# **CSS Properties**

#### **CSS Property Groups**

•	Animation	•	Grid	•	Print
•	Background	•	Hyperlink	•	Ruby
•	Border and outline	•	Linebox	•	Speech
•	Box	•	List	•	Table
•	Color	•	Margin	•	Text
•	Content Paged Media	•	Marquee	•	2D/3D Transform
•	Dimension	•	Multi-column	•	Transition
•	Flexible Box	•	Padding	•	User-interface
•	Font	•	Paged Media		
•	Generated content	•	Positioning		

The "Ver." column indicates in which CSS version the property is defined (CSS1, CSS2, or CSS3).

#### **Animation Properties**

Property	Description	Ver.
@keyframes	Specifies the animation	3
animation	A shorthand property for all the animation properties below, except the animation-play-state property	3
animation-name	Specifies a name for the @keyframes animation	3
animation-duration	Specifies how many seconds or milliseconds an animation takes to complete one cycle	3
animation-timing-function	Specifies the speed curve of the animation	3
animation-delay	Specifies when the animation will start	3
animation-iteration-count	Specifies the number of times an animation should be played	3
animation-direction	Specifies whether or not the animation should play in reverse on alternate cycles	3
animation-play-state	Specifies whether the animation is running or paused	3

## **Background Properties**

Property	Description	Ver.
background	Sets all the background properties in one declaration	1
background-attachment	Sets whether a background image is fixed or scrolls with the rest of the page	1
background-color	Sets the background color of an element	1
background-image	Sets the background image for an element	1
background-position	Sets the starting position of a background image	1
background-repeat	Sets how a background image will be repeated	1
background-clip	Specifies the painting area of the background	3
background-origin	Specifies the positioning area of the background images	3
background-size	Specifies the size of the background images	3

# **Border and Outline Properties**

Dorder and Outline 110	•	
Property	Description	Ver.
border	Sets all the border properties in one declaration	1
border-bottom	Sets all the bottom border properties in one declaration	1
border-bottom-color	Sets the color of the bottom border	1
border-bottom-style	Sets the style of the bottom border	1
border-bottom-width	Sets the width of the bottom border	1
border-color	Sets the color of the four borders	1
border-left	Sets all the left border properties in one declaration	1
border-left-color	Sets the color of the left border	1
border-left-style	Sets the style of the left border	1
border-left-width	Sets the width of the left border	1
border-right	Sets all the right border properties in one declaration	1
border-right-color	Sets the color of the right border	1
border-right-style	Sets the style of the right border	1
border-right-width	Sets the width of the right border	1
border-style	Sets the style of the four borders	1
border-top	Sets all the top border properties in one declaration	1
border-top-color	Sets the color of the top border	1
border-top-style	Sets the style of the top border	1
border-top-width	Sets the width of the top border	1
border-width	Sets the width of the four borders	1
outline	Sets all the outline properties in one declaration	2
outline-color	Sets the color of an outline	2
outline-style	Sets the style of an outline	2
outline-width	Sets the width of an outline	2
border-bottom-left-radius	Defines the shape of the border of the bottom-left corner	3
border-bottom-right-radius	Defines the shape of the border of the bottom-right corner	3
border-image	A shorthand property for setting all the border-image-* properties	3
border-image-outset	Specifies the amount by which the border image area extends beyond the border box	3
border-image-repeat	Specifies whether the image-border should be repeated, rounded or stretched	3
border-image-slice	Specifies the inward offsets of the image-border	3
border-image-source	Specifies an image to be used as a border	3
border-image-width	Specifies the widths of the image-border	3
border-radius	A shorthand property for setting all the four border-*-radius properties	3
border-top-left-radius	Defines the shape of the border of the top-left corner	3
border-top-right-radius	Defines the shape of the border of the top-right corner	3
box-decoration-break		3
box-shadow	Attaches one or more drop-shadows to the box	3

