



SCRATCH

## Booklet 4

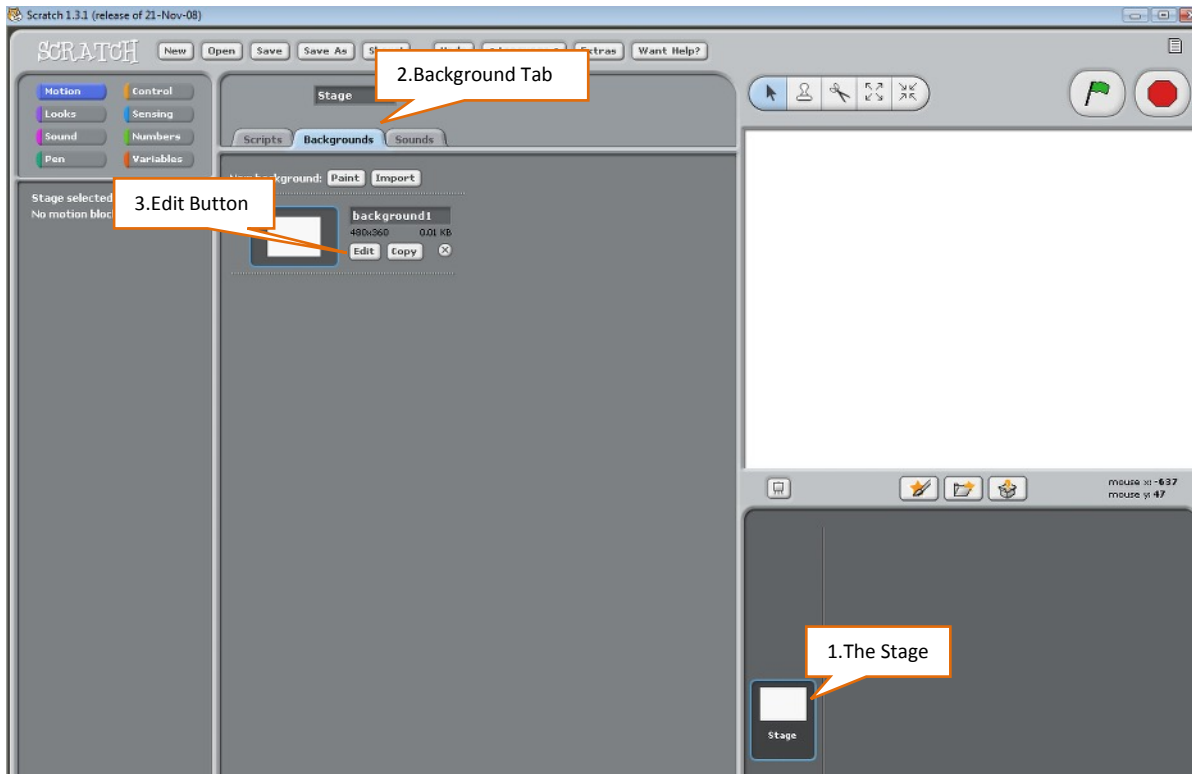
- Shark Attack Game
- Extension Activities



