

ABOUT ME



How can you combine interesting images and sounds to make an interactive collage about yourself?

STEP BY STEP...

1. Add a sprite



paint your own sprite

choose a downloaded or library sprite

get a surprise sprite

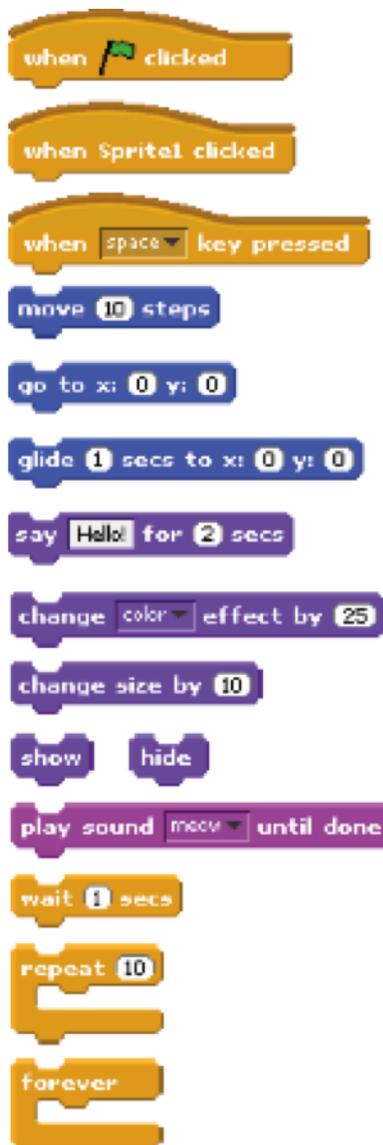
2. Make it interactive



make your sprite interactive by adding scripts that have the sprite respond to clicks, key presses, and more

3. Repeat!

BLOCKS TO PLAY WITH...



DANCE PARTY



Create your own interactive dance party where sprites get down with cool costumes and funky beats.

STEP BY STEP...

1. Add a sprite



paint your own sprite

choose a downloaded or library sprite

get a surprise sprite

2. Make it interactive

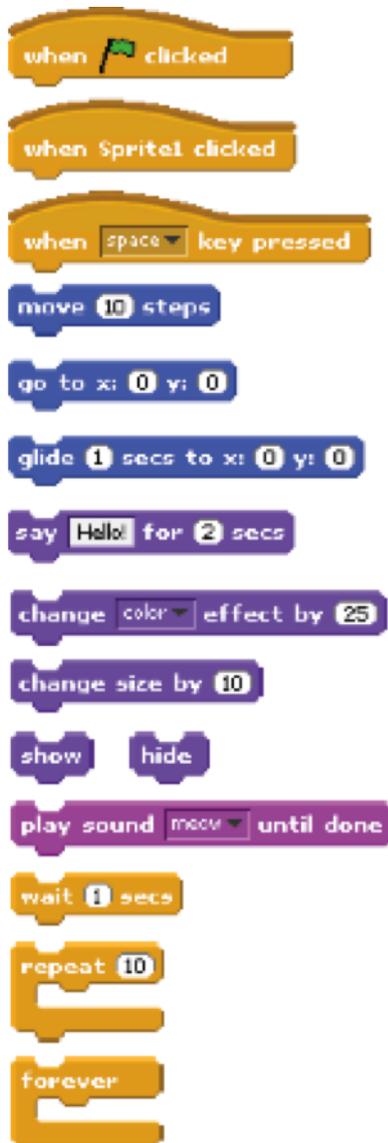


snap blocks together to make your sprite dance

make your sprite interactive by adding scripts that have the sprite respond to clicks, key presses, and more

3. Repeat!

BLOCKS TO PLAY WITH...



ARTS

Here are some blocks that can be useful in arts-themed projects.

