

CoderDojo Athenry

"Above all, be cool"



Every week:

- ✓ Sign in at the door

If you are new:

- ✓ Fill in Registration Form
- ✓ Ask a Mentor how to get started

Make sure you are on the Athenry Parents/Kids Google Group: email coderdojoathenry@gmail.com

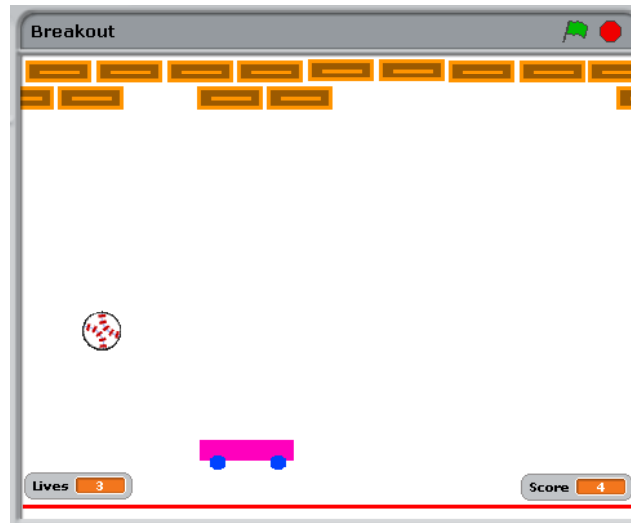
CoderDojo Athenry

Scratch Beginners



Code and notes by Michael Madden 2012

Today's Ninja Challenge: Make a Game Like **Breakout**



Use **Big Ideas** that You Should Understand to Get a Yellow Belt

Making Sprites
Move

Loops &
Decisions

Animation
& Sound

Variables &
Broadcasts

Reminder: Yellow Belt Procedure

A couple of mentors will have a chat with you

Ask you to show us your code (new or old)

See if you know **most** of these Scratch ideas:

Loop Blocks (Forever/Repeat)

If Blocks

Variables

Animation, Sound & Changing Backgrounds

Make a Sprite Move

Make a Sprite Say Something

Use Broadcasts

Steps to Make the Game

Make the **Bat** sprite,
write & test code to control it

Make the **Ball** sprite,
write code to make it move & animate

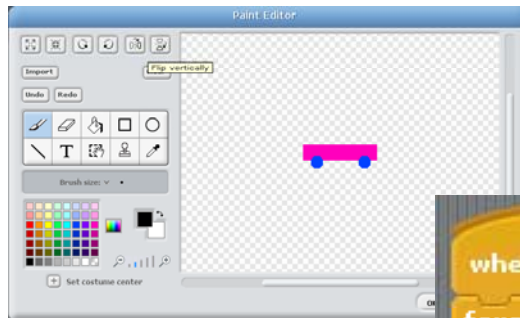
Add an **End Line** and a **Lives** variable;
Lose a live when ball hits line

Make a **Brick** sprite, write its code;
Test it works then **duplicate** it

Your game will
have slightly
different steps.

Get one part
working before
moving on!

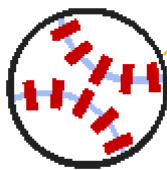
Design the Bat Sprite & Code So You Control it



How would you control it with arrows instead?

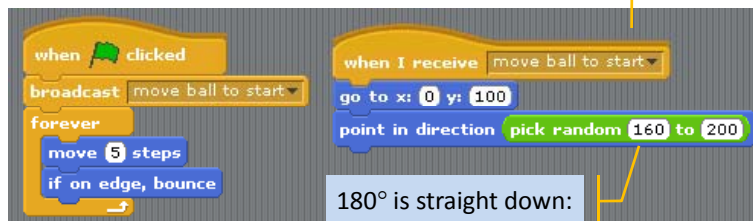
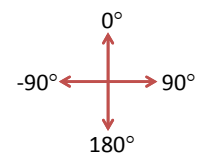


Make the Ball Sprite & Basic Code to Move it



I used a standard image

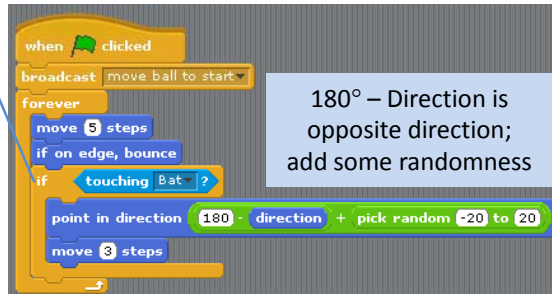
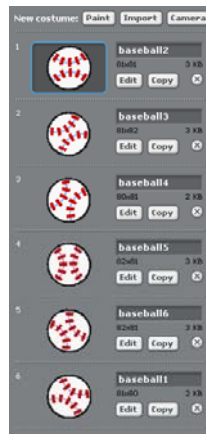
Will use this to reset position after losing a life



180° is straight down:
pick direction in range 180 ±20

Code for the Ball Sprite to Bounce off the Bat and Animate

New block of code to bounce off bat



180° – Direction is opposite direction; add some randomness

Add multiple costumes with different rotations

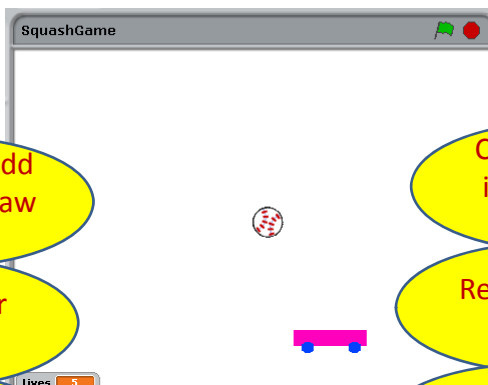
Keep switching between costumes: how can you do this?