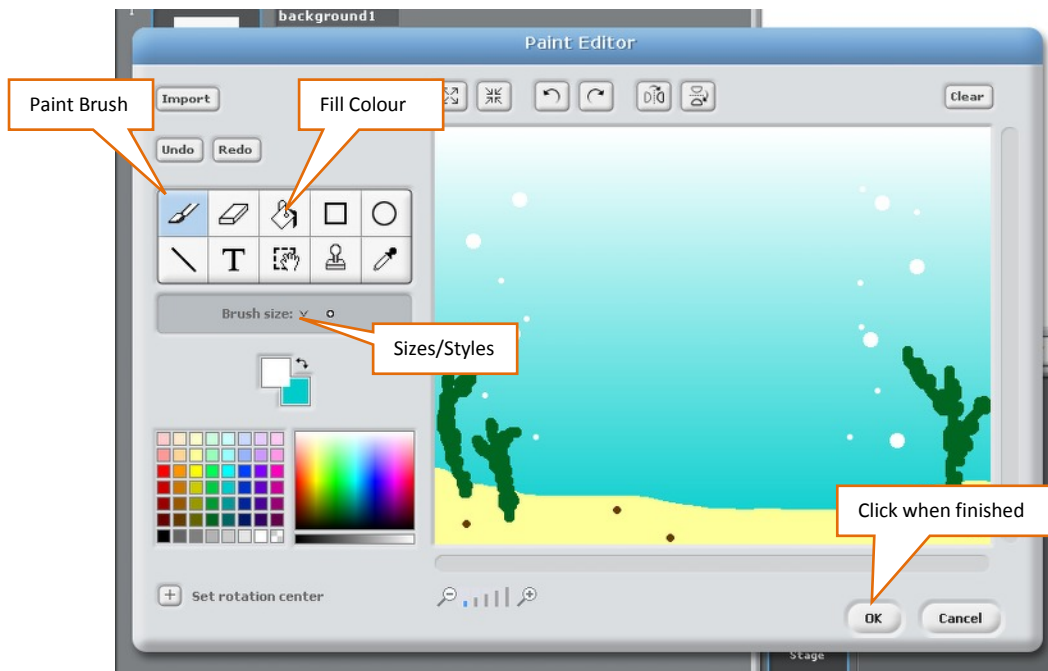
## Shark Attack Game

This guide has been design to help you create a simple game. Follow these step-by-step instructions to create an interactive game complete with scoring system. Complete the extension tasks to increase the difficulty.

### 1. Creating a Background

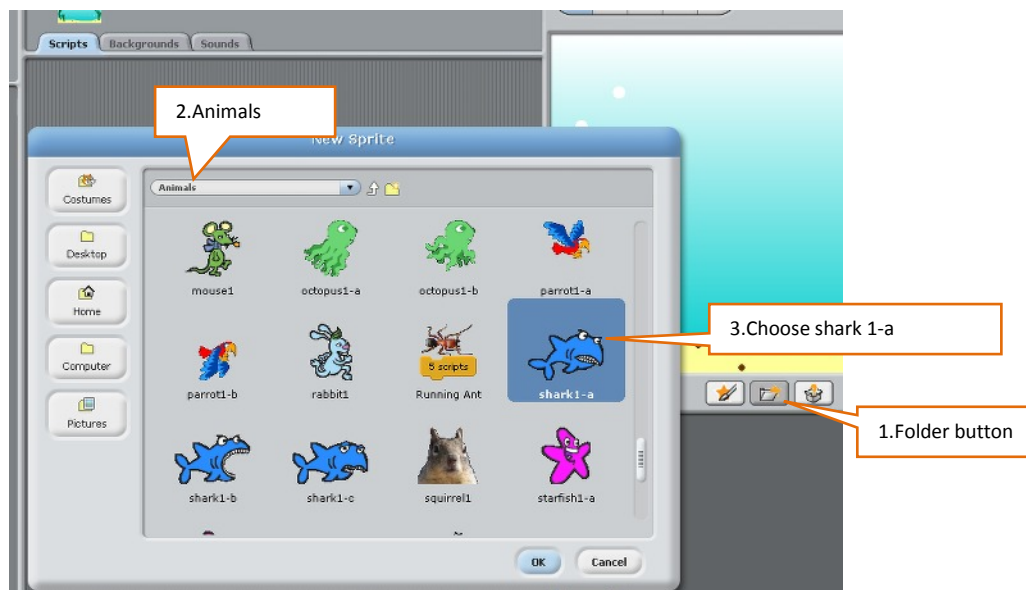


Click on the 'Stage'. In the central column click on the Background tab. Click the edit button.