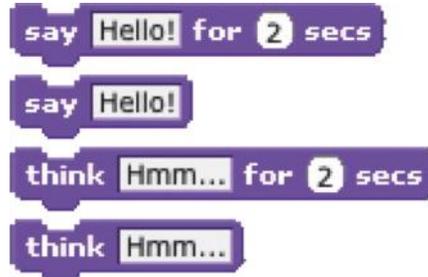
WAIT

Insert a pause



SAY/THINK

Have a speech or thought bubble appear over a sprite



SOUNDS

Play recorded and synthesized audio



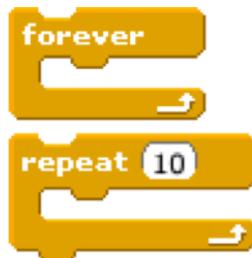
VISIBILITY

Make a sprite appear or disappear



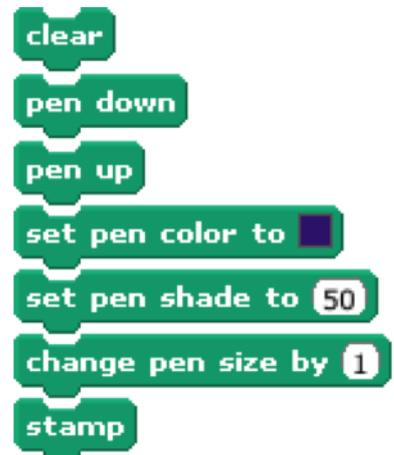
LOOP

Repeat stacks of blocks



PEN

Leave visual lines and sprite stamps on the stage



RANDOM

Get a computer-generated number from a specified range

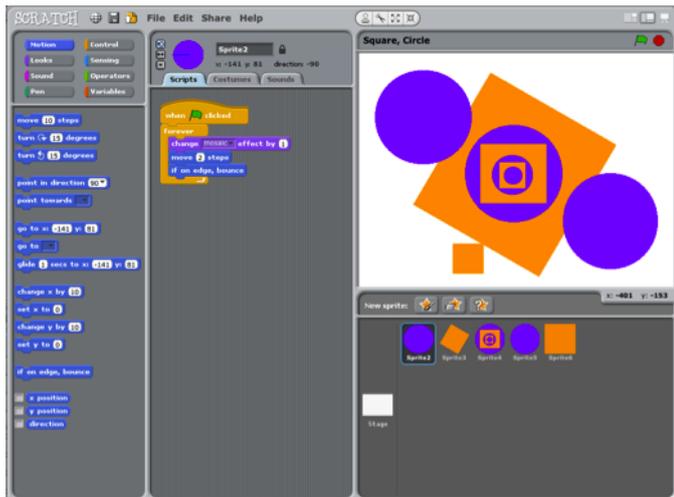


KEY PRESS

Make a sprite respond when different keys are pressed

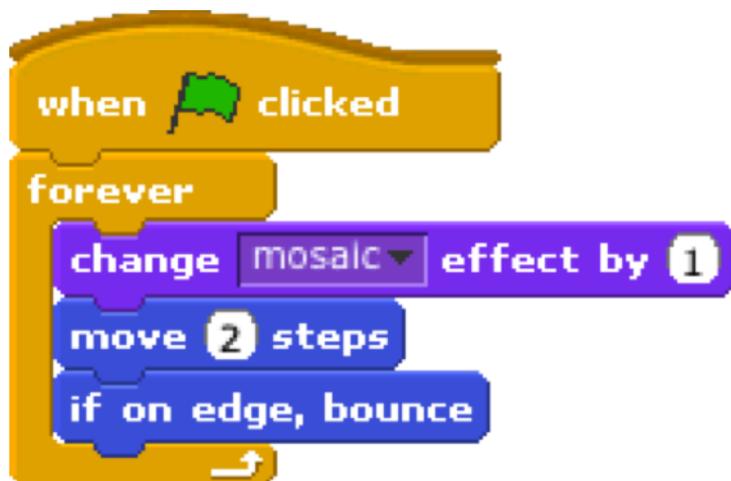
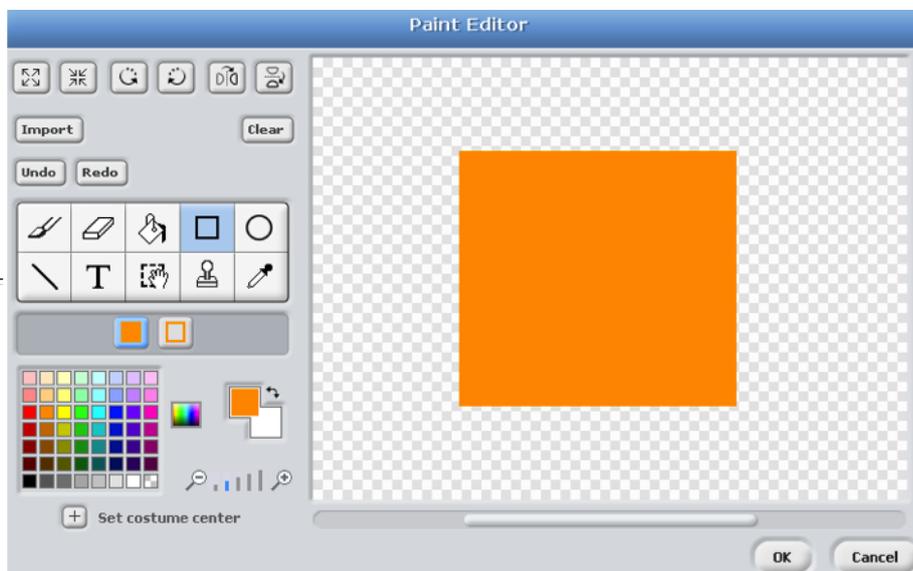


SQUARE, CIRCLE



What project can you create that includes an orange square and a purple circle?

use the paint editor to design sprites that incorporate an orange square and a purple circle



experiment with different motion and looks blocks to bring your sprites to life

BUILD-A-BAND



Create your own musical group by pairing sprites with sounds to make interactive instruments.



use the repeat block to make a sound play more than once

experiment with different music and beats, or import your own sounds

no scripts

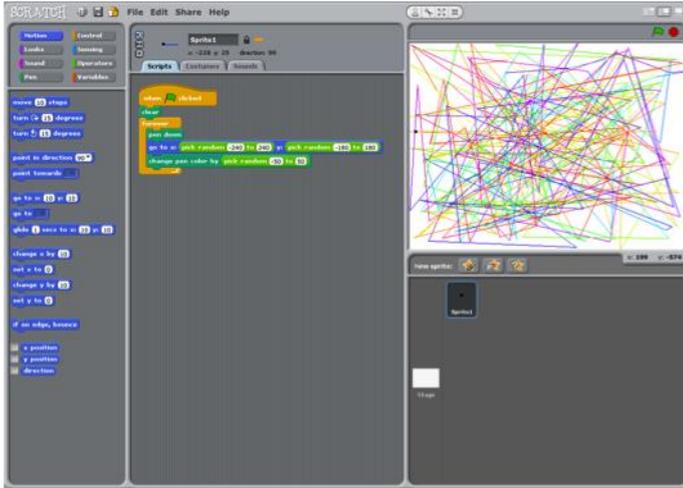
```
when Drum1 clicked
repeat 10
  play drum 35 for 0.5 beats
  play drum 38 for 0.5 beats
```

```
when Clapper clicked
repeat 8
  play drum 39 for 0.2 beats
  wait 1 secs
```

```
when Drum 2 clicked
repeat 10
  play drum 42 for 0.2 beats
  rest for 0.2 beats
```