**Box Properties** 

Property	Description	Ver.
overflow-x	Specifies whether or not to clip the left/right edges of the content, if it overflows the element's content area	3
overflow-y	Specifies whether or not to clip the top/bottom edges of the content, if it overflows the element's content area	3
overflow-style	Specifies the preferred scrolling method for elements that overflow	3
rotation	Rotates an element around a given point defined by the rotation-point property	3
rotation-point	Defines a point as an offset from the top left border edge	3

**Color Properties** 

Property	Description	Ver.
color-profile	Permits the specification of a source color profile other than the default	3
opacity	Sets the opacity level for an element	3
rendering-intent	Permits the specification of a color profile rendering intent other than the default	3

# **Content for Paged Media Properties**

Property	Description	Ver.
bookmark-label	Specifies the label of the bookmark	3
bookmark-level	Specifies the level of the bookmark	3
bookmark-target	Specifies the target of the bookmark link	3
float-offset	Pushes floated elements in the opposite direction of the where they have been floated with float	3
hyphenate-after	Specifies the minimum number of characters in a hyphenated word after the hyphenation character	3
hyphenate-before	Specifies the minimum number of characters in a hyphenated word before the hyphenation character	3
hyphenate-character	Specifies a string that is shown when a hyphenate-break occurs	3
hyphenate-lines	Indicates the maximum number of successive hyphenated lines in an element	3
hyphenate-resource	Specifies a comma-separated list of external resources that can help the browser determine hyphenation points	3
hyphens	Sets how to split words to improve the layout of paragraphs	3
image-resolution	Specifies the correct resolution of images	3
marks	Adds crop and/or cross marks to the document	3
string-set		3

**Dimension Properties** 

Property	Description	Ver.
height	Sets the height of an element	1
max-height	Sets the maximum height of an element	2

max-width	Sets the maximum width of an element	2
min-height	Sets the minimum height of an element	2
min-width	Sets the minimum width of an element	2
width	Sets the width of an element	1

**Flexible Box Properties** 

Property	Description	Ver.
box-align	Specifies how to align the child elements of a box	3
box-direction	Specifies in which direction the children of a box are displayed	3
box-flex	Specifies whether the children of a box is flexible or inflexible in size	3
box-flex-group	Assigns flexible elements to flex groups	3
box-lines	Specifies whether columns will go onto a new line whenever it runs out of space in the parent box	3
box-ordinal-group	Specifies the display order of the child elements of a box	3
box-orient	Specifies whether the children of a box should be laid out horizontally or vertically	3
box-pack	Specifies the horizontal position in horizontal boxes and the vertical position in vertical boxes	3

## **Font Properties**

Property	Description	Ver.
font	Sets all the font properties in one declaration	1
font-family	Specifies the font family for text	1
font-size	Specifies the font size of text	1
font-style	Specifies the font style for text	1
font-variant	Specifies whether or not a text should be displayed in a small-caps font	1
font-weight	Specifies the weight of a font	1
@font-face	A rule that allows websites to download and use fonts other than the "web-safe" fonts	3
font-size-adjust	Preserves the readability of text when font fallback occurs	3
font-stretch	Selects a normal, condensed, or expanded face from a font family	3

# **Generated Content Properties**

Property	Description	Ver.
content	Used with the :before and :after pseudo-elements, to insert generated content	2
counter-increment	Increments one or more counters	2
counter-reset	Creates or resets one or more counters	2
quotes	Sets the type of quotation marks for embedded quotations	2
crop	Allows a replaced element to be just a rectangular area of an object, instead of the whole object	3

