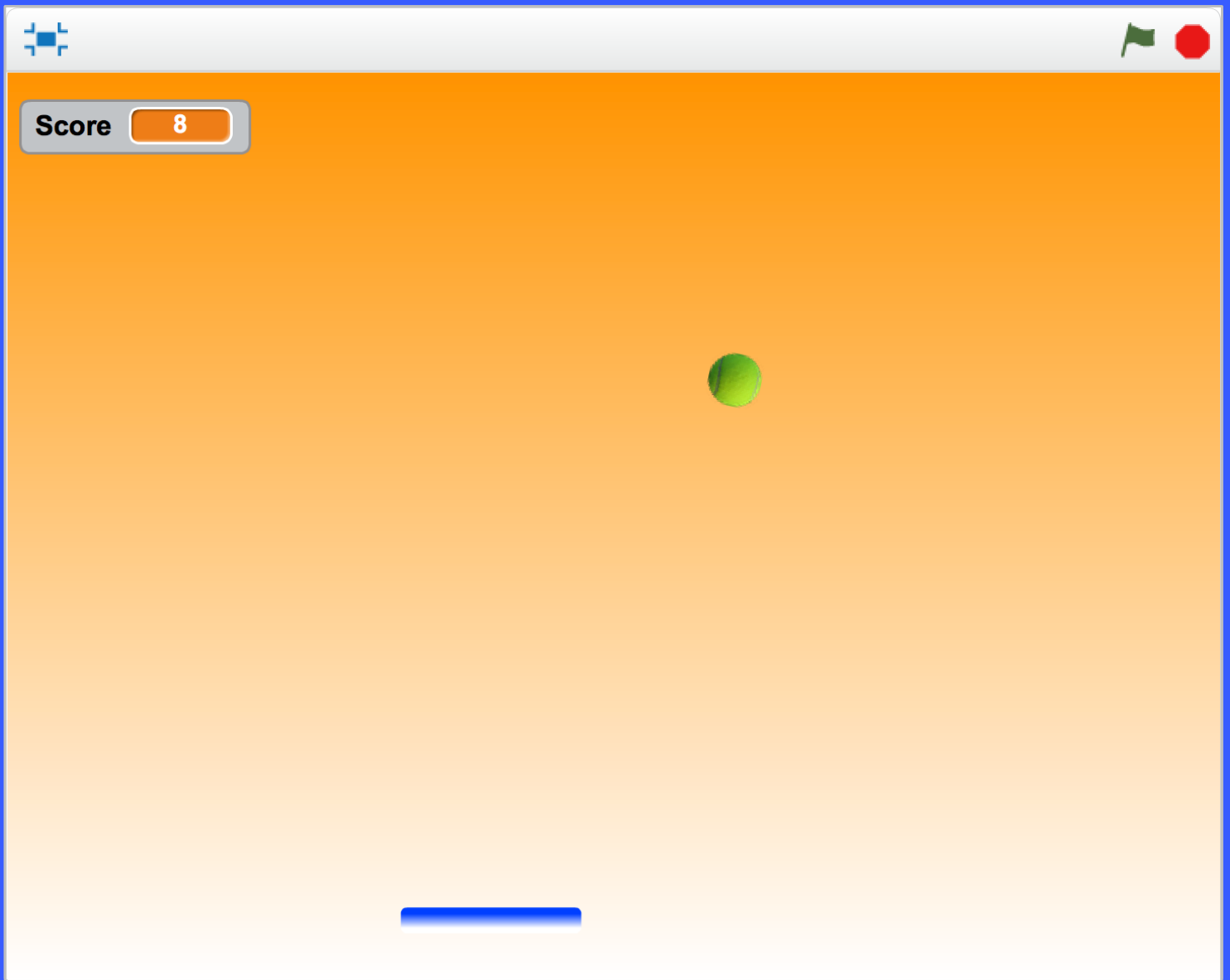


Paddle Bounce

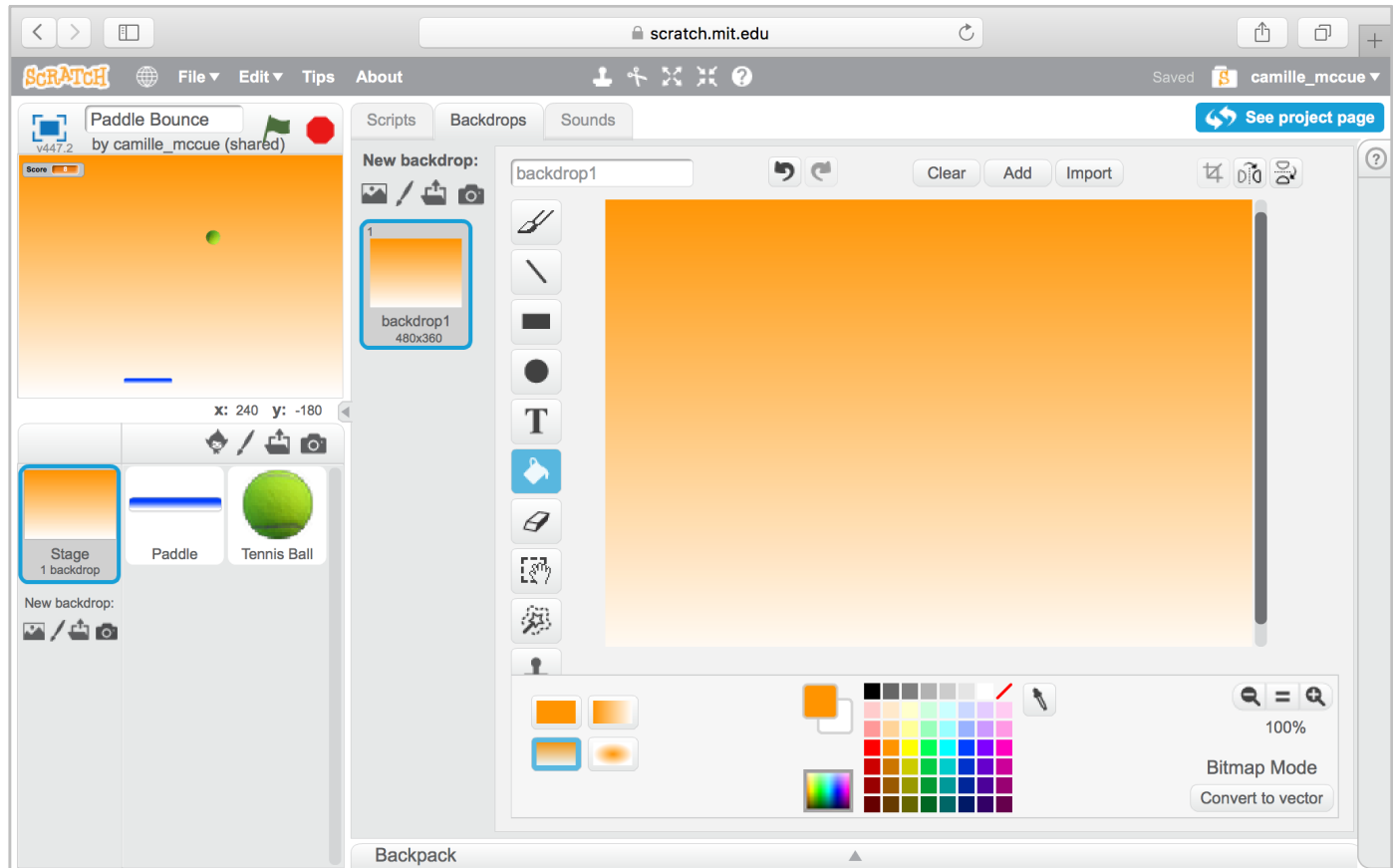


Paddle Bounce is a simple ball game featuring a two-directional paddle, a ball, and a score.