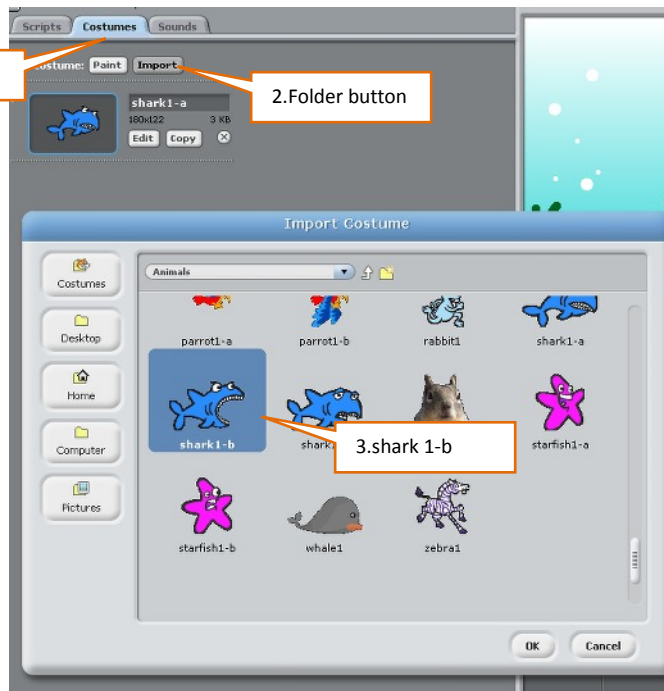


Once you have clicked the edit button the Paint Editor will appear (this is very similar to paint). Use the toolbar to create a suitable underwater background. Then click on.

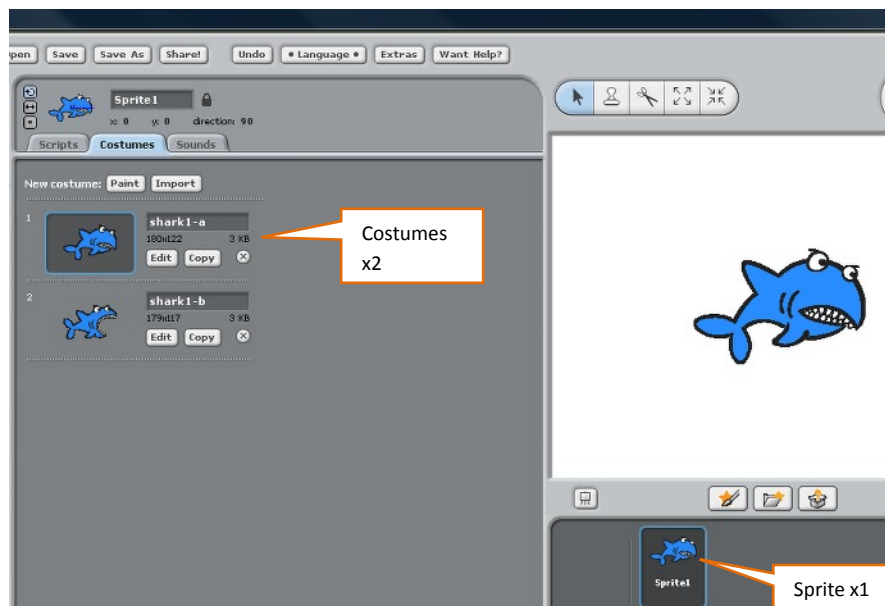
## 2. Making a Animated and Interactive Shark



Once the background has been created click on the folder button. Then choose the animals folder select shark 1-a and click ok.