move-to	Causes an element to be removed from the flow and reinserted at a later point in	3
no ao malior	the document  Determines which page-based occurance of a given element is applied to a	3
page-policy	counter or string value	3
Grid Properties		
Property	Description	Ver.
grid-columns	Specifies the width of each column in a grid	3
grid-rows	Specifies the height of each column in a grid	3
Hyperlink Properties		
Property	Description	Ver.
target	A shorthand property for setting the target-name, target-new, and target-position properties	3
target-name	Specifies where to open links (target destination)	3
target-new	Specifies whether new destination links should open in a new window or in a new tab of an existing window	3
target-position	Specifies where new destination links should be placed	3
Linebox Properties		
Property	Description	Ver.
alignment-adjust	Allows more precise alignment of elements	3
alignment-baseline	Specifies how an inline-level element is aligned with respect to its parent	3
baseline-shift	Allows repositioning of the dominant-baseline relative to the dominant-baseline	3
dominant-baseline	Specifies a scaled-baseline-table	3
drop-initial-after-adjust	Sets the alignment point of the drop initial for the primary connection point	3
drop-initial-after-align	Sets which alignment line within the initial line box is used at the primary connection point with the initial letter box	3
drop-initial-before-adjust	Sets the alignment point of the drop initial for the secondary connection point	3
drop-initial-before-align	Sets which alignment line within the initial line box is used at the secondary connection point with the initial letter box	3
drop-initial-size	Controls the partial sinking of the initial letter	3
drop-initial-value	Activates a drop-initial effect	3
inline-box-align	Sets which line of a multi-line inline block align with the previous and next inline elements within a line	3
line-stacking	A shorthand property for setting the line-stacking-strategy, line-stacking-ruby, and line-stacking-shift properties	3
line-stacking-ruby	Sets the line stacking method for block elements containing ruby annotation elements	3
line-stacking-shift	Sets the line stacking method for block elements containing elements with base-shift	3

line-stacking-strategy	Sets the line stacking strategy for stacked line boxes within a containing block element	3
text-height	Sets the block-progression dimension of the text content area of an inline box	3

# <u>List Properties</u>

Property	Description	Ver.
list-style	Sets all the properties for a list in one declaration	1
list-style-image	Specifies an image as the list-item marker	1
list-style-position	Specifies if the list-item markers should appear inside or outside the content flow	1
list-style-type	Specifies the type of list-item marker	1

# **Margin Properties**

Property	Description	Ver.
margin	Sets all the margin properties in one declaration	1
margin-bottom	Sets the bottom margin of an element	1
margin-left	Sets the left margin of an element	1
margin-right	Sets the right margin of an element	1
margin-top	Sets the top margin of an element	1

# **Marquee Properties**

Property	Description	Ver.
marquee-direction	Sets the direction of the moving content	3
marquee-play-count	Sets how many times the content move	3
marquee-speed	Sets how fast the content scrolls	3
marquee-style	Sets the style of the moving content	3

# **Multi-column Properties**

Property	Description	Ver.
column-count	Specifies the number of columns an element should be divided into	3
column-fill	Specifies how to fill columns	3
column-gap	Specifies the gap between the columns	3
column-rule	A shorthand property for setting all the column-rule-* properties	3
column-rule-color	Specifies the color of the rule between columns	3
column-rule-style	Specifies the style of the rule between columns	3
column-rule-width	Specifies the width of the rule between columns	3
column-span	Specifies how many columns an element should span across	3
column-width	Specifies the width of the columns	3
columns	A shorthand property for setting column-width and column-count	3

## **Padding Properties**

Property	Description	Ver.
padding	Sets all the padding properties in one declaration	1
padding-bottom	Sets the bottom padding of an element	1
padding-left	Sets the left padding of an element	1
padding-right	Sets the right padding of an element	1
padding-top	Sets the top padding of an element	1

# **Paged Media Properties**

Property	Description	Ver.
fit	Gives a hint for how to scale a replaced element if neither its width nor its height property is auto	3
fit-position	Determines the alignment of the object inside the box	3
image-orientation	Specifies a rotation in the right or clockwise direction that a user agent applies to an image	3
page	Specifies a particular type of page where an element SHOULD be displayed	3
size	Specifies the size and orientation of the containing box for page content	3

