Web Essentials





CSS Basics



Met en zonder css

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Security Support

Tyneso,

your IT outsourcing partner for engaging workplaces

Our end-to end-solutions and services are tailored to your enterprise and fit into complex IT environments. We create connected, engaging workplaces. Safe and productive environments where people can work on every device possible. Anywhere, everywhere.



CSS toepassen: EXTERNE CSS

- In een afzonderlijk CSS-bestand (extern)
 - In head

```
<link rel="stylesheet" href="css/stijl.css">
```

- alle pagina's kunnen verwijzen naar één centraal bestand
- dit is de meest aangewezen manier in 99% van toepassingen

EXTERNE CSS

```
<html>
 <head>
 <title>Using External CSS</title>
  <link href="css/styles.css"</pre>
    rel="stylesheet">
 </head>
 <body>
  <h1>Potatoes</h1>
  There are dozens of...
</body>
</html>
```

HTML

CSS toepassen: EMBEDDED CSS

In een pagina binnen de head (embedded)

```
<style type="text/css">
  /* stijlregels hier */
</style>
```

CSS

```
<head>
<title>Using Internal CSS</title>
<style type="text/css">
   body {
    font-family: arial;
   background-color: lightgrey; }
  h1 {
    color: white;}
</style>
</head>
```

EMBEDDED CSS

CSS toepassen: INLINE CSS

Als attribuut bij een element (inline)

```
<tag style="...">voorbeeld</tag>
```

In een pagina binnen de head (embedded)

```
<style type="text/css">
  /* stijlregels hier */
  </style>
```

Wordt vooral gebruikt in combinatie met javascript

WHY USE EXTERNAL STYLE SHEETS

- Same CSS can ben used for every page on the website. No need to copy style code into each webpage.
- Changes to CSS automatically apply to the entire website.
- Faster download time for subsequent pages.
- Easier for many people to create new pages in same style.

CSS voorbeeld

Een pagina met blauwe tekst en gele achtergrond

```
p {
font-family: Arial;}

DECLARATION
```

CSS regels

```
h1, h2, h3 {
Selector {
                                          font-family: Arial;
                                          color: yellow;}
  property1: value;
  property2: value;
                                           PROPERTY
                                                    VALUE
body { color: black;
        background-color: red;
h1 { font-size: x-large; font-weight:bold;}
p { font-size:16px; color: blue;}
```

Commentaar in CSS

- voorzie commentaar in je css om
 - onderdelen te onderscheiden
 - structuur aan te brengen

/* wat hier staat wordt genegeerd door de browser */

CSS selectors

- HTML-elementen
 - Alle html-elementen kunnen als selector gebruikt worden.

```
p {color:red;}
```

Alle paragrafen in de pagina krijgen een rode tekst-kleur

```
body {font-size: 14px;}
```

Instellen van basis lettergrootte.

CSS selectors

- Selectors dienen om exact te bepalen welke elementen uit de html de gedefinieerde stijlen moeten krijgen
- Met de html-attributen **class** en **id** kunnen specifieke elementen geselecteerd worden

Selectors

class-attribuut

```
html: ...
css: .intro
```

- id-attribuut
 - unieke waarde binnen een html-document

```
html: <a id="today" href="/">04</a>
css: #today
```

- Id-waarden mogen niet beginnen met een cijfer
- Deze selectors zijn hoofdlettergevoelig .intro ≠ .INTRO
- Deze selectors mogen geen spaties bevatten

CLASS ATTRIBUUT

```
For a one-year period
from November 2010, the Marugame
Genichiro-Inokuma Museum of Contemporary
Art (MIMOCA) will host...
Each will showcase works by the artist
thematically contextualised under the
headings...
Hours:
10:00 - 18:00 (No admittance after
17:30)
```

FOR A ONE-YEAR PERIOD FROM NOVEMBER 2010, THE MARUGAME GENICHIRO-INOKUMA MUSEUM OF CONTEMPORARY ART (MIMOCA) WILL HOST A

CYCLE OF FOUR HIROSHI SUGIMOTO EXHIBITIONS.

Each will showcase works by the artist thematically contextualized under the headings "Science," "Architecture," "History" and "Religion" so as to present a comprehensive panorama of the artist's oeuvre.