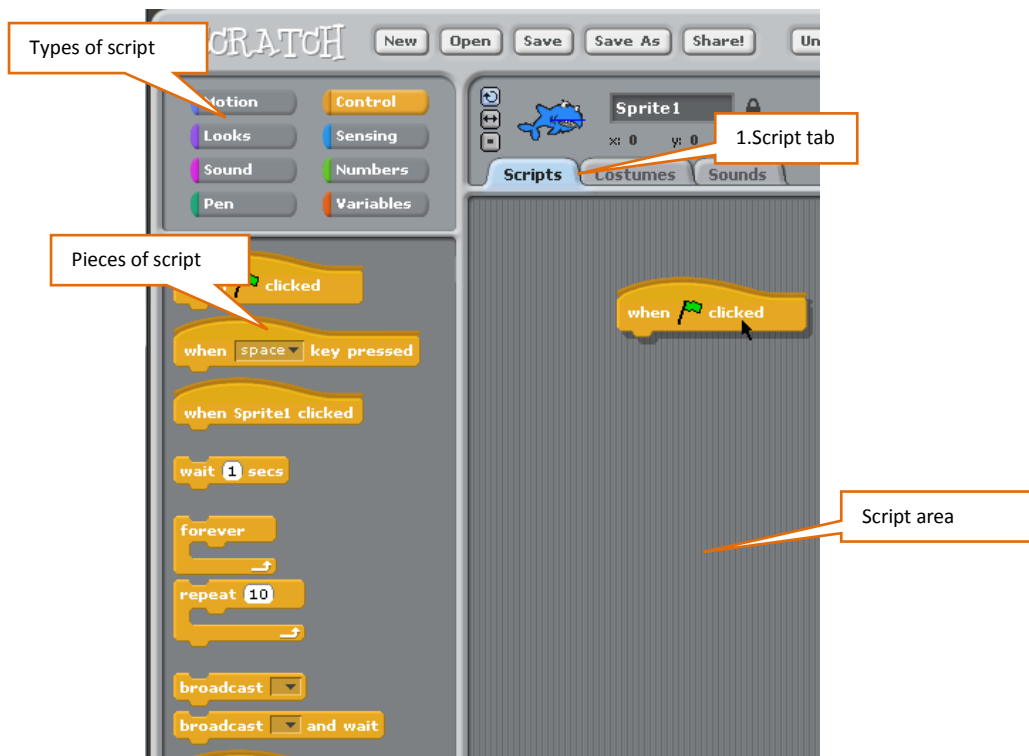


**While on shark 1-a** click on the costumes tab. Then import and select shark 1-b and click ok.

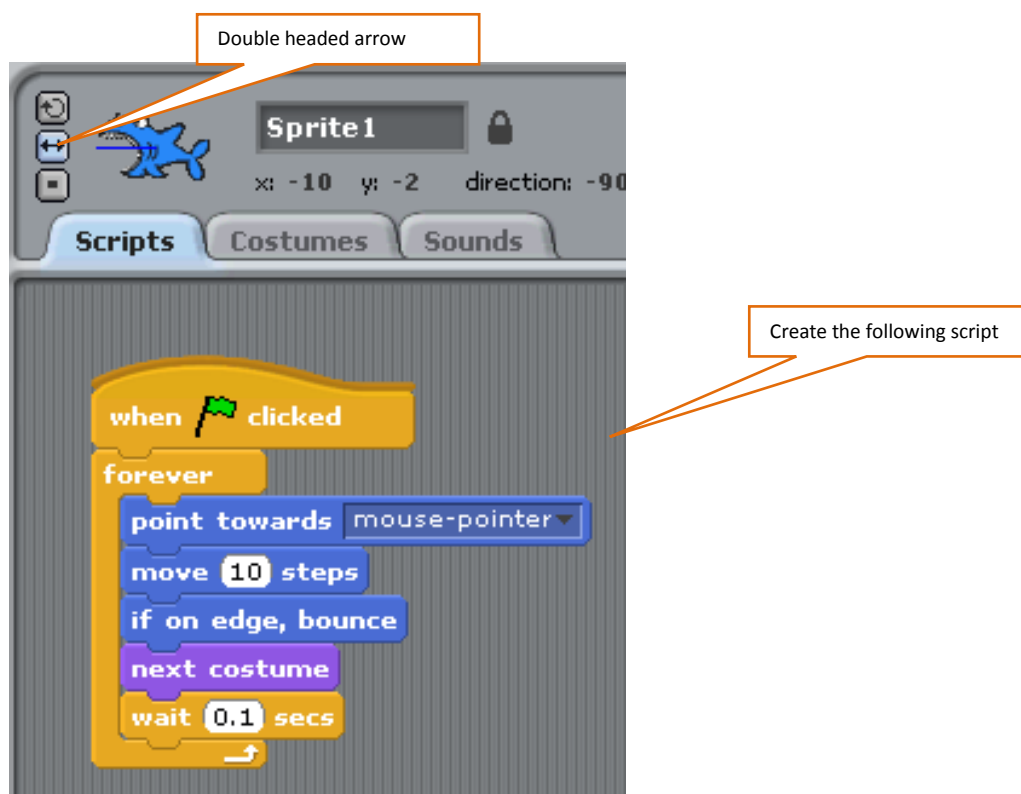


**Stop and Check**

If you have done this correctly you will have one 'sprite' but that one sprite will have two costumes.



