

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Animate Your Name Cards



Animate the letters of your name, initials, or favorite word.

Animate Your Name Cards

Try these cards in any order:

- Color Clicker
- Spin
- Play a Sound
- Dancing Letter
- Change Size
- Press a Key
- Glide Around

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Color Clicker

Make a letter change color when you click it.



Animate Your Name

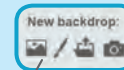
1



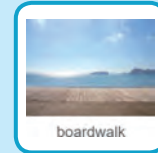
Color Clicker

scratch.mit.edu/name

GET READY



Choose a backdrop.



Choose a letter from the Letters category.



ADD THIS CODE



Try different numbers.

TRY IT

Click your letter.



Make a Card



1. Fold the card in half



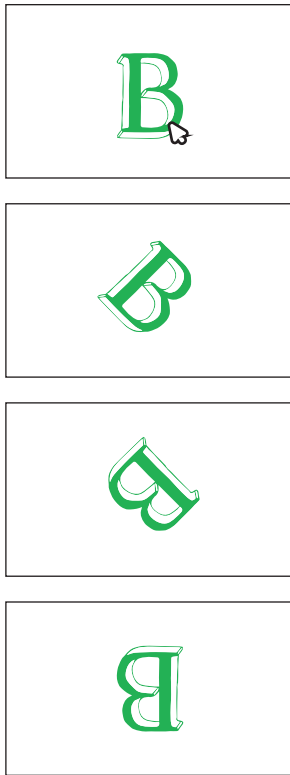
2. Glue the backs together



3. Cut along the dashed line

Spin

Make a letter turn when you click it.



Animate Your Name

2



Spin

scratch.mit.edu/name

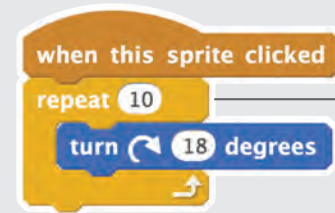
GET READY

Choose a letter from the Letters category.

New sprite:



ADD THIS CODE



Try different numbers.

TRY IT

Click your letter.



TIP

Click this block to reset the sprite's direction.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Play a Sound

Click a letter to play a sound.



Animate Your Name

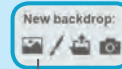
3



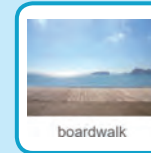
Play a Sound

scratch.mit.edu/name

GET READY



Choose a backdrop.

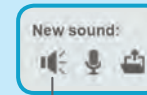


Choose a letter from the Letters category.

New sprite:



Click the **Sounds** tab.



Choose a sound.

ADD THIS CODE

Click the **Scripts** tab.

when this sprite clicked

play sound guitar strum

TRY IT

Click your letter.

Make a Card



1. Fold the card in half



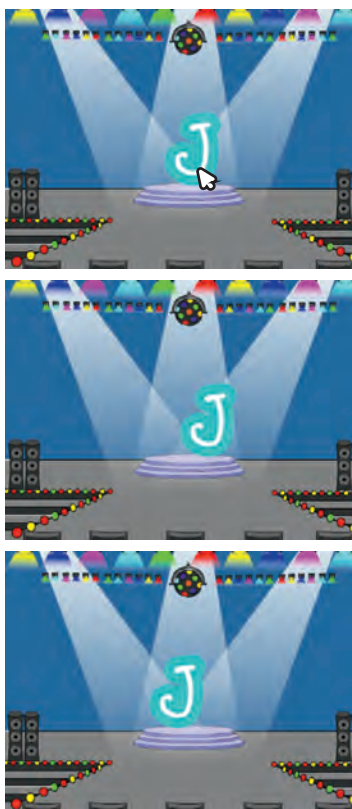
2. Glue the backs together



3. Cut along the dashed line

Dancing Letter

Make a letter move to the beat.



Animate Your Name

4



Dancing Letter

scratch.mit.edu/name

GET READY



Choose a backdrop.



Choose a letter from the Letters category.

