UNIT 5 REVIEW GUIDE

KEY TERMS & DEFINITIONS

Document Object Model (DOM)
A (potentially) large object that describes the structure of a web page's content. It allows us to search through and access elements on the page, dynamically update the content, add animations and effects, and create event listeners

DOM Node
Each element in an HTML document is represented by a node in the DOM tree.

Content Tree
The tree that contains DOM nodes after they're parsed from the HTML document (aka, the DOM tree).

Parse
To analyze a set of characters or data (i.e., HTML).

Render Tree
A tree made up of the CSSOM and the DOM that maps how a web page should be laid out and painted.

Cache
Where the results of a query are stored.

```
var sidebar = document.getElementById('sidebar');
```

NodeList
A list of node objects numbered similarly to arrays.

To locate the fourth item in this nodeList:

```
document.getElementsByTagName('li')[3];
```

Traversing the DOM
The process of selecting another element based on its relationship to a previously selected element.

Events
Actions taken by a user that can trigger updates in the DOM.

For example, when a user clicks on a website's menu icon, a sidebar menu should slide out from the side of the page. Or, if the user has typed an incorrect format into a form field, the field should become outlined in red.

Event Handler
We can set this up in our scripts to listen, or wait, for an event to occur and then trigger a function in response.

Callback Function
A function that is passed as an argument to another function.

```
element.addEventListener('nameOfEvent', functionToRun);
```

Event Bubbling
When an event starts at the most specific element node and then flows outwards towards the least specific node.

this
A term used in event handling functions to refer to the specific object with which the user interacted with. For example, we can use:

```
this.style.backgroundColor = "red";
```

Instead of:

```
document.querySelector('.circle').style.backgroundColor = "red";
```

GUIDING QUESTIONS

1. What is the DOM and why is it important?
2. What are the differences between DOM and HTML?
3. What different methods can you use to manipulate the DOM?
4. How can you target specific elements in the DOM?
5. How do events trigger JavaScript code?
6. How can event listeners deal with more than one function at a time?
7. What is event flow?

COMMAND LIST

Command	Description
.getElementById()	Selects an individual element within a document using a specific id
.querySelector()	Uses CSS selector to select the first matching element within a document
.getElementsByClassName()	Allows you to select all elements with a given class attribute
.getElementsByTagName()	Locates all elements that match a given tag name
.querySelectorAll()	Uses CSS selector to select one or more elements
.parentNode()	Locates the parent element of an initial selection
.previousSibling()	Finds the previous sibling of a selected element
.nextSibling()	Finds the next sibling of a selected element
.firstChild()	Finds the first child of a selected element
.secondChild()	Finds the last child of a selected element
.innerHTML	Gets and sets content for an element
.textContent	Gets and sets the text content for an element
.createElement()	Creates a new element, which can then be added to a web page
.stopPropagation(event)	Is used when we don't want an event to bubble up to its ancestors
.appendChild()	Adds an element as a child of another element
.setAttribute()	Sets an attribute of an element
.removeAttribute()	Removes an attribute from an element
.addEventHandler(event, function)	Adds a function that triggers when a specific event occurs

COMMON EVENTS TO WATCH

Event	Description
‘click’ (event)	When a button (usually a mouse button) is pressed and released on a single element
‘keydown’ (event)	When the user first presses a key on the keyboard
‘focus’ (event)	When an element has received focus
‘blur’ (event)	When an element loses focus
‘submit’ (event)	When the user submits a form
‘load’ (event)	When the web page has finished loading
‘resize’ (event)	When the browser window has been resized
‘scroll’ (event)	When the user scrolls up or down the web page