Images

Why need image ?

Images can be used to set the tone for a site in less time than
it takes to read a description. If you do not have photographs
to use on your website, there are companies who sell stock images;

Images should...

- Be relevant
- Convey information
- Convey the right mood
- Be instantly recognisable
- Fit the color palette

Storing Images on Your Site

all of the images are stored in a folder called images.

On a big site you might like to add subfolders inside the images folder. For example, images such as logos and buttons might sit in a folder called interface, product photographs might sit in a page called products, and images related to news might live in a folder called news.


```
<img src="images/quokka.jpg" alt="A family of
    quokka" title="The quokka is an Australian
    marsupial that is similar in size to the
    domestic cat." />
```

RESULT

src
This tells the browser where it can find the image file.
alt
This provides a text description of the image which describes the image if you cannot see it.
title
You can also use the **title** attribute with the **<img>** element to provide additional information about the image. Most browsers will display the content of this attribute in a tootip when the user hovers over the image.

Height & Width
of Images

```
<img src="images/quokka.jpg" alt="A family of
      quokka" width="600" height="450" />
```

Where to Place Images in Your Code

1: before a paragraph

The paragraph starts on a new line after the image.

2: inside the start of a

Paragraph The first row of text aligns with

the bottom of the image.

3: in the middle of a

paragraph

The image is placed between the words of the paragraph that it appears in.

```html
<img src="images/bird.gif" alt="Bird" width="100"
   height="100" />
<p>There are around 10,000 living species of birds
   that inhabit different ecosystems from the
   Arctic to the Antarctic. Many species undertake
   long distance annual migrations, and many more
   perform shorter irregular journeys.</p>
<hr />
<p><img src="images/bird.gif" alt="Bird" width="100"
   height="100" />There are around 10,000 living
   species of birds that inhabit different
   ecosystems from the Arctic to the Antarctic. Many
   species undertake long distance annual
   migrations, and many more perform shorter
   irregular journeys.</p>
<hr />
<p>There are around 10,000 living species of birds
   that inhabit different ecosystems from the
   Arctic to the Antarctic.<img
   src="images/bird.gif" alt="Bird" width="100"
   height="100" />Many species undertake long
   distance annual migrations, and many more perform
   shorter irregular journeys.</p>
```

There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic. Many species undertake long distance annual migrations, and many more perform shorter irregular journeys.

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Old version

```
<p><img src="images/bird.gif" alt="Bird" width="100"
   height="100" align="left" />There are around
   10,000 living species of birds that inhabit
   different ecosystems from the Arctic to the
   Antarctic. Many species undertake long distance
   annual migrations, and many more perform shorter
   irregular journeys.</p>
<hr />
<p><img src="images/bird.gif" alt="Bird" width="100"
   height="100" align="right" />There are around
   10,000 living species of birds that inhabit
   different ecosystems from the Arctic to the
   Antarctic. Many species undertake long distance
   annual migrations, and many more perform shorter
   irregular journeys.</p>
```

RESULT

There are around 10,000 living species of birds that inhabit different ecosystems from the Arctic to the Antarctic. Many species undertake long distance annual migrations, and many more perform shorter irregular journeys.

