

Change Color

Press a key to change the color of a sprite.



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1

SCRATCH

Change Color



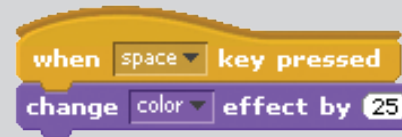
GET READY



Paint a new sprite.

Or, choose one from a folder.

TRY THIS CODE



DO IT!



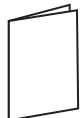
Press the space bar to change colors.

EXTRA TIP



The more colors in the sprite, the more changes you will see. (If the sprite is all black, the color change will be subtle.)

Make A Card



1. Fold the card in half.



2. Put glue on the back.



3. Cut along the dashed line.

Move to a Beat

Start dancing to a drum beat.



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2

SCRATCH

Move to a Beat

GET READY

New sprite:



Choose a dancer or other image.

TRY THIS CODE



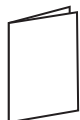
Click to choose a drum sound.

DO IT!



Click the green flag to start.

Make A Card



1. Fold the card in half.



2. Put glue on the back.



3. Cut along the dashed line.

Key Moves

Use the arrow keys to move your sprite.



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3

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Key Moves

TRY THIS CODE

```

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

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

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

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

DO IT!



Press the arrow keys to move!

EXTRA TIP



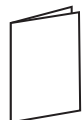
rotate all around



just flip left-right

Does your sprite look upside-down?
You can change its rotation style.

Make A Card



1. Fold the card in half.



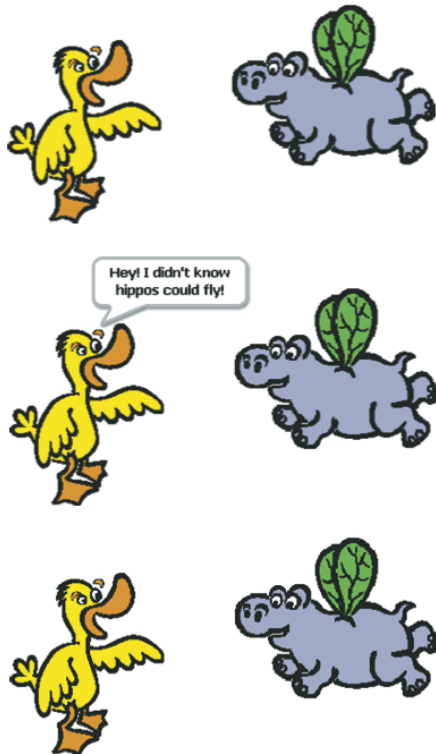
2. Put glue on the back.



3. Cut along the dashed line.

Say something

What do you want your sprite to say?



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4

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Say something



GET READY



Select a sprite.
Type in a name for your sprite.

TRY THIS CODE



Find the block that includes your
sprite's name.

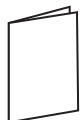
Type in any words.

DO IT!



Click on the sprite to start.

Make A Card



1. Fold the card in half.



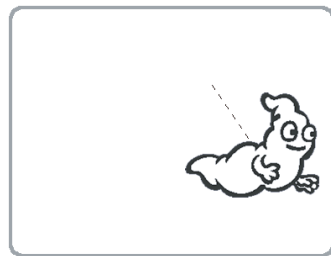
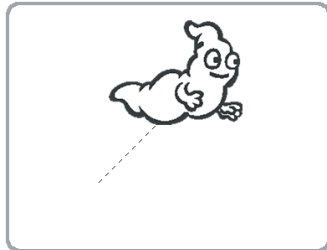
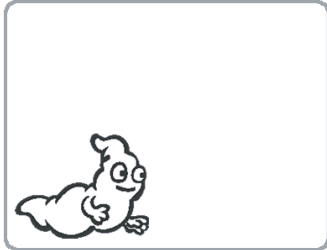
2. Put glue on the back.



3. Cut along the dashed line.

Glide

Move smoothly from one point to another.



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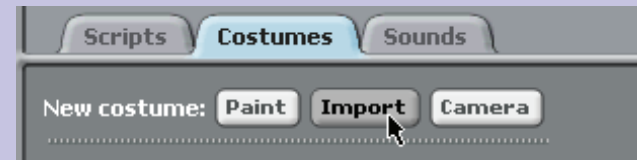
5

SCRATCH

Glide



GET READY



Import a costume.
Or, paint your own.

TRY THIS CODE

when clicked

glide 1 secs to x: 20 y: 80

glide 1 secs to x: 10 y: -20

