



CSS

Cascading Style Sheets

Mr. K's Technology



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Introduction - Free CSS Tutorial



CSS is a style language that defines layout of HTML documents Cascading Style Sheets (CSS) is a fantastic tool to add layout to your websites. It can save you a lot of time and it enables you to design websites in a completely new way. CSS is a must for anyone working with web design.

This tutorial will get you started with CSS in just a few hours. It is easy to understand and it will teach you all the sophisticated techniques.

Learning CSS is fun. As you go along through the tutorial, remember to take enough time to properly experiment with what you learn in each lesson.

Using CSS requires basic experience with HTML. If you are not familiar with HTML, please start with our HTML tutorial before moving on to CSS. Which software do I need?

Please avoid using software such as FrontPage, DreamWeaver or Word with this tutorial. Advanced software will not help you learn CSS. Instead, it will limit you and slow down your learning curve significantly.

All you need is a free and simple text editor.

For example, Microsoft Windows comes with a program called Notepad. It is usually located in Accessories in the start menu under Programs. Alternatively, you can use a similar text editor e.g. Pico for Linux or Simple Text for Macintosh.

A simple text editor is ideal for learning HTML and CSS because it doesn't affect or change the codes you type. That way, your successes and errors can only be attributed to yourself - not the software.

You can use any browser with this tutorial. We encourage you to always keep your browser updated and use the latest version.

A browser and a simple text editor is all you need.

Let's get started!



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What is CSS?

- `{ }` CSS stands for Cascading Style Sheets
- `{ }` Styles define how to display HTML elements
- `{ }` Styles are normally stored in Style Sheets
- `{ }` Styles were added to HTML 4.0 to solve a problem
- `{ }` External Style Sheets can save you a lot of work
- `{ }` External Style Sheets are stored in CSS files
- `{ }` Multiple style definitions will cascade into one



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Lesson 2: Colors and backgrounds

In this lesson you will learn how to apply colors and background colors to your websites. We will also look at advanced methods to position and control background images. The following CSS properties will be explained:

- color
- background-color
- background-image
- background-repeat
- background-attachment
- background-position
- background

This heading is in red



Foreground color: the 'color' property

The color property describes the foreground color of an element.

For example, imagine that we want all headlines in a document to be dark red. The headlines are all marked with the HTML element `<h1>`. The code below sets the color of `<h1>` elements to red.

```
h1 {  
    color: #ff0000;  
}
```

Colors can be entered as hexadecimal values as in the example above (`#ff0000`), or you can use the names of the colors ("red") or rgb-values (`rgb(255,0,0)`).



Property	Description	Values
<u>background</u>	A shorthand property for setting all background properties in one declaration	<i>background-color</i> <i>background-image</i> <i>background-repeat</i> <i>background-attachment</i> <i>background-position</i>
<u>background-attachment</u>	Sets whether a background image is fixed or scrolls with the rest of the page	scroll fixed
<u>background-color</u>	Sets the background color of an element	<i>color-rgb</i> <i>color-hex</i> <i>color-name</i> transparent
<u>background-image</u>	Sets an image as the background	url(URL) none
<u>background-position</u>	Sets the starting position of a background image	top left top center top right center left center center center right bottom left bottom center bottom right x% y% xpos ypos
<u>background-repeat</u>	Sets if/how a background image will be repeated	repeat repeat-x repeat-y no-repeat



CSS Background Properties

The CSS background properties allow you to control the background color of an element, set an image as the background, repeat a background image vertically or horizontally, and position an image on a page.

The 'background-color' property

The background-color property describes the background color of elements.

The element `<body>` contains all the content of an HTML document. Thus, to change the background color of an entire page, the background-color property should be applied to the `<body>` element.

You can also apply background colors to other elements including headlines and text. In the example below, different background colors are applied to `<body>` and `<h1>` elements.

```
body {  
    background-color: #FFCC66;  
}  
h1 {  
    color: #990000;  
    background-color: #FC9804;  
}
```

Notice that we applied two properties to `<h1>` by dividing them by a semicolon.

This is a heading with a background color





Background images [background-image]

The CSS property background-image is used to insert a background image.

As an example of a background image, we use the butterfly above. You can download the image so you can use it on your own computer (right click the image and choose "save image as"), or you can use another image as you see fit.

We introduced this in Basic HTML 06



To insert the image of the butterfly as a background image for a web page, simply apply the background-image property to <body> and specify the location of the image.

```
body {
    background-color: #FFCC66;
    background-image: url("butterfly.gif");
}
h1 {
    color: #990000;
    background-color: #FC9804;
}
```

Notice how we specified the location of the image as url("butterfly.gif"). This means that the image is located in the same folder as the style sheet. You can also refer to images in other folders using url("../images/butterfly.gif") or even on the Internet indicating the full address of the file: url("http://www.html.net/butterfly.gif").