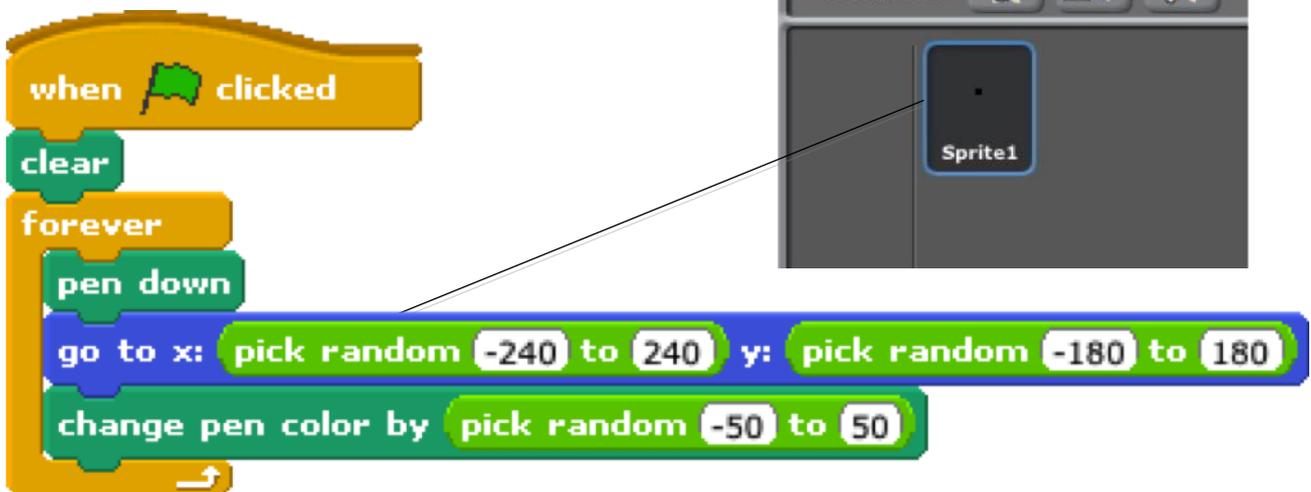
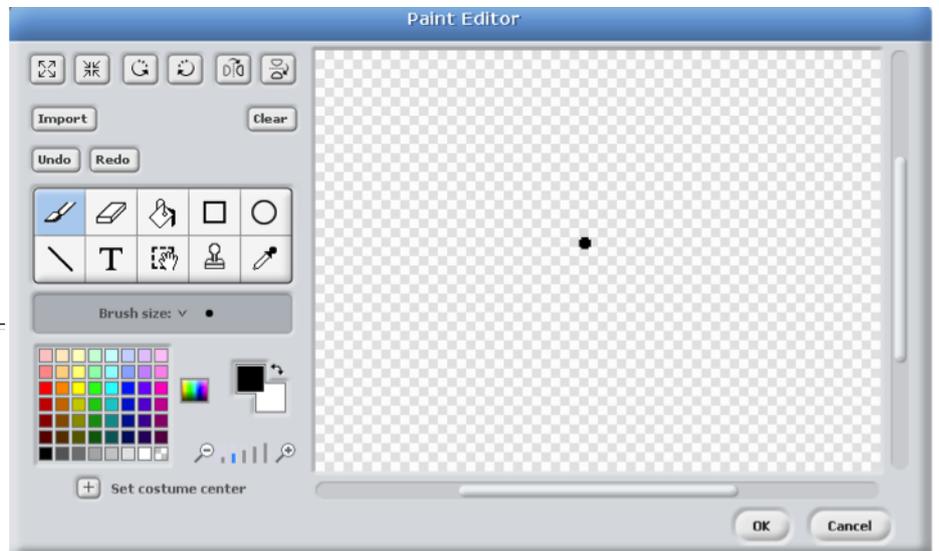
```
when Microphone clicked
play sound Oooo-badada until done
```

AUTOMATIC DRAWING



Make a project that draws something on its own.

create a sprite that is just a small dot



STORIES

Here are some blocks that can be useful in story-themed projects.

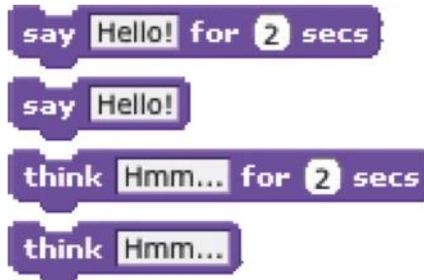
WAIT

Insert a pause



SAY/THINK

Have a speech or thought bubble appear over a sprite



SOUNDS

Play recorded audio



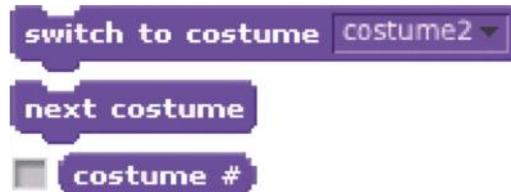
VISIBILITY

Make a sprite appear or disappear



COSTUMES

Change the appearance of your sprite



ASK

Get input to use in a project



STRINGS

Test, access, and change words and sentences



COORDINATE

Synchronize actions between and within sprites



CONVERSATION



Get two characters talking to each other. Use the **say** and **wait** blocks to coordinate the conversation.



no scripts
add a background

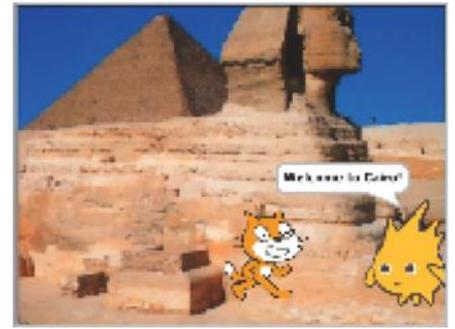
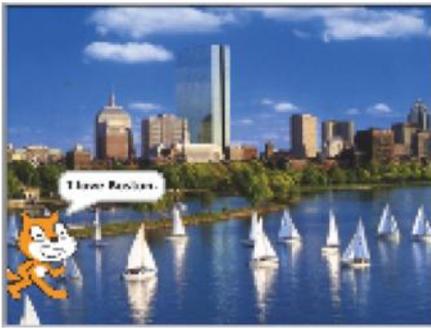
1 script

```
when green flag clicked
say Ay me! Sad hours seem long. for 2 secs
wait 2 secs
say Not having that, which, having, makes them short. for 2 secs
wait 2 secs
say Out-- for 2 secs
wait 2 secs
say Out of her favour, where I am in love. for 2 secs
```

1 script

```
when green flag clicked
wait 2 secs
say What sadness lengthens Romeo's hours? for 2 secs
wait 2 secs
say In love? for 2 secs
wait 2 secs
say Of love? for 2 secs
wait 2 secs
say Alas, that love, so gentle in his view, for 2 secs
say Should be so tyrannous and rough in proof! for 2 secs
```

SCENES



Use the **broadcast** and **when I receive** blocks to create a multi-scene story.



add 3 background images

4 scripts

4 scripts

2 scripts

```

when clicked
broadcast scene-boston and wait
broadcast scene-paris and wait
broadcast scene-cairo and wait
    
```

```

when I receive scene-boston
switch to background boston
    
```

```

when I receive scene-paris
switch to background paris
    
```

```

when I receive scene-cairo
switch to background cairo
    
```

```

when clicked
go to x: -200 y: -100

when I receive scene-boston
say I love Boston. for 2 secs
glide 1 secs to x: -80 y: -100
    
```

```

when I receive scene-paris
say But Paris is great. for 2 secs
glide 1 secs to x: 40 y: -100
    
```

```

when I receive scene-cairo
say Whoa! for 2 secs
    
```

```

when clicked
hide
go to x: 200 y: -100

when I receive scene-cairo
show
wait 2 secs
say Welcome to Cairo! for 2 secs
    
```