## **Positioning Properties**

Property	Description	Ver.
bottom	Specifies the bottom position of a positioned element	2
clear	Specifies which sides of an element where other floating elements are not allowed	1
clip	Clips an absolutely positioned element	2
cursor	Specifies the type of cursor to be displayed	2
display	Specifies how a certain HTML element should be displayed	1
float	Specifies whether or not a box should float	1
left	Specifies the left position of a positioned element	2
overflow	Specifies what happens if content overflows an element's box	2
position	Specifies the type of positioning method used for an element (static, relative, absolute or fixed)	2
right	Specifies the right position of a positioned element	2
top	Specifies the top position of a positioned element	2
visibility	Specifies whether or not an element is visible	2
z-index	Sets the stack order of a positioned element	2

# **Print Properties**

Property	Description	Ver.
orphans	Sets the minimum number of lines that must be left at the bottom of a page when a page break occurs inside an element	2
page-break-after	Sets the page-breaking behavior after an element	2
page-break-before	Sets the page-breaking behavior before an element	2

page-break-inside	Sets the page-breaking behavior inside an element	2
widows	Sets the minimum number of lines that must be left at the top of a page when a page break	2
	occurs inside an element	2

# **Ruby Properties**

Property	Description	Ver.
ruby-align	Controls the text alignment of the ruby text and ruby base contents relative to each other	3
ruby-overhang	Determines whether, and on which side, ruby text is allowed to partially overhang any adjacent text in addition to its own base, when the ruby text is wider than the ruby base	3
ruby-position	Controls the position of the ruby text with respect to its base	3
ruby-span	Controls the spanning behavior of annotation elements	3

# **Speech Properties**

Property	Description	Ver.
mark	A shorthand property for setting the mark-before and mark-after properties	3
mark-after	Allows named markers to be attached to the audio stream	3
mark-before	Allows named markers to be attached to the audio stream	3
phonemes	Specifies a phonetic pronunciation for the text contained by the corresponding element	3
rest	A shorthand property for setting the rest-before and rest-after properties	3
rest-after	Specifies a rest or prosodic boundary to be observed after speaking an element's content	3
rest-before	Specifies a rest or prosodic boundary to be observed before speaking an element's content	3
voice-balance	Specifies the balance between left and right channels	3
voice-duration	Specifies how long it should take to render the selected element's content	3
voice-pitch	Specifies the average pitch (a frequency) of the speaking voice	3
voice-pitch-range	Specifies variation in average pitch	3
voice-rate	Controls the speaking rate	3
voice-stress	Indicates the strength of emphasis to be applied	3
voice-volume	Refers to the amplitude of the waveform output by the speech synthesises	3

# **Table Properties**

Property	Description	Ver.
border-collapse	Specifies whether or not table borders should be collapsed	2
border-spacing	Specifies the distance between the borders of adjacent cells	2
caption-side	Specifies the placement of a table caption	2
empty-cells	Specifies whether or not to display borders and background on empty cells in a table	2
table-layout	Sets the layout algorithm to be used for a table	2

**Text Properties** 

Property	Description	Ver.
color	Sets the color of text	1
direction	Specifies the text direction/writing direction	2
letter-spacing	Increases or decreases the space between characters in a text	1
line-height	Sets the line height	1
text-align	Specifies the horizontal alignment of text	1
text-decoration	Specifies the decoration added to text	1
text-indent	Specifies the indentation of the first line in a text-block	1
text-transform	Controls the capitalization of text	1
unicode-bidi	Used together with the direction property to set or return whether the text should be overridden to support multiple languages in the same document	2
vertical-align	Sets the vertical alignment of an element	1
white-space	Specifies how white-space inside an element is handled	1
word-spacing	Increases or decreases the space between words in a text	1
hanging-punctuation	Specifies whether a punctuation character may be placed outside the line box	3
punctuation-trim	Specifies whether a punctuation character should be trimmed	3
text-align-last	Describes how the last line of a block or a line right before a forced line break is aligned when text-align is "justify"	3
text-justify	Specifies the justification method used when text-align is "justify"	3
text-outline	Specifies a text outline	3
text-overflow	Specifies what should happen when text overflows the containing element	3
text-shadow	Adds shadow to text	3
text-wrap	Specifies line breaking rules for text	3
word-break	Specifies line breaking rules for non-CJK scripts	3
word-wrap	Allows long, unbreakable words to be broken and wrap to the next line	3

