

CoderDojo Athenry

"Above all, be cool"



Every week:

- ✓ Sign in at the door

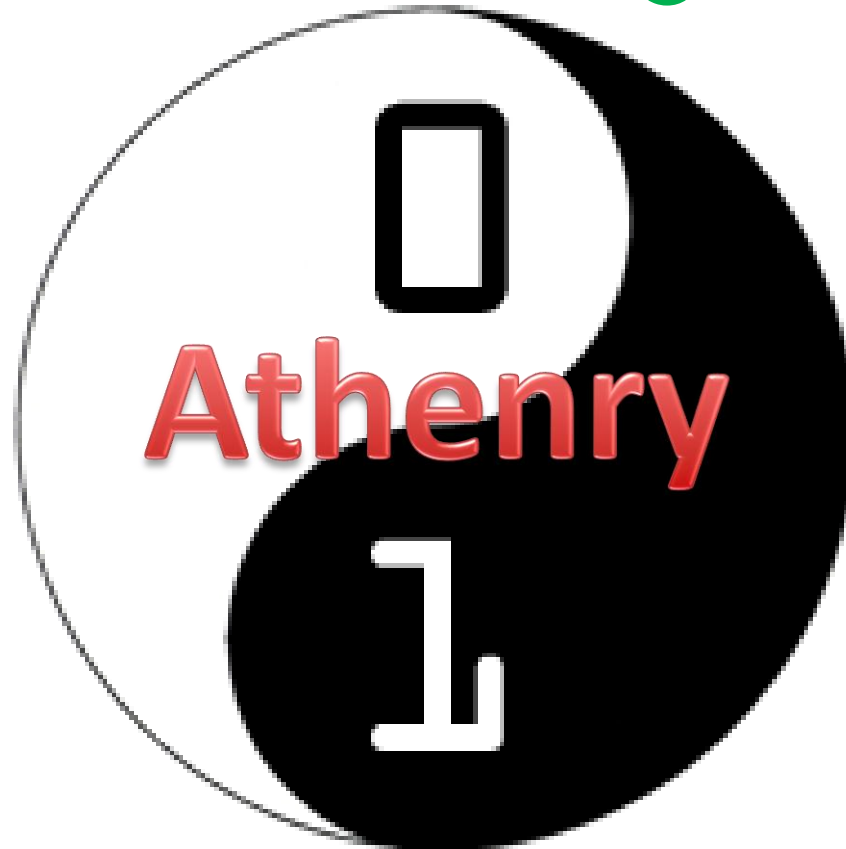
If you are new:

- ✓ 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

The next couple of weeks

18th April - Open, Normal Session

25th April - Open, Normal Session

2 May - CLOSED

9th May - Open, Working on individual projects

16th May - Open, Working on individual projects

23rd May - Open, Belts & Pizza Day!!!

Preparing to Earn Your First Belt!



Belts!



Two to Earn: White or Yellow

White: Commitment & Basic Skill



Attend at least 5 sessions

+ Know how to get started with Scratch

Sign in each week!

Two to Earn: White or Yellow

Yellow Scratch Belt: Competent Scratch Coder



1. Qualify for a White Belt
2. Write and explain a Scratch Program with:

Forever/Repeat

If blocks

Variables

Animation/Sound

Sprite controlled by mouse or keyboard

Must be all your own work!

