Scratch Level 1: Code Your Own Game
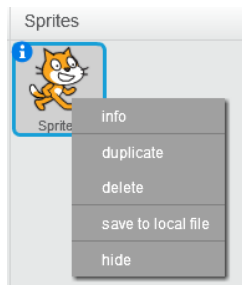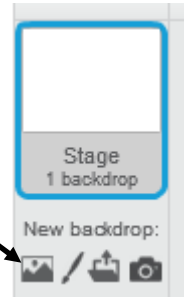# TUTORIAL #1: Motion

*This tutorial will help you:
- ✓ Add sprites to your stage and insert code.
- ✓ Code your sprite to move around the stage using arrow keys.

STEP ONE:

_____Please **insert a new backdrop** into your file by clicking the landscape icon.

STEP TWO:

_____**Delete the cat sprite** by right clicking the image and selecting "delete". (On a Mac, hold down the control button and click on the bottom right of the mouse pad to right click.) You can also delete a sprite using the scissors tool at the top of your screen.

STEP THREE:

_____**Insert a new sprite** from the category "*Animals*". We are building an undersea game, so we will choose a fish, but you can choose a different animal if you like.

STEP FOUR:

_____Please **review the helpful hints** below:

★ HELPFUL HINTS

How can I change numbers within blocks?
Click on the number with the mouse and type in the value you need.

Need to delete a block?
Drag the block from the scripts area back into the palette.

Accidentally delete a block?
Just click on "Edit" and "Undelete" from the top left corner.

STEP FIVE:

_____**Add this code sequence** into the scripts area by dragging the blocks in order.

BE SURE
TO USE
**"CHANGE
BY Y"** HERE!

```
when up arrow ▾ key pressed
change y by 10
```

```
when down arrow ▾ key pressed
change y by -10
```

BE SURE TO
TYPE "**-10**"
AND NOT
JUST "10"!

```
when left arrow ▾ key pressed
change x by -10
```

```
when right arrow ▾ key pressed
change x by 10
```

IF TIME PERMITS: EXTENSION TASKS

_____ What happens when you change the x and y values by 50 and -50 instead of 10 and -10?

_____ Can you make your animal sprite really large and have them start their motion in the top right corner of the stage?

_____ Try this code to make your sprite jump up and down in place. What would happen if you did not use the forever loop?

```
when [flag] clicked
set size to 60 %
go to x: 0 y: -120
forever
    if key right arrow ▾ pressed? then
        change x by 10
    if key left arrow ▾ pressed? then
        change x by -10
    if key up arrow ▾ pressed? then
        repeat 4
            change y by 10
        repeat 4
            change y by -10
```