Scratch Session 3
The Shark Fish-Eating Game

In this session we will:
Adapt our Fish Tank into a 'Shark-Fish Eating' game.

1 Import, animate and control
the shark
2 Add attributes to the fish
3 Scoring

Import a Shark sprite and design your game.

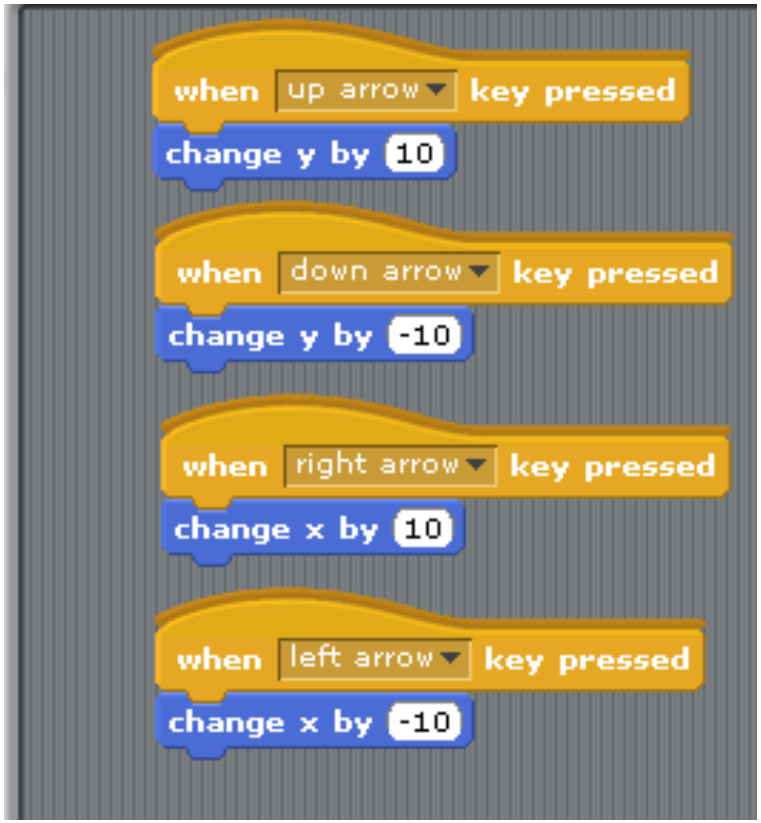
Select New Sprite and select Shark from the animals folder .

Rename your sprite Shark.

Shrink the sizes of your shark and fish to make the game more playable.

Think about what we want the game to do.

Control how the Shark sprite moves by key presses.



Drag 

onto the scripts area.
Edit the drop down menu as shown top left.
Drag a change y by 10 command from motion.
Test the shark control.

Add the rest of the commands as shown left and test them.
What is the meaning of the values that you are changing?

Improve how the Shark sprite moves.

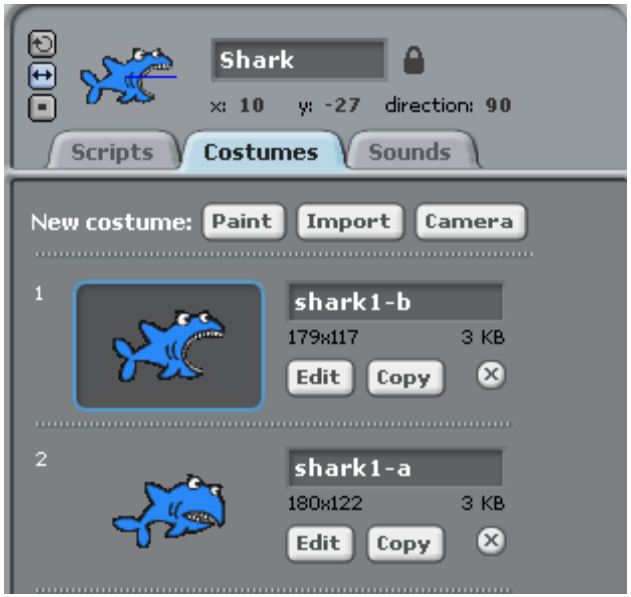
You tested how the shark sprite moves and it doesn't seem quite right.