HOURS: 10:00 - 18:00 (NO ADMITTANCE AFTER 17:30)

ID ATTRIBUUT

```
Water and air. So very commonplace are
these substances, they hardly attraction
attention and yet they vouchsafe our very
existence.
Every time I view the
sea I feel a sense of calming security, as
if visiting my ancestral home; I embark of
a voyage of seeing.
Mystery of mysteries, water and air are
right there before us in the sea.
```

Eenzelfde id mag slechts één keer op een pagina voorkomen. Een id mag niet beginnen met een cijfer

Water and air. So very commonplace are these substances, they hardly attract attention - and yet they vouchsafe our very existence.

EVERY TIME I VIEW THE SEA I FEEL A

CALMING SENSE OF SECURITY, AS IF

VISITING MY ANCESTRAL HOME; I

EMBARK ON A VOYAGE OF SEEING.

Mystery of mysteries, water and air are right there before us in the sea.

Stijlen van een groep elementen

- CSS toepassen op een blok/groep van elementen bv: een achtergrond bij een contact-blok
- Indien er geen ander geschikt element is:

<div>

- CSS toepassen op een deel van een element bv: een deel van een titel
- Indien er geen ander geschikt element is:



READY TO TAKE YOUR BUSINESS TO A HIGHER SECURITY LEVEL?

div

• Inline equivalent van een div

...

span

- span
 - Als je slechts een deel van een ander element wil stijlen
 - Aan de span kan je class en/of id koppelen
 - inline equivalent van div

Basisselectors overzicht

UNIVERSAL SELECTOR	Applies to all elements in the document	* {} Targets all elements on the page
TYPE SELECTOR	Matches element names	h1, h2, h3 {} Targets the <h1>, <h2> and <h3> elements</h3></h2></h1>
CLASS SELECTOR	Matches an element whose class attribute has a value that matches the one specified after the period (or full stop) symbol	.note {} Targets any element whose class attribute has a value of note p.note {} Targets only elements whose class attribute has a value of note
ID SELECTOR	Matches an element whose id attribute has a value that matches the one specified after the pound or hash symbol	#introduction {} Targets the element whose id attribute has a value of introduction

Basisselectors overzicht

CHILD SELECTOR	Matches an element that is a direct child of another	li>a {} Targets any <a> elements that are children of an <1i> element (but not other <a> elements in the page)
DESCENDANT SELECTOR	Matches an element that is a descendent of another specified element (not just a direct child of that element)	p a {} Targets any <a> elements that sit inside a element, even if there are other elements nested between them
ADJACENT SIBLING SELECTOR	Matches an element that is the next sibling of another	h1+p () Targets the first element after any <h1> element (but not other elements)</h1>
GENERAL SIBLING SELECTOR	Matches an element that is a sibling of another, although it does not have to be the directly preceding element	h1~p {} If you had two elements that are siblings of an <h1> element, this rule would apply to both</h1>

de Cascade in CSS

- Zonder CSS gelden browser defaults
- volgorde is van belang
 - bij 2 gelijke stijlregels krijgt de laatste voorrang

OVERERVING (inheritance)

- Heel wat eigenschappen worden geërfd als ze door parent- of ancesterelementen zijn gedefinieerd
- Voor sommige eigenschappen gebeurt dit automatisch
- Uitproberen en testen
- Je kan dit afdwingen met:

inherit

OVERERVING

```
HTML
  <div class="page">
    <h1>Potatoes</h1>
    There are dozens of different potato
       varieties.
    They are usually described as early, second
       early and maincrop potatoes.
                                             RESULT
  </div>
CSS
  body {
    font-family: Arial, Verdana, sans-serif;
    color: #665544:
    padding: 10px;}
  .page {
    border: 1px solid #665544;
    background-color: #efefef;
    padding: inherit;)
```

Potatoes

There are dozens of different potato varieties.

They are usually described as early, second early and maincrop potatoes.