glide 2 secs to x: -110 y: -100

Try different numbers.



Click the green flag to start.

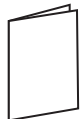
DO IT!

EXTRA TIP



Look here to find a
sprite's x and y position.

Make A Card



1. Fold the card in half.



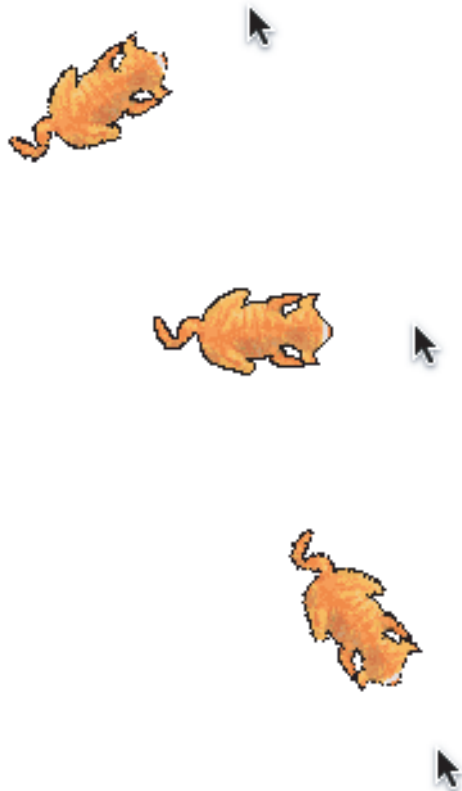
2. Put glue on the back.



3. Cut along the dashed line.

Follow the Mouse

Follow the mouse pointer.



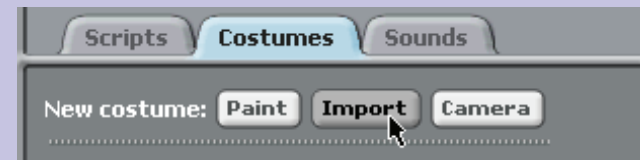
<http://scratch.mit.edu>

6

SCRATCH

Follow the Mouse

GET READY



Choose the cat or another costume.

TRY THIS CODE

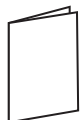


DO IT!



Click the green flag to start.

Make A Card



1. Fold the card in half.



2. Put glue on the back.



3. Cut along the dashed line.

Dance Twist

Play a sound clip and do a body twist.



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7

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Dance Twist

GET READY

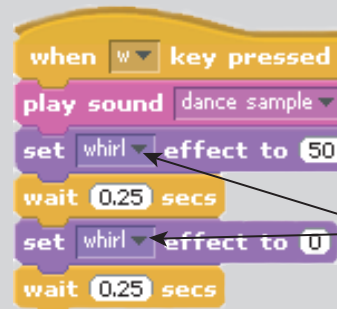


Choose an image of a person ready to dance.



Record or import a sound clip.
Keep it short!

TRY THIS CODE



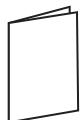
Choose whirl from the menu.

DO IT!



Press the key to start.

Make A Card



1. Fold the card in half.



2. Put glue on the back.



3. Cut along the dashed line.

Interactive Whirl

Whirl a photo by moving the mouse.



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8

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Interactive Whirl

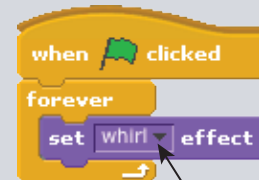


GET READY



Choose the squirrel or other photo to whirl.

TRY THIS CODE



Insert **MOUSE X** block here.

Choose whirl from the menu.

DO IT!



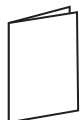
Click the green flag to start.

EXTRA TIP

Notice how the numbers change as you move the mouse.

x: 178 y: -149

Make A Card



1. Fold the card in half.



2. Put glue on the back.



3. Cut along the dashed line.

Animate It

Make a simple animation.



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9

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Animate It



GET READY



Copy a costume.

Edit the new costume
(in the paint editor) to
make it look different.

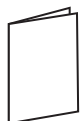
TRY THIS CODE



Click the green flag to start.

DO IT!

Make A Card



1. Fold the card in half.



2. Put glue on the back.



3. Cut along the dashed line.

Moving Animation

Animate a character as it moves.



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10

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Moving Animation



Scripts Costumes Sounds

New costume: Paint Import Camera

1		parrot1-a	181x218	5 KB
		Edit Copy X		
2		parrot1-b	181x218	5 KB

GET READY

Import a pair of costumes to animate.

TRY THIS CODE