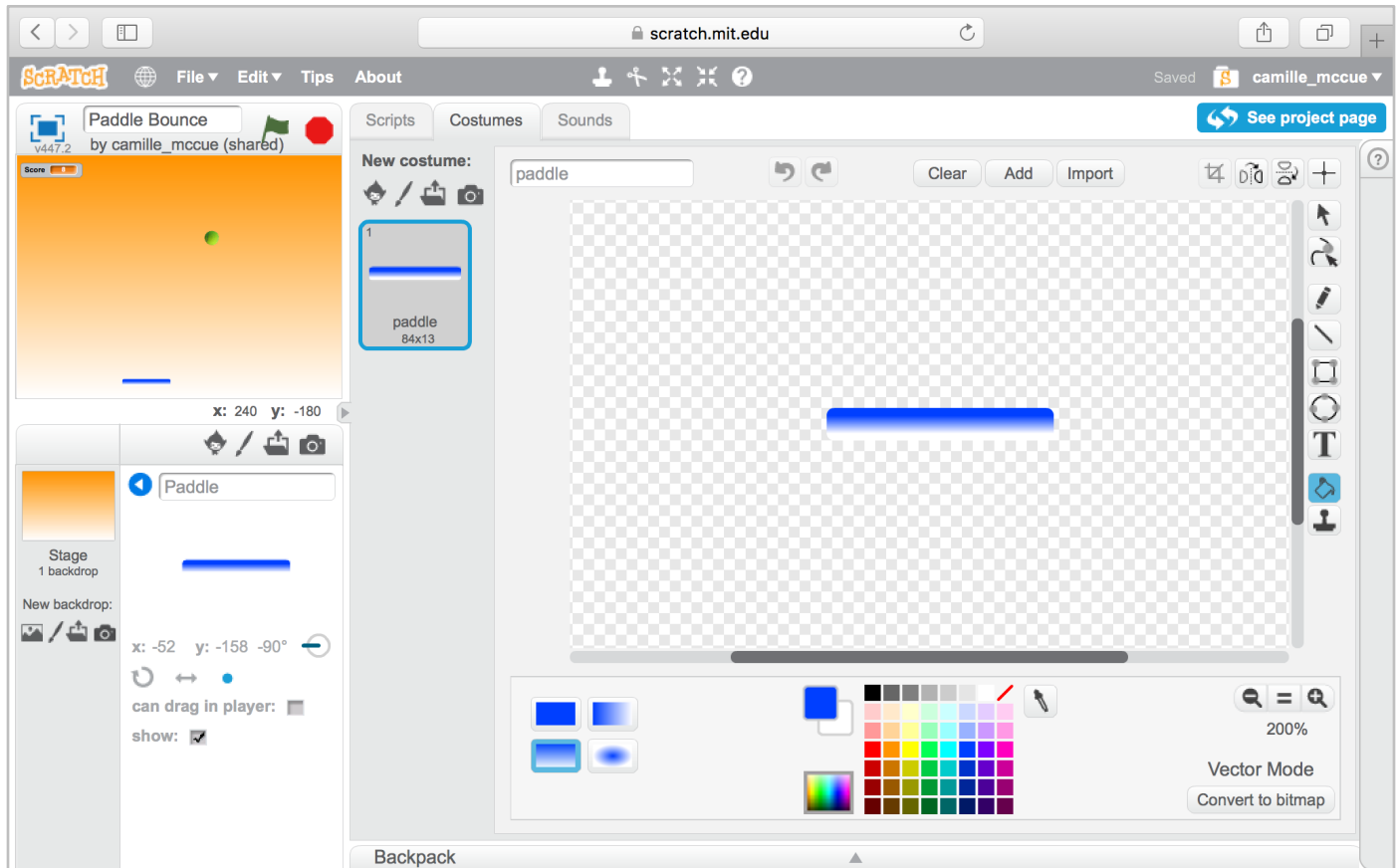
Create a script to start the ball from a y-coordinate high on the screen, aiming it towards the paddle. Then write scripts to control the paddle with the arrow keys. In Data, create a variable called Score to track how many times the player successfully hits the ball.

On the green flag script, set the Score to zero, then serve the ball! Include scripts on the ball to check whether it is touching the paddle: if it is, then add one to the Score and change the direction of the ball so that it "bounces" (include randomness). Finally, include a conditional that checks whether the paddle has missed the ball.

