



# Understanding Media Queries

Media queries are a powerful CSS feature that allow web designers to create responsive and adaptive layouts. They enable targeting specific device characteristics, such as screen size, resolution, and orientation, to apply tailored styles.

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# Syntax and Structure

## The @media Rule

Media queries begin with the @media rule, followed by a media type and one or more media features.

## Media Types

Common media types include 'screen', 'print', 'speech', and 'all'.

## Media Features

Media features describe characteristics of the output device, such as width, height, orientation, and resolution.

# Common Media Query Breakpoints

## **Small Screens**

Smartphones (320px - 480px)

## **Medium Screens**

Tablets and small laptops (481px - 768px)

## **Large Screens**

Desktops and larger devices (769px and up)





# Using Media Queries in CSS

1

## Inline Media Queries

Apply styles directly within the @media rule.

2

## Separate Media Queries

Create separate CSS files for different media types or breakpoints.

3

## Conditional Imports

Use the @import rule to conditionally load CSS based on media queries.



# Responsive Design Best Practices

1

## Mobile-First Approach

Start designing for small screens and progressively enhance for larger devices.

2

## Fluid Layouts

Use flexible units like percentages, ems, and rems to create layouts that adapt to different screen sizes.

3

## Optimized Assets

Serve appropriately sized images, videos, and other media based on the user's device.

4

## Progressive Enhancement<sup>†</sup>

Ensure core functionality is accessible on all devices, then add enhancements for capable browsers.