Video

- Before HTML5, there was no standard for showing videos/movies on web pages. Videos could only be played with a plug-in (like flash). However, different browsers supported different plug-ins.

- HTML5 defines a new element which specifies a standard way to embed a video or movie on a web page: the <video> element

Video Formats Supported by different browsers

Browser	MP4	WebM	Ogg
Internet Explorer	YES	NO	NO
Chrome	YES	YES	YES
Firefox	YES	YES	YES
Safari	YES	NO	NO
Opera	NO	YES	YES

Format	MIME-type
MP4	video/mp4
WebM	video/webm
Ogg	video/ogg

- The <video> element allows multiple <source> elements. <source> elements can link to different video files. The browser will use the first recognized format.

- The **control** attribute adds video controls, like play, pause, and volume.

- To improve performance, you should always include the type attribute in the source element. Otherwise the browser will need to load each video file until it can find one that it can play!

```
<video width="320" height="240" controls>
 <source src="forrest_gump.mp4" type="video/mp4">
 <source src="forrest_gump.ogg" type="video/ogg">
 <track src="subtitles_en.vtt" kind="subtitles" srclang="en" label="English">
 <track src="subtitles_no.vtt" kind="subtitles" srclang="no" label="Norwegian">
</video>
```

Properties:

currentTime	Gets or sets the current playback position in seconds
volume	Gets or sets the current volume level for the video
muted	Gets or sets the mute state
playbackRate	Gets or sets the playback rate, where 1 is normal speed forward
currentSrc	Returns the current video source file the browser is playing

videoWidth & videoHeight	Returns the actual dimensions of the video, not the video element size

Methods:

load()	Loads the video and reset the play head to the beginning of the video
play()	Plays the video from it's current location
pause()	Pauses the video at the current location
canPlayType(format)	Tests to see whether the browser can play a specific type of video, for example 'video/webm;codecs="vp8, vorbis"' The browser will return: **probably** - if it's most likely the video file can be played **maybe** - if the video might be playable **[empty string]** - if the video file is not playable

Events:

canplaythrough	Fired when enough data is available that the browser believes it can play the video completely without interruption
ended	Fired when the video has finished playing
error	Fired if an error occurs
playing	Fired when the video starts playing, for the first time, after being paused or when restarting
progress	Fired periodically to indicate the progress of downloading the video
waiting	Fired when an action is delayed pending the completion of another action
loadedmetadata	Fired when the browser has finished loading the metadata for the video and all attributes have been populated

```
<!DOCTYPE html>

<html lang="en" xmlns="http://www.w3.org/1999/xhtml">
<head>
  <meta charset="utf-8" />
  <title>Video Demo</title>
</head>
<body>
  <div style="text-align:center">
    <button onclick="playPause()">Play/Pause</button>
    <button onclick="reload()">Reload</button>
    <button onclick="makeBig()">Big</button>
    <button onclick="makeSmall()">Small</button>
    <button onclick="makeNormal()">Normal</button>
    <br>
    <video id="video1" width="420" controls>
      <source src="Intro.mp4" type="video/mp4">
      <source src="Intro.ogg" type="video/ogg">
      Your browser does not support HTML5 video.
    </video>
  </div>
```

```
<script>
  var myVideo = document.getElementById("video1");

  function playPause() {
    if (myVideo.paused)
      myVideo.play();
    else
      myVideo.pause();
  }

  function reload() {
    alert("Can play MP4: " + myVideo.canPlayType("video/mp4"));
    myVideo.load();
  }

  function makeBig() {
    myVideo.width = 560;
  }

  function makeSmall() {
    myVideo.width = 320;
  }

  function makeNormal() {
    myVideo.width = 420;
  }
</script>
</body>
</html>
```

Audio

```
<audio controls>

  <source src="horse.ogg" type="audio/ogg">

  <source src="horse.mp3" type="audio/mpeg">

  Your browser does not support the audio tag.

</audio>
```

Attribute	Value	Description
autoplay	autoplay	Specifies that the audio will start playing as soon as it is ready
controls	controls	Specifies that audio controls should be displayed (such as a play/pause button etc)
loop	loop	Specifies that the audio will start over again, every time it is finished
muted	muted	Specifies that the audio output should be muted
src	URL	Specifies the URL of the audio file

Browser	MP3	Wav	Ogg
Internet Explorer	YES	NO	NO
Chrome	YES	YES	YES

Firefox	NO **Update:** Firefox 21 running on Windows 7, Windows 8, Windows Vista, and Android now supports MP3	YES	YES
Safari	YES	YES	NO
Opera	NO	YES	YES

Format	MIME-type
MP3	audio/mpeg
Ogg	audio/ogg
Wav	audio/wav

Events are same as in Video.