

Lesson 20 – JavaScript Syntax

Goals: Get used to the **syntax** and command **structures** of JS including:

- values, literals/variables,
- operators, operations/expressions,
- comparison and conditions,
- loops

```
      initialisation      iteration step
      condition
for (int i = 0; i < 10; i++) {
    // This is the loop body
    // add your code here
}
```

Syntax overview:

- read an overview at: https://www.w3schools.com/js/js_syntax.asp

Variables, declaration and data types:

- read and try: https://www.w3schools.com/js/js_variables.asp
- complete exercises: [\[1\]](#), [\[2\]](#), [\[3\]](#), [\[4\]](#), [\[5\]](#)

Comparison & conditions:

- read and try: https://www.w3schools.com/js/js_if_else.asp
- complete exercises: [\[1\]](#), [\[2\]](#)

Loops:

- read about FOR loop: https://www.w3schools.com/js/js_loop_for.asp
- complete exercises: [\[1\]](#), [\[2\]](#)
- read about WHILE loop: https://www.w3schools.com/js/js_loop_while.asp
- complete exercises: [\[3\]](#), [\[4\]](#), [\[5\]](#), [\[6\]](#)

Task:

- Create an animation consisting of at least 3 images (using a JavaScript loop).
- Use either text-art images from the previous lesson or bitmap images. Some examples can be found in the images folder.
- You may use some kind of a wait function, to create a delay between rendering of individual images. Example follows:

```
<script>

function wait(ms){
    var start = new Date().getTime();
    var end = start;
    while(end < start + ms) {
        end = new Date().getTime();
    }
}

//Example usage
console.log('before'); // press F12 to see the log inside the console
wait(7000); //7 seconds in milliseconds
console.log('after');

</script>
```