New sprite:



ADD THIS CODE

when this sprite clicked

move 10 steps

Type a positive number to move forward.

play drum 1 for 0.25 beats

move -10 steps

Type a negative number to move back.

play drum 1 for 0.25 beats

TIP

You can choose any drum from the menu.

play drum 1 for 0.25 beats

- (1) Snare Drum
- (2) Bass Drum
- (3) Side Stick

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Change Size

Make a letter get bigger and then smaller.



Animate Your Name

5



Change Size

scratch.mit.edu/name

GET READY

Choose a letter from the Letters category.

New sprite:



ADD THIS CODE

```
when this sprite clicked
  repeat 15
    change size by 10
  repeat 15
    change size by -10
```

— Type a positive number to get bigger.

— Type a negative number to get smaller.

TRY IT

Click your letter.

TIP

Click this block to reset the size.

```
set size to 100 %
```

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Press a Key

Press a key to make your letter change.



Animate Your Name

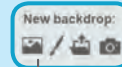
6



Press a Key

scratch.mit.edu/name

GET READY



Choose a backdrop.



Choose a letter from the Letters category.



ADD THIS CODE



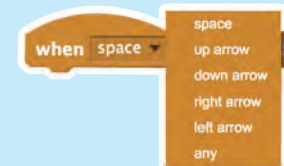
Try different numbers.

TRY IT

Press the **space** key.

TIP

You can choose a different key from the menu. Then press that key!



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Glide Around

Make a letter glide smoothly
from place to place.



Animate Your Name

7



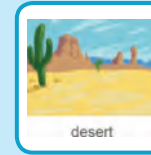
Glide Around

scratch.mit.edu/name

GET READY



Choose a backdrop.



Choose a letter from
the Letters category.



ADD THIS CODE

when this sprite clicked

glide 1 secs to x: 10 y: 100

glide 1 secs to x: 127 y: -75

glide 1 secs to x: 10 y: 100

Try different numbers.

TRY IT

Click your letter to start.

TIP

Drag your sprite to where you want it and
then add a **glide** block to your script.



When you drag a sprite,
its x and y position will
update in the Blocks palette.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Make It Fly Cards



Choose any character and make it fly!

Make It Fly Cards

Use these cards in this order:

- 1 Choose a Character
- 2 Start Flying
- 3 Switch Looks
- 4 Make It Interactive
- 5 Floating Clouds
- 6 Flying Hearts
- 7 Collect Points

Make a Card



1. Fold the card in half



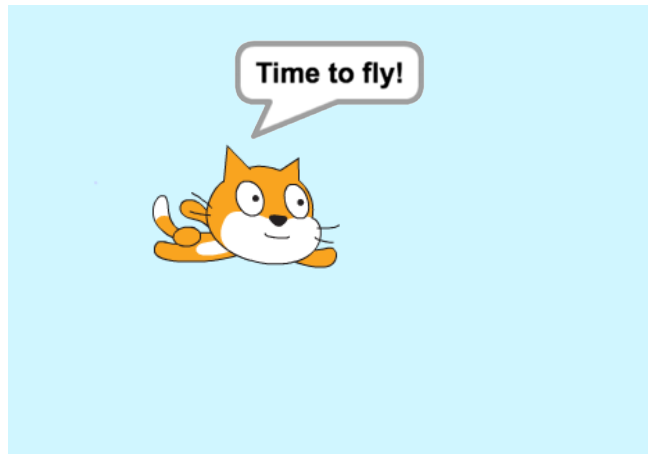
2. Glue the backs together



3. Cut along the dashed line

Choose a Character

Choose a character to fly.



Make It Fly

1



Choose a Character

scratch.mit.edu/fly

GET READY

New backdrop:



Choose a backdrop.



New sprite:



Choose a sprite from the **Flying** theme.



ADD THIS CODE



Type what you want your sprite to say.

