

Understanding CSS

EXSM 3928: Module 4

Learning Outcomes

What is the purpose of this module?

- Practice **using CSS** to add style to HTML
- List **common CSS properties** and their use
- Describe the **CSS box model**, and common units
- Describe **CSS display and positioning properties**
- Describe the purpose of **CSS flexbox** and **CSS grid**
- **Examine existing CSS and edit** according to some specification
- **Deconstruct a design and develop the corresponding CSS required**

Module Resources

Related Topics

Complete beginners start here!

▼ Getting started with the web

Getting started with the web overview

Installing basic software

What will your website look like?

Dealing with files

HTML basics

CSS basics

JavaScript basics

Publishing your website

How the web works

HTML — Structuring the web

► Introduction to HTML

► Multimedia and embedding

► HTML tables

CSS basics

[Previous](#)[Overview: Getting started with the web](#)[Next](#)

CSS (Cascading Style Sheets) is the code that styles web content. *CSS basics* walks through what you need to get started. We'll answer questions like: How do I make text red? How do I make content display at a certain location in the (webpage) layout? How do I decorate my webpage with background images and colors?

What is CSS?

Like HTML, CSS is not a programming language. It's not a markup language either. **CSS is a style sheet language.** CSS is what you use to selectively style HTML elements. For example, this CSS selects paragraph text, setting the color to red:

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

Let's try it out! Using a text editor, paste the three lines of CSS (above) into a new file. Save the file as `style.css` in a directory named `styles`.

In this article

[What is CSS?](#)[Fonts and text](#)[CSS: all about boxes](#)[Conclusion](#)[In this module](#)

Related Topics

Complete beginners start here!

[▶ Getting started with the web](#)

HTML — Structuring the web

[▶ Introduction to HTML](#)[▶ Multimedia and embedding](#)[▶ HTML tables](#)

CSS — Styling the web

[▶ CSS first steps](#)[▼ CSS building blocks](#)[CSS building blocks overview](#)[Cascade and inheritance](#)[CSS selectors](#)[The box model](#)[Backgrounds and borders](#)

The box model

[Previous](#)[Overview: Building blocks](#)[Next](#)

Everything in CSS has a box around it, and understanding these boxes is key to being able to create more complex layouts with CSS, or to align items with other items. In this lesson, we will take a look at the CSS *Box Model*. You'll get an understanding of how it works and the terminology that relates to it.

Prerequisites:	Basic computer literacy, basic software installed , basic knowledge of working with files , HTML basics (study Introduction to HTML), and an idea of how CSS works (study CSS first steps .)
Objective:	To learn about the CSS Box Model, what makes up the box model and how to switch to the alternate model.

Block and inline boxes

In CSS we broadly have two types of boxes — **block boxes** and **inline boxes**. The type refers to how the box behaves in terms of page flow and in relation to other boxes on the page. Boxes have an **inner display type** and an **outer display type**.

In general, you can set various values for the display type using the `display` property, which can have

In this article

[Block and inline boxes](#)[Outer display type](#)[Inner display type](#)[Examples of different display types](#)[What is the CSS box model?](#)[Playing with box models](#)[Margins, padding, and borders](#)[The box model and inline boxes](#)[Using display: inline-block](#)[Test your skills!](#)[Summary](#)[In this module](#)



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[Introduction to Web Development](#)

Learn CSS in 20 Minutes

1,153,404 views Aug 22, 2018 IMPORTANT:

