



Intro to JavaScript Variables

Learning objective: By the end of this lesson, students will understand the basics of JavaScript variables, including naming conventions and the difference between `let` and `const`.

Concepts

The purpose of a [variable](#) in programming is to hold or reference data.

 A `variable` is a named container used to store and retrieve data used within a program.

We use the `let` or `const` (short for constant) keyword to declare a variable in JavaScript. These are special keywords known as *declarations*. The variable name or *identifier* follows the declaration.

 A *declaration* is used to indicate a variable is being created. An *identifier* is then used to identify a variable.

```
let favSnack;  
// let is the declaration  
// favSnack is the identifier
```

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We can also assign a value to a variable at the time we declare it by using the `=` (assignment) operator:

```
let name = 'Tony Stark';
```

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and change its value later:

```
name = 'Pepper Potts';  
// note that we only declare a variable once
```

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Naming rules

In JavaScript, when naming variables, the convention is to name the identifiers using `lowerCamelCase`. Good examples are `numActivePlayers`, `tacoFlavor`, or `name`.

Identifiers in JS:

- Are case-sensitive
- Cannot begin with a number
- Can contain letters, digits, underscores, and dollar signs
- Cannot contain spaces
- Cannot be [reserved words or keywords](#)

 Is `car-3` a valid variable identifier?

`let` and `const`

The difference between `let` and `const` is that a `const` variable cannot be re-assigned to - you can assign data to it once, and that's it:

```
let x = 25;  
x = 100; // no problem  
const z = 25;  
z = 100; // Uncaught TypeError: Assignment to constant variable
```

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