TRY IT

Click the green flag to start



Make a Card



1. Fold the card in half



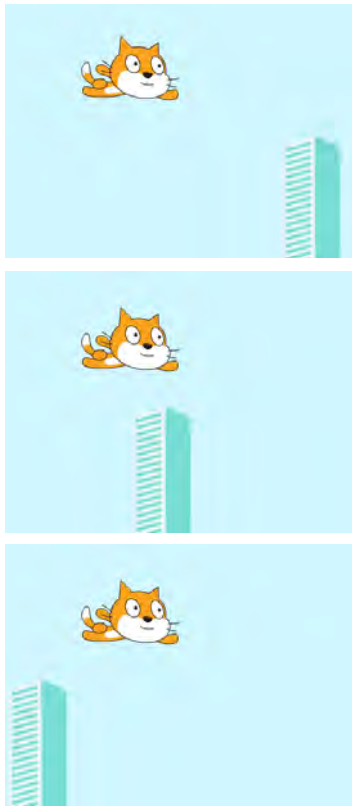
2. Glue the backs together



3. Cut along the dashed line

Start Flying

Move the scenery so your character looks like it's flying.



Start Flying

scratch.mit.edu/fly

GET READY

New sprite:

Choose a sprite to fly by, such as Buildings.



ADD THIS CODE



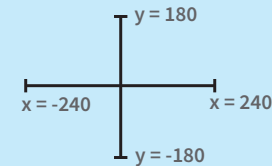
```
when green flag clicked
  forever loop
    set x to 250
    repeat 100 times
      change x by -5
```

Start from the right end of the stage.

Type a negative number to move left.

TIP

x is the position on the Stage from left to right.



Make a Card



1. Fold the card in half



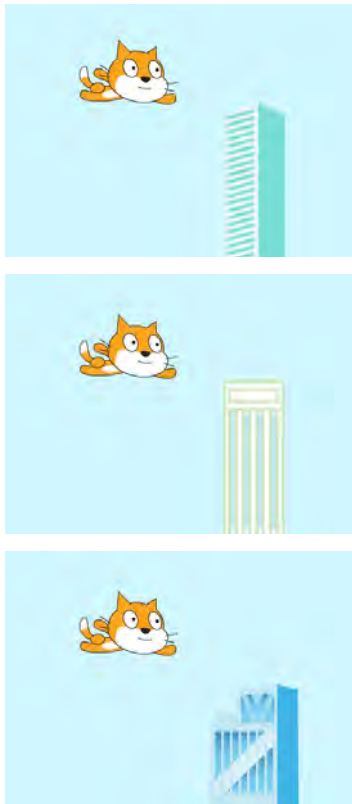
2. Glue the backs together



3. Cut along the dashed line

Switch Looks

Add variety to your scenery.



Make It Fly

3

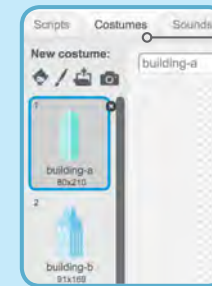


Switch Looks

scratch.mit.edu/fly

GET READY

Click to select the Buildings sprite.



Then, click the Costumes tab to see different costumes.

ADD THIS CODE



Click the Scripts tab.



Add this block to switch costumes.