# **2D/3D Transform Properties**

Property	Description	Ver.
transform	Applies a 2D or 3D transformation to an element	3
transform-origin	Allows you to change the position on transformed elements	3
transform-style	Specifies how nested elements are rendered in 3D space	3
perspective	Specifies the perspective on how 3D elements are viewed	3
perspective-origin	Specifies the bottom position of 3D elements	3
backface-visibility	Defines whether or not an element should be visible when not facing the screen	3

# **Transition Properties**

Property	Description	Ver.
transition	A shorthand property for setting the four transition properties	3
transition-property	Specifies the name of the CSS property the transition effect is for	3

transition-duration	Specifies how many seconds or milliseconds a transition effect takes to complete	3
transition-timing-function	Specifies the speed curve of the transition effect	3
transition-delay	Specifies when the transition effect will start	3

## **User-interface Properties**

Property	Description	Ver.
appearance	Allows you to make an element look like a standard user interface element	3
box-sizing	Allows you to define certain elements to fit an area in a certain way	3
icon	Provides the author the ability to style an element with an iconic equivalent	3
nav-down	Specifies where to navigate when using the arrow-down navigation key	3
nav-index	Specifies the tabbing order for an element	3
nav-left	Specifies where to navigate when using the arrow-left navigation key	3
nav-right	Specifies where to navigate when using the arrow-right navigation key	3
nav-up	Specifies where to navigate when using the arrow-up navigation key	3
outline-offset	Offsets an outline, and draws it beyond the border edge	3
resize	Specifies whether or not an element is resizable by the user	3

### **CSS Selectors**

In CSS, selectors are patterns used to select the element(s) you want to style. The "CSS" column indicates in which CSS version the property is defined (CSS1, CSS2, or CSS3).

Selector	Example	Example description	CSS
.class	.intro	Selects all elements with class="intro"	1
#id	#firstname	Selects the element with id="firstname"	1
*	*	Selects all elements	2
element	p	Selects all  elements	1
element,element	div,p	Selects all <div> elements and all  elements</div>	1
element element	div p	Selects all  elements inside <div> elements</div>	1
element>element	div>p	Selects all  elements where the parent is a <div> element</div>	2
element+element	div+p	Selects all  elements that are placed immediately after <div> elements</div>	2
[attribute]	[target]	Selects all elements with a target attribute	2
[attribute=value]	[target=_blank]	Selects all elements with target="_blank"	2
[attribute~=value]	[title~=flower]	Selects all elements with a title attribute containing the word "flower"	2
[attributel=value]	[langl=en]	Selects all elements with a lang attribute value starting with "en"	2
:link	a:link	Selects all unvisited links	1
:visited	a:visited	Selects all visited links	1

