

CSS Day 2 – Notes (Colors & Units)

1. CSS Colors

Colors in CSS are used to style text, backgrounds, borders, and more.

Example:

```
p { color: red; }
div { background-color: blue; }
```

2. CSS Supported Color Formats

CSS supports multiple ways to define colors:

1. Color Names
2. RGB
3. RGBA
4. HEX

3. Color Names

Predefined names like: - red - blue - green - black - white - yellow

Example:

```
h1 { color: green; }
```

4. RGB (Red, Green, Blue)

Each value ranges from 0 to 255.

Syntax:

```
color: rgb(255, 0, 0); /* Red */
color: rgb(0, 255, 0); /* Green */
color: rgb(0, 0, 255); /* Blue */
```

5. RGBA (Red, Green, Blue, Alpha)

Alpha controls transparency (0 = fully transparent, 1 = fully visible).

Syntax:

```
color: rgba(255, 0, 0, 0.5);
```

6. HEX (Hexadecimal Colors)

Uses hexadecimal values.

Format:

```
#RRGGBB
```

Examples:

```
color: #ff0000; /* Red */
color: #00ff00; /* Green */
color: #0000ff; /* Blue */
color: #000000; /* Black */
color: #ffffff; /* White */
```

Short form:

```
color: #f00; /* Red */
```

CSS Units

7. px (Pixels)

Fixed unit. Does not scale.

```
p { font-size: 16px; }
```

8. % (Percentage)

Relative to parent element.

```
div { width: 50%; }
```

9. ch

Relative to width of the "0" character.

```
input { width: 20ch; }
```

10. em

Relative to parent element font size.

```
p { font-size: 2em; }
```

11. rem

Relative to root (html) font size.

```
html { font-size: 16px; }
p { font-size: 2rem; } /* 32px */
```

12. vh (Viewport Height)

1vh = 1% of browser height.

```
div { height: 100vh; }
```

13. vw (Viewport Width)

1vw = 1% of browser width.

```
div { width: 100vw; }
```

14. Quick Comparison

Unit	Relative To	Use Case
px	Screen pixels	Fixed sizes
%	Parent element	Responsive layouts
ch	Width of '0' character	Input fields
em	Parent font size	Text scaling
rem	Root font size	Consistent sizing
vh	Viewport height	Full screen sections
vw	Viewport width	Responsive width

15. Best Practices

- Use **rem** for fonts
- Use **%, vh, vw** for responsive design
- Avoid too many fixed px values

End of Day 2 Notes ✨