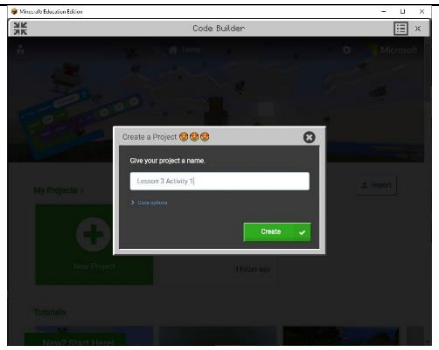
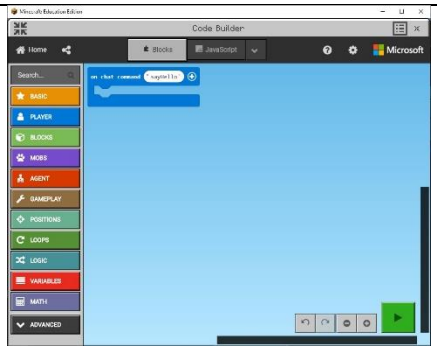
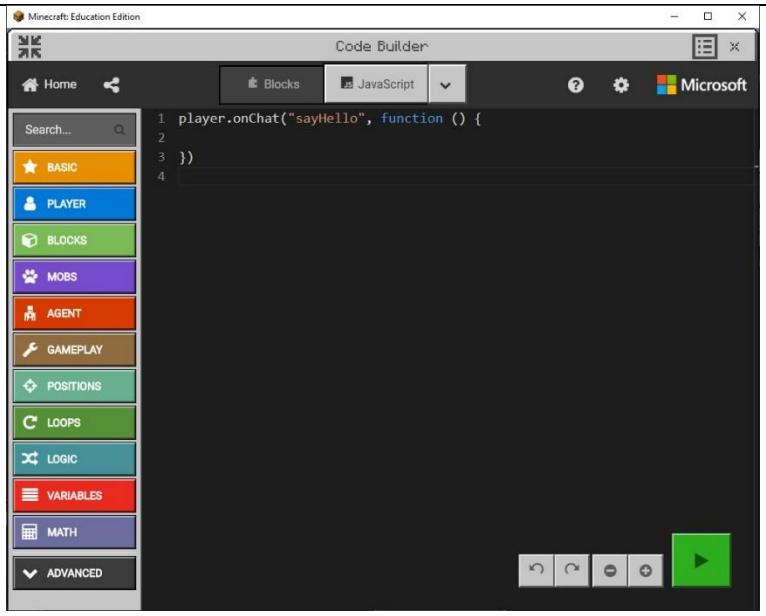
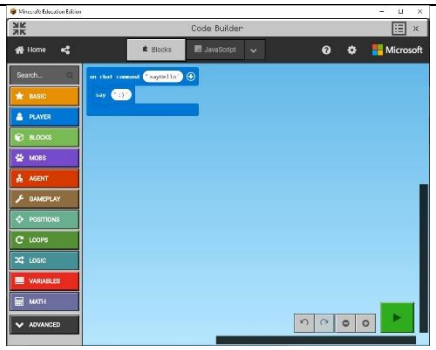
Coding in Minecraft – Advanced Coding Using JavaScript
Lesson 3 – JavaScript – Comparing MakeCode to JavaScript Activity