Repeat background image [background-repeat]

In the example above, did you notice that by default the butterfly was repeated both horizontally and vertically to cover the entire screen? The property background-repeat controls this behavior.

The table below outlines the four different values for background-repeat.

Value	Description
background-repeat: repeat-x	The image is repeated horizontally
background-repeat: repeat-y	The image is repeated vertically
background-repeat: repeat horizontally and vertically	The image is repeated both
background-repeat: no-repeat	The image is not repeated

Example





Lock background image [background-attachment]

The property background-attachment specifies whether a background picture is fixed or scrolls along with the containing element.

A fixed background image will not move with the text when a reader is scrolling the page, whereas an unlocked background image will scroll along with the text of the web page.

The table below outlines the two different values for background-attachment.

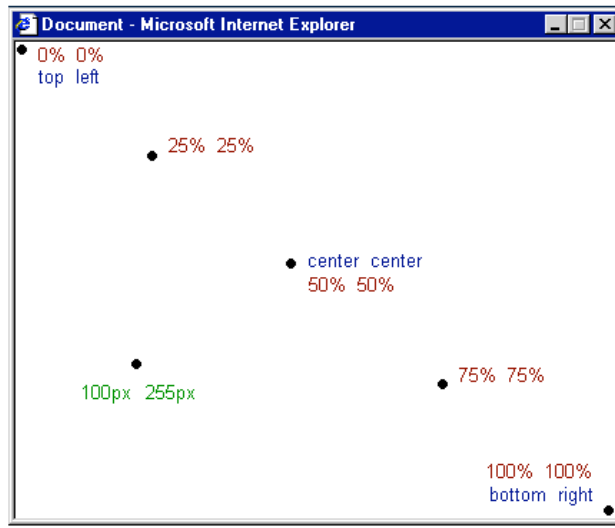
Value	Description
Background-attachment: scroll	The image scrolls with the page - unlocked
Background-attachment: fixed	The image is locked

Try this

For example, the code below will fix the background image.

```
body {  
    background-color: #FFCC66;  
    background-image: url("butterfly.gif");  
    background-repeat: no-repeat;  
    background-attachment: fixed;  
}  
  
h1 {  
    color: #990000;  
    background-color: #FC9804;  
}
```





Place background image [background-position]

By default, a background image will be positioned in the top left corner of the screen. The property background-position allows you to change this default and position the background image anywhere you like on the screen.

There are numerous ways to set the values of background-position. However, all of them are formatted as a set of coordinates. For example, the value '100px 200px' positions the background image 100px from the left side and 200px from the top of the browser window.

The coordinates can be indicated as percentages of the browser window, fixed units (pixels, centimeters, etc.) or you can use the words top, bottom, center, left and right. The model below illustrates the system:

The table below gives some examples.

Value

background-position: 2cm 2cm

background-position: 50% 25%

background-position: top right

Description

The image is positioned 2 cm from the left and 2 cm down the page

The image is centrally positioned and one fourth down the page

The image is positioned in the top-right corner of the page

The code example below positions the background image in the bottom right corner:

```
body {  
    background-color: #FFCC66;  
    background-image: url("butterfly.gif");  
    background-repeat: no-repeat;  
    background-attachment: fixed;  
    background-position: right bottom;  
}
```

```
h1 {  
    color: #990000;  
    background-color: #FC9804;  
}
```





Compiling [background]

The property background is a short hand for all the background properties listed in this lesson.

With background you can compress several properties and thereby write your style sheet in a shorter way which makes it easier to read.

For example, look at these five lines:

```
background-color: #FFCC66;  
background-image: url("butterfly.gif");  
background-repeat: no-repeat;  
background-attachment: fixed;  
background-position: right bottom;
```



Using background the same result can be achieved in just one line of code:

```
background: #FFCC66 url("butterfly.gif") no-repeat fixed right bottom;
```

The list of order is as follows:

```
[background-color] | [background-image] | [background-repeat] | [background-attachment] |  
[background-position]
```

If a property is left out, it will automatically be set to its default value. For example, if background-attachment and background-position are taken out of the example:

```
background: #FFCC66 url("butterfly.gif") no-repeat;
```

These two properties that are not specified would merely be set to their default values which as you know are scroll and top left.



Your Project

Name each page
bg00 through bg05

1. Create a page with a vertical image. (Use h1 to put your name on the page for each one completed.)
2. Create a page with a horizontal image.
3. Create a page with a repeating image.
4. Create a page with a scrolling image.
5. Create a page with a fixed image.
6. Save all pages in your CSS folder.



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