

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

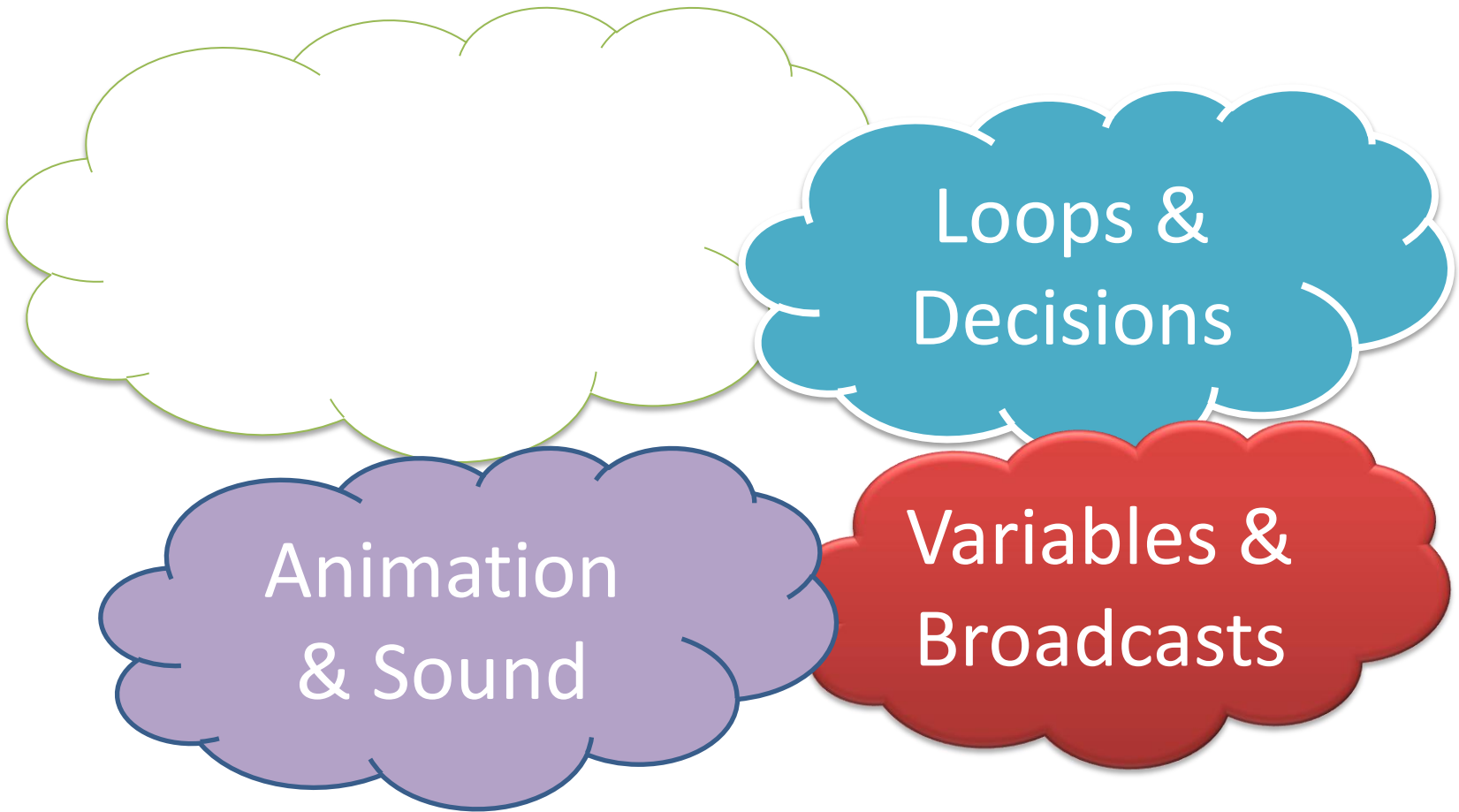


Code and notes by Martha Fahy

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



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

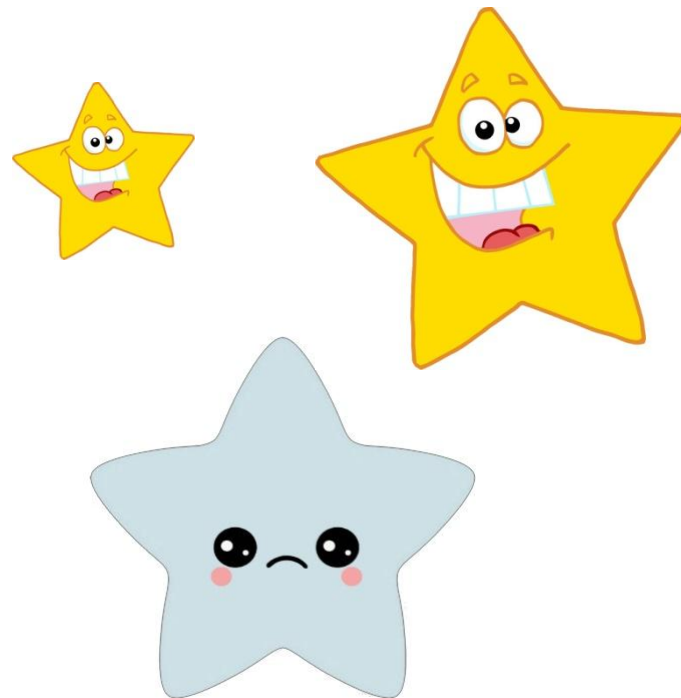


Design your Sprites

First Sprite will ask
the questions



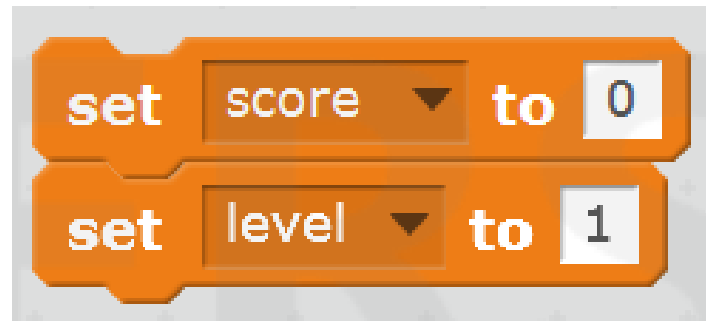
Second Sprite will
grow/change
depending on answer



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..



```
ask join join number1 + number2 and wait
if answer = number1 + number2 then
  say You're correct!! for 2 secs
  change score by 1
  broadcast Correct answer
else
  say Wrong answer! for 2 secs
  change score by -1
  broadcast wrong answer
say Game over!!! for 2 secs