SLIDESHOW



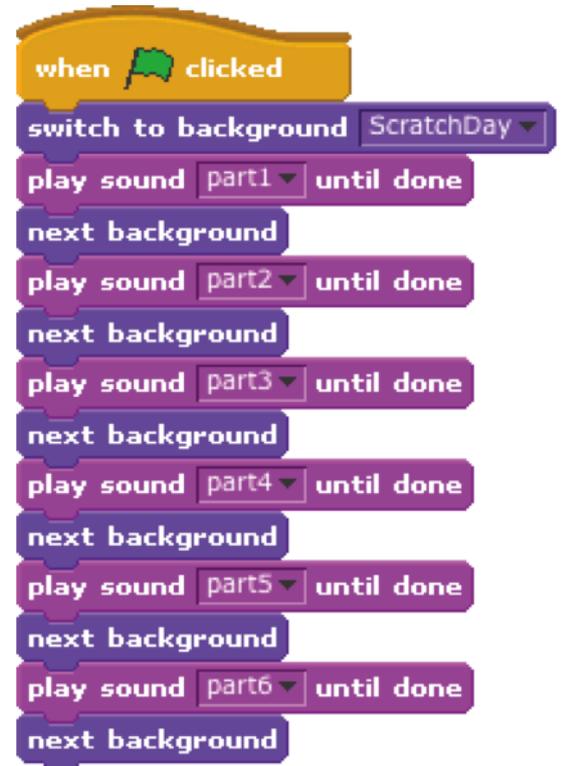
Create your own slideshow – a collection of background images accompanied by audio narration.



