

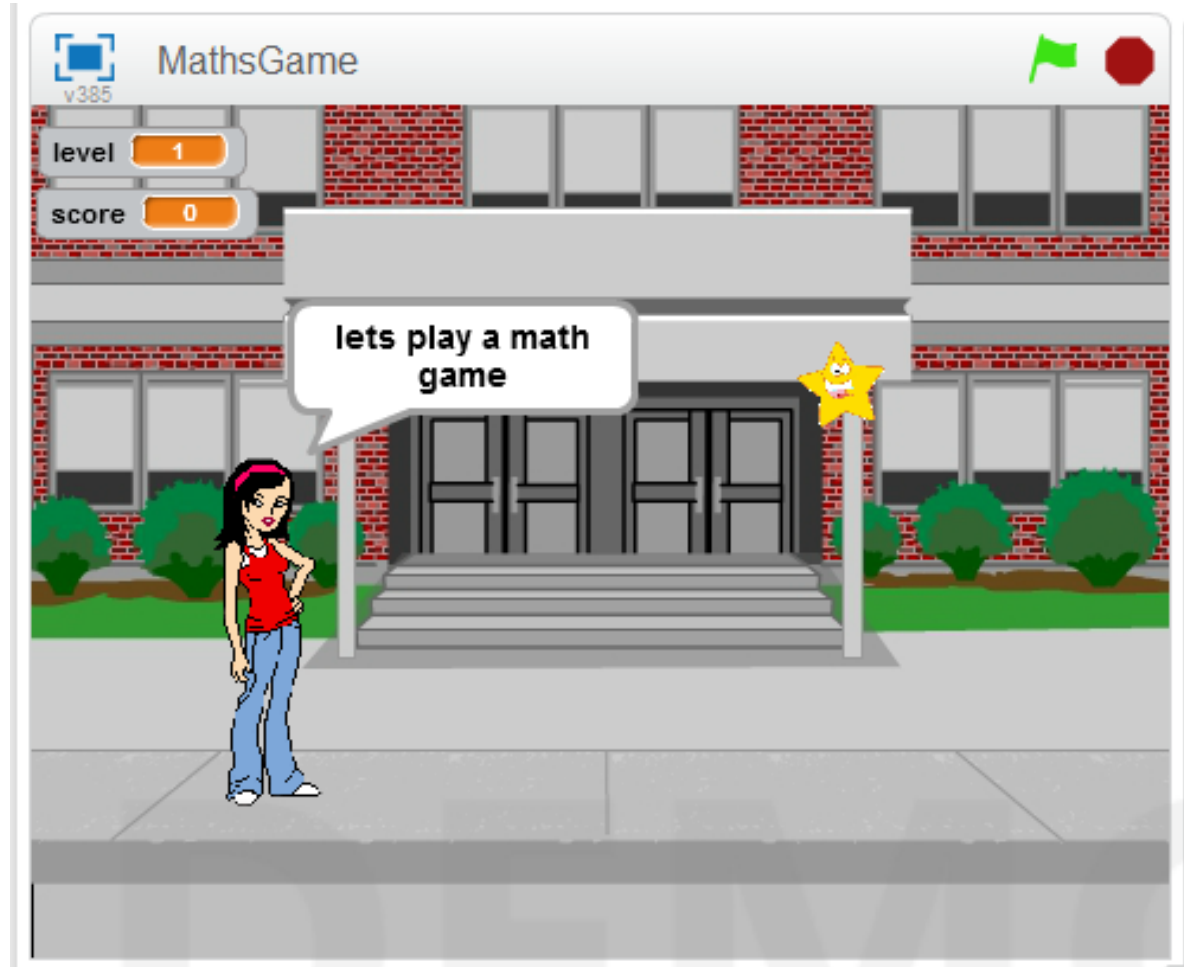
**CoderDojo Athenry**



**EXPLORERS**

**Code and Notes by Martha Fahy, 2022**

# Today's Ninja Challenge: Make a Game **Maths Game**



# Our **Big Ideas** that We will use

Making Sprites  
Move

Loops &  
Decisions

Animation  
& Sound

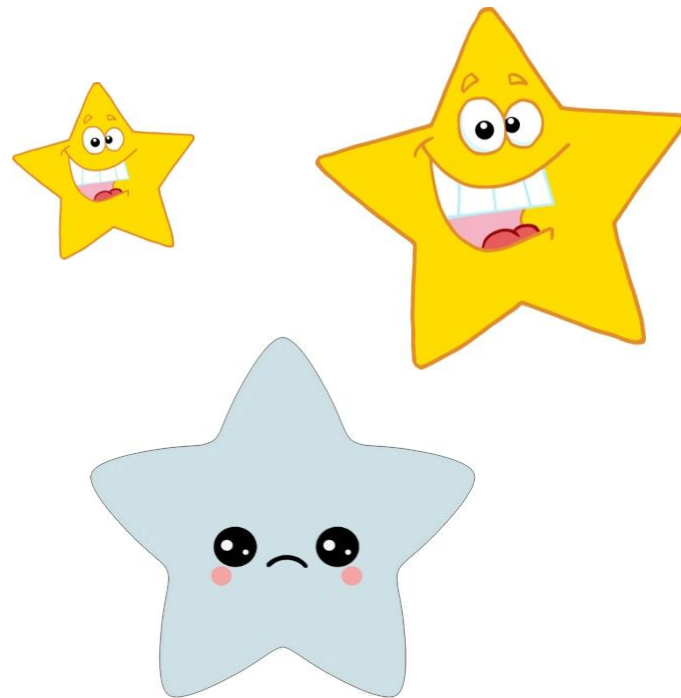
Variables &  
Broadcasts

# Design your Sprites

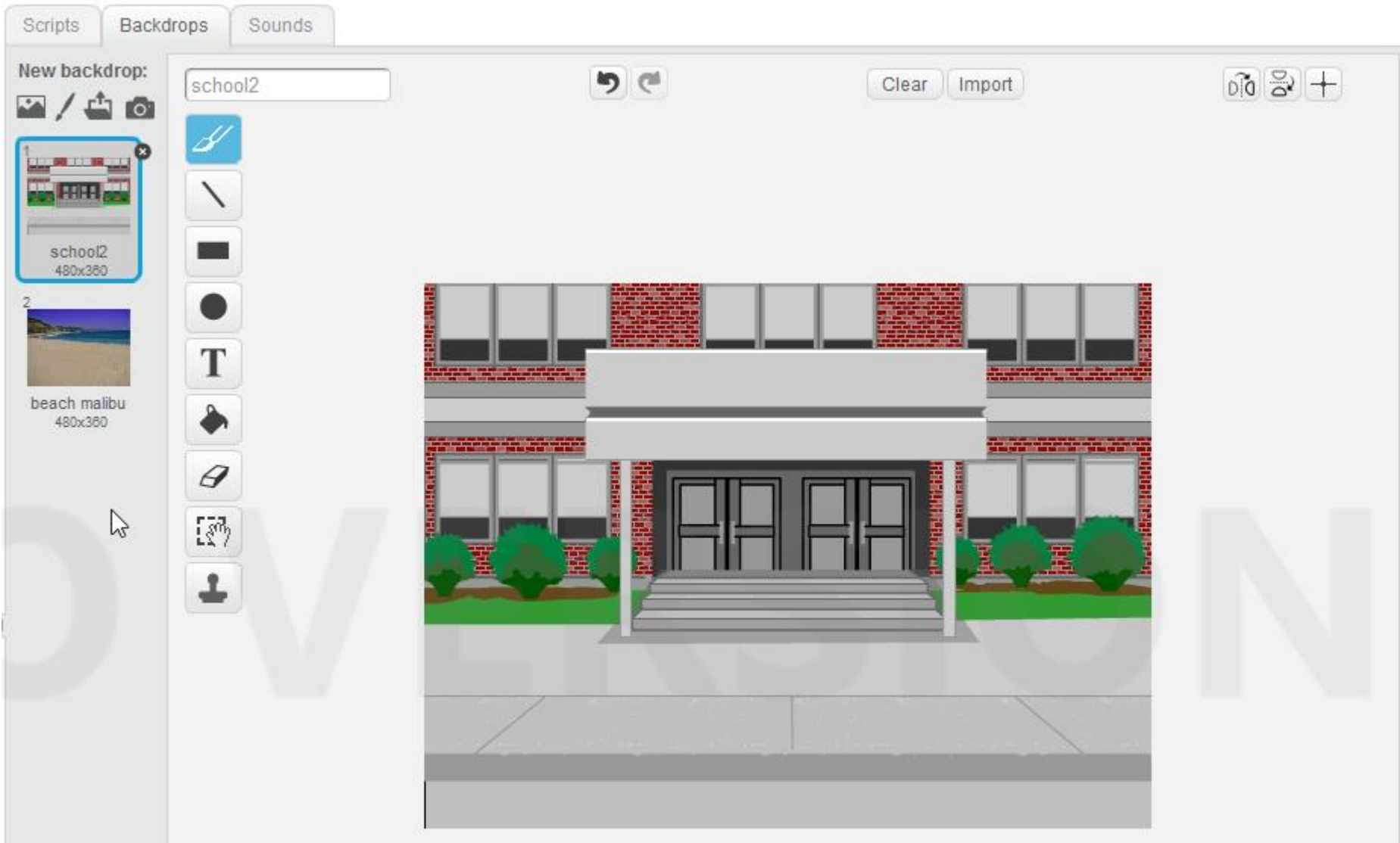
First Sprite will ask  
the questions



Second Sprite will  
grow/change  
depending on answer



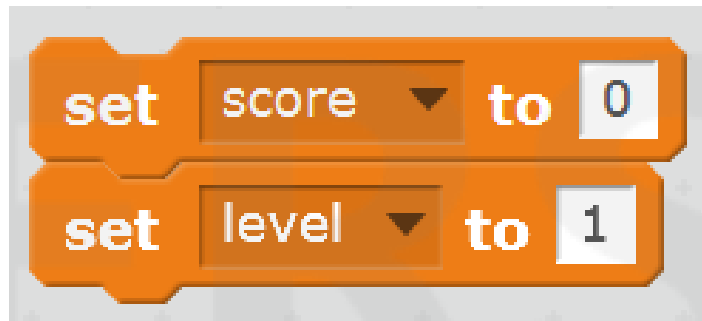
# Select your Backgrounds



# Create First Two Variables

Score

Level



# Code for Sprite 1 to **ASK** Questions....



```
when clicked
go to x: -140 y: -43
set score to 0
set level to 1
say lets play a math game for 2 secs
ask What level do you want, enter 1 or 2 and wait
set level to answer
```