broadcast game over
```

Note: repeat by 5 Or 10 or however many...why?

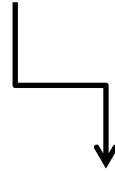
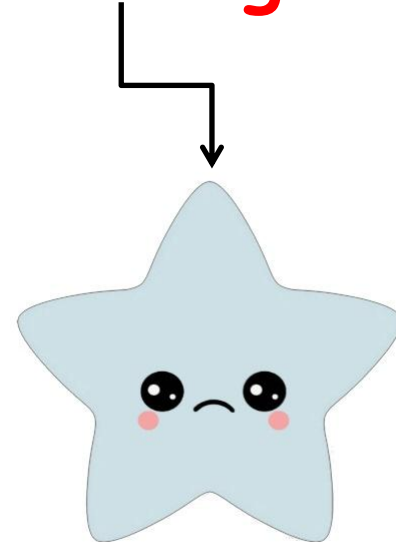
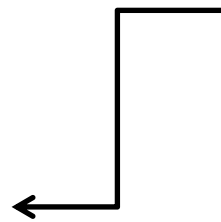
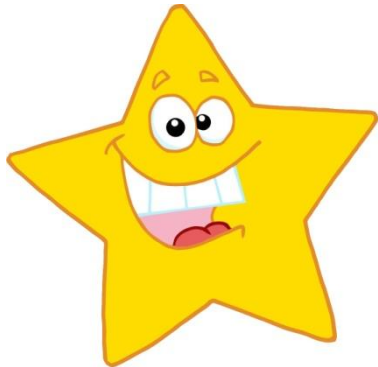
Code for Sprite 2 ...



❖ 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 'Backdrops' tab selected. On the left, the 'New backdrop:' panel shows two options: '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

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

Alternative code for backdrop change using the broadcasts



Add more and make it better!

Have the player choose between addition and subtraction OR

Add three numbers together OR

Give them a choice of three levels!

At the End ...

