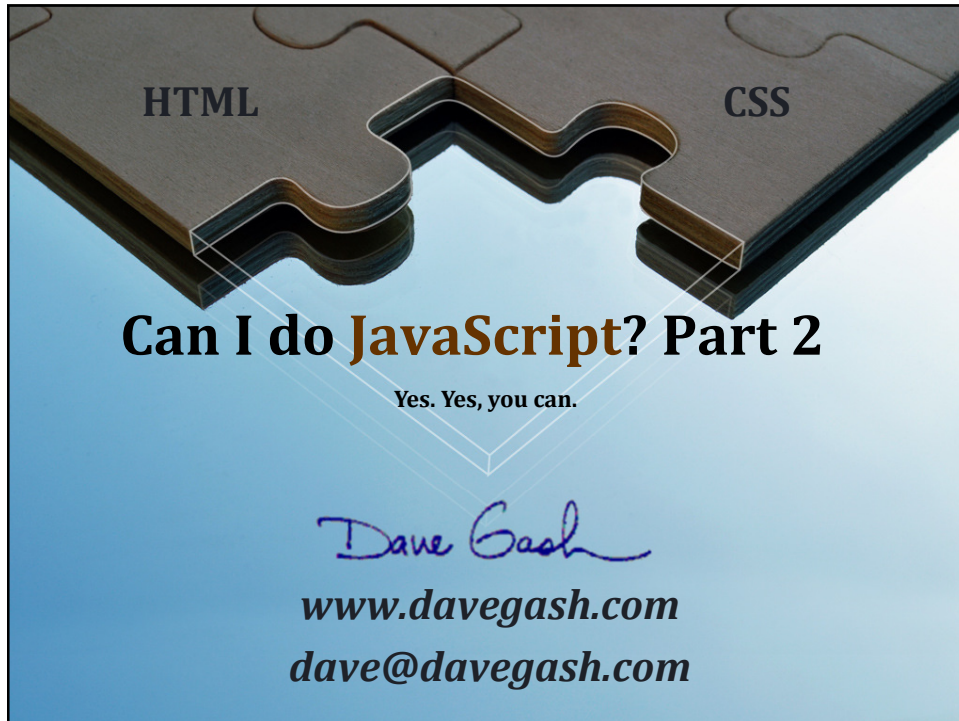


## Can I Do JavaScript? Part 2

Dave Gash



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Dave Gash



HTML CSS JavaScript

**JS is third piece of web dev puzzle**

HTML Structure	CSS Appearance	JAVASCRIPT Behaviour
		



HTML CSS JavaScript


**Recap of Tony's Part 1**

- Covered the basics of JavaScript
- Explained what JS is and what it's for
- Showed *why* you might need some script
- Brought up some practical JS uses for writers



# Can I Do JavaScript? Part 2

Dave Gash



**Preview of Dave's Part 2**

- See a demo page with some JS implemented
- Work through practical scripts that affect content
  - ❖ See how/where to implement JS in web pages
  - ❖ Look at some programming language constructs
  - ❖ Expose some common gotchas later on
- Explore how to find scripts and other resources
  - ❖ Spoiler alert: rhymes with "Schmoogle it"



**Quick detour**

- Let's obfuscate any lucidity you may have so far
- "JavaScript" is just basic dialect; there is also:
  - ❖ ECMAScript, Jscript, JQuery library (and a million others), VBScript, ActionScript, AJAX, etc.

**Thanks for that, Tony! 😊**

- Bottom line: You don't care; just use JavaScript
- Movin' on!

## Can I Do JavaScript? Part 2


Dave Gash



The diagram shows three interlocking puzzle pieces at the top of the slide. From left to right, they are labeled 'HTML', 'JavaScript', and 'CSS'. The 'JavaScript' piece is in the center and is slightly offset downwards from the other two.

### Where to put JavaScript?

- Internal – inside HTML page / .htm file
  - ❖ Good for page-specific scripts
  - ❖ Lets you specify exactly where script runs
  - ❖ Might help (or not) finding & debugging scripts
- External – in a separate .js file
  - ❖ Good for multiple-page scripts
  - ❖ Lets you take advantage of script editors
  - ❖ Localises scripts for easier maintenance



The diagram shows three interlocking puzzle pieces at the top of the slide. From left to right, they are labeled 'HTML', 'JavaScript', and 'CSS'. The 'JavaScript' piece is in the center and is slightly offset downwards from the other two.