You now need to give your shark sprite a script to follow. Click on the scripts tab. You can drag the pieces of script into the script area as seen below

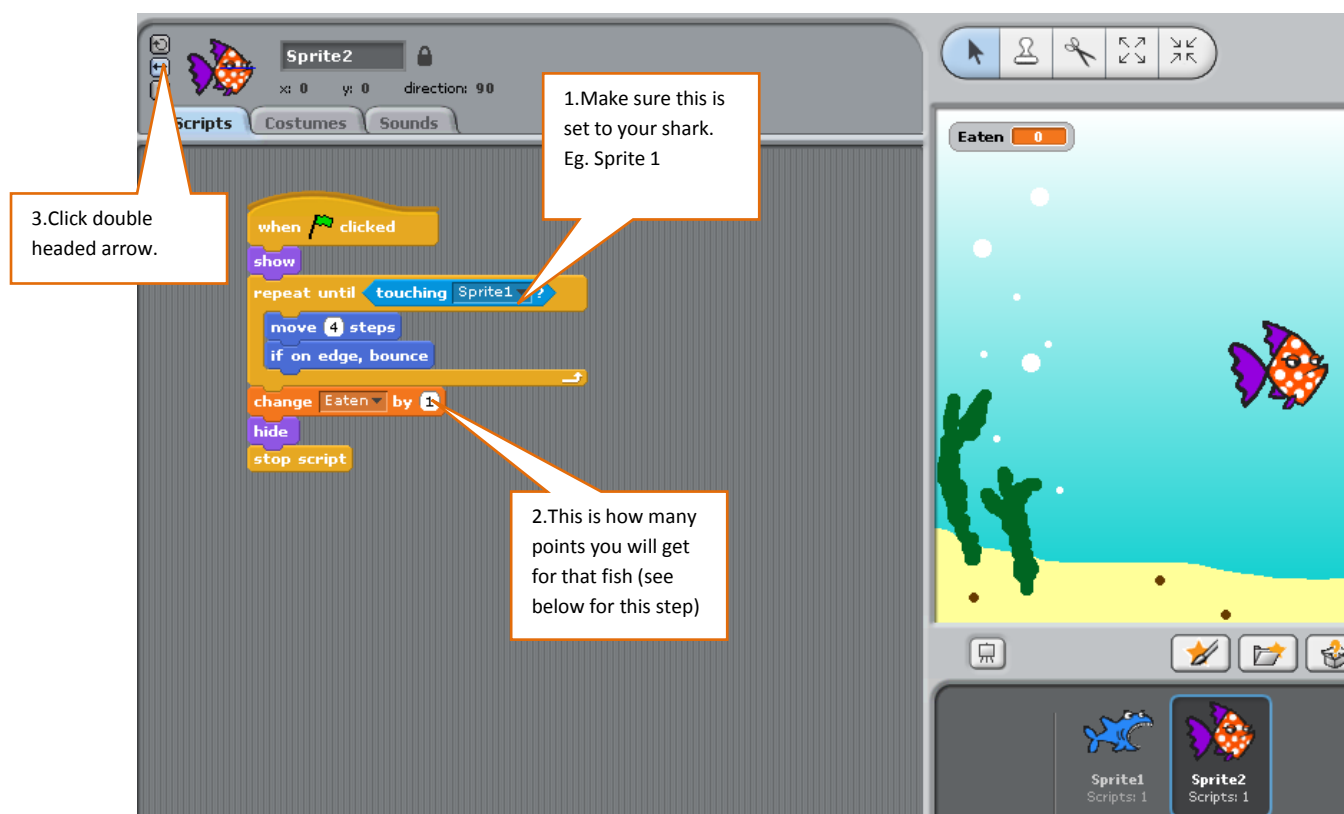


Give your shark the following script. Remember to click the double headed button or the shark will go upside down.

