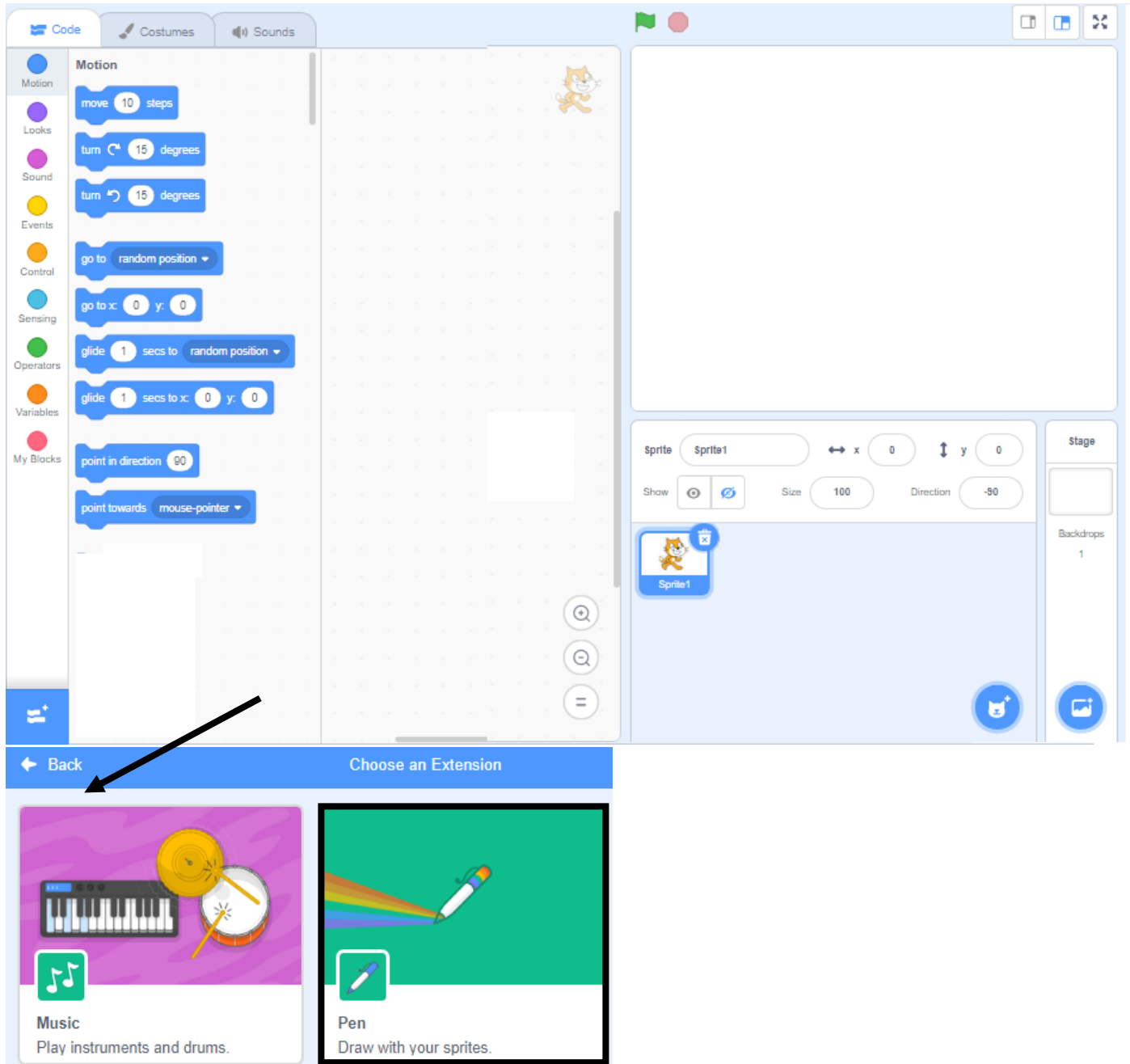


Grade 6 - Scratch Geometry - Rectangles

1) Go to the Extensions and click to add the **Pen** blocks menu.



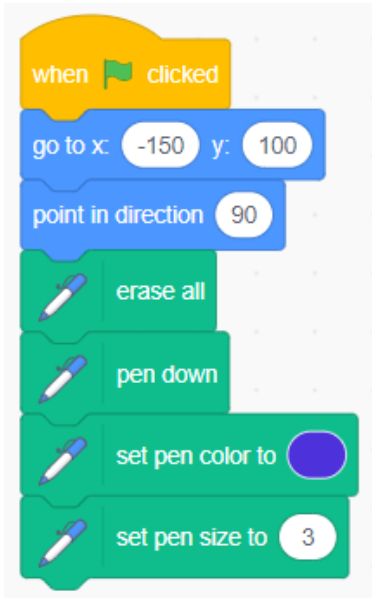
The image shows the Scratch interface. The top bar includes 'Code', 'Costumes', and 'Sounds' tabs. The left sidebar lists various block categories: Motion, Looks, Sound, Events, Control, Sensing, Operators, Variables, and My Blocks. The main workspace is empty. The bottom right panel shows the Sprite area with 'Sprite1' selected, and the Stage area with 'Backdrops 1'. A blue bar at the bottom contains a 'Back' button and a 'Choose an Extension' button. An arrow points from the 'Choose an Extension' button to a pop-up menu. This menu has two options: 'Music' (Play instruments and drums.) and 'Pen' (Draw with your sprites.). The 'Pen' option is highlighted with a black border.

Resize your sprite to size 50.

Click the Events blocks menu. Add Event **when green flag clicked**.



Add the following start up blocks.



Add an extra Pen block **erase all** off to the side as a handy way to erase whenever you need to clear the stage of all pen drawings.

Add Pen block **set pen colour** to _____ [you choose the colour].

Add Pen block **set pen size** to 3. [Do not use change pen size.]

Your challenge is to use the move and turn Motion blocks to create a rectangle with each horizontal side equal to 200 steps and each vertical side equal to 100 steps.

When you have completed your rectangle show Mr. Desmond what you have done.

2) Your challenge is to create a new rectangle that is substantially different than the rectangle you created above.

Show Mr. Desmond.

3) Your challenge is to create a rectangle inside of a rectangle.

The two rectangles cannot be connected so you will need to explore how the pen up block works.

Both rectangles should be centered in relation to each other.

It would be easiest to make the big rectangle first.

Think about where the big rectangle started and ended.

How would you move from where the big rectangle ended to where the smaller rectangle will start so that you can make a smaller rectangle inside the bigger rectangle?

Show Mr. Desmond.