

JavaScript & Web

HTML, CSS and Intro to programming

Week 1

人生第一個 HTML

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>My Page</title>
</head>
<body>
  <h1>Hello, JavaScript</h1>

  <a href="google.com">Goto Google</a>
</body>
</html>
```

你看到了什麼？

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
<meta charset="UTF-8">
```

```
<title>My Page</title>
```

```
</head>
```

```
<body>
```

```
<h1>Hello, JavaScript</h1>
```

```
<a href="google.com">Goto Google</a>
```

```
</body>
```

```
</html>
```

The diagram illustrates the structure of an HTML document. The root element is `<html>`, which is highlighted in pink. It contains a `<head>` section (pink) and a `<body>` section (pink). The `<head>` section contains a `<meta charset="UTF-8">` tag (green) and a `<title>My Page</title>` tag (pink). The `<body>` section contains an `<h1>Hello, JavaScript</h1>` tag (pink) and an `Goto Google` tag (pink). The closing tags `</head>`, `</body>`, and `</html>` are also highlighted in pink. A green line connects the opening `<html>` tag to the closing `</html>` tag. A blue line connects the opening `<head>` tag to the closing `</head>` tag. A blue line connects the opening `<body>` tag to the closing `</body>` tag. Three orange lines connect the opening tags to their corresponding closing tags: `<title>` to `</title>`, `<h1>` to `</h1>`, and `<a>` to ``.

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>My Page</title>
</head>
<body>
  <h1>Hello, JavaScript</h1>

  <a href="google.com">Goto Google</a>
</body>
</html>
```

```
<!DOCTYPE html>  
<html>  
<head>  
    <!-- Head -->
```

```
</head>  
<body>
```

```
    <!-- Body -->
```

```
</body>  
</html>
```

樹狀結構

- html
 - head
 - meta
 - title
 - body
 - h1
 - a



HTML標記結構

- 標記 — `<p>`
- 屬性 — ``
- 文字 — 這就是文字 XD
- 單一標記 — `
`, `<hr>`, ``

HTML常見標記

- `<p>`一段文字`</p>`
- 換行`
`標記
- `<pre>`試試看會換行`</pre>`

換行照著打
觀察看看！

HTML常見標記

- ``

- ``

無序項目

- `AAAA`

- `BBBB`

- ``

- ``

有序項目

- `AAAA`

- `BBBB`

- ``

HTML常見標記

```
<a href="https://www.google.com">  
    
</a>
```

```
<h1>Title 1</h1>  
<h2>Title 2</h2>  
<p>...</p>  
<h6>Tiny Title</h6>
```

HTML常見標記

```
<form>
  <div>
    <!-- div 用來分格不同區塊，或是配合css做造型 -->
    <label for="myname">
      姓名:
      <input type="text" id="myname">
    </label>
  </div>
  <div>
    <label for="message">
      訊息:
      <textarea id="message"></textarea>
    </label>
  </div>
  <div>
    <button>確定</button>
  </div>
</form>
```

HTML常見標記

```
<script>  
    alert("Hello, JavaScript!");  
</script>
```

```
<style>  
    body {  
        background: black;  
        color: white;  
    }  
</style>
```

Basic CSS

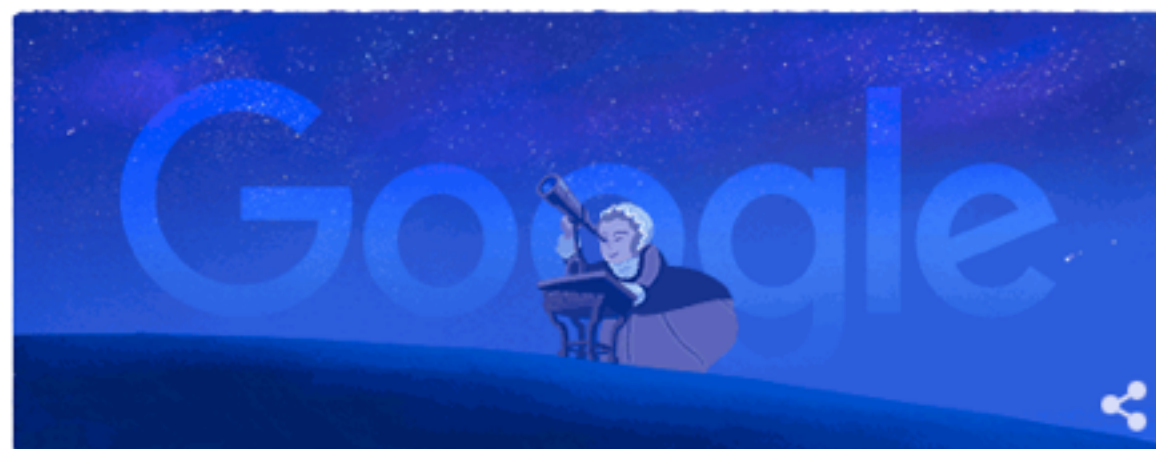


☐ 發生錯誤，無法接聽指令。
重新啟動指令接聽功能說明
啟動字詞偵測功能已關閉。
開始接聽「Ok Google」指令

「Google 互動智慧搜尋」目前無法使用，請按 Enter 鍵搜尋。[瞭解詳情](#)
由於連線速度緩慢，「Google 互動智慧搜尋」已關閉。請按 Enter 鍵搜尋。
按下 Enter 鍵進行搜尋。

Google 搜尋 好手氣





Google 搜尋

好手氣

差很多吧？

CSS -- 選擇器

使用 id 指定，一個 html 內不能有兩個相同的 id