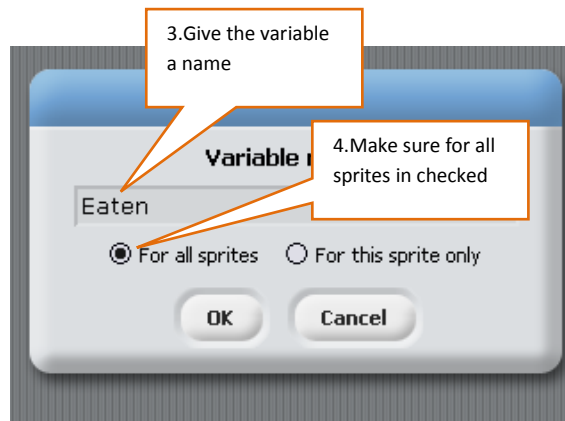
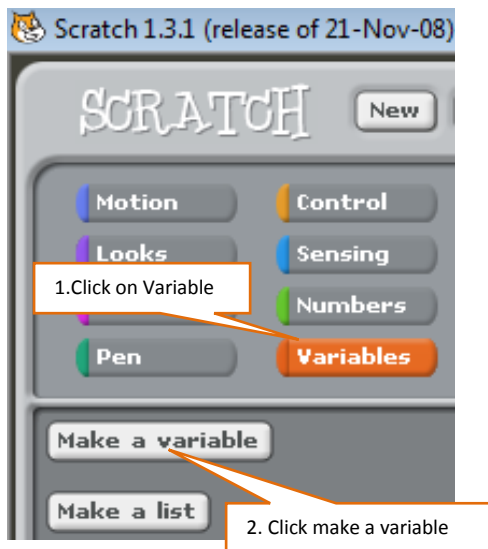
### 3. Inserting an Edible Fish



To insert a fish, click on the folder button. Choose a suitable fish, and click ok. You can then use the tool bar to resize the fish.



Use the script pieces, as shown above. You will need to create your own variable. Look below for an example.



When inserting the orange variable command, you will need to create the variable yourself. The variable name will appear on the scoring system, there something like 'Eaten' or 'Caught' would be suitable.

## 4. Duplicating Fish



You can the right click on a fish with a script and duplicate. This will save you re-doing the code every time. **Be aware** when duplicating the fish, sometimes they duplicate on top of each other. You might also consider change the number in the step part of the code this will make the fish swim quicker or slower depending on the number.

