Coding

Key Words

Variable – a named area in computer memory. A variable has a name and a value. The program can change this variable value.

Action – types of commands which are run on an object. They could be used to move an object or change on of its properties.

Algorithm – a precise set of step by step instructions used to solve a problem or achieve a goal.

Bug – a problem in the computer program that stops it working in the way it was designed.

Command – a single instruction in a computer program.

Debug/debugging – looking for any problems in the code, fixing and testing them.

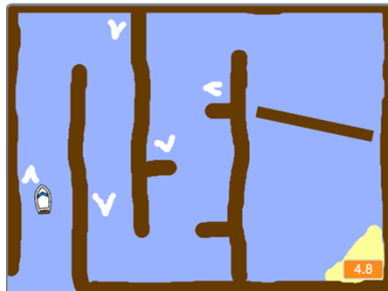**Event –** something that causes a block of code to run.

If/else – a conditional command, which tests a statement. If the condition is true, then the commands inside the 'if block' will run. If the condition is not met, then the commands in the 'else block' will run.

Input – information going into the computer. Can include moving or clicking the mouse, using the keyboard or swiping or tilting the device.

Output – information that comes out of a computer e.g sound.

Repeat – this command can be used to make a block of commands run a set amount of times or forever.

Selection – This is a conditional/decisional command. When selection is used, a program will choose a different outcome based on selection.

Websites you can use at home:

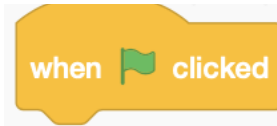https://projects.raspberrypi.org/en

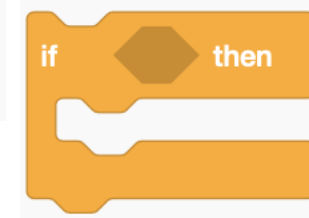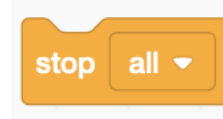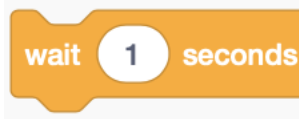https://scratch.mit.edu/

https://hourofcode.com/uk/learn

Coding Blocks

Here are the main coding blocks we will be needing to create our 'Boat Race' game. They have been put with the Coding sub-heading, which we will be using on Scratch. By linking these coding blocks together, we will be able to create our game.
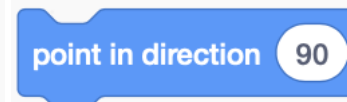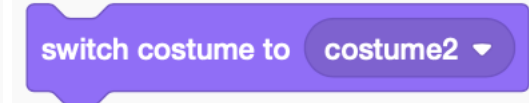
Events
- when 🏁 clicked

Control
- wait 1 seconds
- stop all ▼
- if ⬡ then
- forever ↻

Operators
- ( ) > 50

Motion
- go to x: 0 y: 0
- point in direction 90
- move 10 steps
- turn ↻ 15 degrees
- point towards mouse-pointer ▼

Sensing
- distance to mouse-pointer ▼
- touching color ⬤ ?

Looks
- say Hello! for 2 seconds
- switch costume to costume2 ▼

Variables
- change time ▼ by 1
- set time ▼ to 0