Stage – Backdrop



Paddle Sprite – Costume



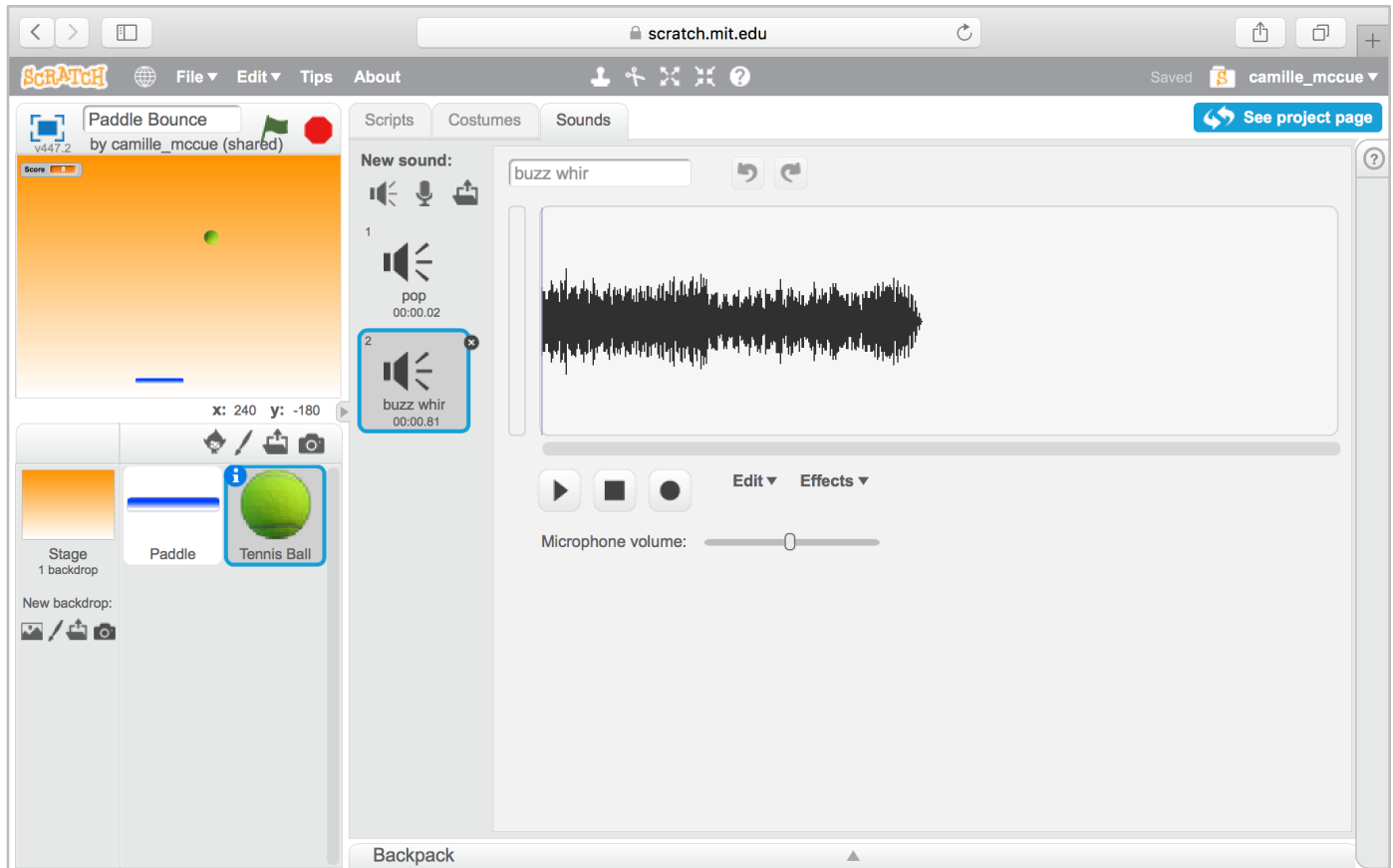
Paddle Sprite – Scripts

The screenshot displays the Scratch IDE interface for a project titled "Paddle Bounce" by camille_mccue. The main focus is the Scripts area for the Paddle sprite, which contains the following code blocks:

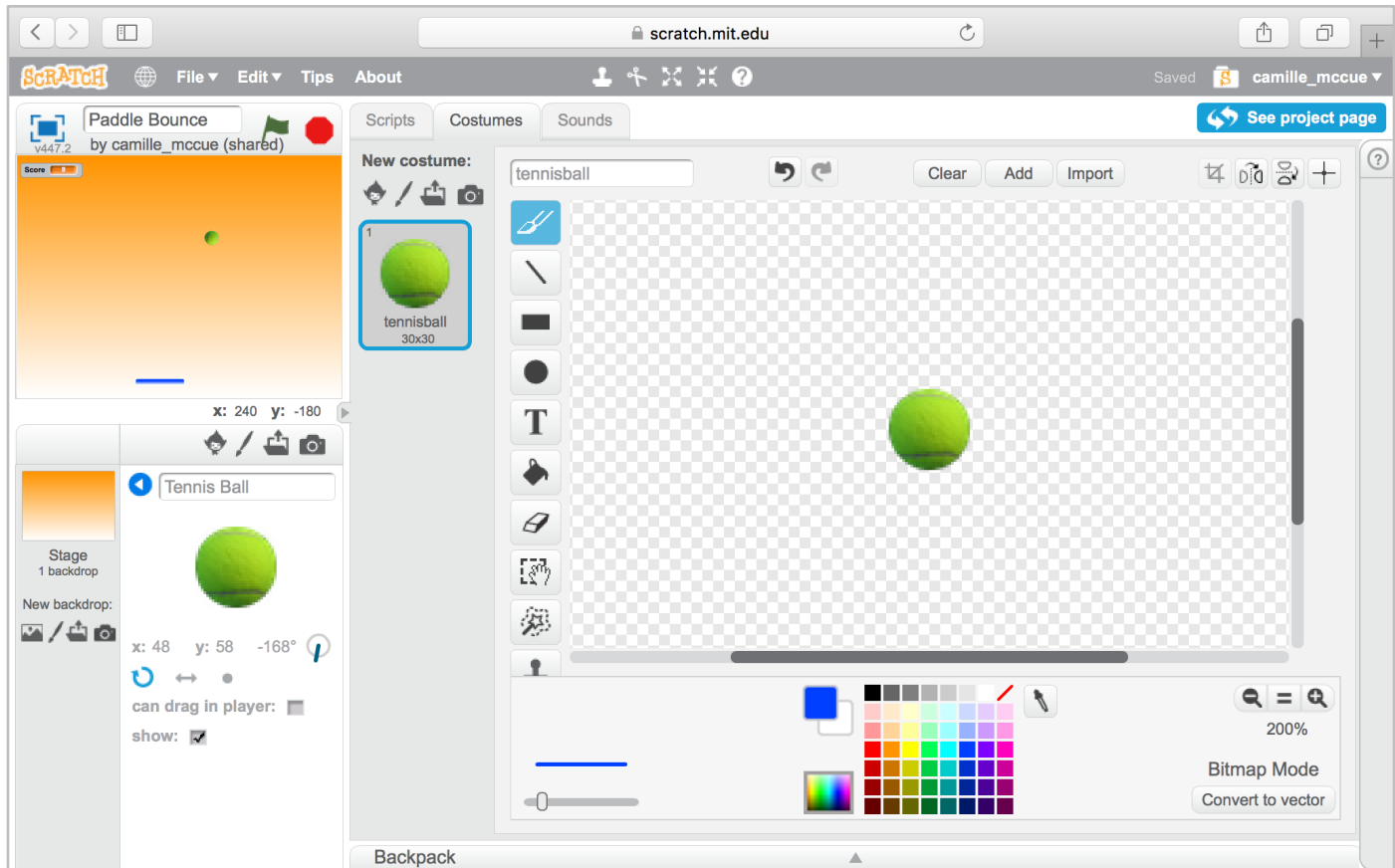
- when left arrow key pressed
 - change x by -20
- when right arrow key pressed
 - change x by 20

The Stage area shows a green Tennis Ball sprite on an orange background. The Properties area shows the Paddle sprite's current position at x: 70, y: -180. The Scripts area also includes a list of available block categories: Motion, Looks, Sound, Pen, Data, Events, Control, Sensing, Operators, and More Blocks.