CSS Kleuren

Kleuren

- color: value
- background-color: value
- Mogelijke waarden
 - hexadecimale waarde / afgekorte hexadecimale waarde
 - rgb (red, green, blue)
 - hsl (hue, saturation, lightness)
 - rgba rgb met transparantie (alpha channel)
 - hsla hsl met transparantie (alpha channel)
 - kleur-naam (niet aangeraden, handig voor oefeningen)

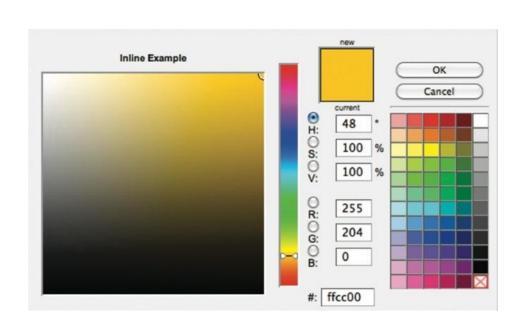
Kleurwaarden

RGB VALUES HEX CODES COLOR NAMES

rgb (102,205,170) #66cdaa mediumAquaMarine

HUE SATURATION BRIGHTNESS

Kleurwaarden



Kleurnaam

- Kleurnaam
 - red, blue, darktorquoise, indigo,....
 - www.w3schools.com/colors/colors names.asp
 - handig tijdens testfase, niet voor live site

RGB kleuren

- RGB-waarden: rood, groen en blauw met elk 8 bits
- Definitie:
 - rgb(rood-waarde, groen-waarde, blauw-waarde)

rgb (255, 255, 255) is wit

rgb(255, 0, 0) is rood

https://www.w3schools.com/colors/colors rgb.asp

Hexadecimale kleuren

- Idem als RGB maar hexadecimaal
 - voor elke kleur een waarde tussen 00 en FF (0-255)

```
zwart: #000000
geel: #FFFF00
donker blauw: #060619
```

Kleuren met 2 maal hetzelde cijfer per kleurcomponent kan je verkort schrijven

```
#FF00FF = #F0F
```

www.w3schools.com/colors/colors picker.asp

Kleuren: hsl

- hue: aantal graden op het kleurenwiel
 0 (or 360) is rood, 120 is groen, 240 is blauw
- saturatie:
 0% is een grijswaarde, 100% is volledig in kleur
- Lightness / luminosity
 0% is zwart, 100% is wit

https://www.w3schools.com/colors/colors hsl.asp

FOREGROUND COLOR

CSS

```
h1 {
  color: DarkCyan;}

h2 {
  color: #ee4e80;}

Almost Earth's compondissolve element

p {
  color: rgb(100, 100, 90);}
```

Marine Biology

The Composition of Seawater

Almost anything can be found in seawater. This includes dissolved materials from Earth's crust as well as materials released from organisms. The most important components of seawater that influence life forms are salinity, temperature, dissolved gases (mostly oxygen and carbon dioxide), nutrients, and pH. These elements vary in their composition as well as in their influence on marine life.

BACKGROUND COLOR

```
body {
  background-color: rgb(200,200,200);}
h1 {
  background-color: DarkCyan; }
h2 {
  background-color: #ee3e80;}
  background-color: white; }
```

CSS

Marine Biology

The Composition of Seawater

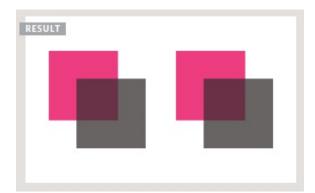
Almost anything can be found in seawater. This includes dissolved materials from Earth's crust as well as materials released from organisms. The most important components of seawater that influence life forms are salinity, temperature, dissolved gases (mostly oxygen and carbon dioxide), nutrients, and pH. These elements vary in their composition as well as in their influence on marine life.

OPACITY vs TRANSPARENCY - RGB

CSS

```
p.one {
  background-color: rgb(0,0,0);
  opacity: 0.5;
  padding: 10px;}

p.two {
  background-color: rgb(0,0,0);
  background-color: rgba(0,0,0,0.5);}
```



TRANSPARENCY - HSL & HSLA

```
body {
  background-color: #C8C8C8;
  background-color: hsl(0,0%,78)

p {
  background-color: #ffffff;
  background-color: hsla(0,100%,100%,0.5);}
```

Marine Biology

The Composition of Seawater

Almost anything can be found in seawater. This includes dissolved materials from Earth's crust as well as materials released from organisms. The most important components of seawater that influence life forms are salinity, temperature, dissolved gases (mostly oxygen and carbon dioxide), nutrients, and pH. These elements vary in their composition as well as in their influence on marine life.