TRY IT

Click the green flag to start



Make a Card



1. Fold the card in half



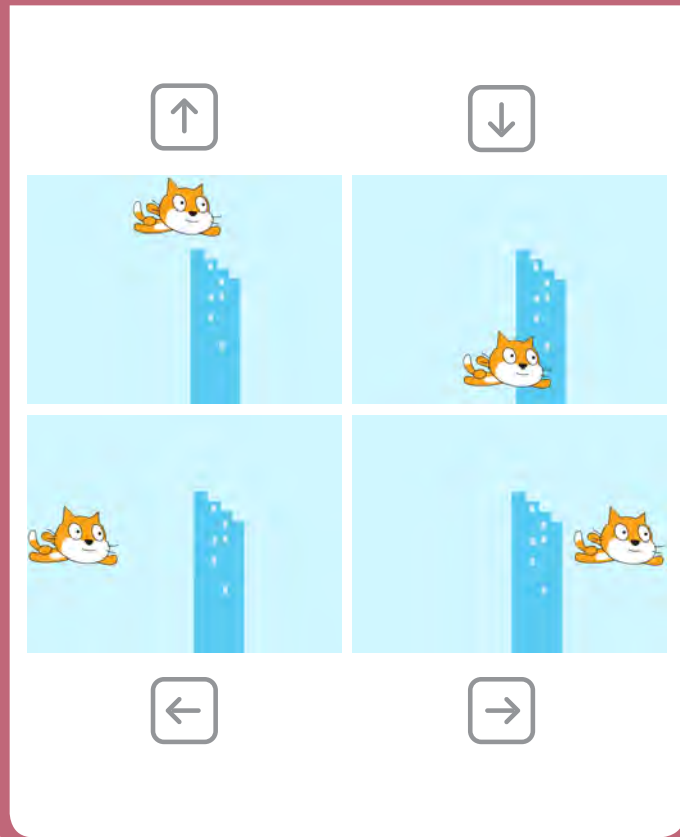
2. Glue the backs together



3. Cut along the dashed line

Make It Interactive

Make your character move when you press a key.



Make It Fly

4



Make It Interactive

scratch.mit.edu/fly

GET READY

Click to select your flying sprite.



ADD THIS CODE

when up arrow key pressed

change y by 10

when down arrow key pressed

change y by -10

when left arrow key pressed

change x by -10

when right arrow key pressed

change x by 10

TRY IT

Press the arrow keys on your keyboard to make your character move.

Make a Card



1. Fold the card in half



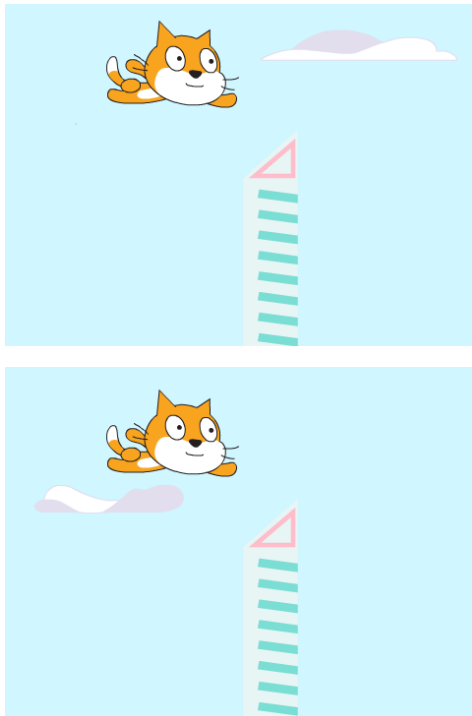
2. Glue the backs together



3. Cut along the dashed line

Floating Clouds

Make clouds float by in the sky!



Make It Fly

5

Scratch

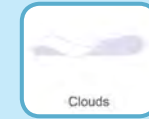
Floating Clouds

scratch.mit.edu/fly

GET READY

New sprite:

Choose Clouds from the library.



ADD THIS CODE

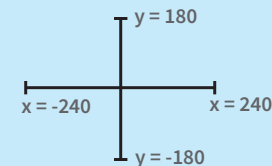
```
when green flag clicked
  forever loop
    set y to pick random 1 to 10
    set y to pick random 1 to 180
    set x to 250
    next costume
    repeat 50
      change x by -10
```

Drag the **pick random** block into the **set y to** block.

Type 180 to keep Clouds in top half.

TIP

y is the position on the Stage from top to bottom.