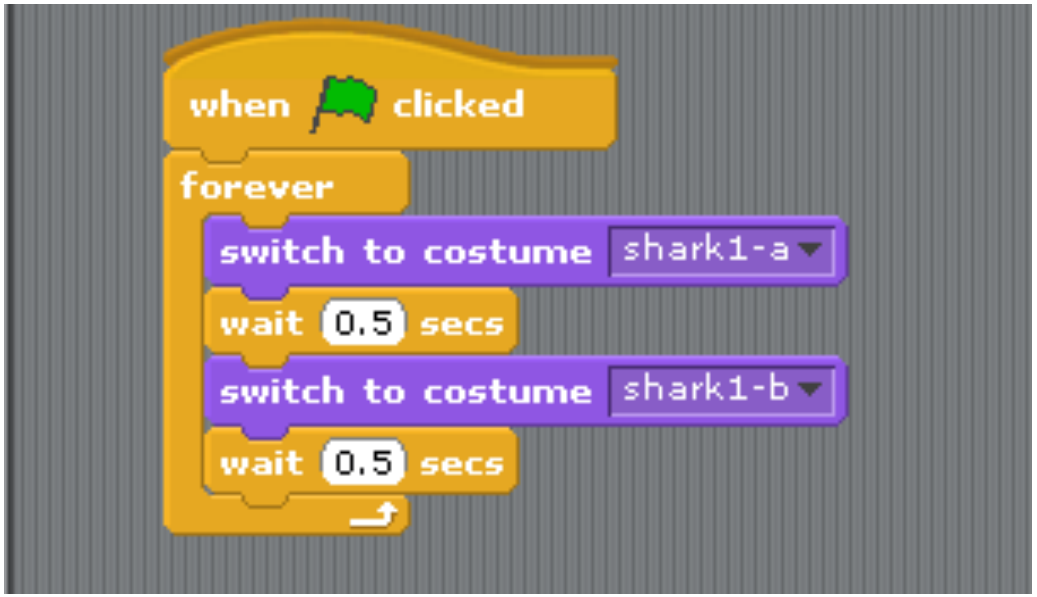
Drag a point in direction 90 command from motion and add it to the right arrow key command.

Drag a point in direction 90 command from motion and add it to the left arrow key command. Edit the value to -90.

Select the only face left-right command that you used previously to control the fish.

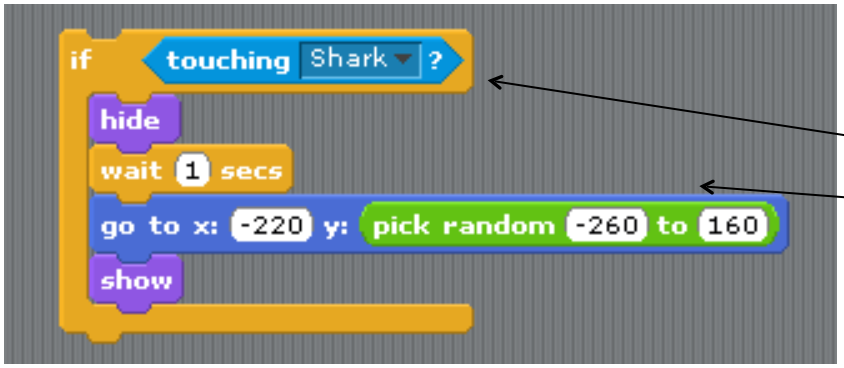
Animate the Shark sprite using costumes





Select the Shark sprite and the Costumes tab.
Import shark 1-a (shark 1-b is already there).
Switch to the Scripts tab and add the commands shown right - (below the commands you already have for the Shark).
Edit the wait command to make the animation run smoothly.

Make a fish disappear when eaten[1] and reappear in a random place[2].



Select your 1st Fish.
You need to add the code shown left.