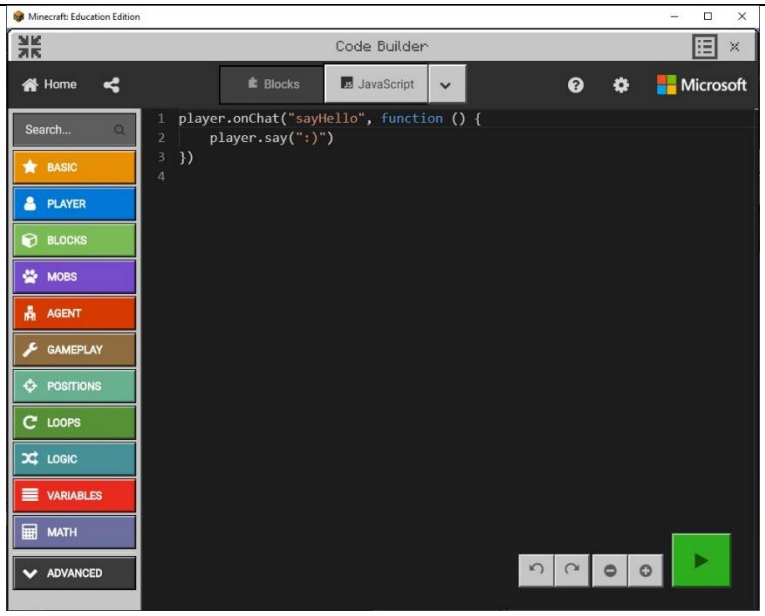
Instructions

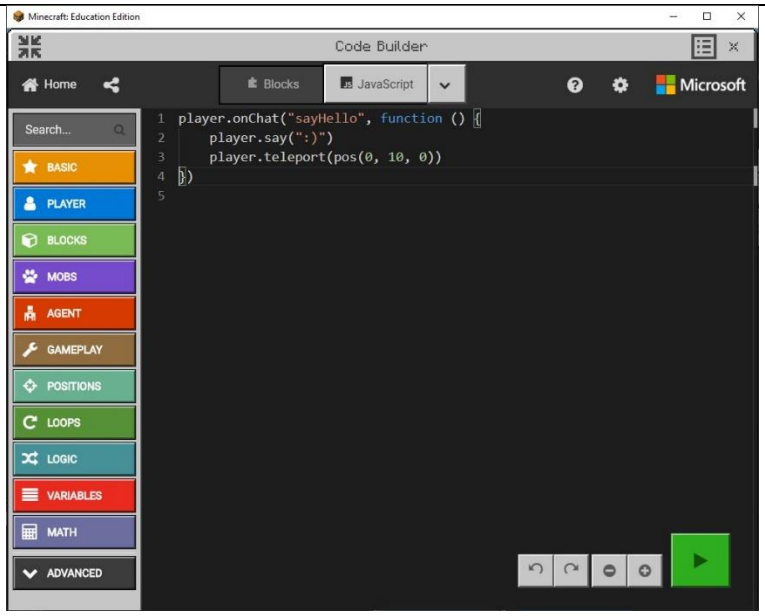
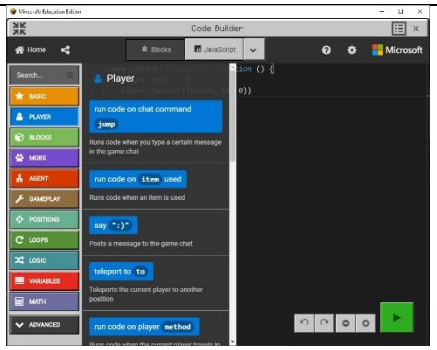
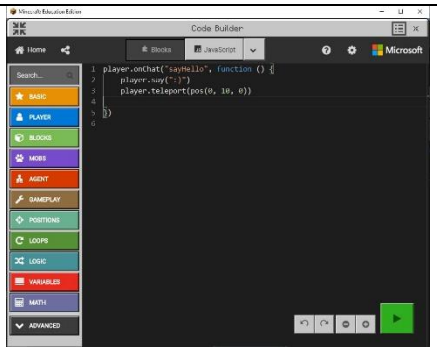
This worksheet is copy of the steps detailed in the Activity in the game to make it easier for you to follow along and try yourself.

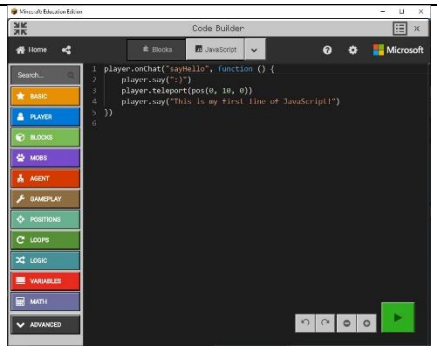
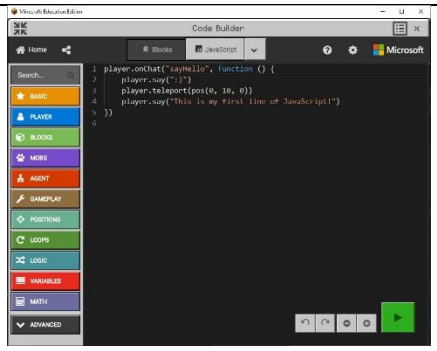
Step	Instructions
1	In this activity we will explore the JavaScript interface in Code Builder and compare various MakeCode blocks to JavaScript code. **Read through the whole tutorial and then try to perform the actions**
2	 In the Minecraft world click on the Blank Page button in the NPC labelled Comparing MakeCode to JavaScript.
3	 Click on the New Project icon to create a new MakeCode project When prompted set the project name to Lesson 3 Activity 1.