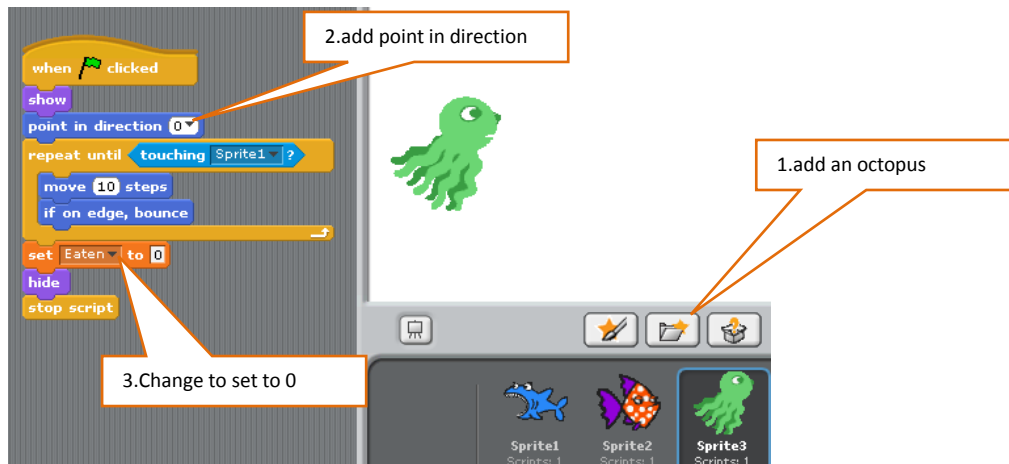
---



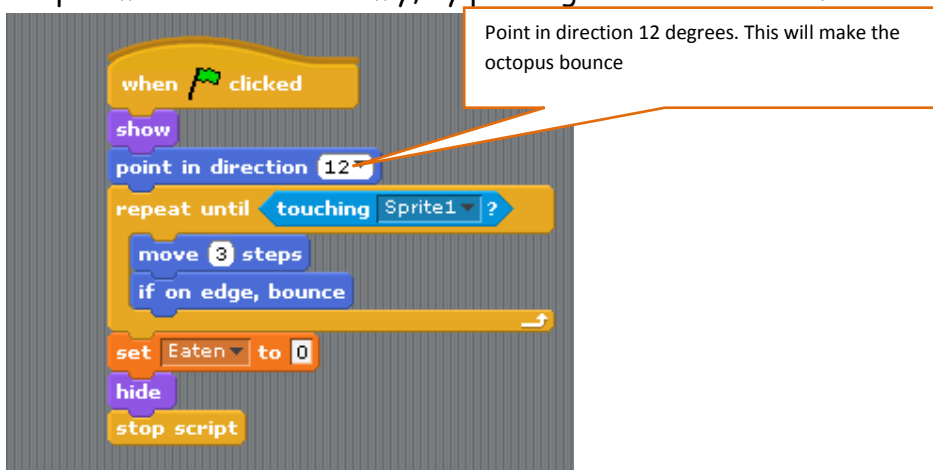
## Extension Tasks

To make your game harder there are several things you can do.

### 1. Adding an Octopus

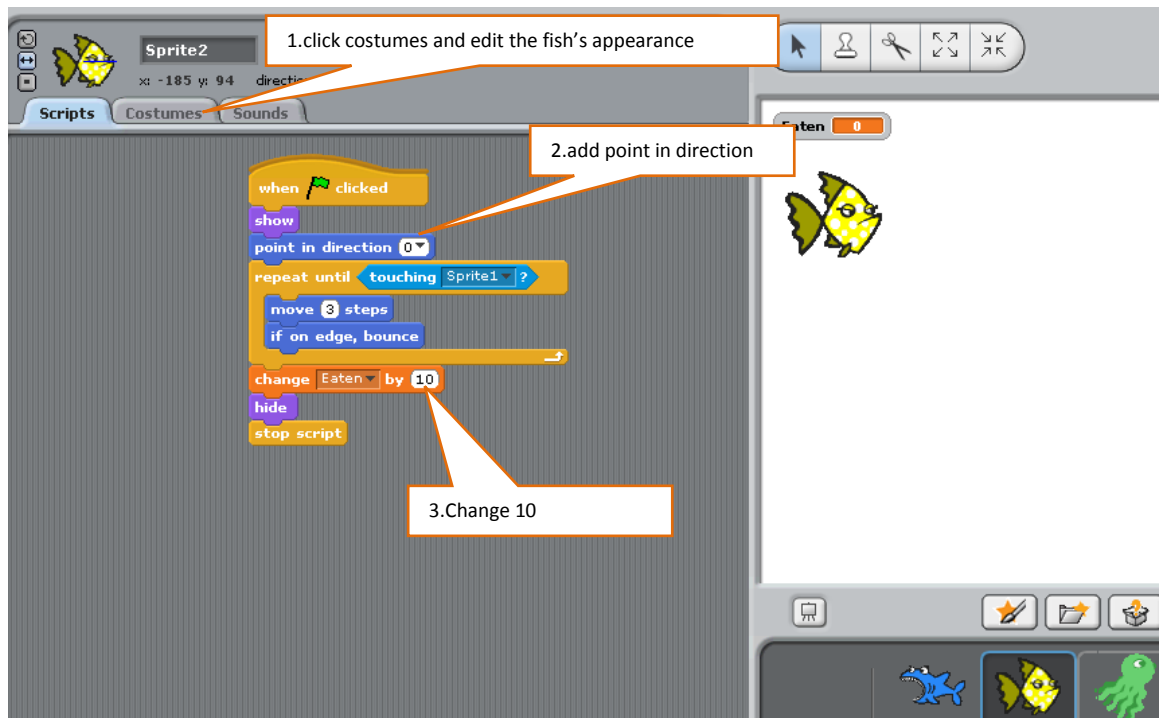


This means that if the octopus is eaten the points will set to zero. You can also make the octopus move around randomly, by pointing in a set direction.