```
when clicked
  forever
    switch to costume parrot1-a
    wait 0.3 secs
    move 5 steps
    switch to costume parrot1-b
    wait 0.3 secs
    move 5 steps
    if on edge, bounce
```

EXTRA TIP



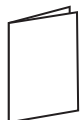
rotate all around



just flip left-right

Does your sprite look upside-down? You can change its rotation style.

Make A Card



1. Fold the card in half.



2. Put glue on the back.



3. Cut along the dashed line.

Surprise Button

Make your own button.



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11

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Surprise Button



GET READY

New sprite:



Choose "drum1" from the "Things" folder.



You can change the name of your sprite.

TRY THIS CODE

when drum button clicked

change color effect by 25

play drum pick random 35 to 81 for 0.2 beats

change color effect by -25

Find the block that includes your sprite's name.

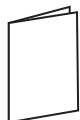
Insert the PICK RANDOM block.

DO IT!



Click to see (and hear) what it does.

Make A Card



1. Fold the card in half.



2. Put glue on the back.



3. Cut along the dashed line.

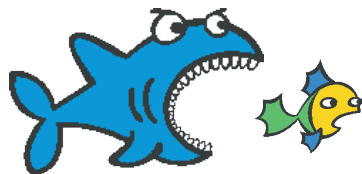
Keep Score

Add a scoreboard to your game.

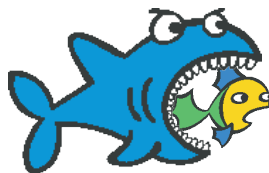
score 0



score 0



score 1



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12

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Keep Score

score 1



Motion

Control

Looks

Sensing

Sound

Operators

Pen

Variables

Make a variable

GET READY

Data

Go to Variables

Click **Make a variable**

Type "score" for the variable name and then click OK.

TRY THIS CODE