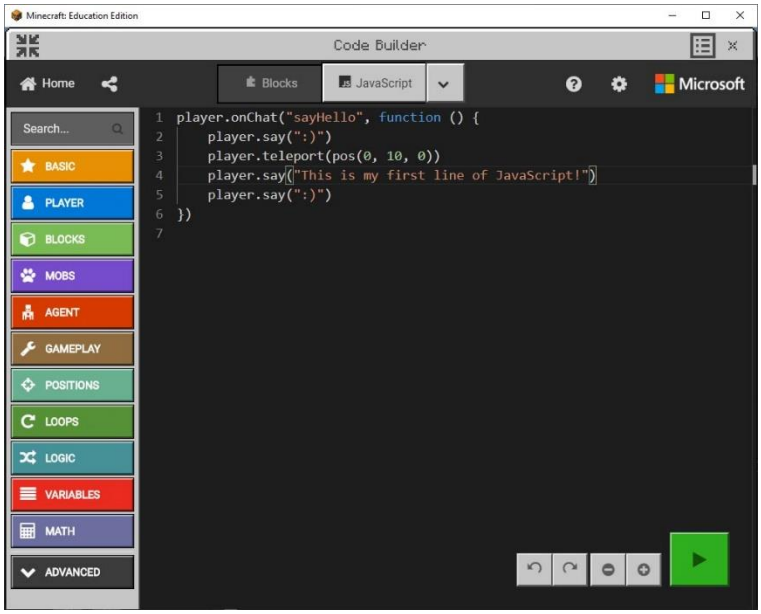
4		The default block-based coding editor with the default on chat command "run" block and on start block will appear. Change the event handler to respond to the command sayHello by changing the text run to sayHello
5		Click on the Convert code to JavaScript button to display the code in JavaScript.
6	Notice there are 2 lines of code with an empty line between. The first line of code starts with player.onChat - this is specifying that we want some code to run when a chat command is issued. Remember the blue on chat command came from the player drawer - notice that it's also coloured blue in JavaScript. Inside the brackets is where we can specify the chat command we want to respond to and the actions we want to perform when that chat command is used. These are known as parameters. The first parameter "sayHello" is the chat command we want to respond to. The second command is code we want to run when that command is issued and will contain a list of other commands when we build up what we want to happen when sayHello is issued.	

	
7	 Switch back to the block-based view by clicking on the Convert code to Blocks button. Add a player say ":)" block from the PLAYER drawer into the event handler.
8	Change back to the JavaScript view. Notice that a single line of code has been added at line 2 - this is the equivalent of the player say ":)" block. Again, as this block came from the PLAYER drawer the code starts with the word player. We want to make the player perform an action (say a word) so we call a function of the player called say. The say function takes a parameter (what to say) - this is the portion inside the brackets and as what we want to say is text it is enclosed in double quotes (" ").

	
9	 Switch back to the block-based view by clicking on the Convert code to Blocks button. Add a player teleport to ~0 ~0 ~0 block from the PLAYER drawer into the event handler and change the Y coordinate to 10
10	Change back to the JavaScript view. Notice that a single line of code has been added at line 3 - this is the equivalent of the player teleport to ~0 ~0 ~0 block. Again the teleport block came from the player drawer so the code starts with the word player and we want the player to be teleported therefore the teleport function is called. This function takes a parameter - where to be teleported to. This parameter is a coordinate.

		
11		Whilst in JavaScript view you can choose to either enter text into the editor window or drag blocks of JavaScript from the drawers like you did with MakeCode blocks
12		Add a new empty line to your code after line player.teleport(pos(0, 10, 0)) by placing your cursor at the end of that line and pressing the Enter key.

13		Enter the JavaScript code player.say("This is my first line of JavaScript!") on the new line.
14		Switch back to the MakeCode block view and notice there is now a player say "This is my first line of JavaScript!" block.
15		Switch back to JavaScript.
16	Create another empty line after the code player.say("This is my first line of JavaScript!") you just entered. Open the PLAYER drawer and notice there are a number of blocks just like in MakeCode blocks view. Find the block player say ":)" and drag it out and place it on the recently created empy line in your code. You should notice the code player.say(":)") has been added.	

	It can be tricky to position the JavaScript block easily so its best to just type JavaScript text into the editor. 
17	Return to the game and move onto the next Non Player Character