JavaScript Cheat Sheet
using codeheart.js (http://codeheartjs.com)

Creating State (Nouns)

- Constant ("box that never changes")
  - var HEIGHT = 50;
- Variable ("box")
  - var score;

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