```
#element-id { /* ... */ }
```

使用 class 指定

```
.class-name { /* ... */ }
```

多個 class 都要有

```
.class.and-class { /* ... */ }
```

所有的文字段落 p

```
p { /* ... */ }
```

div 裡面的 p

```
div p { /* ... */ }
```

CSS -- 選擇器

```
body {  
  color: red;  
  background-color: black;  
}
```

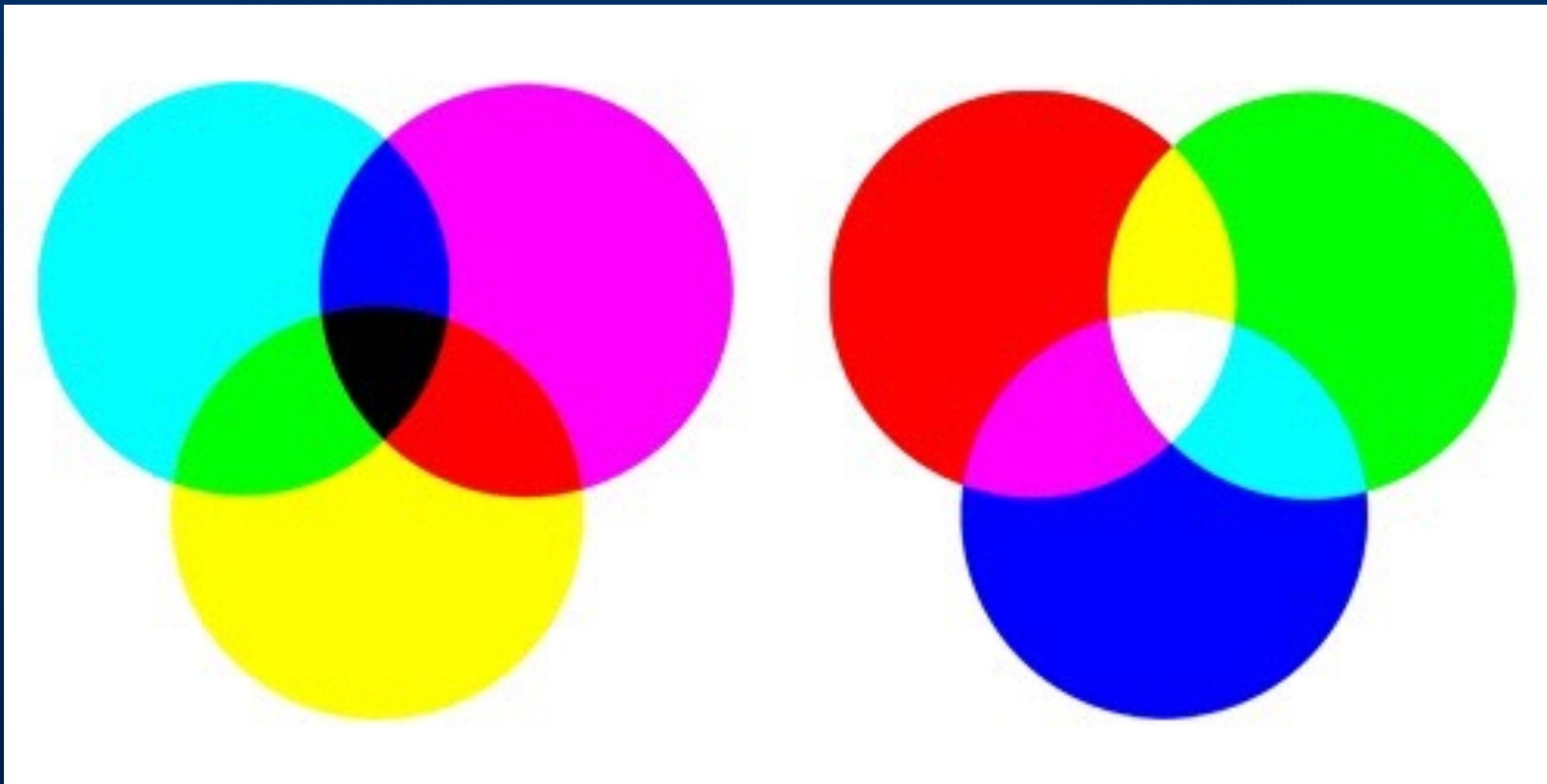
```
p {  
  font-size: 200%;  
}
```