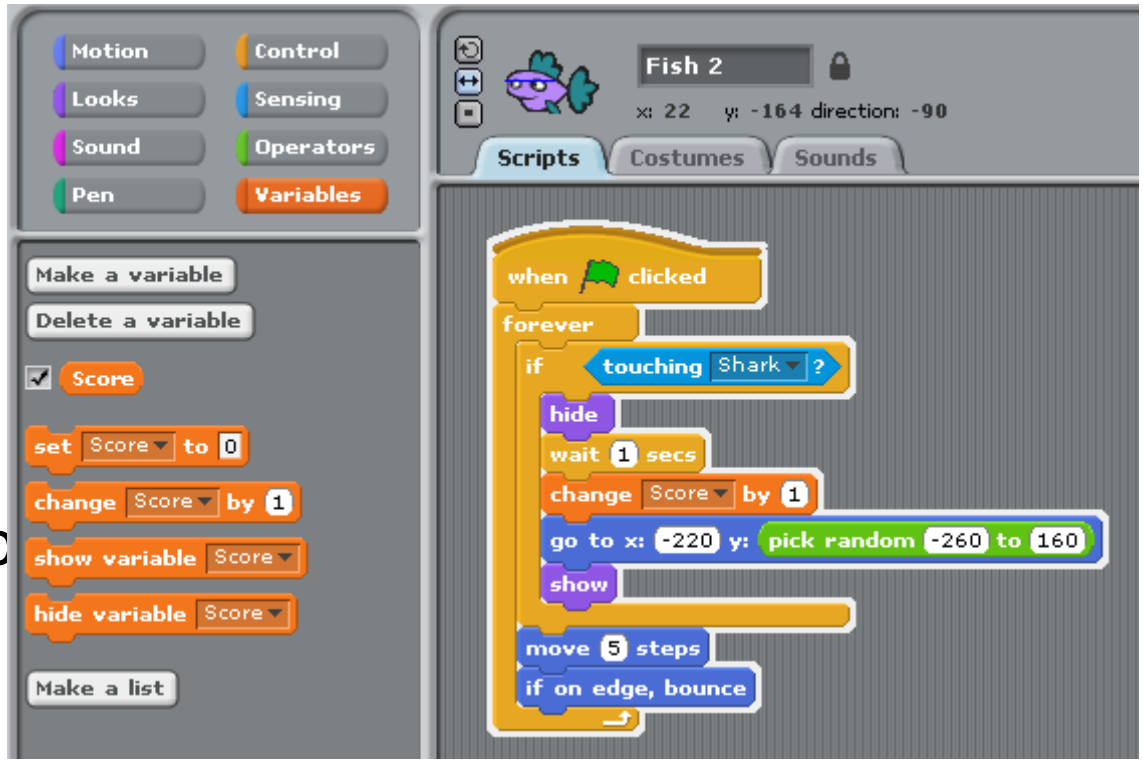
Test the code as you go along.
Add the new code to your existing code for this fish, and wrap a ‘forever‘ loop around it as shown right.
Explain what each piece of the code is doing.
We will apply this code to all the other fish…but not yet!

Add some scoring to your first fish

Select your 1st fish and sele Variables Enter the name of your variable ‘Score’ .

Drag a

block into your code fo this fish as shown.
Test your code.

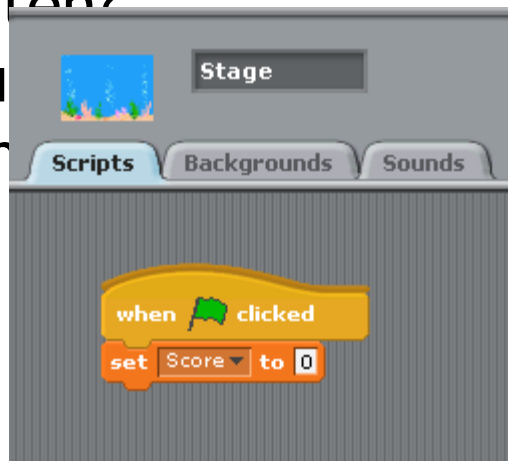


Add ‘fish disappear when eaten and reappear in a random place’ and ‘scoring’ to all of your fish.

Drag the coding for your 1st fish onto the 2nd fish sprite to copy the same code onto it.
Now you have two conflicting codes for your fish.
Delete the old set of blocks.
Do the same for all of your remaining fish.

Play the game and making it better.

How can you change the speed of each fish so that some move more quickly than others?
How can you alter the points score so that the ‘faster-moving’ fish are worth more than others?
How can you alter the points score so that you lose points if the shark touches the Crab or the Clam?
How can you add a sound when a fish gets eaten?
What does this code do…and why is it a useful addition to our game?
How can you set a countdown timer?
How do you create a ‘Game Over’ Screen?



Adding a countdown timer.

Select the Stage script.
Create a new variable and call
it countdown*
Add the Countdown variable and change the value to 30s.

Add the rest of the code as shown.
What does eacl block do?

Create a ‘Game Over’ screen.

Select the Stage - Backgrounds Tab.
Import the same Underwater image (imported as Underwater1) and select EDIT. In the Edit window you can paint / add text etc.
Add the text GAME OVER and click OK.
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