Procedure for **Yellow Belt**

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

Sample Questions for Yellow Belt

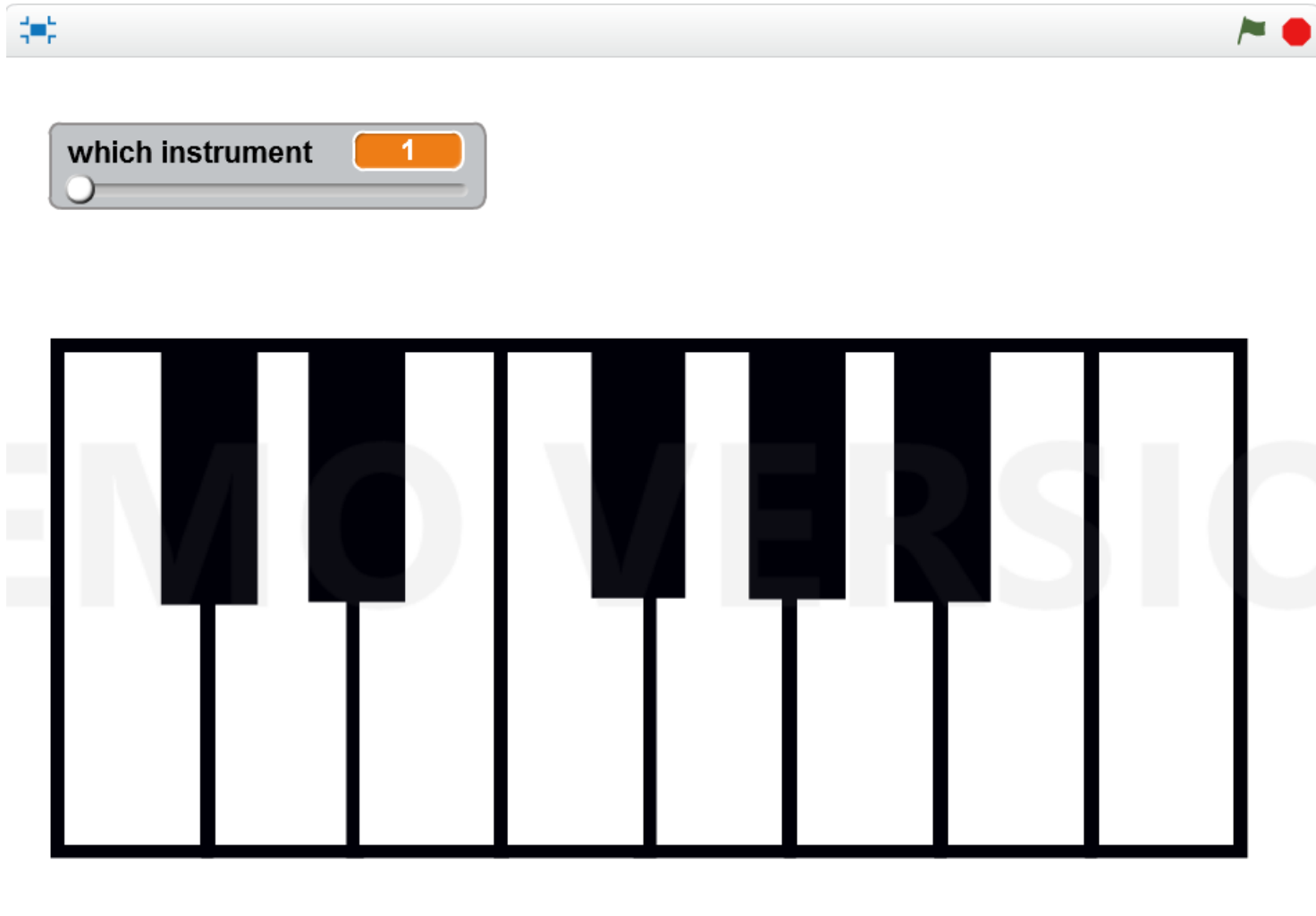
1. Which block you would use to make the sprite speak?
2. How would you change the way your sprite looks?
3. How would you make a sprite move?
4. Can you show where you have used a loop block?
5. Can you show where you have used animation or sound?
6. Can you show us where you have used an IF block?
7. What blocks would you use to check if your sprite hit something?
8. How do you share a program online?
9. Show where you have used a variable
or how would you create a new variable?
10. Show where you have used a broadcast
or how would you create a new broadcast?

Ask Your Questions!