:active	a:active	Selects the active link	1
:hover	a:hover	Selects links on mouse over	1
:focus	input:focus	Selects the input element which has focus	2
:first-letter	p:first-letter	Selects the first letter of every  element	1
:first-line	p:first-line	Selects the first line of every  element	1
:first-child	p:first-child	Selects every  element that is the first child of its parent	2
:before	p:before	Insert content before the content of every  element	2
:after	p:after	Insert content after every  element	2
:lang(language)	p:lang(it)	Selects every  element with a lang attribute equal to "it" (Italian)	2
element1~element2	p~ul	Selects every <ul> element that are preceded by a  element</ul>	3
[attribute^=value]	a[src^="https"]	Selects every <a> element whose src attribute value begins with "https"</a>	3
[attribute\$=value]	a[src\$=".pdf"]	Selects every <a> element whose src attribute value ends with ".pdf"</a>	3
[attribute*=value]	a[src*="w3schools"]	Selects every <a> element whose src attribute value contains the substring "w3schools"</a>	3
:first-of-type	p:first-of-type	Selects every  element that is the first  element of its parent	3
last-of-type	p:last-of-type	Selects every  element that is the last  element of its parent	3
only-of-type	p:only-of-type	Selects every  element that is the only  element of its parent	3
only-child	p:only-child	Selects every  element that is the only child of its parent	3
nth-child(n)	p:nth-child(2)	Selects every  element that is the second child of its parent	3
nth-last-child(n)	p:nth-last-child(2)	Selects every  element that is the second child of its parent, counting from the last child	3
$\operatorname{cnth-of-type}(n)$	p:nth-of-type(2)	Selects every  element that is the second  element of its parent	3
enth-last-of-type(n)	p:nth-last-of-type(2)	Selects every  element that is the second  element of its parent, counting from the last child	3
last-child	p:last-child	Selects every  element that is the last child of its parent	3
root	:root	Selects the document so root element	3
empty	p:empty	Selects every  element that has no children (including text nodes)	3
target	#news:target	Selects the current active #news element (clicked on a URL containing that anchor name)	3
enabled:	input:enabled	Selects every enabled <input/> element	3
disabled	input:disabled	Selects every disabled <input/> element	3
:checked	input:checked	Selects every checked <input/> element	3
:not(selector)	:not(p)	Selects every element that is not a  element	3
::selection	::selection	Selects the portion of an element that is selected by a user	3

#### Font Reference

Example: p{font-family: "Times New Roman", Times, serif}

**Serif Fonts** 

font-family

Example text

Georgia, serif

This is a heading

This is a paragraph

"Palatino Linotype", "Book Antiqua", Palatino, serif

This is a heading

This is a paragraph

"Times New Roman", Times, serif

This is a heading

This is a paragraph

**Sans-Serif Fonts** 

font-family

Example text

Arial, Helvetica, sans-serif

This is a heading

This is a paragraph

"Arial Black", Gadget, sans-serif

This is a heading

This is a paragraph

"Comic Sans MS", cursive, sans-serif

This is a heading

This is a paragraph

Impact, Charcoal, sans-serif

This is a heading

This is a paragraph

"Lucida Sans Unicode", "Lucida Grande", sans-serif

This is a heading

This is a paragraph

Tahoma, Geneva, sans-serif

Verdana, Geneva, sans-serif

This is a heading

This is a paragraph

"Trebuchet MS", Helvetica, sans-serif

This is a heading

This is a paragraph

This is a heading

This is a paragraph

**Monospace Fonts** 

font-family

Example text

"Courier New", Courier, monospace

This is a heading

This is a paragraph

"Lucida Console", Monaco, monospace

heading This is a paragraph

### Colour Reference

Colors are displayed combining RED, GREEN, and BLUE light.

#### **Color Values**

CSS colors are defined using a **hexadecimal (hex) notation** for the combination of Red, Green, and Blue color values (RGB). The lowest value that can be given to one of the light sources is 0 (hex 00). The highest value is 255 (hex FF). Hex values are written as 3 double digit numbers, **starting with a # sign**.

#### **Color Examples**

Color	Color HEX	Color RGB	Name
	#000000	rgb(0,0,0)	black
	#FF0000	rgb(255,0,0)	red
	#00FF00	rgb(0,255,0)	green
	#0000FF	rgb(0,0,255)	blue
	#FFFF00	rgb(255,255,0)	yellow
	#00FFFF	rgb(0,255,255)	cyan
	#FF00FF	rgb(255,0,255)	magenta
	#C0C0C0	rgb(192,192,192)	grey
	#FFFFFF	rgb(255,255,255)	white

#### **16 Million Different Colors**

The combination of Red, Green and Blue values from 0 to 255 gives a total of more than 16 million different colors to play with  $(256 \times 256 \times 256)$ .

Most modern monitors are capable of displaying at least 16384 different colors.

See: <a href="http://www.w3schools.com/cssref/css">http://www.w3schools.com/cssref/css</a> colors.asp