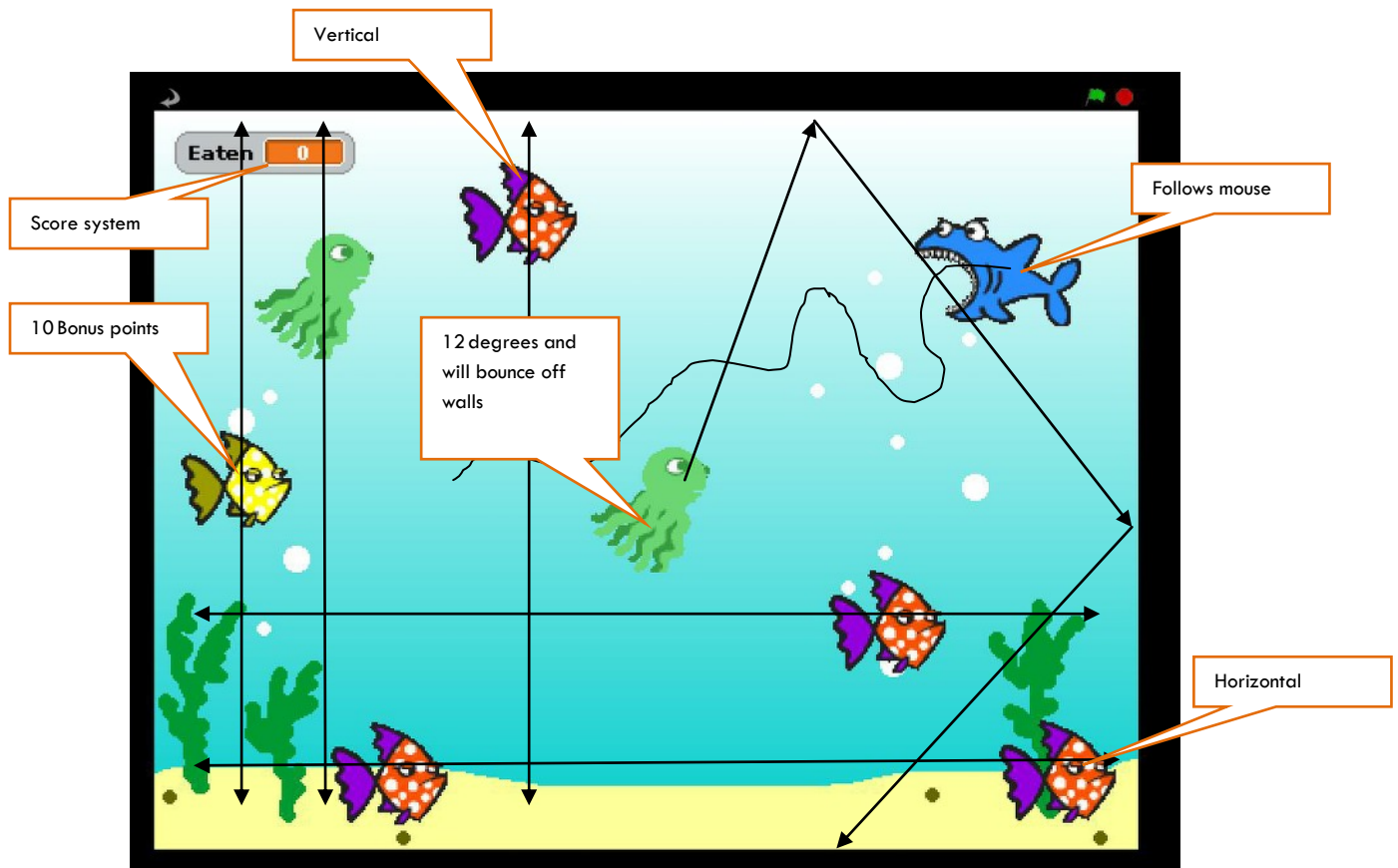


This code will make the octopus move randomly around the screen bouncing off the walls. If you eat the octopus your points will set to zero.

## 1. Adding Bonus Point Fish



Here you can design a special bonus fish worth 10 points. This script will make the fish move up and down and give 10 points. By clicking on the costume you can change this colour of the fish.



This view shows the game. The arrows show the directions the octopus and fish are set to move.

Now you can apply the same ideas  
and principles to create other games. This can be done using  
different backgrounds and characters with different scripts.

You could even create and customise your own characters!