1 script
6 background images
6 recorded sounds

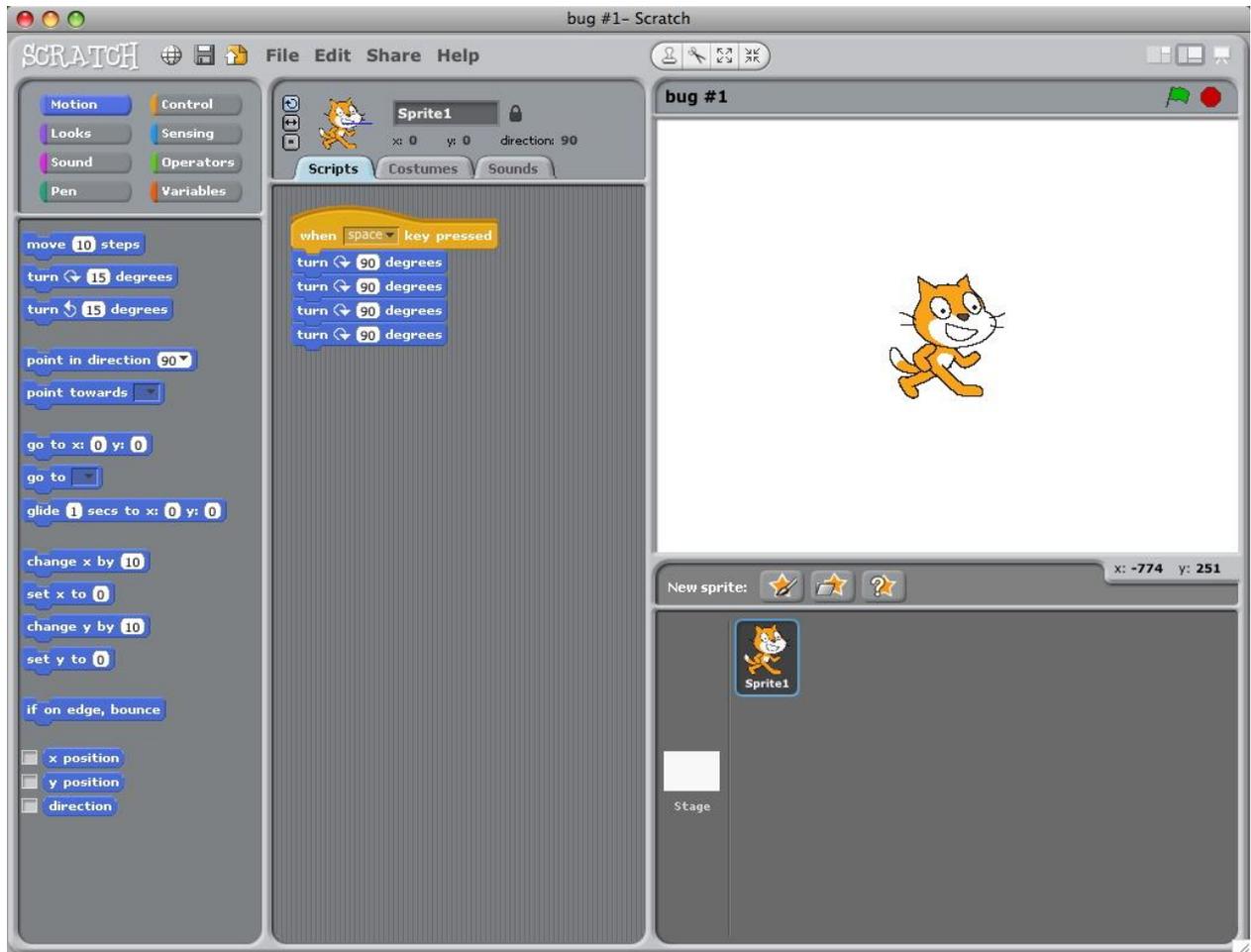


record your narration right in Scratch with the sound recorder



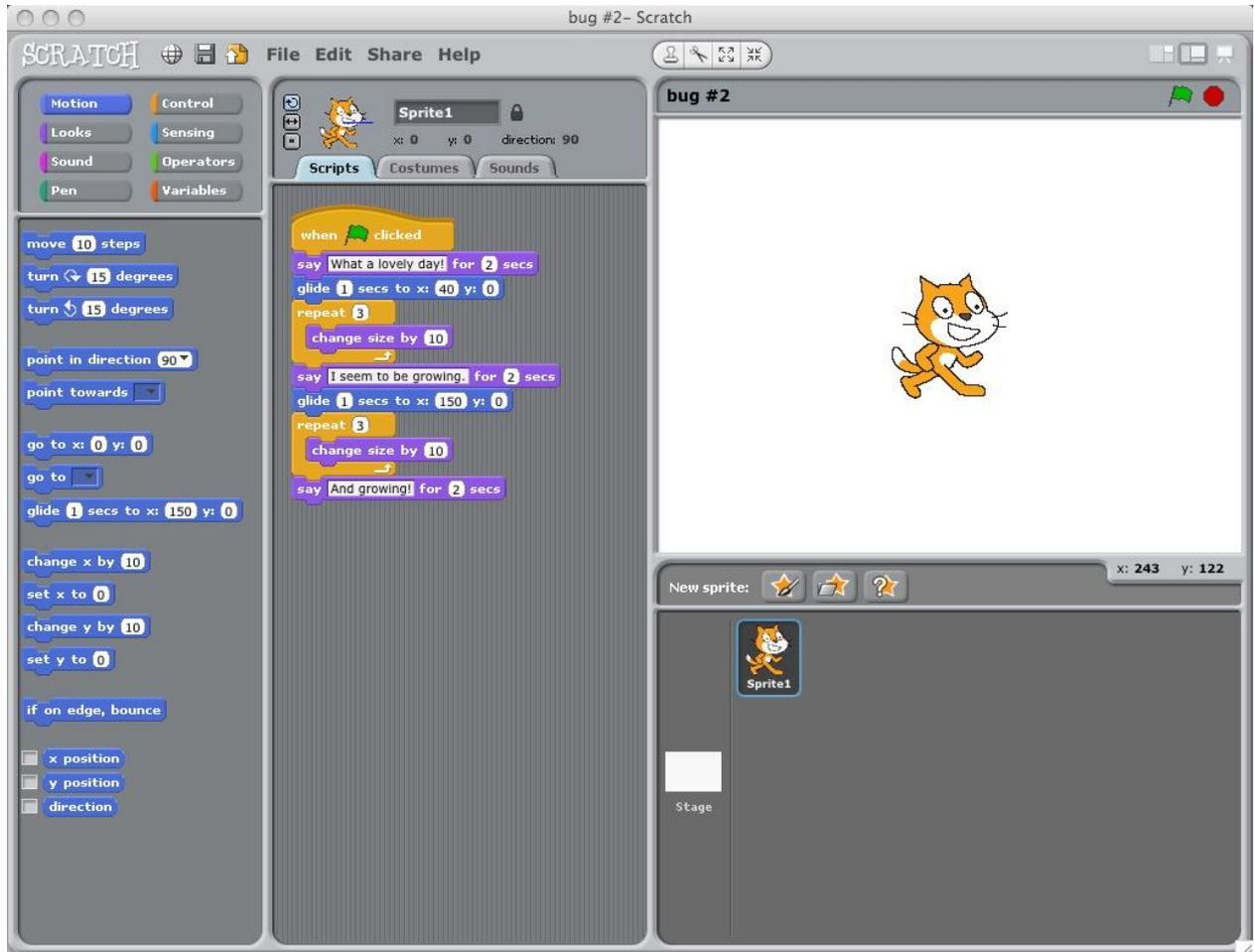
BUG #1

Farooq wants his cat to rotate when he presses the space bar. But the cat isn't moving!
What's going on?