```
when green flag clicked
  set score to 0
  forever loop
    turn pick random -30 to 30 degrees
    move 5 steps
    if touching small fish
      change score by 1
      play sound chomp until done
      move -100 steps
```

Use the pull-down menu to select the sprite you're chasing.

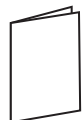
Increases the score by 1.

DO IT!



Click the green flag to start.

Make A Card



1. Fold the card in half.



2. Put glue on the back.



3. Cut along the dashed line.

LET'S PLAY!

Games provide numerous opportunities to explore a variety of computational concepts and skills. Here are some blocks that are frequently 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



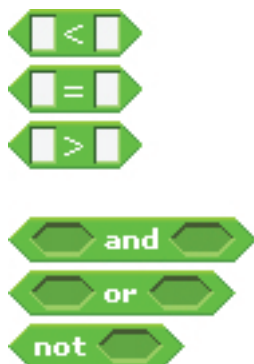
VARIABLES

Store a number or string in a container to access later



COMPARE

Compare values to help make decisions within your game

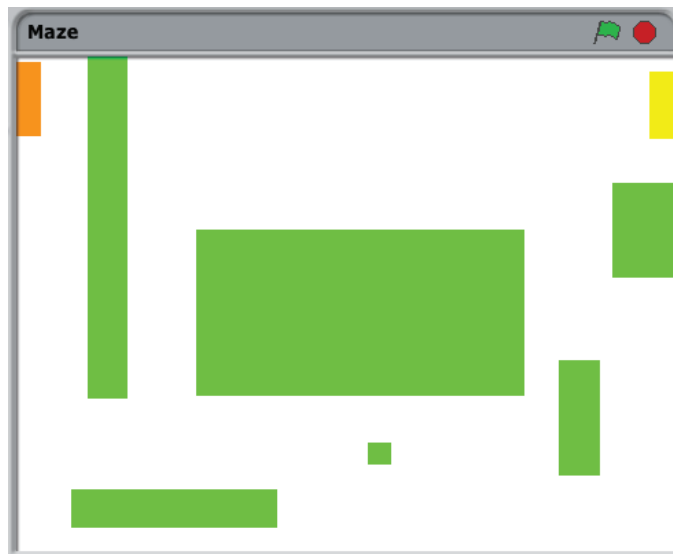


KEY PRESS

Make a sprite respond when different keys are pressed



MAZE



GOAL

Get from the start of the maze to the end

RULES

Don't touch the green walls

OUTCOME

Win when the yellow marker is reached