KLEUREN OVERZICHT

```
p { color: red; }
                                     Kleurnaam
                                     Hexadecimaal
p { color: #FF0000; }
p { color: #F00; }
                                     Shorthand hexadecimaal
p { color: rgb(255,0,0); }
                                     Decimaal
p { color: rgba(255,0,0,0.5); }
                                     CSS3: Decimaal met alpha kanaal
                                     (0-1)
p { color: hsl(0, 100%, 50%); }
                                     HSL kleur waarden
p {color: hsla(0, 100%,
                                     HSL met alpha kanaal
50%, 0.5);}
```

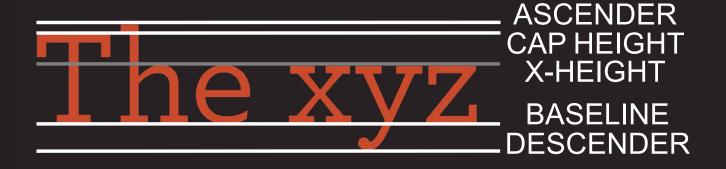


CSS Teksteigenschappen

LETTERTYPES & STIJLEN

CATHEDRAL Heavier Restriction HAVING Molecularity Headlines Infested SLIGHTLY Drawing Instruments Preferred INSTEAD Accidents Released HOWEVER HERITAGE Features Stretched LIGHTER Advertising Potential Rounded OVERALL Curlicues Grottesche Baseline REGULAR Everyone Proposed BUSINESS UPRIGHT American Breaking STARTED Commonly Existing Humanity GOLDEN Typefaces Foundries
Figures LIGATURES Oblique Deliberate ELEGANT

TYPEFACE TERMINOLOGY



TYPEFACE TERMINOLOGY

SANS-SERIF MONOSPACE SERIF im 1_m

LETTERTYPE KIEZEN

When choosing a typeface, it is important to understand that a browser will usually only display it if it's installed on that user's computer.

- Er zijn slechts een beperkt aantal standaard lettertypes beschikbaar
- Er is ook veel verschil tussen verschillende Operating systemen

LETTERTYPE KIEZEN

SERIF

Serif fonts have extra details on the end of the main strokes of the letters.

EXAMPLES:

Georgia

Times

Times New Roman

SANS-SERIF

Sans-serif fonts have straight ends to letters and therefore have a much cleaner design.

EXAMPLES:

Arial

Verdana

Helvetica

MONOSPACE

Every letter in a monospace typeface is the same width. (Non-monospace fonts have different widths.)

EXAMPLES:

Courier

Courier New

CURSIVE

Cursive fonts either have joining strokes or other cursive characteristics, such as handwriting styles.

EXAMPLES:

Comic Sans MS

Monotype Corsiva

FANTASY

Fantasy fonts are usually decorative fonts and are often used for titles. They're not designed for long bodies of text.

EXAMPLES:

Impact

Haettenschweiler

LETTERTYPE IN CSS

font-family

```
body {
  font-family: Georgia, Times, serif;}

h1, h2 {
  font-family: Arial, Verdana, sans-serif;}

.credits {
  font-family: "Courier New", Courier,
  monospace;}
```

Briards

by Ivy Duckett

The <u>briard</u>, or berger de brie, is a large breed of dog traditionally used as a herder and guardian of sheep.

Breed History

The briard, which is believed to have originated in France, has been bred for centuries to herd and to protect sheep. The breed was used by the French Army as sentries, messengers and to search for wounded soldiers because of its fine sense of hearing. Briards were used in the First World War almost to the point of extinction. Currently the population of briards is slowly recovering. Charlemagne, Napoleon, Thomas Jefferson and Lafayette all owned briards.