### The demo page scripts

- Our example scripts are all content-related
  - ❖ **1. Date calculation:** automatically determine and display days between dates
  - ❖ **2. Show/hide content:** allow users to turn on or off sections of content
  - ❖ **3. Set text size:** allow users to change font size of main text in page

### Let's see the demo page (finally!)



## Can I Do JavaScript? Part 2


Dave Gash



HTML JavaScript CSS

### Some programming stuff we'll need

- **Variables:** named boxes that hold values for later
  - ❖ `x = 5; username = "Bob"; isNew = true;`
- **Arrays:** lists of variables, accessed by number
  - ❖ `months[0] = "Jan"; months[1] = "Feb";`
- **If/else:** used to make processing decisions
  - ❖ `if (hour < 12) print "Good morning"`  
`else print "Good afternoon";`




HTML JavaScript CSS

### More programming stuff we'll need

- **Functions:** named groups of actions, *called* later
  - ❖ `function showscore() {`  
`alert("Your score is: " + curscore)`  
`}`
- **Loops:** used to perform an action repeatedly
  - ❖ `for (i = 0; i < months.length; i++) {`  
`months[i] = months[i] + ". "`  
`}`

# Can I Do JavaScript? Part 2


Dave Gash



HTML CSS JavaScript

## Syntax matters!

- But we aren't going to obsess over it today
- Be aware that { }, [ ], ( ), and ; are important to JS



Roses are Red,  
Violets are Blue,  
  
Unexpected '{'  
on line 32.

## How the World Could End

Scenarios that spell the end of life as we know it  
by Ray N. Carnation

Hello, and welcome to Apocalypse Today

Reminder: the world will end **1** 202 days on 31 Dec 2019!  
Unless we've missed the date. Again.

**Page Options**

- Show/hide CRAP (Completely Random Additional Predictions) ☒
- Set main text size ☒ Original ☐ Large ☐ OMG are you blind?!?

**2**

**3**

**RIGHT NOW**, you're probably feeling good. After all, life in the developed world is comfortable — probably more comfortable than it's been for any other human being throughout all of recorded history.

But don't get too smug. There are still plenty of horrific ways it could all fall apart. In this article, you'll learn about a few of our favorites.

### MAYAN DOOMSDAY

Skeptics suggest that the Mayan calendar simply rolls to a new 5,126-year era after 2012, and doesn't actually predict a life-ending apocalypse. But given that the long-dead Mayans were wrong about virtually everything else, why should we trust them on this?

### CRAP #1 — Elvis Lives!


Despite all (manufactured?!?) evidence to the contrary, we feel obligated to inform you that Elvis is alive and well, and is currently running a servo in Hamilton. Or Greymouth, depending on who you ask.



Will you be the last person standing if one of these apocalyptic scenarios plays out?

# Can I Do JavaScript? Part 2

Dave Gash



## 1. Date calculation

```
<h2 style="color:blue" class="centered">Reminder: the world will end in  
<span id="daysleft" style="color:red"></span> days on 31 Dec 2019!<br/>  
Unless we've missed the date. Again.</h2>
```

```
<script>  
theend = new Date("Tue Dec 31 2019"); //set presumed end date  
today = new Date(); //get actual current date  
numdays = (theend-today) / (1000*60*60*24); //subtract, divide by ms  
numdays = Math.round(numdays); //round to nearest integer  
document.getElementById("daysleft").innerHTML = numdays; //insert result  
</script>
```

➤ Note that this script is *internal*; why?

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# Can I Do JavaScript? Part 2

Dave Gash



## 1. What JS constructs did we use?

- Variables
- Simple arithmetic
- Date( ) object
- Math object
- document.getElementById( ) function
- element.innerHTML property



## 2. Show/hide content

```
...
<script src="apocalypsetoday.js"></script>
</body>
</html>
```

apocalypsetoday.htm

```
function togglecrap(cbchecked) {
  if (cbchecked == true) {disp = "block"} //set display value...
  else {disp = "none"};                  //...based on checkbox
  craps = document.getElementsByClassName("crap"); //collect CRAP articles
  for (var i = 0; i < craps.length; i++) { //loop through articles...
    craps[i].style.display = disp;         //...set display value on each
  }
}
```

apocalypsetoday.js

- Note that this script is *external*; why?



