

JAVASCRIPT CHEAT SHEET

using *codeheart.js* (<http://codeheartjs.com>)

Creating State (Nouns)

- Constant (“box that never changes”) `var HEIGHT = 50;`
- Variable (“box”) `var score;`

Examples

Values

- Number `3`
- Boolean `true`
- Text `“Hello”`
- Color `makeColor(0.5, 0.0, 0.5, 1.0)`
- Sound `loadSound(“bounce.wav”)`
- Image `loadImage(“face.png”)`
- Object (group of named boxes) `new Object()`
- Array (group of numbered boxes) `[3, 6, 5, “Hello”]`

Rules for Details (Verbs)

- Change the value in a variable `score = score + 1;`
- Change a value in an array `name[2] = “Fred”;`
- Conditional rule `if (_____) { _____ }`
- Either-or conditional `if (_____) { _____ } else { _____ }`
- Repeated rule `while (_____) { _____ }`
- Use functions in equations `cos(x)`

Rules for Events

- The game starts `function onSetup() { _____ }`
- Every few milliseconds `function onTick() { _____ }`

- The mouse/screen is clicked `function onClick(x, y, button) { _____ }`
- The mouse button is first pushed `function onTouchStart (x, y, id) { _____ }`
- The mouse is dragged `function onTouchMove (x, y, id) { _____ }`
- The mouse button is released `function onTouchEnd (x, y, id) { _____ }`
- The mouse moves `function onMouseMove(x, y) { _____ }`

- A key is first pushed down `function onKeyStart (key) { _____ }`
- A letter is typed `function onKeyPress(key) { _____ }`
- A key is released `function onKeyEnd (key) { _____ }`

Funny Spellings for Logic

- Are both A and B true? `A && B`
- Is either A or B true? `A || B`
- Is A equal to B? `A == B`
- Is A not equal to B `A != B`
- Is A greater than or equal to B? `A >= B`
- Is B is between A and C? `(A <= B) && (B <= C)`

The Built-In Functions

Core: `defineGame, console.log, alert, length, toUpperCase, toLowerCase, substring, indexOf, ...`

Math: `sqrt, sin, cos, tan, pow, min, max, floor, ceil, round, abs, log, log2, atan2, atan, exp, randomReal, randomInteger`

Drawing: `fillCircle, strokeCircle, fillRectangle, strokeRectangle, drawImage, fillText, strokeText, clearScreen, loadImage, makeColor, strokeLine`

Sound: `loadSound, playSound`