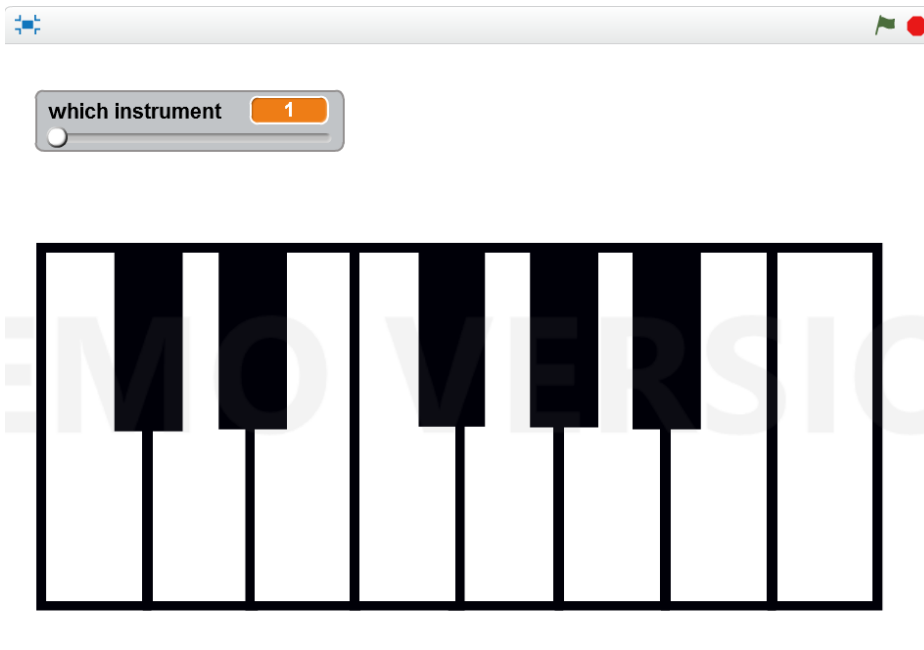
Today's Challenge:

Making a Piano



Lets get started

Draw each key as a *Sprite*



Note C



Note C#

Create a second costume for each one

Lets get started

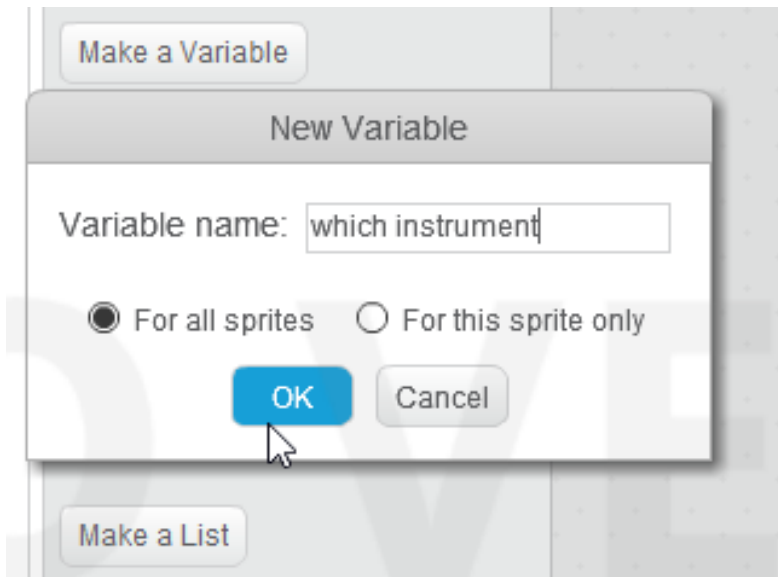
Draw each key as a *Sprite*

Note C# Note D#

Note F# Note G# Note A#



We need to create a variable called *Which Instrument*



set instrument to 1

- (1) Piano
- (2) Electric Piano
- (3) Organ
- (4) Guitar
- (5) Electric Guitar
- (6) Bass
- (7) Pizzicato
- (8) Cello
- (9) Trombone
- (10) Clarinet
- (11) Saxophone
- (12) Flute
- (13) Wooden Flute
- (14) Bassoon
- (15) Choir
- (16) Vibraphone
- (17) Music Box
- (18) Steel Drum
- (19) Marimba
- (20) Synth Lead
- (21) Synth Pad