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```
<p><img src="images/bird.gif" alt="Bird" width="100"
   height="100" align="top" />There are around
   10,000 living species of birds that inhabit
   different ecosystems from the Arctic to the
   Antarctic. Many species undertake long distance
   annual migrations, and many more perform shorter
   irregular journeys.</p>
<hr />
<p><img src="images/bird.gif" alt="Bird" width="100"
   height="100" align="middle" />There are around
   10,000 living species of birds that inhabit
   different ecosystems from the Arctic to the
   Antarctic. Many species undertake long distance
   annual migrations, and many more perform shorter
   irregular journeys.</p>
<hr />
<p><img src="images/bird.gif" alt="Bird" width="100"
   height="100" align="bottom" />There are around
   10,000 living species of birds that inhabit
   different ecosystems from the Arctic to the
   Antarctic. Many species undertake long distance
   annual migrations, and many more perform shorter
   irregular journeys.</p>
```

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Three Rules for Creating Images

1. Save images in the right format

2. Save images at the right size

3. Use the correct resolution

Tools to Edit
& Save Images

The most popular tool amongst web professionals is **Adobe Photoshop**.

Online Editors

- www.photoshop.com
- www.pixlr.com
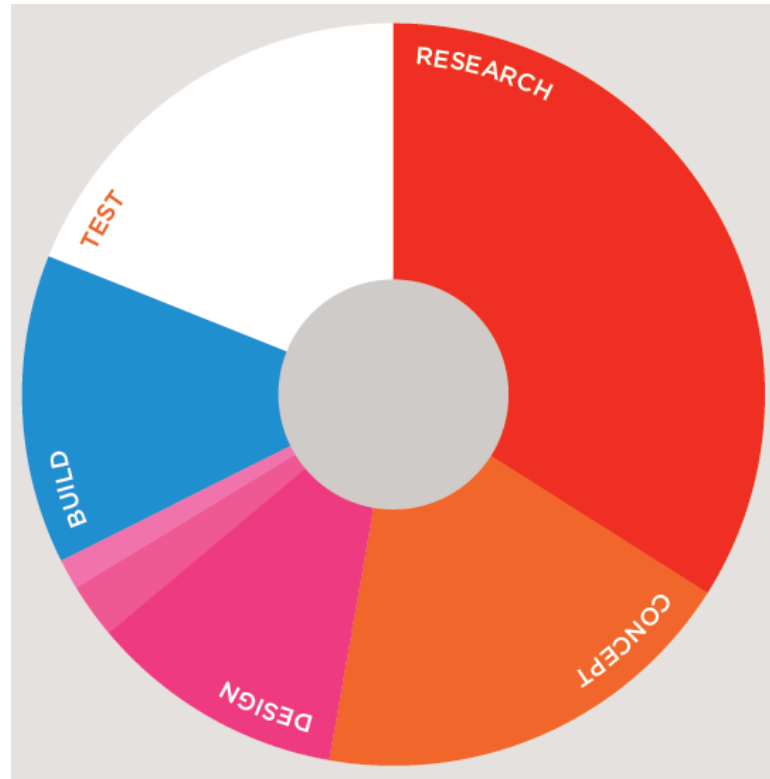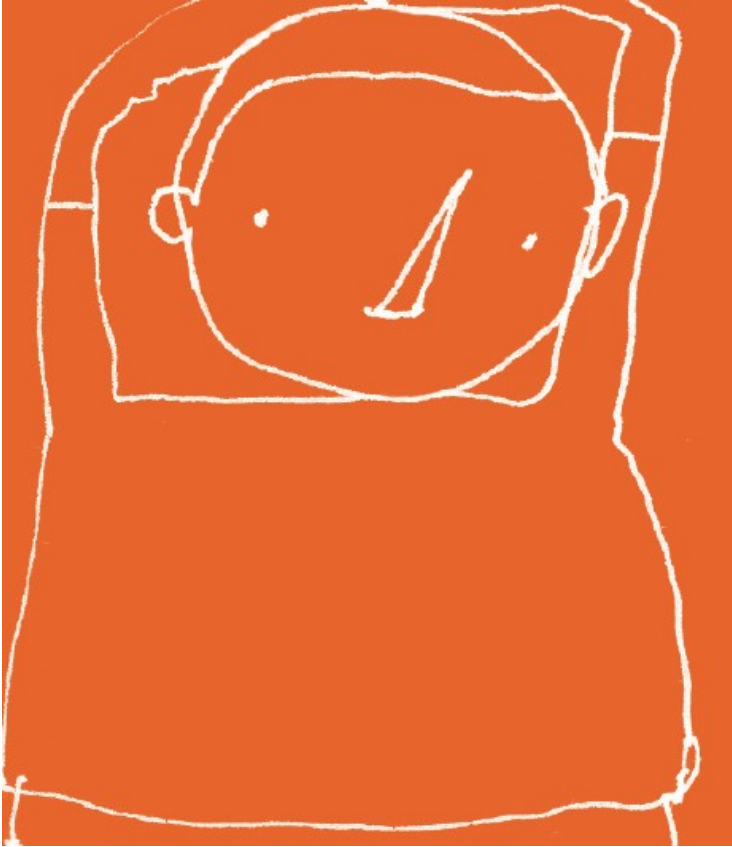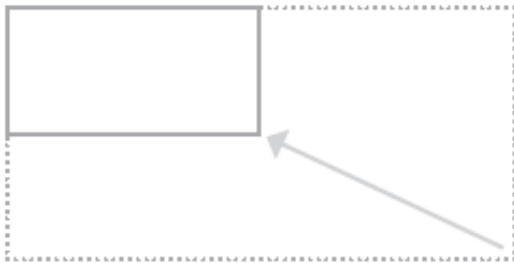- www.splashup.com
- www.ipiccy.com

Formats JPEG

GIF or PNG

Image Dimensions

The images you use on your website should be saved at the same width and height that you want them to appear on the page.

REDUCING IMAGE SIZE
You can reduce the size of images to create a smaller version of the image.

INCREASING IMAGE SIZE
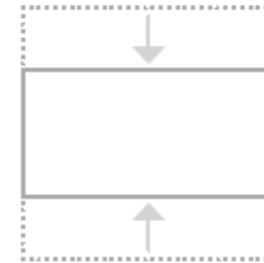You can't increase the size of photos significantly without affecting the image quality.

CHANGING SHAPE
Only some images can be cropped without losing valuable information (see next page).

Cropping Images

PORTRAIT

Here you can see an illustration of a giraffe that is best suited to appearing in **portrait**.
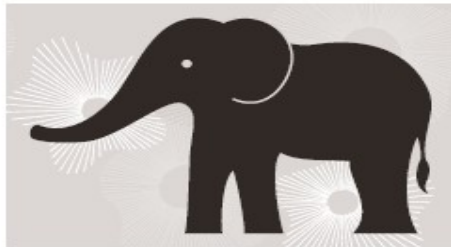
LANDSCAPE

If we **crop** this illustration to make it landscape we lose the head and feet.

If we **add extra space** to the left and right of the illustration the background is not continued.
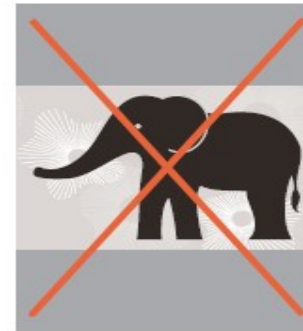
LANDSCAPE

Here you can see an illustration of an elephant that is best suited to appearing in **landscape**.

PORTRAIT

If we **crop** this illustration to make it portrait we lose the trunk and the hindquarters.

If we **add extra space** to the top and bottom of the illustration the background is not continued.

Image Resolution

Images created for the web should be saved at a resolution of 72 ppi. The higher the resolution of the image, the larger the size of the file.

- JPGs, GIFs, and PNGs belong to a type of image format known as **bitmap**.

- Images in **print** materials
(such as books and magazines) are made up of tiny circles called
dots. These images are usually printed at a resolution of **300** dots per inch (dpi).

- For this image:
JPEG at 300 dpi = 1,526kb
JPEG at 72 ppi = 368kb

Vector Images

- Vector images differ from bitmap images and are resolution-independent. Vector images are commonly created in programs such as Adobe Illustrator.

- The current method of using vector images for display on websites involves saving abitmap version of the original vector image and using that.

- Scalable Vector Graphics (SVG) are a relatively new format used to display vector images directly on the web (eliminating the need to create bitmap versions of them), however its use is not yet widespread.

Animated GIFs

- Animated GIFs show several frames of an image in sequence and therefore can be used to create simple animations.

- Some designers frown on animated GIFs because they remember a lot of amateur web designers overusing them in the 1990's.

Transparency

- If the transparent part of the image has straight edges and it is 100% transparent (that is, not semi-opaque), you can save the image as a GIF (with the transparency option selected).

- If the transparent part of the image has diagonal or rounded edges or if you want a semiopaque transparency or a dropshadow, then you will need to save it as a PNG.

Caption