Add an End Line, Keep Track of Lives

Figure out the code for yourself.

Now you have a Squash game!



End Line: add sprite or draw on stage

Variable for Lives

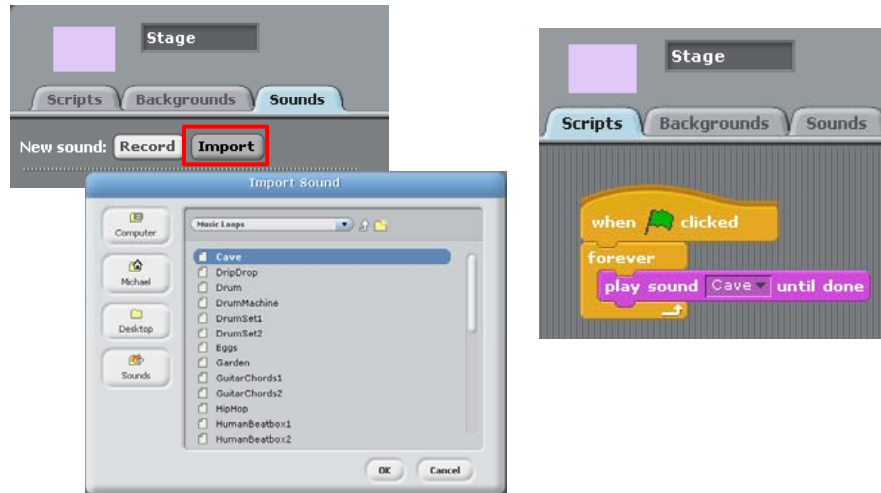
Start with Lives=5, Stop if Lives=0

Code for Ball if it touches End Line:

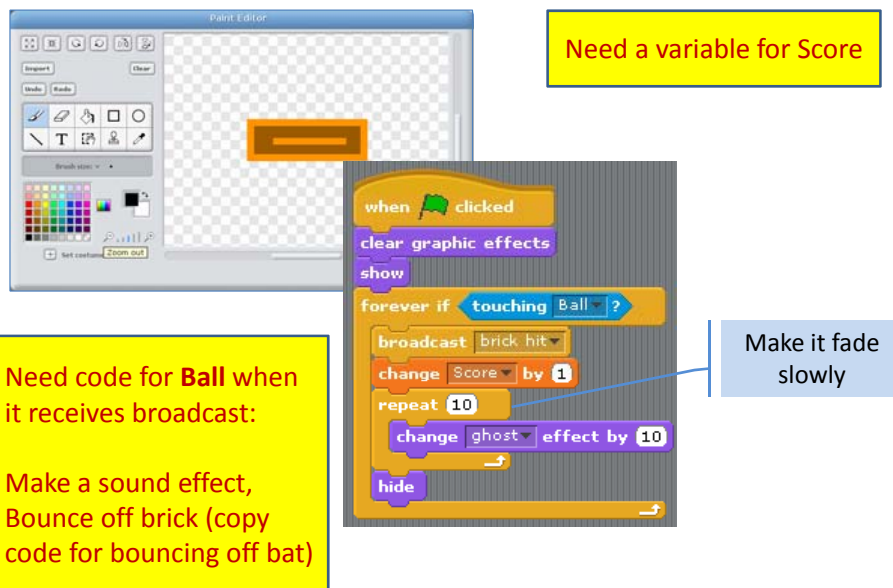
Reduce Lives by 1

Reset position of ball

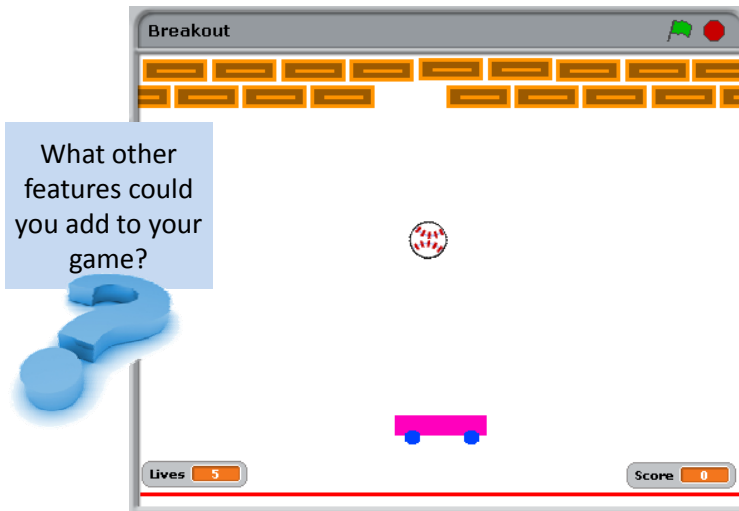
Add a Music Loop



Design & Code a Single Brick



Test the Single Brick & Duplicate it When You're Sure it Works



At the End ...

Upload your project to the Scratch Website
user: **cdathenry** password: _____

Access it
from home

Improve it

Show your
friends!

