div>` roles via attributes (e.g., `<div id="header">`).

3. New HTML5 Layout Elements

- Semantic elements:
 - **`<header>`**: Main/section header (e.g., site name, navigation).
 - **`<footer>`**: Main/section footer (e.g., copyright, links).
 - **`<nav>`**: Major navigation (e.g., primary menu, not secondary links).
 - **`<article>`**: Independent content (e.g., blog post, comment; nestable).
 - **`<aside>`**:
 - * Inside `<article>`: Related, non-essential (e.g., pullquote).
 - * Outside `<article>`: Page-related (e.g., sidebar).
 - **`<section>`**: Groups related content with headings (e.g., news; not for entire page).
 - **`<hgroup>`**: Groups headings (e.g., `<h2>` title, `<h3>` subtitle; controversial).
 - **`<figure>`**: Referenced content (e.g., images, videos) with `<figcaption>`.
- Example:

```

<body>
  <div id="page">
    <header>...</header>
    <div id="content">
      <article>...</article>
    </div>
    <aside>...</aside>
    <footer>...</footer>
  </div>

```

4. Sectioning Elements

- <div> used when no specific HTML5 element fits (e.g., page wrapper).
- No <content> element; main content outside <header>, <footer>, <aside>.
- Example: <div class="wrapper"> wraps page.

5. Linking Around Block-Level Elements

- HTML5 allows <a> around block elements (e.g., <article>).
- Invalid in earlier HTML.
- Example:

```

<a href="introduction.html">
  <article>...</article>
</a>

```

6. Helping Older Browsers

- Older browsers treat HTML5 elements as inline; fix with CSS:

```

header, section, footer, aside, nav, article, figure, figcaption {
  display: block;
}

```

- For IE8 and earlier:
 - Use HTML5 shiv (Google-hosted):

```

<!--[if lt IE 9]>
<script src="http://html5shiv.googlecode.com/svn/trunk/html5.js"></script>
<![endif]>

```

- Requires JavaScript; content may not render otherwise.

7. Styling HTML5 Layout Elements with CSS

- CSS targets sections (e.g., header { height: 160px; }).
- Example (cooking site):

- *Wrapper*: `<div class="wrapper">` (940px, centered, bordered).
 - *Header*: `<header>` (160px, background image).
 - *Navigation*: `<nav>` (inline list, 30px height).
 - *Courses*: `<section class="courses">` (659px, floated left, bordered).
 - *Articles*: `<article>` (full width, overflow auto).
 - *Figures*: `<figure>` (290px, bordered, floated left).
 - *Aside*: `<aside>` (230px, floated left, padded).
 - *Footer*: `<footer>` (30px, small font).
- Uses HTML5 shiv for IE8.

8. Example Application

- Cooking site (html5 layout):
 - *HTML5*:
 - * `<header>`: `<h1>` content here (e.g., site name, navigation).
 - * `<section class="courses">`: Two `<article>`s (with `<figure>`, `<hgroup>`, `<p>`).
 - * `<aside>`: `<section>` for recipes, contact details.
 - * `<footer>`: Copyright, contact text.
 - *CSS*:
 - * Block display for HTML5 elements.
 - * Styles layout (e.g., `body { background-color: #f9f8f6; }`).
 - * Hover effects (e.g., `nav li a:hover { color: #000000; }`).
- Includes HTML5 shiv.

9. Summary

- HTML5 elements clarify structure vs. `<div>` layouts.
- Semantic meaning (e.g., `<article>` for standalone content).
- Require CSS (`display: block`) and JavaScript (HTML5 shiv) for older browsers.
- Widely adopted for modern web development.