

HTML5

STRUCTURAL ELEMENTS

HTML5 has a range of **new structural elements** that allow us to create richer, more meaningful and more flexible web documents.

<header> element

A `<header>` element **typically contains the section's heading**, but can also contain other content, such as a search form or relevant logos.

```
<header>  
  <h1>Site name</h1>  
</header>
```

```
<header>
```

```
  <h1>Site name</h1>
```

```
  <h2>Site slogan</h2>
```

```
  <p>Supplementary information</p>
```

```
</header>
```

```
<header>  
  <h1>Site name</h1>  
  <nav></nav>  
  <form></form>  
</header>
```

```
<article>
  <header>
    <h1>Article Title</h1>
    <p>By Jon Smith</p>
  </header>
  <p>Lorem Ipsum set amet...</p>
</article>
```


The `<header>` element **can be used multiple times** within a single document.

<header>

<h1>Site name</h1>

<h2>Bi-line</h2>

<header>

<article>

<header>

<h1>Article Title</h1>

<p>By Jon Smith</p>

</header>

<p>Lorem Ipsum set amet...</p>

</article>

<nav> element

The `<nav>` element represents a section of a page that **links to other pages or to parts within the page**: a section with navigation links.

```
<nav>
```

```
  <ul>
```

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

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

```
    <li><a href="#">join</a></li>
```

```
    <li><a href="#">news</a></li>
```

```
    <li><a href="#">events</a></li>
```

```
    <li><a href="#">members</a></li>
```

```
  </ul>
```

```
</nav>
```

The `<nav>` element can contain **a wide range of elements** including headings, lists and other content.

<nav>

<h3>Site navigation</h3>

home

about

<h3>Blog roll</h3>

John

</nav>

Not all groups of links on a page need to be in a `<nav>` element. Only sections that **consist of major navigation blocks** are appropriate for the `<nav>` element.

<main> element

The `<main>` element represents the **main content area of the body** of a document or application.

```
<main>
```

```
  <h1>Apple</h1>
```

```
  <p>The apple is the fruit...</p>
```

```
</main>
```

The `<main>` can only be used **once per document.**

<section> element

The `<section>` element represents a **section of a document** or application.

```
<section>
```

```
  <h1>Section Title</h1>
```

```
  <p>Lorem Ipsum set amet...</p>
```

```
</section>
```

Ideally, the `<section>` should only be used if there is a **natural heading associated with it.**


```
<section>
```

```
  <h2>Apple</h2>
```

```
  <p>The apple is the fruit...</p>
```

```
</section>
```

The `<section>` element can be used
**multiple times within a single
document.**

```
<section>
```

```
  <h1>Apple</h1>
```

```
  <p>The apple is the fruit...</p>
```

```
</section>
```

```
<section>
```

```
  <h2>Pears</h2>
```

```
  <p>The pear is also a fruit...</p>
```

```
</section>
```

The `<section>` element is **not a generic container element**. When an element is needed for styling or scripting purposes, authors should use the `<div>` element instead.

```
<div>
```

```
  The apple is the fruit...
```

```
</div>
```

<article> element

The `<article>` element represents a **component of a page that could be reused** or distributable (ie via syndication).

This could be a forum post, a magazine or newspaper article, a blog entry, a user-submitted comment, an interactive widget or gadget, or **any other independent item of content.**


```
<article>
```

```
  <h1>Apple</h1>
```

```
  <p>The apple is the fruit...</p>
```

```
</article>
```

```
<article>
  <header>
    <h1>Apple</h1>
    <p>Published: 2009-10-09</p>
  </header>
  <p>The apple is a fruit...</p>
  ...
  <footer>
    <small>Creative Commons</small>
  </footer>
</article>
```

```
<article>
```

```
  <h1>Apple varieties</h1>
```

```
  <p>The apple is a fruit...</p>
```

```
  <section>
```

```
    <h2>Red Delicious</h2>
```

```
    <p>These bright red apples...</p>
```

```
  </section>
```

```
  <section>
```

```
    <h2>Granny Smith</h2>
```

```
    <p>These green apples...</p>
```

```
  </section>
```

```
</article>
```

The `<article>` element can be used **multiple times** in a single document.

```
<article>
  <header>
</header>
  <p>The apple is a fruit...</p>
  <footer>
</footer>
  <section>
    <h2>Comments</h2>
    <article>
    </article>
  </section>
</article>
```