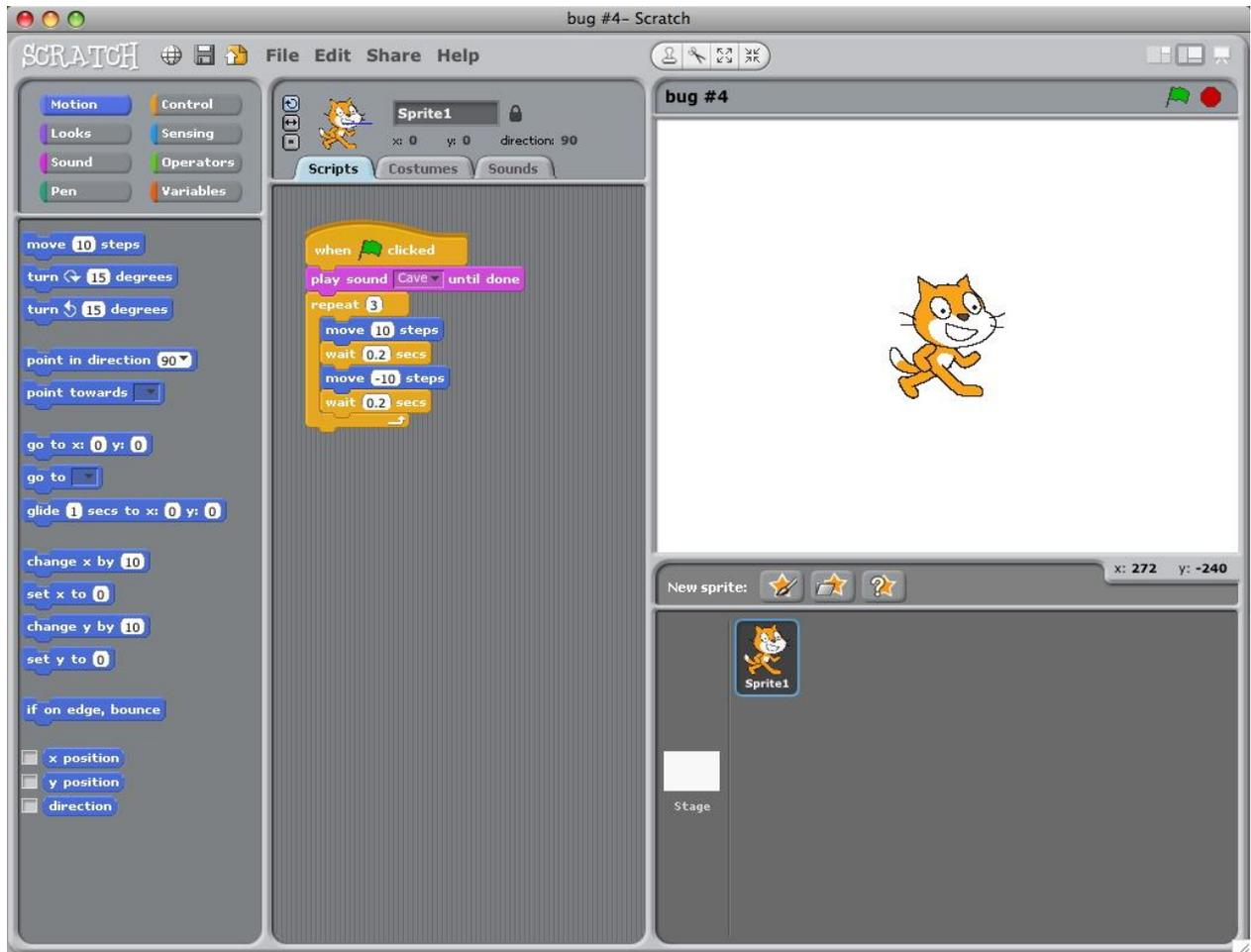
BUG #2

Michelle wants the cat to start in the middle of the stage, then move across the stage and grow. It works the first time she clicks the green flag – but not when she clicks it again!
What's going on?



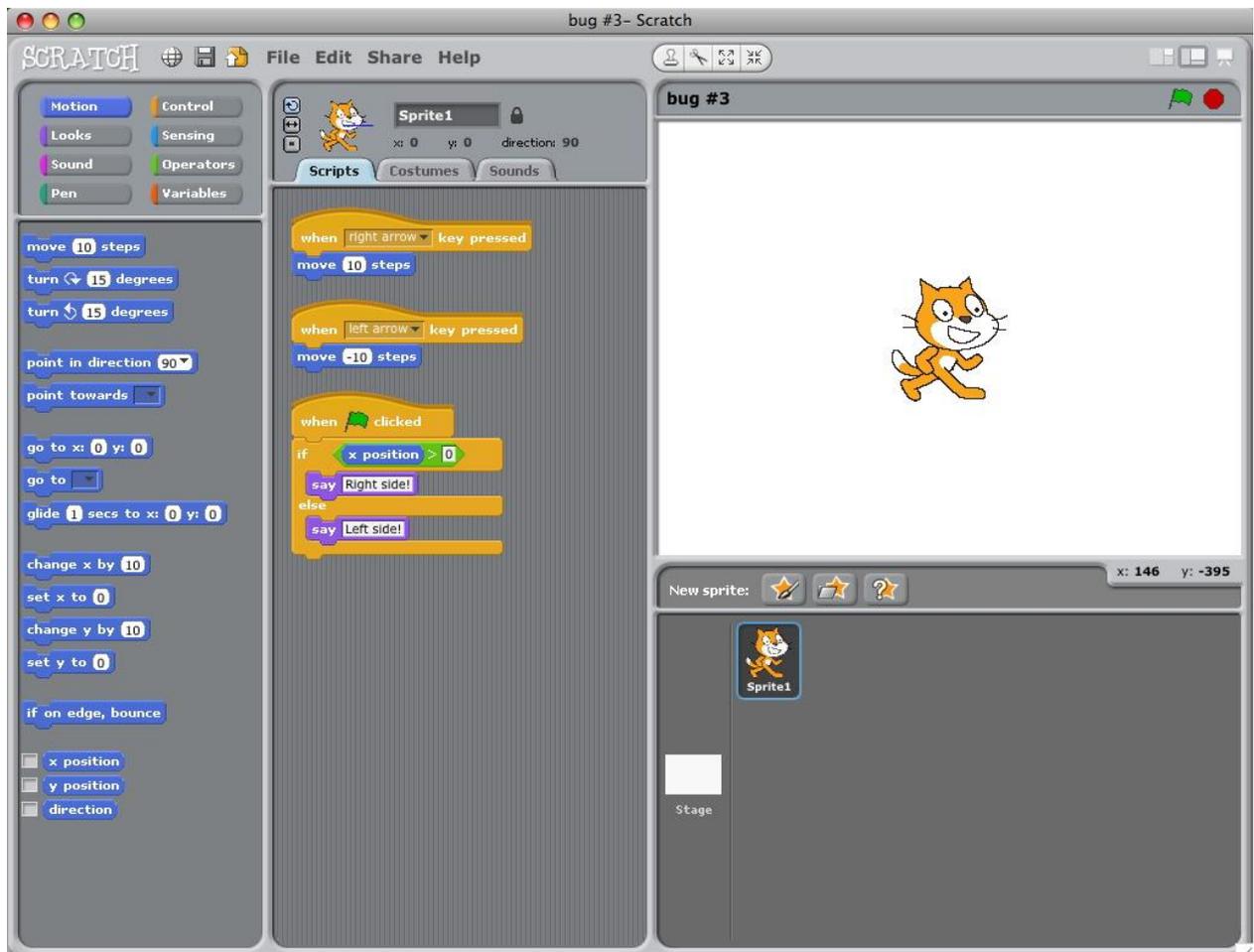
BUG #3

Alex wants his cat to dance to some music. But the cat is dancing after the music is over! What's going on?



