Scratch Level 1: Code Your Own Game
TUTORIAL #3: Score & Lives

*This tutorial will help you:
- ✓ Create *variables* for score and lives.
- ✓ Increase score and decrease lives when sprites interact.

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STEP ONE:

_____ **Open the Scratch project you created for Tutorial #2.** (Remember that in Tutorial #2, we coded an interaction between the two sprites.)

STEP TWO:

_____**Create a variable called "Score".** Go to the Data category (orange) and click "Make a Variable". Name your variable "Score", and choose "For all sprites". You'll now see new orange blocks in the Data category:
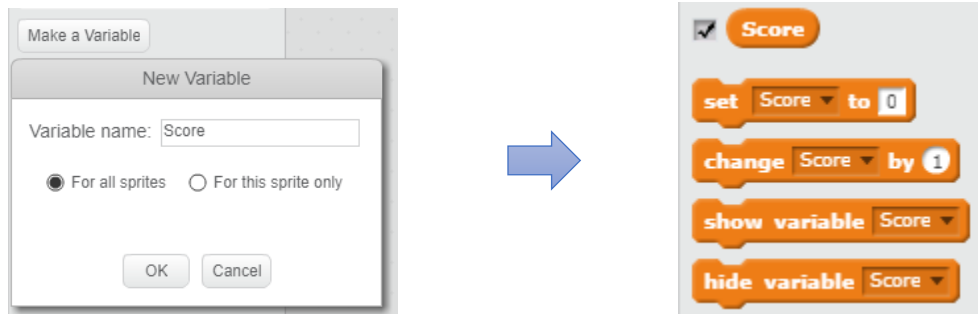
STEP THREE:

_____**Create a variable called "Lives".** Follow the same steps you used to create your score variable. When you've finished, you'll see an orange "Lives" block in the Data category.

STEP FOUR:

_____**Add a point (increase the score) when the red fish touches the yellow fish.**

Click on your yellow fish. You should see your code from Tutorial #2. Add the block *"change Score by 1"* inside the if/then block. This will add a point to your score each time the red fish touches the yellow fish.
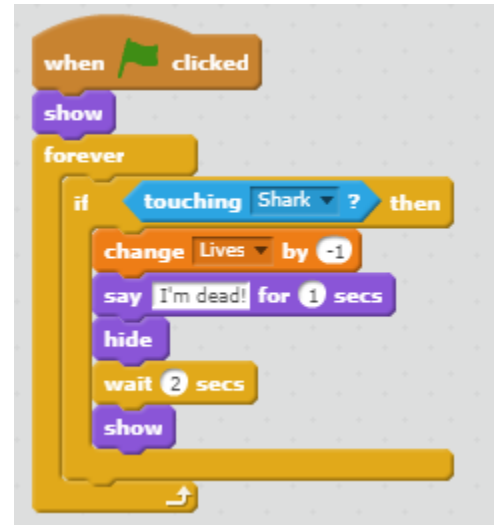
STEP FIVE:

_____**Add a new shark sprite.** We need a bad guy for our game. Add a shark to your project. If the shark touches the red fish, we'll take away one of our lives.

New sprite: Choose sprite from library

STEP SIX:

_____**Add this code to your <u>red fish</u> to decrease lives when the red fish touches the shark.** Click on your red fish. Add the block *"change Lives by -1"* inside the if/then block. This will take away a life each time the red fish touches the shark.
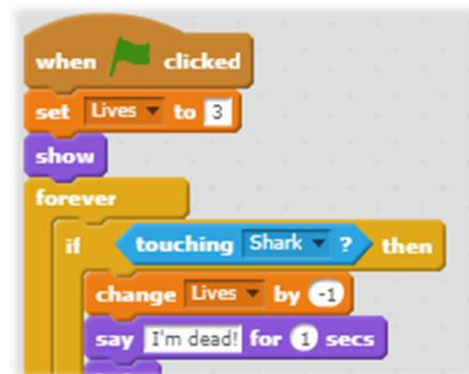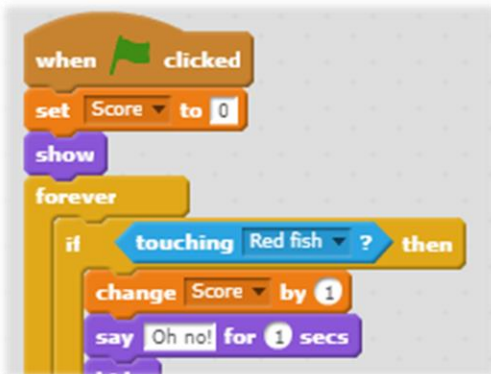
```
when [flag] clicked
show
forever
  if  touching Shark ?  then
    change Lives by -1
    say I'm dead! for 1 secs
    hide
    wait 2 secs
    show
```

STEP SEVEN:

_____**Wait—how do I reset my score and lives??**
Add the code blocks *"set Score to 0"* and *"set Lives to 3"* right under the orange event block.

Remember that you'll add these blocks to different sprites. Try to guess which code goes with which sprite!

```
when [flag] clicked
set Score to 0
show
forever
  if  touching Red fish ?  then
    change Score by 1
    say Oh no! for 1 secs
```

```
when [flag] clicked
set Lives to 3
show
forever
  if  touching Shark ?  then
    change Lives by -1
    say I'm dead! for 1 secs
```

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IF TIME PERMITS: EXTENSION TASKS

_____ See if you can restrict a sprite's motion to a specific zone/area. Use your knowledge of position (x and y coordinates) and conditional statements to sense where your sprite is!