Each number
corresponds to
a different
Instrument



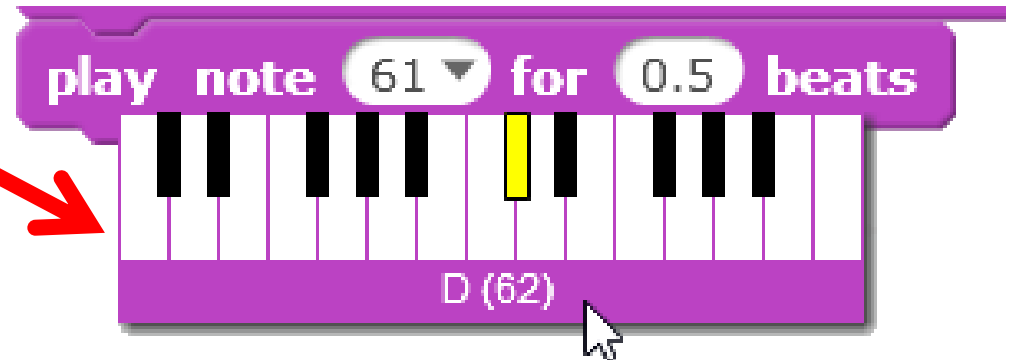
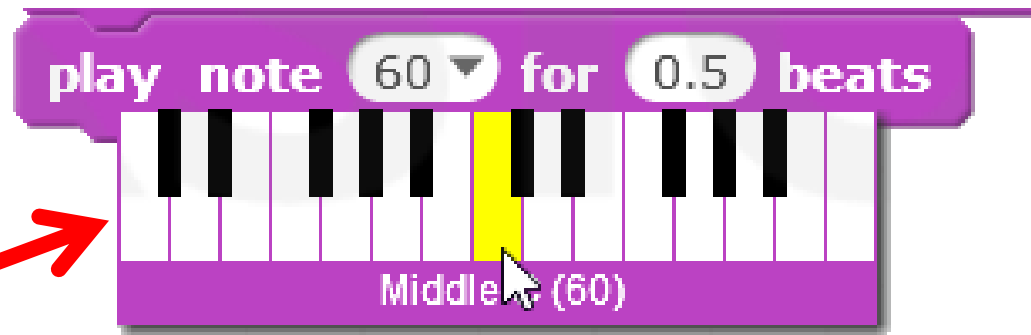
Now for the *Code*

```
when this sprite clicked
  switch costume to c2
  wait 0.1 secs
  switch costume to c1
  set instrument to which instrument
  play note 60 for 0.5 beats
```

The image shows a sequence of Scratch code blocks. It starts with a brown 'when this sprite clicked' block. This is followed by a purple 'switch costume to' block with a dropdown menu showing 'c2'. Next is a yellow 'wait' block with a text input field containing '0.1' and the unit 'secs'. This is followed by another purple 'switch costume to' block with a dropdown menu showing 'c1'. Then comes a purple 'set instrument to' block with a dropdown menu showing 'which instrument'. Finally, there is a purple 'play note' block with a dropdown menu showing '60' and a text input field containing '0.5' followed by the unit 'beats'.

Only one difference for each Note

```
when this sprite clicked
  switch costume to c2
  wait 0.1 secs
  switch costume to c1
  set instrument to which instrument
  play note 60 for 0.5 beats
```



At the End ...

Upload your project to the Scratch Website

user: [coderdojoathenry](#)

password: [xxxxxxx123](#)

Access it
from home



Improve it



Show your
friends!



Uploading to Scratch Website