7 scripts

move the sprite around



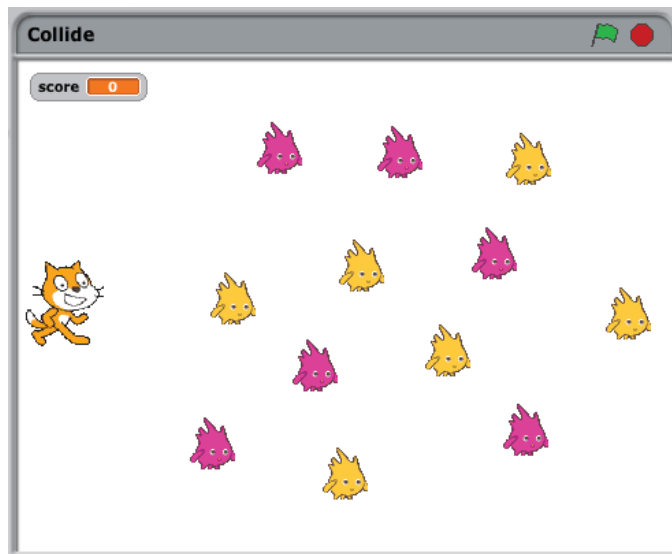
have the sprite bounce off the green walls



players wins when sprite reaches the yellow end marker

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

COLLIDE



GOAL

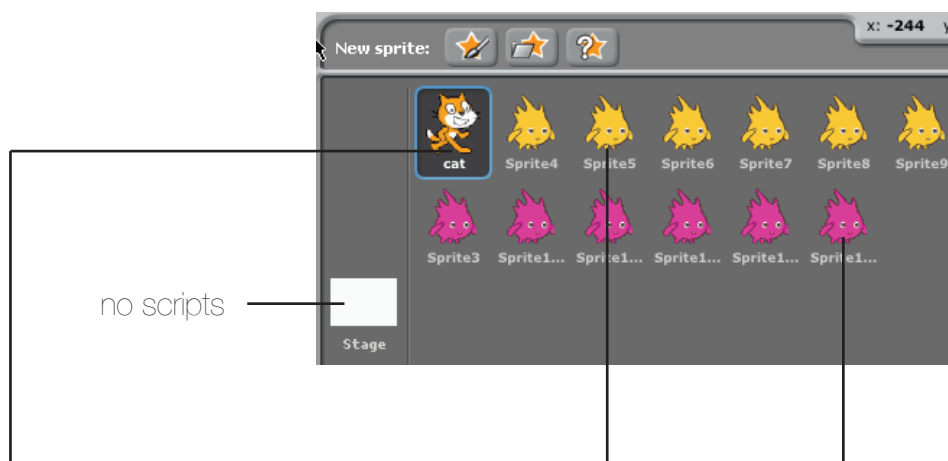
Help the cat navigate a gobo minefield

RULES

Collect yellow gobos to earn points,
avoid pink gobos to avoid losing points

OUTCOME

Maximize your score



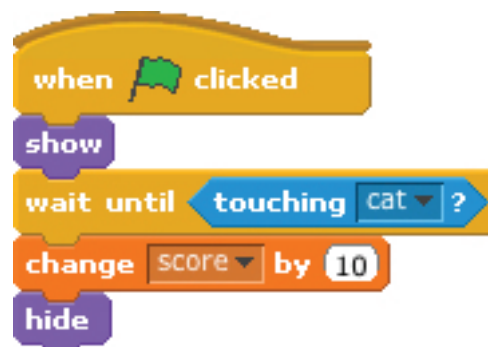
no scripts

reset the cat's position
and the score

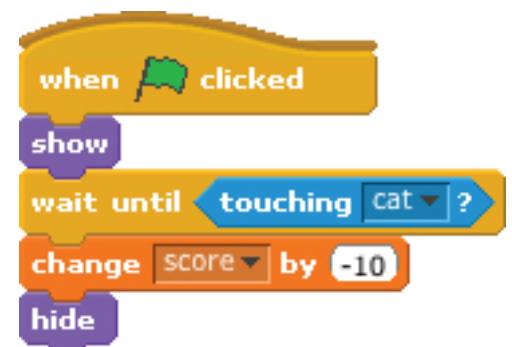


have the cat follow the
mouse cursor

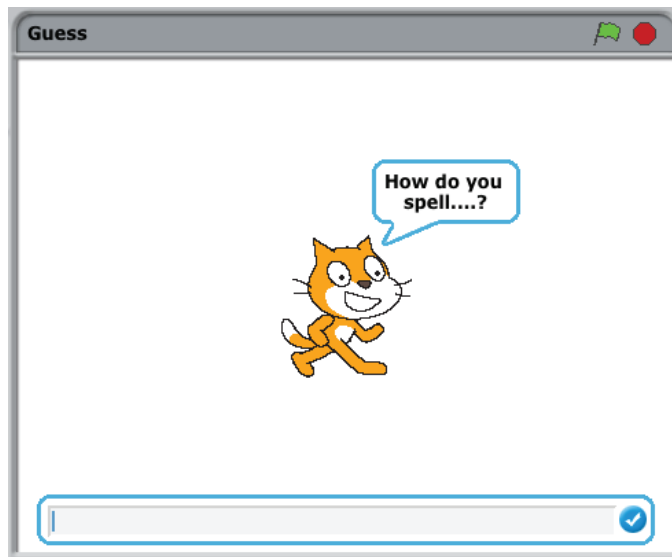
when the cat collides with a
yellow gobo, the gobo disappears
and the score increases by 10



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



GUESS



GOAL

Test your spelling abilities

RULES

Type the words spoken by the cat

OUTCOME

Learn whether you spelled each word correctly

create a list of words and audio-record their pronunciations

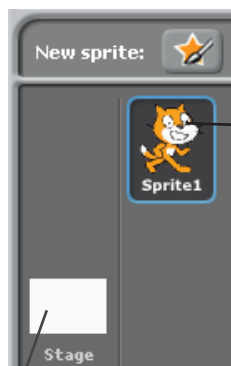


Make a list

Delete a list

☒ words

add thing to words



1 script

no scripts

