

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>
  Supplementary information
</header>
```

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

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

```
<l
  <a href="#">home</a>
  <a href="#">about</a>
  <a href="#">join</a>
  <a href="#">news</a>
  <a href="#">events</a>
  <a href="#">members</a>
</nav>
```

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

<nav>

```
<h3>Site navigation</h3>
 <l
   <a href="#">home</a>
   <a href="#">about</a>
 <h3>Blog roll</h3>
 ul>
   <a href="#">John</a>
 </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>
  The apple is the fruit...
</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>
  Lorem Ipsum set amet...
</section>
```

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

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

```
<section>
 <h1>Apple</h1>
 The apple is the fruit...
</section>
<section>
 <h2>Pears</h2>
 The pear is also a fruit...
</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.

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

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

```
<article>
 <h1>Apple varieties</h1>
 The apple is a fruit...
 <section>
   <h2>Red Delicious</h2>
   These bright red apples...
 </section>
 <section>
   <h2>Granny Smith</h2>
   These green apples...
 </section>
</article>
```

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

```
<article>
  <header>
</header>
 The apple is a fruit...
  <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> <l My Friend Another Best Friend Friend </aside>

<footer> element

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

```
<footer>
 <l
  copyright info
  sitemap link
  cli>contact link
  to top link
 </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>
  <img src="/orang-utan.jpg" alt="Orang Utan">
  </figure>
```

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

```
<figure>
  <img src="/macaque.jpg" alt="Macaque">
    <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>
 <
   <code>
     p { border-radius: 5px 5px 0 0;}
   </code>
 <figcaption>
   Four values to define border-radius.
 </figcaption>
</figure>
```

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

<figure>

```
<img src="/bat.jpg" alt="Macaque">
  <img src="/whale.jpg" alt="Macaque">
  <img src="/wombat.jpg" alt="Macaque">
  <figcaption>
    Bat, whale and wombat
  </figcaption>
</figure>
```

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

```
<figure>
  <img src="a.jpg" alt="Little Pied Bat">
  <figcaption>Little Pied Bat</figcaption>
</figure>
<figure>
  <img src="b.jpg" alt="Eastern Cave Bat">
  <figcaption>Eastern Cave Bat</figcaption>
</figure>
```

<figcaption> element

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

```
<figure>
  <img src="/macaque.jpg" alt="Macaque">
    <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>
<img src="/macaque.jpg" alt="Macaque">
</figure>
```

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

```
<figure>
  <img src="/bat.jpg" alt="Macaque">
  <img src="/whale.jpg" alt="Macaque">
  <img src="/wombat.jpg" alt="Macaque">
  <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.