```
HTML                   chapter-05/figure-and-figure-caption.html

<figure>
    <img src="images/otters.jpg" alt="Photograph of
          two sea otters floating in water">
    <br />
    <figcaption>Sea otters hold hands when they
          sleep so they don't drift away from each
          other.</figcaption>
</figure>
```

RESULT

Sea otters hold hands when they sleep so they don't drift away from each other.

`<figure>`

Images often come with captions. HTML5 has introduced a new `<figure>` element to contain images and their caption so that the two are associated.

You can have more than one image inside the `<figure>` element as long as they all share the same caption.

`<figcaption>`

The `<figcaption>` element has been added to HTML5 in order to allow web page authors to add a caption to an image.

Before these elements were created there was no way to associate an `<img>` element with its caption.

Older browsers that do not understand HTML5 elements simply ignore the new elements and display the content of them.

exercise

- Inside the <body> section, add multiple <img> tags to display different images. Use placeholder images or real images for this exercise.

- Use attributes like src for the image source, alt for alternative text, width to set the width of the image, and height to set the height of the image. Adjust the values of width and height to see how they affect the display of images.

- Test your HTML file in a web browser to observe how different width and height values affect the display of images. Make sure the alternative text is displayed when images are unavailable.

- Optionally, you can add links to the images or wrap them in <a> tags to create clickable images that lead to other pages or larger versions of the images.