Upload your project to the Scratch Website
user: [cdathenry1516](#) password: [cdathenry](#)

Access it
from home



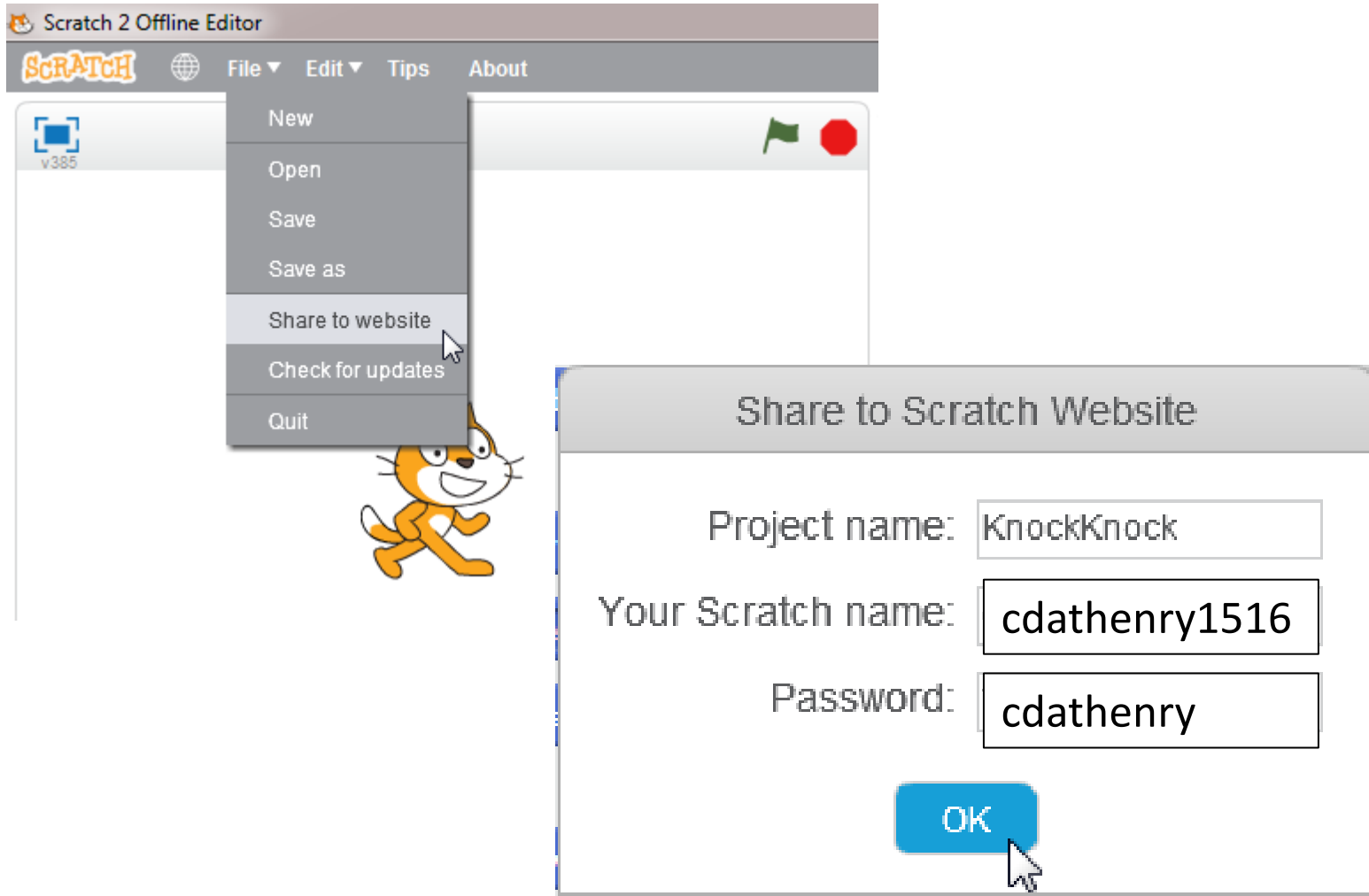
Improve it



Show your
friends!



Uploading to Scratch Website



The image shows the Scratch 2 Offline Editor interface. The top menu bar includes 'Scratch', a globe icon, and 'File', 'Edit', 'Tips', and 'About'. The 'File' menu is open, showing options: 'New', 'Open', 'Save', 'Save as', 'Share to website', 'Check for updates', and 'Quit'. A mouse cursor is hovering over 'Share to website'. Below the menu is the Scratch cat character. To the right, a dialog box titled 'Share to Scratch Website' is open, containing three text input fields: 'Project name: KnockKnock', 'Your Scratch name: cdathenry1516', and 'Password: cdathenry'. A blue 'OK' button is at the bottom of the dialog, with a mouse cursor clicking it.

Scratch 2 Offline Editor

Scratch

File Edit Tips About

New

Open

Save

Save as

Share to website

Check for updates

Quit

Share to Scratch Website

Project name: KnockKnock

Your Scratch name: cdathenry1516

Password: cdathenry

OK