# Workshops on the course JavaScript Fundamentals

By Peter Kassenaar – [info@kassenaar.com](mailto:info@kassenaar.com)

## Expected learning outcomes/topics

## Workshop #4, JavaScript Calculator

* Understanding of how to use arithmetic operators.
* Applying the assignment operator = to store results.
* Practice with conditional statements.

## Workshop #5, Guessing game

* Practice with boolean operators like ===, &&, and ||.
* Understanding the use of while loops combined with condition checks.
* Reinforcement of the use of assignment and arithmetic operators within a loop.

## Workshop #6 – Calculator

* Creating and using simple functions.
* Creating a safeguard agains division by zero, so using conditional statements inside a function.

## Workshop #7 and #8 – Arrays

* Working with arrays and applying array methods to perform various operations on arrays.
* A basic understanding of how arrays work in JavaScript.
* A generic overview of some array methods that are available in JavaScript and how they can be applied to real life data to construct an application.

## Workshop #9 – Objects

* Creating and using JavaScript objects and getting familiar with them.
* Constructing objects and using methods and parameters inside objects and calling them from other scripts or functions.

## Workshop #10 – Classes

* Understanding how to define and use classes in JavaScript.
* Learn about the constructor function to initialize class properties by passing parameters/arguments into the constructor.
* Practice in creating and using methods within classes.
* Ability to instantiate objects and interact with their methods and properties.

## Workshop #20 – DOM

* Working with conditional Logic, using conditional statements (if-else) to determine actions based on different conditions (e.g., time of day).
* Working with the objects Date() and methods on this object.
* Manipulate the DOM, Gain experience in dynamically creating and appending HTML elements to the DOM using JavaScript by using document.createElement, textContent, and appendChild.
* Working with Browser Events e.g., window.addEventlistener(‘load’) to run code when the page finishes loading.

## Workshop #21 – DOM cloning and inserting

* Add interactivity to the page and manipulate the DOM by clicking a button
* Learning how elements in the page can be retrieved, duplicated and positioned inside an existing DOM with JavaScript.

## Workshop #30 – Link colors

* Getting familiar with DOM-functions like getElementsByTagName() and/or querySelectorAll().
* Looping over a NodeList-object for changing properties of every item in the list.

## Workshop #31, #32 – Validation

* Getting familiar with retrieving values from input fields in an HTML page and checking if certain requirements are met (e.g. client sided validation).
* Giving realtime feedback to the user, based on the outcome of the validation.

## Workshop #40 – Http

* Performing Http-requests from JavaScript and handling the results by adding them to the page.
* Simple error handling for network request errors.

## Workshop JSON

* Understanding how to serialize JavaScript objects to JSON strings.
* Learning about the JSON.stringify() method and using it in a script.
* Ability to parse JSON strings back into JavaScript objects using JSON.parse().
* Familiarity with accessing object properties after parsing JSON.