Pong with Scratch

Scratch is a Visual Programming Language

http://scratch.mit.edu/
Open the PongShell
Add Sprites

• Scratch program use *Sprites*
• Images we can move!
• Add a ball
Choose Things

Select Object for Ball and click OK
Shrink Ball

• Click Shrink Sprite Button and click on sprite many times to make it smaller
Make Ball Move

- Get Ball to move by telling it to
- Computer programs have commands
- In Scratch these all called *scripts*
- Click on ball and make sure scripts tab is selected
Add A Script

- Select the Control Script
- Drag a when green flag clicker control to script area
Add Commands to Script

Drag and connect a point towards motion action.

Pick mouse-pointer
Make Ball Move

Add forever command from Control

Add move forward 10 steps from motion

Click green flag in upper right corner to start!

What happens?
Make Ball Bounce

From motion add if on edge, bounce

Stop program with stop sign

Rename sprite ball in
Add a Paddle

Add or draw another sprite for the paddle

I picked a manhole cover

Resize and rename sprite to paddle

Move paddle to bottom of stage
Make Paddle Move

Click Paddle

Go to Scripts

Add when Green Flag Clicked
Add Forever
Add set x to (motion)
Replace 0 with mouse x from Sensing

Click the Green Flag to Test
What happens?
Bounce Off Paddle

Click the Ball Spring and add a script

When Green Flag Clicked forever if (control) fill in condition with touching (sensing) pick touching paddle
Bounce Off Paddle

fill in forever if with
   point in direction (motion)

replace 90 with
   0 - 0 (operators)

replace first blank with
   direction (motion) of ball

replace second blank with
   pick a random number (operators)

type in 120 and 180
Game Over

Click Ball sprite

Build another script

When Green Flag Clicked forever if touching color (sensing) click color for eye dropper and click orange

add say "Game Over" for 2 seconds (looks)

stop all (control)
More!

- Try Changing Speed
- Other things to hit
- Multiple balls
- Multiple lives