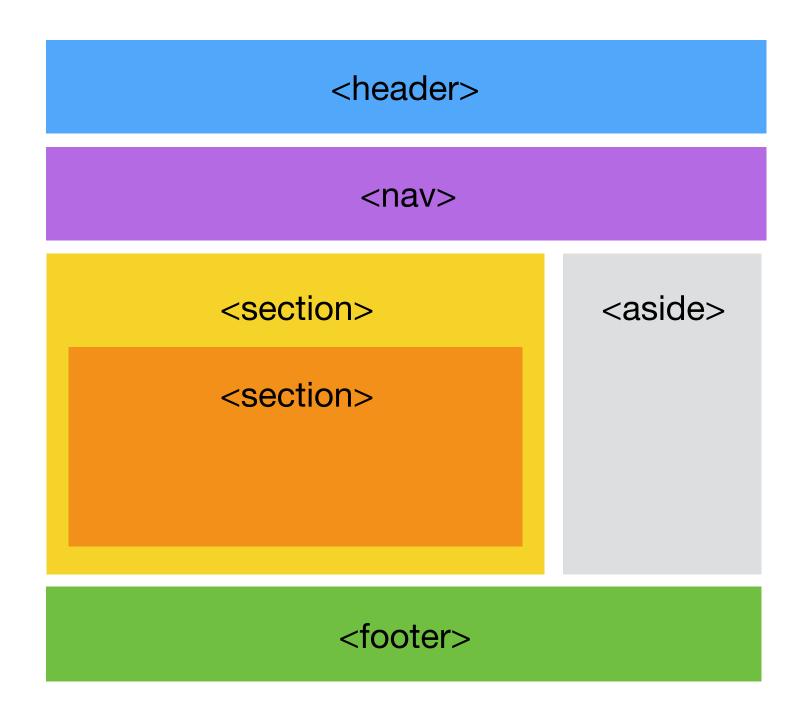
<header>

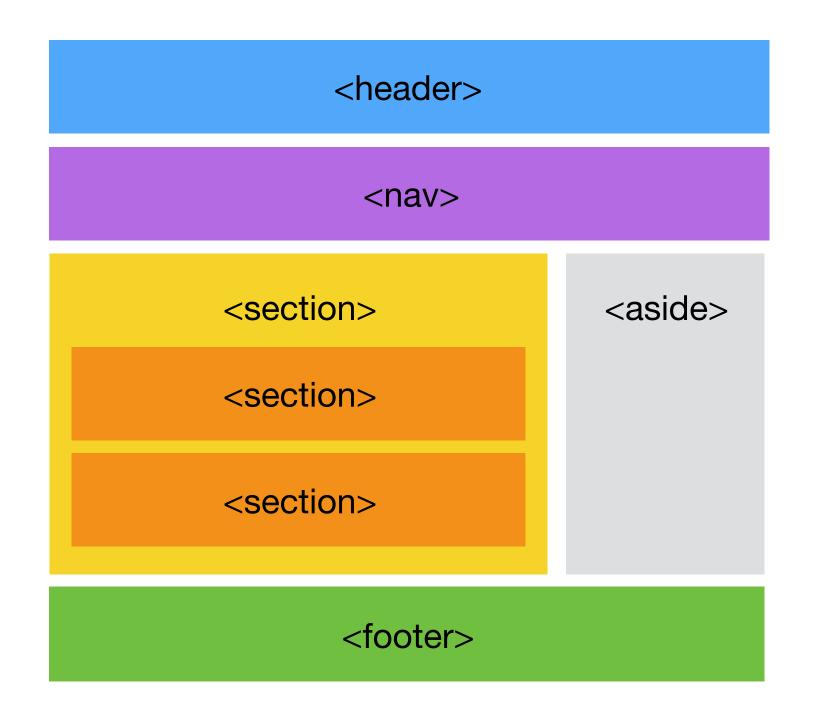
<header>

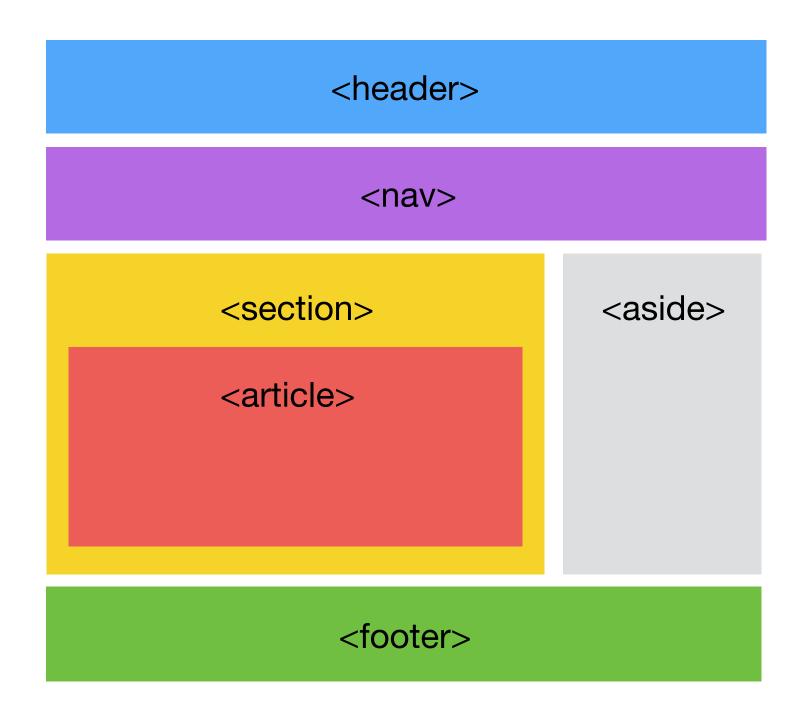
<header> <nav>

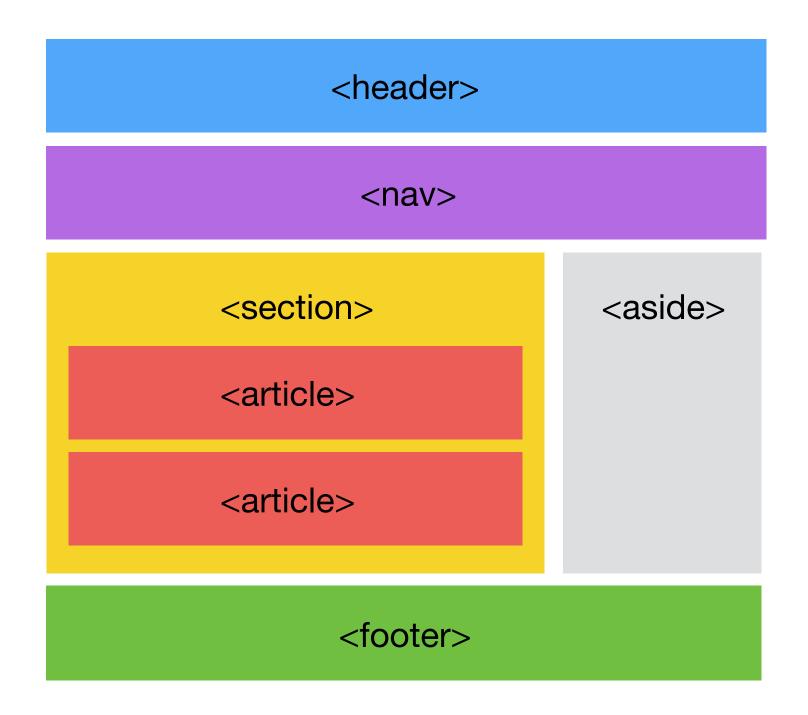
<header> <nav> <section> <footer>

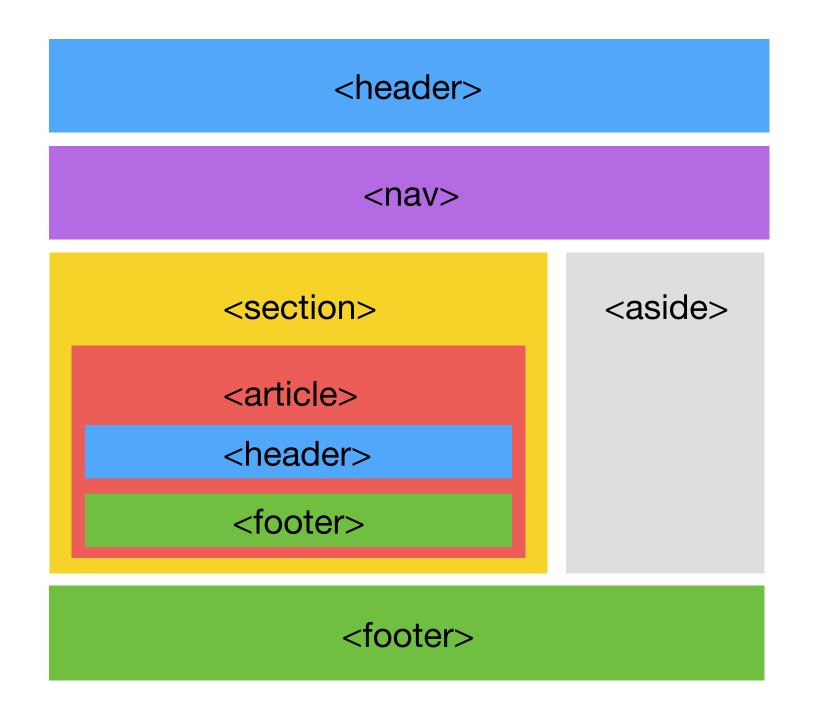
<header> <nav> <section> <aside> <footer>











Exercise 3: new structural elements

Open exercise03-structural/ exercise3-start.htm

Review your work against exercise03structural/exercise3-finished.htm

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