LETTERGROOTTE

font-size

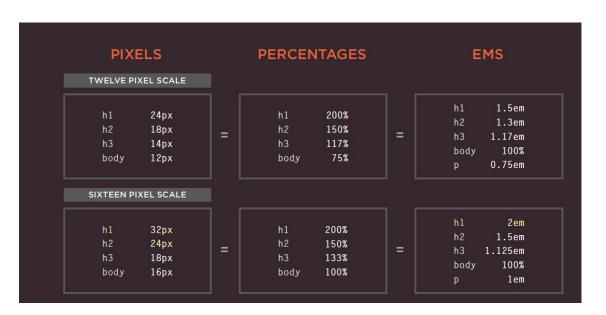
```
body {
  font-family: Georgia, Times, serif;
  font-size: 12px;}

h1 {
  font-size: 200%;}

.credits {
  font-size: 1.3em;}
```

Standaard lettergrootte is 16 pixels

Eenheden



- rem (vergelijkbaar met em)
- vw, vh, vmin, vmax, ch, ex, ...

eenheden: em, rem vs px

EM -> Berekend op basis van lettergrootte van de parent

REM -> Berekend op basis van lettergrootte van de "root" (html of body)

- body (font-size: 1em;)
- h1 {font-size: 2em;
- h2 {font-size: 1.2 em;}
- p {font-size: 0.8em;}

- body = 1 x16 = 16 pixels
- $h1 = 2 \times 16 = 32 \text{ pixels}$
- h3 = 1.2 x 16 = 19.2 -> 19 pixels
- p = $0.8 \times 16 = 12.8 -> 13 \text{ pixels}$

default font-size: 16 pixels

eenheden: %

- Net als em en rem een relatieve eenheid
 - default font-size: 100% = 16 pixels
 - dus bij die default fonts-size: 200% = 32 pixels

```
body {font-size: 75%;} /* 12 px*/
blockquote {font-size:200%}/* 24px want 200% van 12 pixels*/
```

LETTERTYPES TERMINOLOGIE

WEIGHT

Light

Medium

Bold

Black

STYLE

Normal

Italic

Oblique

STRETCH

Condensed

Regular

Extended

The font weight not only adds emphasis but can also affect the amount of white space and contrast on a page. Italic fonts have a cursive aspect to some of the lettering. Oblique font styles take the normal style and put it on an angle. In condensed (or narrow) versions of the font, letters are thinner and closer together. In expanded versions they are thicker and further apart.

font-weight BOLD / NORMAL

```
.credits {
  font-weight: bold;
}
```

Value	Description
Value	Description
normal	Defines normal characters. This is default
bold	Defines thick characters
bolder	Defines thicker characters
lighter	Defines lighter characters
100 200 300 400 500 600 700 800 900	Defines from thin to thick characters. 400 is the same as normal, and 700 is the same as bold

FONT-STYLE

normal / italique / oblique

Oblique is een variant van cursief

```
.credits {
  font-style: italic;
}
```

TEXT-TRANSFORM

uppercase / lowercase / capitalize

```
h1 {
  text-transform: uppercase;}
h2 {
  text-transform: lowercase;}
.credits {
  text-transform: capitalize;}
```

CSS

TEXT-DECORATION

none / underline / overline

```
.credits {
  text-decoration: underline;}
a {
  text-decoration: none;}
```



Als tekst onderlijnd is verwachten gebruikers dat dit een link is

```
LINE-HEIGHT
```

```
p {
  line-height: 1.4;}
```



Een goede basis voor line-height zit rond 1.5 Dit is mede afhankelijk van het lettertype

Dit is de enige CSS eigenschap waar je een waarde zonder units (em, px, ...) mag gebruiken

```
h1, h2 {
  text-transform: uppercase;
  letter-spacing: 0.2em; }

.credits {
  font-weight: bold;
  word-spacing: 1em; }

BR

by Ivy
The brian of sheep.
```

BRIARDS

by Ivy Duckett

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BREED HISTORY

The briard, which is believed to have originated in France, has been bred for centuries to herd and to protect sheep. The breed was used by the French Army as sentries, messengers and to search for wounded soldiers because of its fine sense of hearing. Briards were used in the First World War almost to the point of extinction. Currently the population of briards is slowly recovering. Charlemagne, Napoleon, Thomas Jefferson and Lafayette all owned briards.