<aside> element

The `<aside>` element represents **a section of a page consisting of content that is tangentially related** to the content around the aside element, and which could be considered separate from that content.

```
<aside>
```

```
  <h2>Blogroll</h2>
```

```
  <ul>
```

```
    <li><a href="#">My Friend</a></li>
```

```
    <li><a href="#">Another</a></li>
```

```
    <li><a href="#">Best Friend</a></li>
```

```
    <li><a href="#">Friend</a></li>
```

```
  </ul>
```

```
</aside>
```


<footer> element

The `<footer>` element represents **a footer for its nearest ancestor** and contains info such as author, copyright, related info.

```
<footer>
  <ul>
    <li>copyright info</li>
    <li>sitemap link</li>
    <li>contact link</li>
    <li>to top link</li>
  </ul>
</footer>
```

```
<section>
```

```
  Section content appears here
```

```
  <footer>
```

```
    Footer info for section
```

```
  </footer>
```

```
</section>
```

The `<footer>` element can be **used multiple times** in a single document.

```
<article>
```

```
  Article content appears here
```

```
  <footer>
```

```
</footer>
```

```
</article>
```

```
<article>
```

```
  Article content appears here
```

```
  <footer>
```

```
</footer>
```

```
</article>
```

<figure> element

The `<figure>` element represents a **unit of content, optionally with a caption, that is self-contained**, that is typically referenced as a single unit from the main flow of the document.

The content should be able to **be moved away from the main flow** of the document without affecting the document's meaning.

```
<figure>  
    
</figure>
```

The `<figure>` element is **intended to be used in conjunction** with the `<figcaption>` element. The `<figcaption>` is optional.

```
<figure>
  
  <figcaption>
    A cheeky macaque from Borneo.
  </figcaption>
</figure>
```

The `<figure>` element can be used to mark up diagrams, illustrations, photos, and code examples (among other things).

```
<figure>
  <pre>
    <code>
      p { border-radius: 5px 5px 0 0;}
    </code>
  </pre>
  <figcaption>
    Four values to define border-radius.
  </figcaption>
</figure>
```

The `<figure>` element can **contain more than one photo**, illustration, diagram etc.

<figure>

<figcaption>

Bat, whale and wombat

</figcaption>

</figure>

The `<figure>` element be **used multiple times** within a single document.

```
<figure>
```

```
  
```

```
  <figcaption>Little Pied Bat</figcaption>
```

```
</figure>
```

```
<figure>
```

```
  
```

```
  <figcaption>Eastern Cave Bat</figcaption>
```

```
</figure>
```

<figcaption> element

The `<figcaption>` element represents
a caption or legend for a figure.

```
<figure>
  
  <figcaption>
    A cheeky macaque from Borneo.
  </figcaption>
</figure>
```

The `<figcaption>` element is optional and **can be placed before or after the content** within the `<figure>` element.

```
<figure>
  <figcaption>
    A cheeky macaque from Borneo.
  </figcaption>
  
</figure>
```

While the `<figure>` element **can contain multiple images**, diagrams etc, there can be only one `<figcaption>` element within a `<figure>` element.


```
<figure>
  
  
  
  <figcaption>
    Bat, whale and wombat
  </figcaption>
</figure>
```

<hgroup> element

The `<hgroup>` element has been
dropped from the W3C specification.

Flexibility

These new HTML5 semantic elements **can be used in a wide variety of ways**. They are deliberately designed to be as flexible as possible.

<header>

<header>

<footer>

<header>

<nav>

<footer>

<header>

<nav>

<section>

<footer>

<header>

<nav>

<section>

<aside>

<footer>

<header>

<nav>

<section>

<aside>

<section>

<footer>

<header>

<nav>

<section>

<aside>

<section>

<section>

<footer>

<header>

<nav>

<section>

<aside>

<article>

<footer>

<header>

<nav>

<section>

<aside>

<article>

<article>

<footer>

<header>

<nav>

<section>

<article>

<header>

<footer>

<aside>

<footer>

Exercise 3: new structural elements

Open **exercise03-structural/
exercise3-start.htm**

Review your work against **exercise03-
structural/exercise3-finished.htm**

Replace markup using new elements: `<header>`, `<nav>`, `<main>`, `<section>`, `<article>`, `<aside>`, `<footer>`. `<figure>` and `<figcaption>`.