

## Coding Sheet

### Introduction:

This document contains step-by-step instructions on how to code a sprite that reacts to the mouse pointer and makes a noise using Scratch. This document starts at the point where you have created a new project in Scratch using the “Create” link on the upper left-hand side of the site.

A fully functional version of this code can be found by copying this URL into a browser.

<https://scratch.mit.edu/projects/421024646>

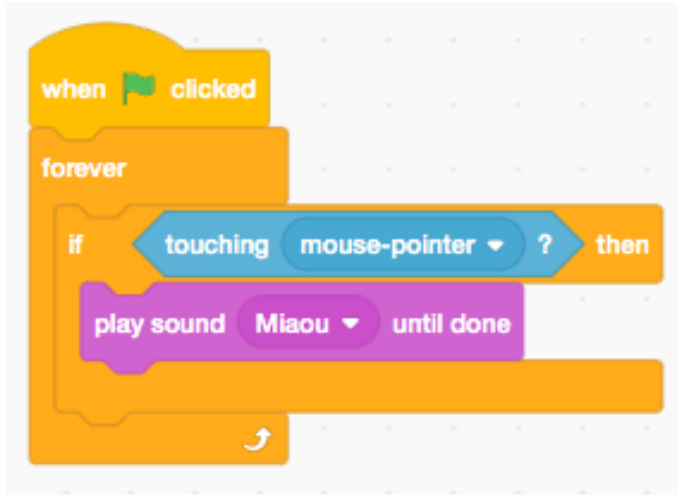
First, have students create a Loop by attaching a repeat block from the **Control** section to a “When flag clicked” block from the **Events** section.



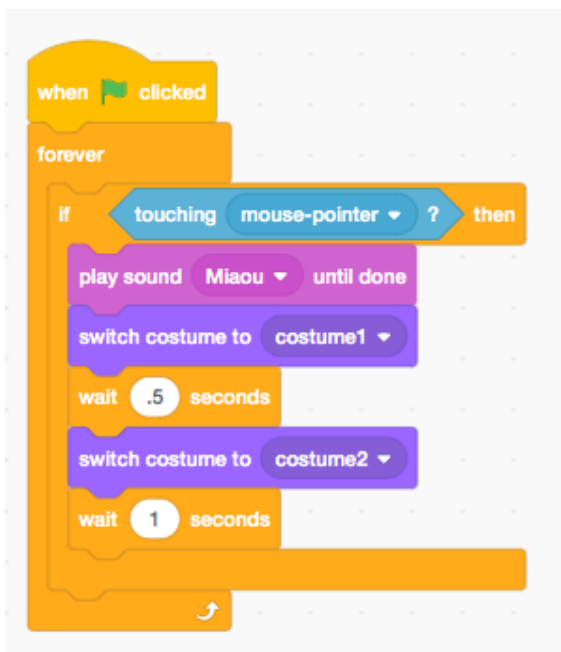
Next we’ll attach a “if” block from the **Control** section and add a “Touching” block from the **Sensing** section and set it to “Mouse pointer” after slotting it into the open hexagon slot on the “if” block.



In the “If” block we’ll now add a “Play sound until done” block from the **Sound** section it will be set to a default sound. Once the block is placed have students test to see if their code works by hovering over the cat sprite after clicking the **Green flag** to start the program.



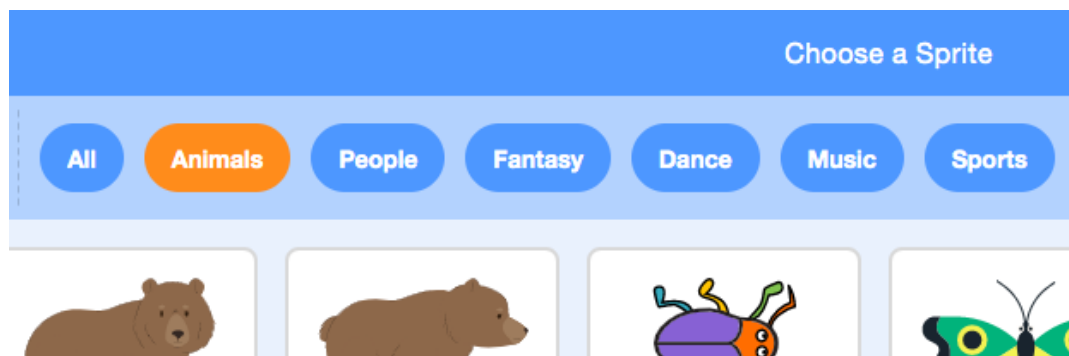
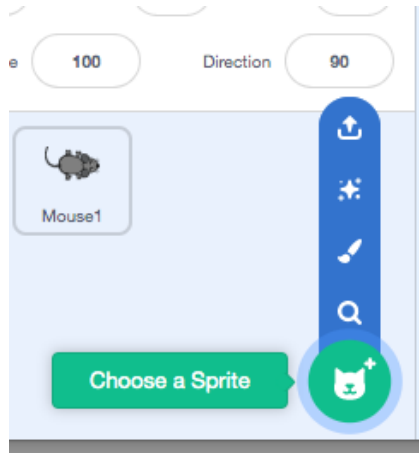
Next we’ll add a fun animation to the sound so that the Sprite reacts to making the noise. From the **Looks** section add a “Switch Costume” block and have the students choose which costume to change to by selecting anything but costume A. Then insert a wait block from the **Control** section and set it to .5 seconds, this will allow the animation enough time to go off before adding another “Switch Costume” block and setting it back to Costume A, when adding another Wait block to avoid having the sound play over and over again too quickly, you can set this block to 1 second. Now your Sprite is fully coded.



### Adding more Sprites and sounds:

This section will explain how to add more Sprites and how to record your own sounds to complete the activity.

Add a sprite by clicking the blue circle in the sprite section. You can sort the sprite by selecting Animals at the top. Simply click on the animal you want to add to your program and it will appear.



You can copy the code from your Cat sprite by dragging the code inside to the sprite section and hover it over the sprite you want to copy it too. **It will wiggle when it's ready to copy.**

Next to record your own sounds, click on the sprite you want to make the sound, then click on the Sounds tab on the top of the screen. In that section you can click on the blue circle and select the Record icon to record your own sounds. You record by hitting the big red button. Once your sounds are recorded you can change the sound in the code by selecting the drop-down menu on that sound block.