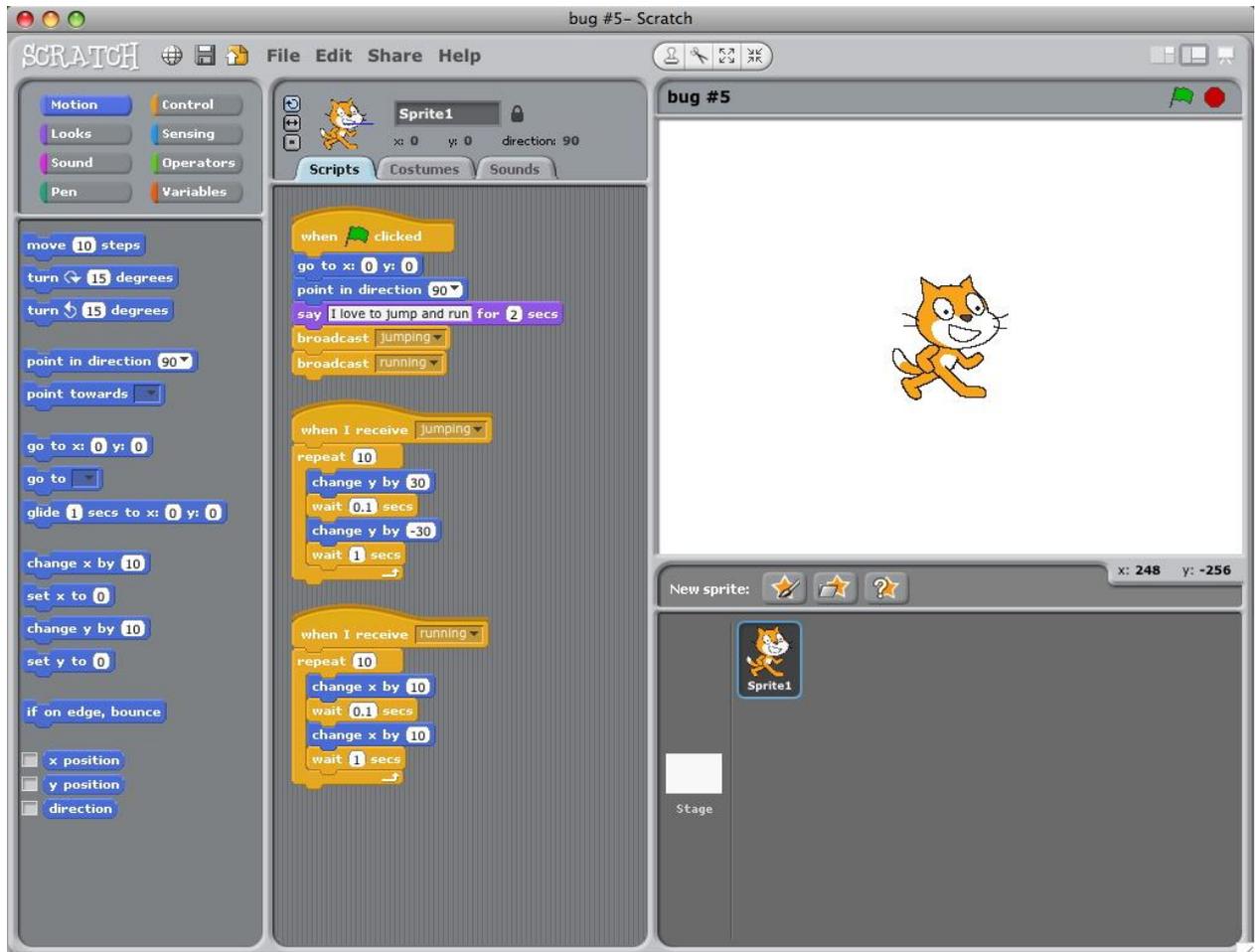
BUG #4

Praneetha wants to control the cat's x-position with the keyboard: right arrow moves the cat right, left arrow moves the cat left. She also wants the cat to say if it's on the right side or the left side, depending on its x-position. The cat's moving, but not saying its position correctly! What's going on?

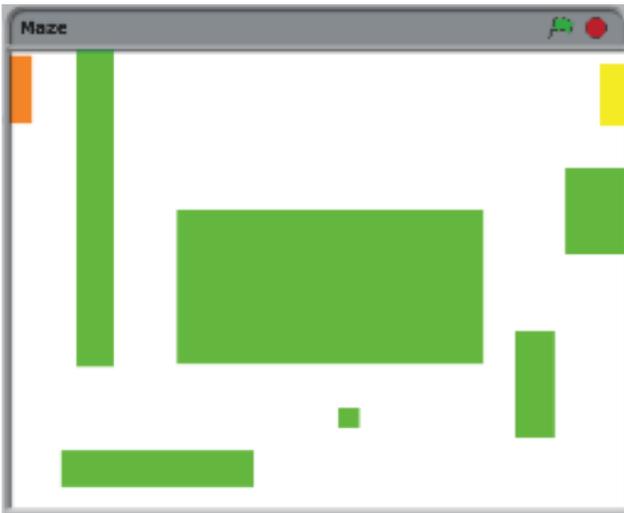


BUG #5

Nobuyuki wants his cat to jump up and down, and then move across the screen. But the cat's hopping across the screen! What's going on?



MAZE



Create a game where you get a sprite from the start to the end of a maze without touching the walls.



no scripts, draw a maze-like background with colored walls and a differently colored end marker

7 scripts total

move the sprite around

```

when down arrow key pressed
  point in direction 180
  move 10 steps
  
```

```

when up arrow key pressed
  point in direction 0
  move 10 steps
  
```

```

when right arrow key pressed
  point in direction 90
  move 10 steps
  
```

```

when left arrow key pressed
  point in direction -90
  move 10 steps
  
```

have the sprite bounce off the green walls

```

when green flag clicked
  go to x: -249 y: 149

when green flag clicked
  forever if touching color green?
    turn 180 degrees
    move 10 steps
  
```

```

when green flag clicked
  wait until touching color yellow?
  say You win! for 2 secs
  
```

players wins when sprite reaches the yellow end marker

GAMES

Here are some blocks that can be useful in games.

