

# JavaScript Arrays - Complete Cheat Sheet

## 1. Array Declaration

- `let arr = [];`
- `let fruits = ["Apple", "Banana", "Mango"];`
- `let arr = new Array();`

## 2. Array Indexing

- Zero-based: `arr[0]`

## 3. Access & Modify

- `fruits[1] = "Orange";`

## 4. Array Properties

- `arr.length`

## 5. Basic Methods

- `push()`, `pop()`, `shift()`, `unshift()`
- `indexOf()`, `lastIndexOf()`, `includes()`
- `join()`, `reverse()`, `sort()`

## 6. Slice & Splice

- `slice(start, end)`
- `splice(start, deleteCount, items...)`

## 7. Search & Test

- `find()`, `findIndex()`, `filter()`, `some()`, `every()`

## 8. Iteration

- `forEach()`, `map()`, `reduce()`

## 9. Destructuring

- `const [a, b] = arr;`
- `const [a, ...rest] = arr;`

## 10. Spread Operator

- `let copy = [...arr];`
- `let merged = [...arr1, ...arr2];`

## 11. Multidimensional Arrays

- `let matrix = [[1,2],[3,4]];`
- `matrix[1][1];`

## 12. flat() & flatMap()

- `flat(depth)`
- `flatMap(callback)`

## 13. Other Useful

- `fill()`, `copyWithin()`, `entries()`, `keys()`, `values()`
- `toReversed()`, `toSorted()`

## 14. Modern Tricks

- `[...new Set(arr)]` // Remove duplicates
- `Array.isArray(arr)`

## 15. Summary

- Declaration, Access, Mutate, Iterate, Destructure, Spread, Flatten, Check