

## HTML5 Media Elements Notes

### 1. Video Tag (<video>)

The <video> element is used to embed video content in HTML5. It supports multiple attributes for customization.

#### Attributes:

Attribute	Description
src	Specifies the video file URL.
controls	Displays play, pause, and volume controls.
autoplay	Automatically starts playing the video when the page loads.
loop	Repeats the video indefinitely.
muted	Starts the video with sound muted.
poster	Specifies an image to be shown while the video loads or until the user plays it.
width & height	Sets the dimensions of the video.
preload	Determines how the video should be loaded (auto, metadata, none).
playsinline	Ensures the video plays within the inline layout (useful for mobile devices).

#### Example:

```
<video src="video.mp4" controls autoplay loop muted poster="poster.jpg" width="600" height="400"></video>
```

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### 2. Audio Tag (<audio>)

The <audio> element is used to embed audio files in HTML5.

#### Attributes:

Attribute	Description
src	Specifies the audio file URL.
controls	Displays play, pause, and volume controls.
autoplay	Automatically starts playing the audio when the page loads.
loop	Repeats the audio indefinitely.
muted	Starts the audio with sound muted.
preload	Determines how the audio should be loaded (auto, metadata, none).

**Example:**

```
<audio src="audio.mp3" controls autoplay loop muted></audio>
```

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**3. Iframe Tag (<iframe>)**

The <iframe> element is used to embed external content like websites, videos, maps, etc.

**Attributes:**

Attribute	Description
src	Specifies the URL of the page to embed.
width & height	Sets the dimensions of the iframe.
frameborder	Defines whether the iframe has a border (0 for no border).
allowfullscreen	Allows the iframe to be viewed in fullscreen mode.
sandbox	Enables security restrictions on the iframe content.
referrerpolicy	Specifies how referrer information is sent when loading iframe content.
allow	Defines permissions like autoplay, clipboard access, encrypted media, etc.

**Example:**

```
<iframe width="560" height="315" src="https://www.youtube.com/embed/videoID"
frameborder="0" allowfullscreen></iframe>
```

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**Conclusion**

- The <video> and <audio> elements are essential for embedding multimedia content in modern web development.
- The <iframe> element allows embedding third-party content securely with various permissions.
- Understanding and using the right attributes enhances user experience and ensures compatibility across different devices.