# Code for Sprite 1 to Set Math Questions....



```
if level = 1 then
  set number1 to pick random 1 to 10
  set number2 to pick random 1 to 10
else
  set number1 to pick random 1 to 100
  set number2 to pick random 1 to 100
ask join join number1 + number2 and wait
```



# Code for Sprite 1 when it receives **Right/Wrong** answers..



```
if answer = number1 + number2 then
  say You got it right, yay! for 2 secs
  broadcast correct answer
else
  say Sorry, that is wrong for 2 secs
  broadcast wrong answer
```

**Note: repeat by 5....why?**

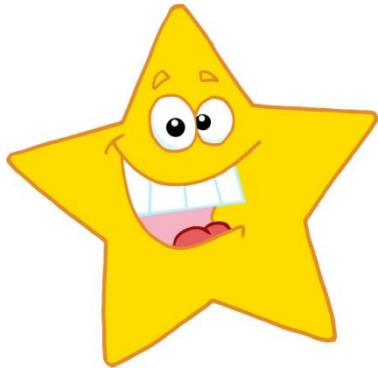
# Code for Sprite 2 ...



❖ Switch Costume

❖ Set Size

❖ React to Right or Wrong answer



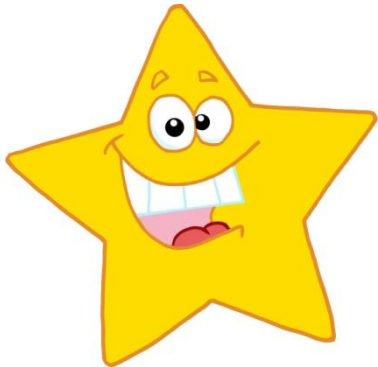
# Code for Sprite 2 ...



```
when clicked
  switch costume to jpg_0790-Happy-Yellow-Star-Smiling2
  set size to 10 %

when I receive correct answer
  change score by 1
  change size by 25

when I receive wrong answer
  switch costume to sad_star
  stop all
```



# Code for Backgrounds...

The image shows the Scratch interface with the 'Scripts' tab selected. The 'Backdrops' panel on the left shows two backdrops: 'school2' (480x360) and 'beach malibu' (480x360). The main workspace contains a script with the following blocks:

- when green flag clicked
- switch backdrop to school2
- wait until score = 5
- switch backdrop to beach malibu
- stop all

The script is highlighted with a yellow glow. The 'school2' backdrop is selected in the 'Backdrops' panel. The 'wait until' block has a green arrow pointing right, indicating it is active. The 'stop all' block has a dropdown menu set to 'all'.

# SAVE & SHARE!

**Upload to the Scratch Website**

***Scratch.mit.edu***

***Username: ExplorersAthenry***

***Password: athenry2022***