

Nickelodeon | HNC Bee A Coder

Module Script 1

MODULE 1 – HTML

It's time to learn some basic HTML code. What is HTML? HTML is the common abbreviation for the coding term, Hypertext Markup Language. If your parents work with computers, or if you know anyone who designs web sites, you may have already heard of HTML and HTML Code. HTML is a hidden language that all websites are written in. It's the basic building block that all websites are built out of. Think of HTML as the basic DNA of every website that has ever been built and you'll begin to get an idea of how important HTML is in coding. Web browsers read HTML files and translate them into a visible form you can actually see on a website as web pages. If you enter the HTML code correctly, you will see the web page the way you intended it to be seen. If not, you can always start over and try again.

Now, the first thing you need to know about working with HTML is that all webpages start with what is known as the doc type `<!DOCTYPE html>`. This is the very first step you take when creating any web page. The doc type tells the web browser how to read everything that comes after it. Think of it this way: If the webpage were a sheet of paper, this doc type tells the web browser what type of paper it is: whether it's notebook paper, construction paper, the perfect paper for making a paper airplane, etc. You get the idea.

INSTRUCTIONS: write the doc type as the first line of the webpage.

Now, located directly after the doc type, what you'll see is the HTML document itself. Think of the HTML document as everything you might see printed on a sheet of paper, such as words, or drawings or printouts of your favorite selfies. You'll notice that `<html>` is located at the very top edge of the paper and `</html>` is directly opposite that at the very bottom edge of the paper. Notice that anything that starts with "`<`" or "`>`" and ends with "`>`" is what is known as a tag. Tags are another term you'll hear quite often in web development. Tags are what separate normal text from HTML code. We'll spend more time learning about tags as we go along.

INSTRUCTIONS: write `<html>` on the second line and `</html>` on the forth line.

See? I told you! We're already learning more about tags. Tags are the words you see in HTML code between `<angle-brackets>`. Tags are used quite often and can appear alone or inside other tags. Tags allow you to add cool things like images, graphics and other content that add visual excitement to web pages. And memes. And more of your favorite selfies.

Next we have what we refer to as the `<body></body>` of the web page we're building. The body contains all of the visible content on a web page. Again, think of it as a sheet of paper. Now, notice how we keep starting stuff with `<something>` and ending it with `</something>`. This is done to tell the browser where something starts and ends. Think of it as the opening cut scene of your favorite video game and the closing cut scene after you defeat the final boss. Okay, so it's not that epic, but you follow me, right?

INSTRUCTIONS: write `<body></body>` between the html tags.

Up until now, the page has been blank. Well, that's about to change, like so, by adding some text.

INSTRUCTIONS: Start with a paragraph tag: `<p>`. Then add a sentence or two. Then close it with a `</p>`.

Did you see what I did there? You're going to soon find that the real magic with HTML comes from how multiple tags interact with each other.

You're doing great. See? This isn't so hard, is it?

Now – let's keep it going. Next, let's write a second paragraph. That's it. Take your time. Don't forget to close it!

INSTRUCTIONS: Start a second paragraph after the `</p>` from the last step.

Notice how the two paragraphs don't run together. They form their own little blocks. `<p>`, `<div>` and a few other tags known as block elements. Meaning they are self-contained and act like their own piece of paper.

Ok. Stop for a second to take a look at your work. What do you see? Look closer. Do you notice how the two paragraphs don't run together? Pretty cool, right? Now, check out how they set apart, forming their own, individual little blocks. Now, see that? `<p>`, `<div>` and a few other tags are what are known as block elements. What's a block element, you ask? Block elements are self-contained items that act like their own separate piece of paper. Got it? Good.

SHOW BUBBLE: pieces of paper in block shapes stacked vertically

Now, let's talk about Inline elements. Inline elements like `` or `` are elements that will flow beautifully, with whatever is around them. See how that works? Pure poetry.

INSTRUCTIONS: In the paragraph place a `` tag before “this text is stronger than the other text” and place a `` tag behind it.

Are you still with me? Good. You're doing great! Now, it's time to add some fun to these fundamentals. You see this last sentence here? That's an `` tag. `` tags stand for images. They are seriously powerful tags. No wonder they're used in literally millions of websites!

INSTRUCTIONS: Just before the period in the last sentence add ``

There are all kinds of tags you can use when working in HTML. Some tags, like the `` tag don't contain anything between an opening and closing tag. So this kind of tag actually closes itself. How cool is that? Now, take a closer look. Do you notice the `/>` at the end of the tag? Since we didn't put anything in what is known as the “source path” or (src) the image doesn't have a clue what you want to show. Not to worry.

We're going to fix that right now.

INSTRUCTIONS: inside the double quotes after `src=` write this path to an image:
`images/sassy_smiley.png`

SHOW BUBBLE: source path is the location of the image in the folders of the webpage

Now, let's take a break and look over our work. Is this amazing or what? See right there? That's what we were going for. That's the url `beeacoder.com` you're looking at. Make a note: The url `beeacoder.com` in the results view is not clickable because it's not a live link. If it were, you could click on it and it would take you to another web page. But you can't because it's plain text and you can't click on plain text. Well you can, but nothing will happen. If you want something like text or an image to link to a different webpage, that's a piece of cake. You would just use an `<a>` tag. Did you see what just happened there? Somebody just learned something new.

INSTRUCTIONS: write `` before `beeacoder.com` and `` after it.

Speaking of which – let's keep going. Now, you'll notice that the text has changed to a link, but when you click on it, it doesn't go anywhere... Not yet, anyway.

INSTRUCTIONS: between the double quotes after `href=` let's put `HYPERLINK "http://beeacoder.com" \t "_blank" http://beeacoder.com`

SHOW BUBBLE: Why did we add `"http://"`? Well, just like `<!DOCTYPE html>` is used to tell the browser what type of webpage it is, `http://` tells the browser how it should look for webpage.

Wow. Let's be honest. That was a lot to learn! Now, let's just see how much of it you actually remember. This should be interesting.

INSTRUCTIONS: Start with the doc type. Then add the HTML document and the body. Inside the body write a paragraph with the following text, "I can't believe coding can be this easy! I wonder what we'll be learning next." Then create a second paragraph with the text, "Next we'll be learning about CSS." Then let's turn CSS into a link and have it point to `HYPERLINK "http://beeacoder.com/" \l "CSS" \t "_blank" http://beeacoder.com/#CSS`

Great job! Congratulations! Believe it or not, you've just learned how to build a basic webpage using HTML! Impressive! But, as everyone knows, webpages aren't just about black text. There's a lot more to it than that! Which brings us to our next lesson, where you'll learn about adding some flair and style to your page. So, what are you waiting for? Let's do this!