TOUCHING

See if two sprites are touching or if a sprite is touching a color



VISIBILITY

Make a sprite appear or disappear



RANDOM

Get a computer-generated number from within a specified range



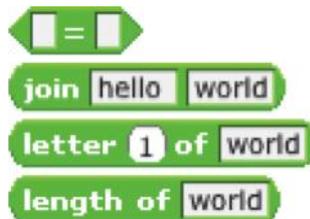
TIMING

Have the computer keep track of time for you



STRINGS

Test, access, and change words and sentences



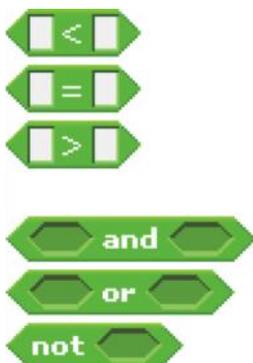
VARIABLES

Store a number or string in a container to access later



COMPARE

Compare values to help make decisions within your game

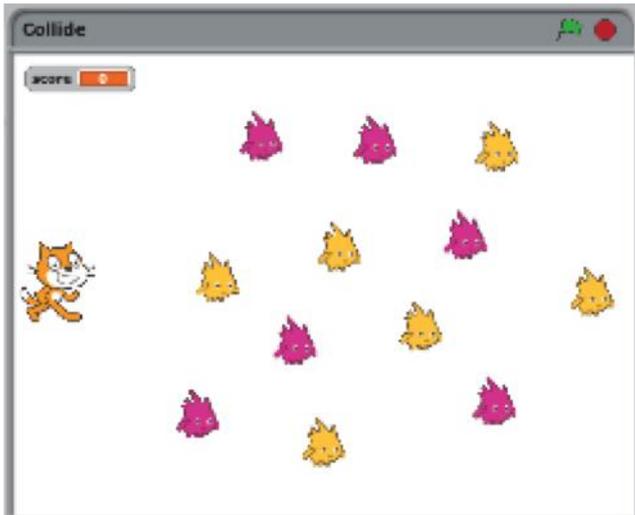


KEY PRESS

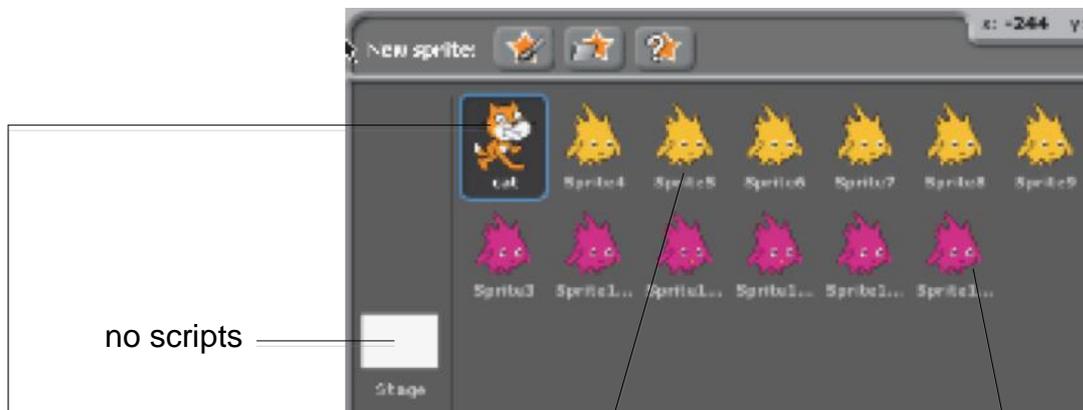
Make a sprite respond when different keys are pressed



COLLIDE



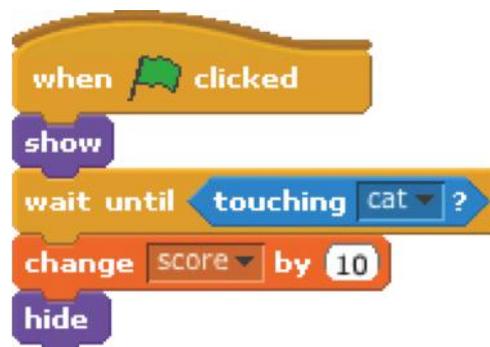
Help the cat navigate a field of Gobos. Collect yellow gobos to earn points, avoid pink gobos to avoid losing points.



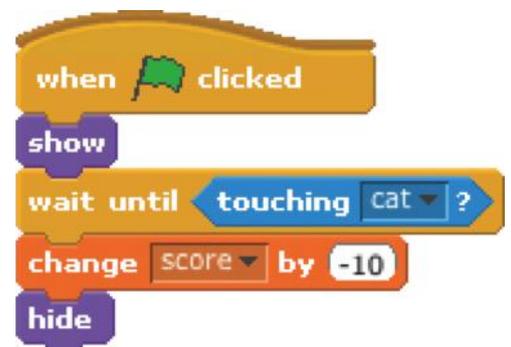
reset the cat's position and the score



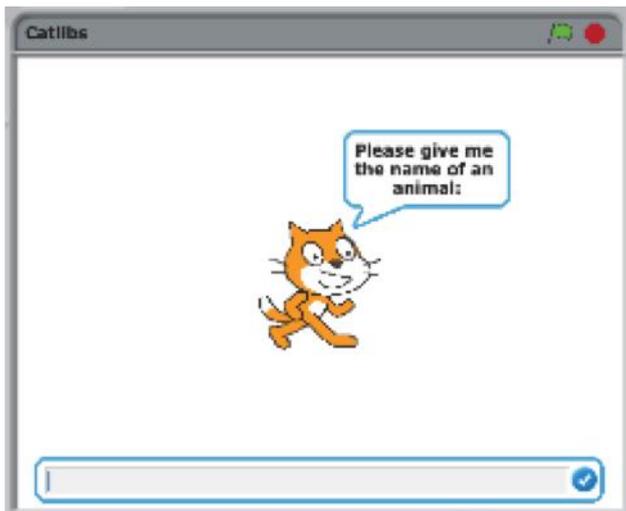
when the cat collides with a yellow gobo, the gobo disappears and the score increases by 10



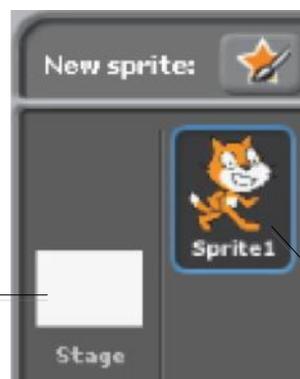
when the cat collides with a pink gobo, the gobo disappears and the score decreases by 10



CATLIBS



Create a unique Madlib story by collecting user input.



no scripts

1 script
4 variables

```
when clicked
say Welcome to CatLlibs! for 2 secs
say Let's create a story together. for 2 secs
ask Please give me the name of a friend: and wait
set friend's name to answer
ask Please give me the name of an animal: and wait
set animal to answer
ask Please give me the name of a place: and wait
set place to answer
ask Please give me the name of a thing: and wait
set thing to answer
say One day, for 2 secs
say join friend's name join and a animal for 2 secs
say join went to join place join to see a thing for 2 secs
```



SCROLLING



Create the foundation for a side scrolling game.

```
when clicked
  set scroll x to 0
  forever
    if key right arrow pressed?
      change scroll x by 10
    if key left arrow pressed?
      change scroll x by -10
    set page num to round (scroll x - 239 / 480)
    set page x to page num * 480 - scroll x
```

3 variables

1 script

create two sprites:
one for the left background panel,
one for the right background panel

add the same (2 or more)
costumes to each sprite

add this script to the left sprite

add this script to the right sprite

```
when clicked
  forever
    switch to costume page num + 1
    set x to page x
```

```
when clicked
  forever
    switch to costume page num + 2
    set x to page x + 480
```