```
h1 {  
  font-size: 160%;  
}
```

CSS -- 色彩

CMYK：色減法

RGB：色加法



CSS -- 色彩

```
.strange-color {  
    /* 以下這三個顏色是一樣的 */  
    color: #123;  
    color: #112233;  
    color: rgb(17, 34, 51);  
}
```

好用的調色盤：<https://color.adobe.com/>

CSS -- 字體

```
p {  
  /* 設定字體 */  
  font-family: "Noto Sans CJK TC", sans-serif;  
  /* 設定大小 */  
  font-size: 32px;  
  /* 底線 */  
  text-decoration: underline;  
  /* 粗體 */  
  font-weight: bold;  
}
```

CSS -- BoxModel

```
div.cool {  
  margin: 2em 4em 8em 16em;  
  border: 4px 8px 12px 16px solid red;  
  padding: 24px 48px;  
  background-color: green;  
}
```


CSS -- BoxModel

margin: 外邊距

border: 外框線

padding: 內距

這是內容

The diagram illustrates the CSS Box Model using four nested rectangles. The outermost rectangle is yellow and represents the margin, with the label 'margin: 外邊距' (margin: outer distance) in white text. Inside the yellow rectangle is a green rectangle representing the border, labeled 'border: 外框線' (border: outer frame line) in white text. Inside the green rectangle is a red rectangle representing the padding, labeled 'padding: 內距' (padding: inner distance) in white text. The innermost rectangle is purple and represents the content, labeled '這是內容' (this is content) in white text.

A	:active	additive-symbols	::after (:after)	align-content	align-items	align-self	all
<angle>	animation	animation-delay	animation-direction	animation-duration	animation-fill-mode	animation-iteration-count	animation-name
animation-play-state	animation-timing-function	@annotation	annotation()	attr()	B	::backdrop	backface-
background	background-attachment	background-blend-mode	background-clip	background-color	background-image	background-origin	background-
background-position							
background-repeat	background-size	<basic-shape>	::before (:before)	<blend-mode>	block-size	blur()	border
border-block-end	border-block-end-color	border-block-end-style	border-block-end-width	border-block-start	border-block-start-color	border-block-start-style	border-block-
border-block-start-width							
border-bottom	border-bottom-color	border-bottom-left-radius	border-bottom-right-radius	border-bottom-style	border-bottom-width	border-collapse	border-color
border-image	border-image-outset	border-image-repeat	border-image-slice	border-image-source	border-image-width	border-inline-end	border-inline-
border-image-end-color							
border-inline-end-style	border-inline-end-width	border-inline-start	border-inline-start-color	border-inline-start-style	border-inline-start-width	border-left	border-left-
border-left-style	border-left-width	border-radius	border-right	border-right-color	border-right-style	border-right-width	border-spacing
border-style	border-top	border-top-color	border-top-left-radius	border-top-right-radius	border-top-style	border-top-width	border-width
bottom	box-decoration-break	box-shadow	box-sizing	break-after	break-before	break-inside	brightness()
C	calc()	caption-side	ch	@character-variant	character-variant()	@charset	:checked
circle()	clear	clip	clip-path	cm	color	<color>	column-count
column-fill	column-gap	column-rule	column-rule-color	column-rule-style	column-rule-width	column-span	column-width
columns	content	contrast()	<counter>	counter-increment	counter-reset	@counter-style	cubic-bezier()
cursor	<custom-ident>	D	:default	deg	:dir()	direction	:disabled
display	dpcm	dpi	dppx	drop-shadow()	E	element()	ellipse()
em	:empty	empty-cells	:enabled	ex	F	fallback	filter
:first	:first-child	::first-letter (:first-letter)	::first-line (:first-line)	:first-of-type	flex	flex-basis	flex-direction
flex-flow	flex-grow	flex-shrink	flex-wrap	float	:focus	font	@font-face
font-family (property)	font-family (descriptor)	font-feature-settings (property)	font-feature-settings (descriptor)	@font-feature-values	font-kerning	font-language-override	font-
font-size							
font-size-adjust	font-stretch (property)	font-stretch (descriptor)	font-style (property)	font-style (descriptor)	font-synthesis	font-variant (property)	font-variant
(descriptor)							
font-variant-alternates	font-variant-caps	font-variant-east-asian	font-variant-ligatures	font-variant-numeric	font-variant-position	font-weight (property)	font-weight
