## A Brain-Friendly Guide

# Head First HTML5 Programming

Learn the secrets of the HTML5 guru



Discover why everything your friends know about video is probably wrong

Avoid embarrassing browser support issues



A learner's guide to building web apps with JavaScript



Load HTML5 and JavaScript straight into your brain



Watch out for common browser pitfalls

O'REILLY®

Eric Freeman & Elisabeth Robson

union it about a info

### getting to know HTML5

### Welcome to Webville

HTML has been on a wild ride. Sure, HTML started as a mere markup language, but more recently HTML's put on some major muscle. Now we've got a language tuned for building true web applications with local storage, 2D drawing, offline support, sockets and threads, and more. The story of HTML wasn't always pretty, and it's full of drama (we'll get to all that), but in this chapter, we're first going to go on a quick joyride through Webville to get sense for everything that goes into "HTML5." Come on, hop in, we're headed to Webville, and we're going to start by going from zero to HTML5 in 3.8 pages (flat).

	Upgrade to HTML5 TODAY!		2
	Introducing the HTML5-o-Maffe	, update your HTML now!	4
	You're closer to HTML5 markup	than you think	7
	HTML5 Exposed: Confessions of	the newest version of HTML	11
	Would the REAL HTML5 please	stand up	12
	How HTML5 really works		14
	Who Does What?		16
	Your First Mission: Browser Recor	naisance	17
	What can you do with JavaScript?		22
html body	Writing Serious JavaScript		25
title scrept hi h2 p	Writing Serious JavaScript Revisite	ed	26
en market	Bullet Points		31
	Exercise Solution		33
	JS	Canvas Video  Offline Local Storage Audio	
-j Ccs	distribution of the contract	Web Drag & Drag & Drop Geology	tion

### introducing JavaScript and the DOM

# 2

### **A Little Code**

JavaScript is going to take you to new places. You already know all about HTML markup (otherwise known as *structure*) and you know all about CSS style (otherwise known as *presentation*), but what you've been missing is JavaScript (otherwise known as *behavior*). If all you know about are structure and presentation, sure, you can create some great-looking pages, but they're still *just pages*. When you add behavior with JavaScript, you can create an interactive experience; or, even better, you can create full blown web applications. Get ready to add the most interesting and versatile skill in your web toolkit: JavaScript and programming!



The Way JavaScript Works	
What can you do with JavaScript?	37
Declaring a variable	38
How to name your variables	40
Getting Expressive	43
Doing things over and over	46
Make decisions with JavaScript	49
Making more decisions and, adding a catch all	50
How and where to add JavaScript to your pages	53
How JavaScript interacts with your page	54
How to bake your very own DOM	55
A first taste of the DOM	56
HTML5 is From Mars, JavaScript is from Venus	58
You can't mess with the DOM until the page has fully loaded.	64
So, what else is a DOM good for anyway?	66
Can we talk about JavaScript again? Or, how to store multiple values in JavaScript	67
The Phrase-o-Matic	71
Bullet Points	75
Exercise Solutions	77

### events, handlers and all that jazz

# 3

### **A Little Interactivity**

### You still haven't reached out to touch your user.

You've learned the basics of JavaScript but can you get interactive with your users? When pages respond to user input, they aren't just documents anymore, they're living, reacting applications. In this chapter you're going to learn how to handle one form of user input (excuse the pun), and wire up an old-fashioned HTML <form> element to actual code. It might sound dangerous, but it's also powerful. Strap yourself in, this is a fast moving to-the-point-chapter where we go from zero to interactive app in no time.



Get ready for Webville Tunes	86
Getting started	87
But nothing happens when I click "Add Song"	88
Handling Events	89
Making a Plan	90
Getting access to the "Add Song" button	90
Giving the button a click handler	91
A closer look at what just happened	92
Getting the song name	94
How do we add a song to the page?	97
How to create a new element	99
Adding an element to the DOM	100
Put it all together	10
and take it for a test drive	101
Review—what we just did	102
How to add the Ready Bake Code	103
Integrating your Ready Bake Code	106
Bullet Points	108
Exercise Solutions	110