# Can I Do JavaScript? Part 2

Dave Gash



## 2. Show/hide content

```
<input type="checkbox" onclick="togglecrap(this.checked)">
...

<article class="crap">
  <h4>CRAP Article 1</h4>
  <p>Blah blah blah</p>
</article>

<article class="crap">
  <h4>CRAP Article 2</h4>
  <p>Yada yada yada</p>
</article>
```

← apocalypsetoday.htm

➤ Start with checkbox & *classed* articles in .htm



## 2. Show/hide content

```
function togglecrap(cbchecked) {
  if (cbchecked == true) {disp = "block"} //set display value...
  else {disp = "none"};                  //...based on checkbox
  craps = document.getElementsByClassName("crap"); //collect CRAP articles
  for (var i = 0; i < craps.length; i++) { //loop through articles...
    craps[i].style.display = disp;         //...set display value on each
  }
}
```

← apocalypsetoday.js

➤ Define function by name, accept a passed value

# Can I Do JavaScript? Part 2

Dave Gash

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*Will you be the last person standing if one of these apocalyptic scenarios plays out?*




## 2. What JS constructs did we use?

- HTML element with an *onclick* function call
- Function with a passed value
- If/else to set a variable
- `document.getElementsByClassName( )` function
- Array object
- For loop to repeat an action
- `element.style.display` property



## Can I Do JavaScript? Part 2

Dave Gash



### 3. Set text size


```
...  
<script src="apocalypsetoday.js"></script>  
</body>  
</html>
```

← apocalypsetoday.htm

```
function resizefont(size) {  
    //set fontsize to the passed value  
    document.getElementById("main").style.fontSize = size;  
}
```

← apocalypsetoday.js

➤ This script is also *external*; same reasons



### 3. Set text size

← apocalypsetoday.htm


```
<input type="radio" name="tsize" onclick="resizefont('medium')">Original  
<input type="radio" name="tsize" onclick="resizefont('large')">Large  
<input type="radio" name="tsize" onclick="resizefont('x-large')">OMG?!?  
...  
<section id="maintext">
```

➤ Start with radio buttons & *id*'d section in .htm



# Can I Do JavaScript? Part 2

Dave Gash



## 3. Set text size

```
function resizefont(size) {  
    //set fontsize to the passed value  
    document.getElementById("maintext").style.fontSize = size;  
}
```

← apocalypsetoday.js

➤ Define function by name, accept a passed value

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## Can I Do JavaScript? Part 2

Dave Gash



3. What JS constructs did we use?

- HTML elements with *onclick* function calls
- Function with a passed value
- `document.getElementById( )` function
- `element.style.fontSize` property




Common mistakes and gotchas

- camelCase = biteYouInTheArse
  - ❖ Don't use it. **Ever.** "Best practices" be damned!
  - ❖ That said, JS uses *fontSize*, *getElementById*, etc.
- Those bloody braces! { }
- ❖ And parentheses ( ), brackets [ ], semicolons ;
- Not documenting your code with comments
  - ❖ `var x = !y //because y not? LOL`

## Can I Do JavaScript? Part 2

Dave Gash



**Summary**

- Can you do JavaScript?
  - ❖ Yes you can; it just takes a bit of perseverance
- Should you do JavaScript?
  - ❖ Yes you should; it increases your business value, your professional status, and your self-worth
- Will you do JavaScript?
  - ❖ Up to you. Have a bit of a play and see how it goes!
  - ❖ (And don't be afraid to ask for help)



**Where to find existing scripts**

- Stewth, mate: Whatever it is you want to do, someone has already done it
- All you have to do is find it
  - ❖ As Tony says, "R&D"
- Good places to look for useful scripts
  - ❖ Google (DUH!) / YouTube (no, really)
  - ❖ StackOverflow ([www.stackoverflow.com](http://www.stackoverflow.com))
  - ❖ Dynamic Drive ([www.dynamicdrive.com](http://www.dynamicdrive.com))



# Can I Do JavaScript? Part 2

Dave Gash



**Where to find good information**

- **W3Schools** ([www.w3schools.com/js](http://www.w3schools.com/js))
  - ❖ My #1 go-to site for tutorials & reference
- **Codecademy**  
([www.codecademy.com/learn/introduction-to-javascript](http://www.codecademy.com/learn/introduction-to-javascript))
- **JavaScript Visual Quickstart Guide 9<sup>th</sup> Edition**
  - ❖ Amazon, used \$6-\$15



**Thank you!**

- Find me at [dave@davegash.com](mailto:dave@davegash.com)
- Happy JavaScripting!!!