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All

CSS

HTML5

C++

Listenable



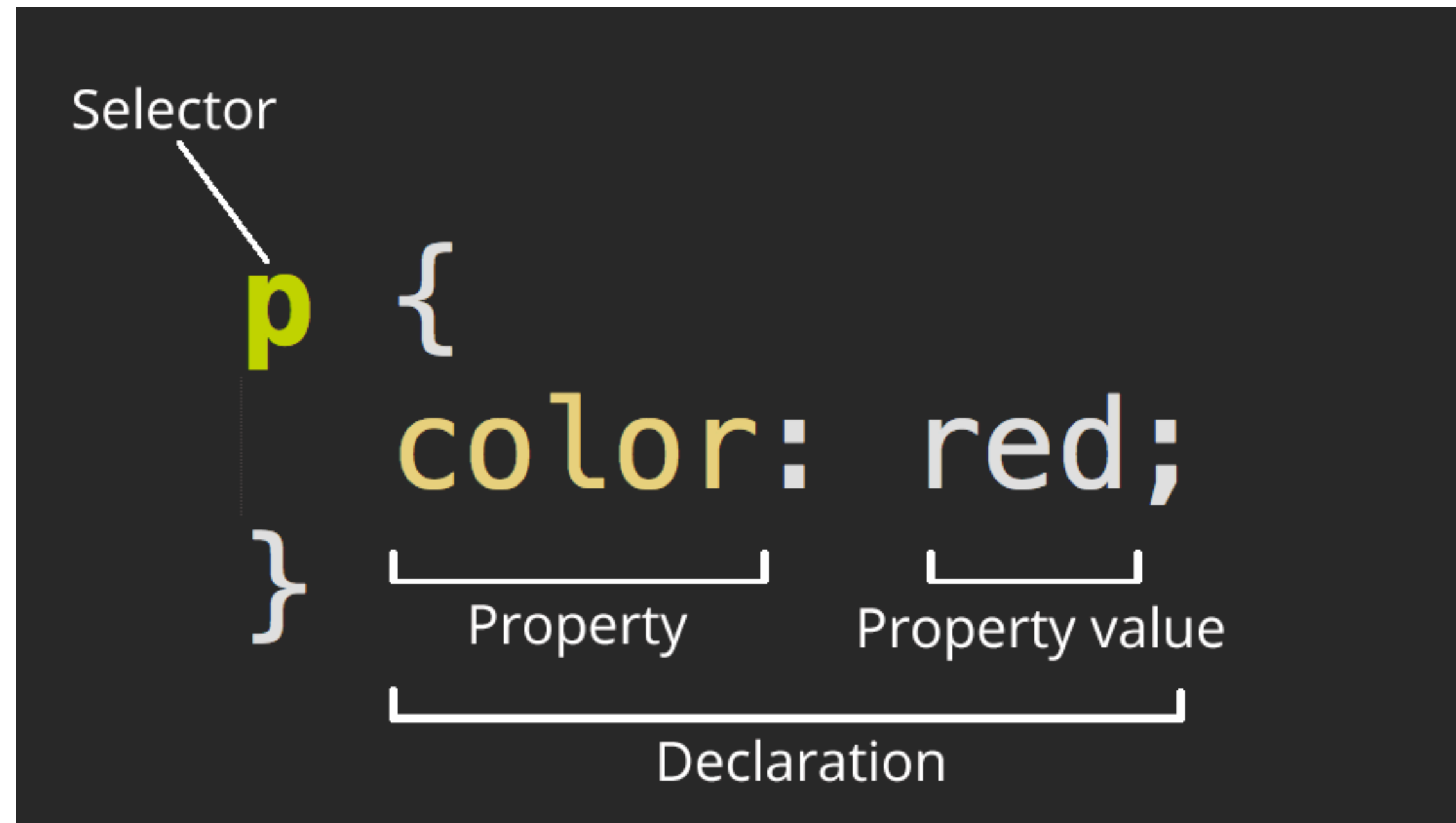
making sense of



Learn flexbox the easy way

Summary

CSS Selectors



CSS Box Model

▼ Box Model

The diagram illustrates the CSS Box Model with the following dimensions:

- margin:** 40px (yellow dashed border)
- border:** 5px (dark grey solid border)
- padding:** 40px (light purple area)
- content:** 300x150 (light blue dashed border)

The total width is 390px and the total height is 240px.

390x240

static

▼ Box Model Properties

box-sizing	content-box	line-height	28.8px
display	block	position	static
float	none	z-index	auto

Common CSS Properties

- color
- background
- border
- font-size
- width
- padding
- margin
- position
- display
 - none
 - inline
 - block
 - inline-block
 - **flex**
 - **grid**

Module 4 Demonstration

- <https://exsm-3928-module-4-start.glitch.me/>
- Theory
 - css box model
 - difference between block and inline
 - how to center a div with flex box
- Practice
 - Style project from last week

Module Discussion

What features of design software are similar to writing CSS? Are some tasks easier in code than in software? Which?

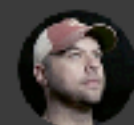
Module 4 Prompt

Module Resources (extra)



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A Complete Guide to Flexbox



Chris Coyier on Apr 8, 2013 (Updated on Oct 11, 2022)

Our comprehensive guide to CSS flexbox layout. This complete guide explains everything about flexbox, focusing on all the different possible properties for the parent element (the flex container) and the child elements (the flex items). It also includes history, demos, patterns, and a browser support chart.

Table of contents

Part 1: [Background](#)

Part 2: [Basics and terminology](#)

Part 3: [Flexbox properties](#)

Part 4: [Prefixing Flexbox](#)

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FLEXBOX FROGGY

◀ Level 3 of 24 ▶

Help all three frogs find their lilypads just by using `justify-content`. This time, the lilypads have lots of space all around them.

If you find yourself forgetting the possible values for a property, you can click on the property name to view them. Try clicking on `justify-content`.

```
1 #pond {  
2   display: flex;  
3   justify-content: center;  
4 }
```

Next

Flexbox Froggy is created by [Codepip](#) • [GitHub](#) • [Twitter](#) • [Settings](#)

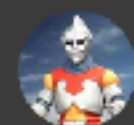
Want to learn CSS grid? Play [Grid Garden](#).





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A Complete Guide to CSS Grid



Chris House on May 12, 2021 (Updated on Nov 14, 2022)

Our comprehensive guide to CSS grid, focusing on all the settings both for the grid parent container and the grid child elements.

Table of contents

Part 1: [Introduction](#)

Part 2: [Basics](#)

Part 3: [Important Terminology](#)

Part 4: [Grid Properties](#)

Part 5: [Special Units & Functions](#)

Part 6: [Fluid Columns Snippet](#)

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Grid Garden

CSS

GRID

FREE

How well can you tend to your carrot garden using CSS grid? In this game, you must water your carrot crops and poison the weeds by mastering CSS grid, a powerful new module that makes 2-dimensional grid layouts a piece of cake. With it you can define columns, rows, and grid template areas.

Learning Objectives


Introduce the fundamentals of using CSS grid to create layouts on a webpage.

Prerequisites

For beginners of CSS grid. Familiarity with the basics of CSS is a plus but not required.

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Grid Garden: A game for learning CSS grid | Trailer

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More Games

Module 4 Assignment

- See eClass for details