(descriptor)							
<frequency>	:fullscreen	G	grad	<gradient>	grayscale()	grid	grid-area
grid-auto-columns	grid-auto-flow	grid-auto-rows	grid-column	grid-column-end	grid-column-gap	grid-column-start	grid-gap
grid-row	grid-row-end	grid-row-gap	grid-row-start	grid-template	grid-template-areas	grid-template-columns	grid-template-
rows							
H	height	height	:hover	hsl()	hsla()	hue-rotate()	hyphens
hz	I	<image>	image()	image-orientation	image-rendering	image-resolution	ime-mode
@import	in	:in-range	:indeterminate	inherit	initial	inline-size	inset()
<integer>	:invalid	invert()	isolation	J	justify-content	K	@keyframes
khz	L	:lang()	:last-child	:last-of-type	left	:left	<length>
letter-spacing	line-break	line-height	linear-gradient()	:link	list-style	list-style-image	list-style-
position							
list-style-type	M	margin	margin-block-end	margin-block-start	margin-bottom	margin-inline-end	margin-inline-
start							
margin-left	margin-right	margin-top	mask	mask-clip	mask-composite	mask-image	mask-mode
mask-origin	mask-position	mask-repeat	mask-size	mask-type	matrix()	matrix3d()	max-block-size
max-height	max-height	max-inline-size	max-width	max-width	max-zoom	@media	min-block-size
min-height	min-height	min-inline-size	min-width	min-width	min-zoom	minmax()	mix-blend-mode
mm	ms	N	@namespace	negative	:not()	:nth-child()	:nth-last-
child()							
:nth-last-of-type()	:nth-of-type()	<number>	0	object-fit	object-position	offset-block-end	offset-block-
start							
offset-inline-end	offset-inline-start	:only-child	:only-of-type	opacity	opacity()	:optional	order
orientation	@ornaments	ornaments()	orphans	:out-of-range	outline	outline-color	outline-offset
outline-style	outline-width	overflow	overflow-wrap	overflow-x	overflow-y	P	pad
padding	padding-block-end	padding-block-start	padding-bottom	padding-inline-end	padding-inline-start	padding-left	padding-right
padding-top	@page	page-break-after	page-break-before	page-break-inside	pc	<percentage>	perspective
perspective()	perspective-origin	pointer-events	polygon()	position	<position>	prefix	pt
px	Q	quotes	R	rad	radial-gradient()	range	<ratio>
:read-only	:read-write	rect()	rem	repeating-linear-gradient()	repeating-radial-gradient()	:required	resize
<resolution>	revert	rgb()	rgba()	:right	right	:root	rotate()
rotate3d()	rotatex()	rotatey()	rotatez()	ruby-align	ruby-merge	ruby-position	S
s	saturate()	scale()	scale3d()	scalex()	scaley()	scalez()	:scope
scroll-behavior	scroll-snap-coordinate	scroll-snap-destination	scroll-snap-type	::selection	sepia()	<shape>	shape-image-
threshold							
shape-margin	shape-outside	skew()	skewx()	skewy()	speak-as	src	steps()
<string>	@styleset	styleset()	@stylistic	stylistic()	suffix	@supports	@swash
swash()	symbols	symbols()	system	T	tab-size	table-layout	:target
text-align	text-align-last	text-combine-upright	text-decoration	text-decoration-color	text-decoration-line	text-decoration-style	text-emphasis
text-emphasis-color	text-emphasis-position	text-emphasis-style	text-indent	text-orientation	text-overflow	text-rendering	text-shadow
text-transform	text-underline-position	<time>	<timing-function>	top	touch-action	transform	transform-box
<transform-function>	transform-origin	transform-style	transition	transition-delay	transition-duration	transition-property	transition-
timing-function							
translate()	translate3d()	translatex()	translatey()	translatez()	turn	U	unicode-bidi
unicode-range	:unresolved	unset	<url>	url()	user-zoom	V	:valid
var()	vertical-align	vh	@viewport	visibility	:visited	vmax	vmin
vw	W	white-space	widows	width	width	will-change	word-break
word-spacing	word-wrap	writing-mode	X Y Z	z-index	zoom	Others	--*

Google 是你的良師益友

JavaScript !

首先我要先澄清幾件事



Java? JavaScript!

Dog != Hot Dog

編譯語言

C++ / VisualBasic / Java

Python / Ruby / JavaScript

直譯語言

網路上有很多的资源

但是不管怎樣絕對不要看 **W3Schools**

inn.dy.tw/w3s-hider

程式？

- 給電腦一連串的指令
 - 機器人往前走十公尺
 - 往左轉
 - 倒退五公尺

程式？

- 讀取一個數字
- 把數字除以100
- 印出這個數字

事件驅動

- Event-driven
 - 按下按鈕的時候，跳到Google
 - 按下按鍵的時候，換掉網頁背景色
- ```
button.onclick = function() {
 location.href = "google.com";
};
```