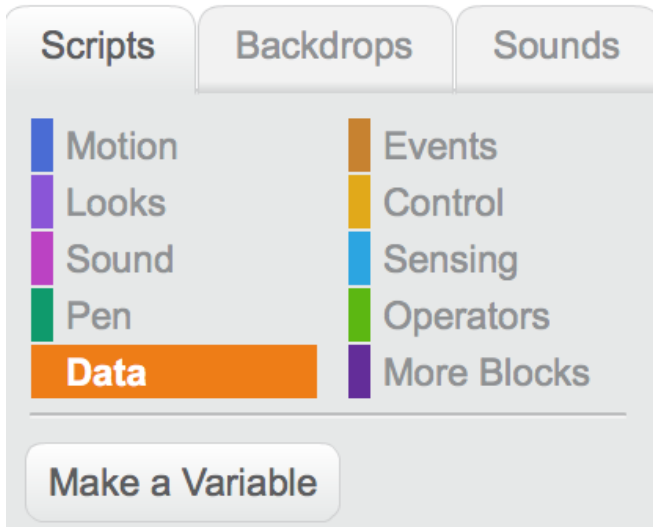
Tennis Ball Sprite – Sounds



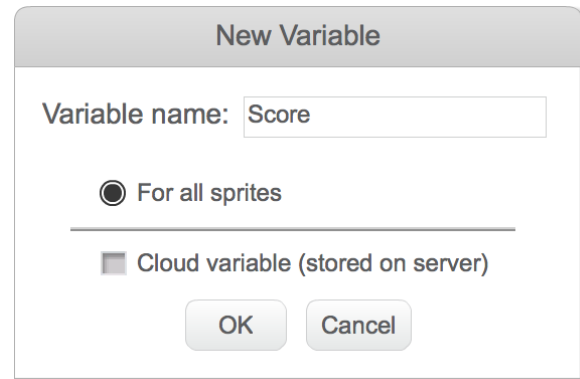
Tennis Ball Sprite – Costume



Tennis Ball Sprite – Variable



The image shows the Scratch block palette with three tabs: 'Scripts', 'Backdrops', and 'Sounds'. The 'Scripts' tab is active, displaying a list of categories: Motion, Looks, Sound, Pen, Data (highlighted in orange), Events, Control, Sensing, Operators, and More Blocks. A 'Make a Variable' button is located at the bottom of the palette.



The 'New Variable' dialog box is shown. It contains a text input field for 'Variable name:' with the value 'Score'. Below the input field, there are two radio buttons: 'For all sprites' (which is selected) and 'Cloud variable (stored on server)'. At the bottom of the dialog, there are 'OK' and 'Cancel' buttons.



The variable monitor for 'Score' is shown. It consists of a grey label 'Score' and an orange rounded rectangle containing the number '8'.

Tennis Ball Sprite – Scripts

The screenshot displays the Scratch IDE interface for a project titled "Paddle Bounce" by camille_mccue. The main focus is the script editor for the "Tennis Ball" sprite. The script begins with a "when clicked" event, followed by setting the "Score" to 0 and the "y" position to 160. The ball then points towards the "Paddle". A "forever" loop follows, where the ball moves 10 steps. If it is touching the "Paddle", it turns 160 degrees plus a random value between 0 and 40 degrees, plays a "pop" sound, and increments the score by 1. If the ball's y position is less than -160, it plays a "buzz whirl" sound until done and stops all scripts. Finally, it uses an "if on edge, bounce" block to handle collisions with the stage boundaries.

```
when clicked clicked
set Score to 0
set y to 160
point towards Paddle
forever
  move 10 steps
  if touching Paddle ? then
    turn 160 + pick random 0 to 40 degrees
    play sound pop
    change Score by 1
  if y position of Tennis Ball < -160 then
    play sound buzz whirl until done
    stop all
  if on edge, bounce
```

Tennis Ball Sprite – Script Closeup



x: 53
y: 69

```
when clicked
  set Score to 0
  set y to 160
  point towards Paddle
  forever
    move 10 steps
    if touching Paddle ? then
      turn 160 + pick random 0 to 40 degrees
      play sound pop
      change Score by 1
    if y position of Tennis Ball < -160 then
      play sound buzz whir until done
      stop all
    if on edge, bounce
```