# **Fish Game**

### **Program Description**

In this game, the player controls a shark and attempts to eat yellow fish while avoiding the red fish. When each yellow fish is successfully eaten, the player's score increases by one. If the red fish is eaten, the score is reset to zero.

### **New Project**

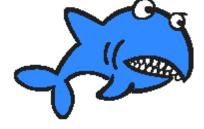
Create a new project Delete the default sprite (the cat).

# **Shark Object**

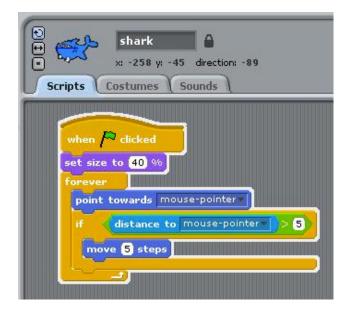


Import a new sprite and select the first shark. (shark1-a)

Name it: Shark



Add the following blocks to the <u>SHARK</u>



### **Code Explanation**

This block of code is executed when the green flag is clicked. The first thing that happens is the shark graphic is set to 40% of its original size. Then a forever loop begins. The shark turns so it always points toward the mouse arrow. If the shark is not at the mouse pointer, it moves toward the mouse. If the shark has reached the mouse pointer, it will not move.

# Yellow Fish Object

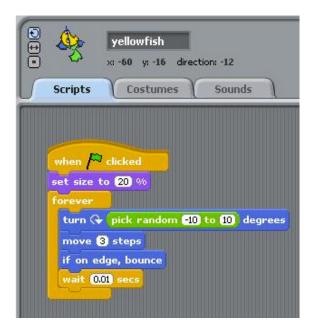
1

Import a new sprite and select the yellow fish. (fish3)



Name it: Yellow Fish

Add the following blocks to the YELLOW FISH

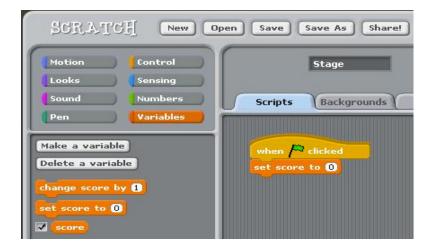


### **Code Explanation**

This block of code is executed when the green flag is clicked. The size of the yellow fish is set to 20%. A forever loop begins. The fish randomly turns slightly to the left (-10) or to the right (10). The fish then moves three steps. If the fish hits the edge of the screen, it bounces off so it stays on the screen. The fish pauses for .01 seconds and then the loop repeats.

# **Keeping Score**

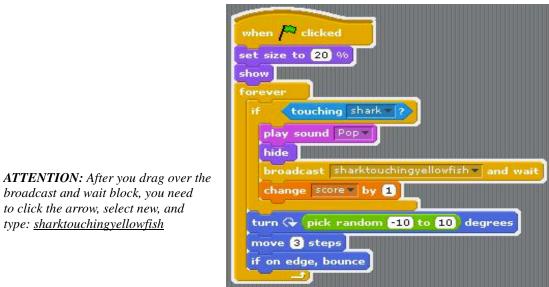
Make a variable named score. The variable should be available for all sprites. Select the STAGE and add the block of code.



# YellowFish Revisited

Now select the YELLOW FISH again.

Select the **sounds** tab and import a **Pop** sound (*in the effects folder*) Now click the scripts tab and change the code to match the following:



**Code Explanation** When the green flag is clicked, the score is set to 0. The first change to the yellow fish is to show it, or make sure that it is visible on the screen. The next change controls what happens when the shark touches the yellow fish. If the shark touches the fish, a pop sound is played, the fish is hidden, a message is sent to the shark object, and then the score is increased by one.

### Animating the Shark

Select the <u>SHARK</u> object and click costumes.

Import the shark that has it's mouth open. (shark1-b)

Now import another shark costume and select the sick looking shark. (shark1-c)



Click the scripts tab and add the following block of code to the SHARK

when I receive sharktouchingyellowfish -		
repeat 3		
change color v effect by 25		
switch to costume shark1-b		
wait (0.01) secs		
switch to costume shark1-a		
clear graphic effects		

### **Code Explanation**

When the shark eats the yellow fish, it changes colors and alternates between the opened and closed mouth costumes. The sad shark graphic is not used yet but will come into play later.

# Yellowfish Re-revisited

$\sim$		
when 🏴 clicked		
set size to 20 %		
show		
forever		
if touching shark ?		
play sound Pop		
broadcast sharktouchingyellowfish and wait		
change score v by 1		
hide		
wait pick random 1 to 5 secs		
if pick random 1 to 2 = 1		
go to x: -240 y: pick random -190 to 190		
point in direction pick random () to 90		
else		
go to x: 240 y: pick random -190 to 190		
point in direction pick random (0) to -90		
show		
turn 🗣 pick random -10 to 10 degrees		
move 3 steps		
if on edge, bounce		

Select the <u>YELLOWFISH</u> again and modify the code once more:

Right-click the yellow fish in the lower right window and select: duplicate. Repeat this step a few times until you have about 5 yellow fish.



### **Code Explanation**

If the shark eats the yellow fish, the fish disappears. After between 1 and 5 seconds, the yellow fish reappears in a random location on the screen and points in a random direction. Each time you copy the fish object, you are also making a copy of all of the code that is linked to it. This will create multiple fish for your shark to eat.

# The Dreaded Red Fish

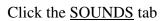
Make one more copy of one of the yellow fish.

Rename the fish: <u>REDFISH</u>

Click the COSTUMES tab and then click IMPORT

Import the red fish (fish4)

Delete the yellow fish costume by clicking the X



Import the WolfHowl sound (in the Animal folder)



	Import Sound
Computer	Animal
	🗂 Kitten
basbeck	Owl
	🖞 Rooster 🗂 SeaLion
Desktop	1 WolfHowl
Counds	

Now click the <u>SCRIPTS</u> tab

Change the play sound to: WolfHowl Change the broadcast message to: sharktouchingredfish (click the arrow, select new, and type the message) Remove the change score block and add a block to set the score to 0

† <	
play	sound WolfHowl
broa	dcast sharktouchingredfish 💌 and wait
set	score 👻 to 🔟
hide	
wait	pick random 1 to 5 secs
if	pick random $0$ to $2 = 1$

# **Re-revisiting the shark**

Add the following to the SHARK

when I receive sharktouchingredfish -
change color v effect by 25
switch to costume shark1-c
wait 2 secs
clear graphic effects

### **Code Explanation**

If the shark eats the red fish, the wolf howl sound is played, the red fish send the shark a message, and the score is set to 0. The shark then changes to the sad face for 2 seconds.

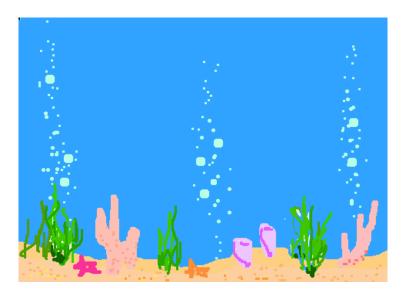
# THE MOST IMPORTANT PART

Select the <u>STAGE</u>

Click the Costumes tab

Import the underwater scene (in the Nature folder)

Delete the white background by clicking the X



HAVE FUN PLAYING!