HORIZONTALE UITLIJNING: TEXT-ALIGN

CSS

```
h1 {
  text-align: left;}

p {
  text-align: justify;}

.credits {
  text-align: right;}
```

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VERTICALE UITLIJNING: VERTICAL-ALIGN

CSS

```
#six-months {
  vertical-align: text-top;}

#one-year {
  vertical-align: baseline;}

#two-years {
  vertical-align: text-bottom;}
```

Briard Life Stages



Six months



One year



Two years

TEXT INSPRINGEN: TEXT-INDENT

Eerste lijn van een paragraaf inspringen

```
p {
  text-indent: 30px;}
```

Marty McFly, a typical American teenager of the Eighties, is accidentally sent back to 1955 in a plutonium-powered DeLorean "time machine" invented by a slightly mad scientist. During his often hysterical, always amazing trip back in time, Marty must make certain his teenage parents-to-be meet and fall in love - so he can get back to the future.

:FIRST-LETTER & :FIRST:LINE

```
p.intro:first-letter {
  font-size: 200%;}
```

```
p.intro:first-line {
  font-weight: bold;}
```

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LINKS STIJLEN

:link, :visited, :hover, :active

```
a:link {
  color: deeppink;
  text-decoration: none; }
a:visited {
  color: black; }
a:hover {
  color: deeppink;
  text-decoration: underline; }
a:active {
  color: darkcyan; }
```

Dog Breeds: B

- Bedlington Terrier
- Belgian Shepherd
- Bergamasco
- Bichon Frise
- Bloodhound
- Bolognese
- Border Collie
- Buder Terrier
- Borzoi
- Bouvier des Flandres
- Briard

TEXT-SHADOW

```
p.one {
  background-color: #eeeeee;
  color: #666666;
  text-shadow: 1px 1px 0px #000000;}
p.two {
  background-color: #dddddd;
  color: #666666;
  text-shadow: 1px 1px 3px #666666;}
p.three {
  background-color: #ccccc;
  color: #ffffff;
  text-shadow: 2px 2px 7px #111111;}
```

The briard is known as a heart wrapped in fur. The briard is known as a heart wrapped in fur. The briard is known as a heart wrapped in fur. The briard is known as a heart wrapped in fur. The briard is known as a heart wrapped in fur.

- text-shadow: h-shadow v-shadow blur-radius color;
- Je kan ook meerdere schaduwen combineren



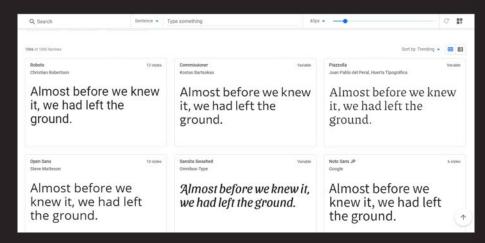
Meer lettertypes

MEER LETTERTYPES

HOSTED FONTS

Google web fonts

fonts.google.com



<link href="https://fonts.googl
eapis.com/css2?family=Suez+One&
display=swap" rel="stylesheet">

```
@import url('https://fonts.goog
leapis.com/css2?family=Suez+One
&display=swap');
```

font-family: 'Suez One', serif;

EMBEDDED FONTS

@font-face

- Embed extern fonts voor meer keuze
- Lettertype-bestanden worden mee opgenomen in de website
- Juiste bestandstypes is cruciaal.
 - woff2 & woff
 - ttf voor oude browsers

```
@font-face {
   font-family: 'MyWebFont';
   src: url('myfont.woff2') format('woff2'),
        url('myfont.woff') format('woff');
} url('myfont.ttf') format('truetype');
```

```
h1, h2 {
font-family: MywebFont, Georgia, serif;
}
```

CATHEDRAL Heavier Restriction HAVING Molecularity Headlines Infested SLIGHTLY Drawing Instruments Preferred INSTEAD Accidents Released HOWEVER HERITAGE Features Stretched LIGHTER Advertising Potential Rounded OVERALL Curlicues Grottesche Baseline REGULAR Everyone Proposed BUSINESS UPRIGHT American Breaking STARTED Commonly Existing Humanity GOLDEN Typefaces Foundries Figures LIGATURES Oblique Deliberate ELEGANT

> Bekijk de digitale les over Google Fonts De les over Embedded Fonts is **optioneel**