Make a Card



1. Fold the card in half



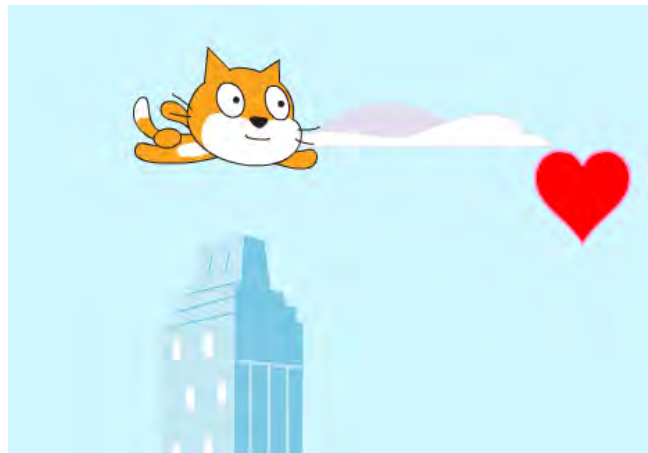
2. Glue the backs together



3. Cut along the dashed line

Flying Hearts

Add hearts or other floating objects to collect.



Flying Hearts

scratch.mit.edu/fly

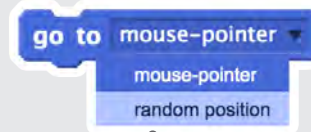
GET READY

New sprite:

Choose a sprite, such as Heart.



ADD THIS CODE



Choose random position from the menu.



TRY IT

Click the green flag to start



Make a Card



1. Fold the card in half



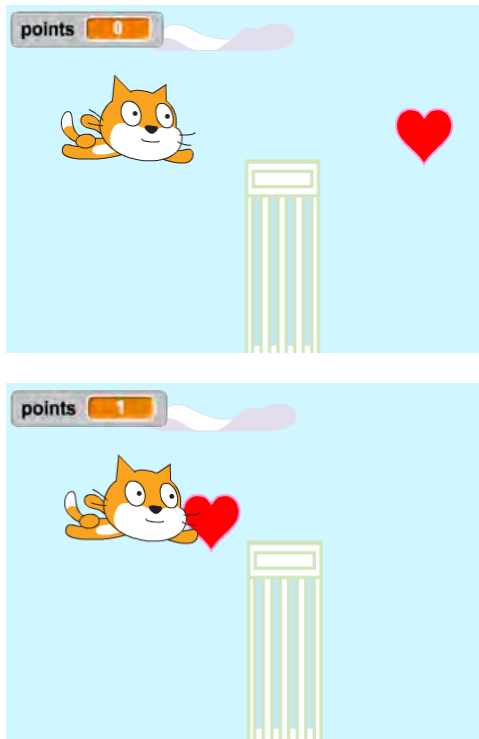
2. Glue the backs together



3. Cut along the dashed line

Collect Points

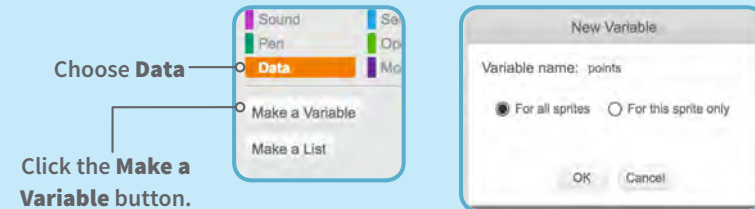
Add a point each time you touch a heart or other object.



Collect Points

scratch.mit.edu/fly

GET READY



Choose **Data**

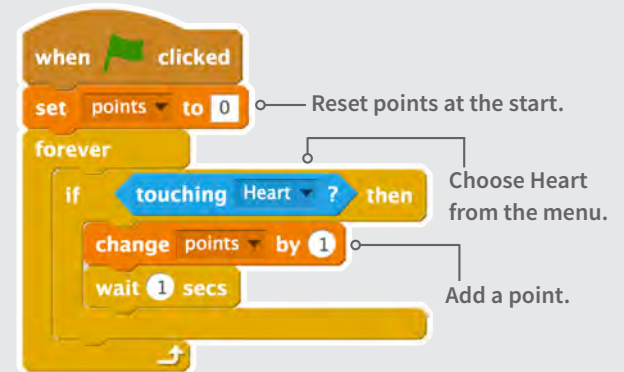
Click the **Make a Variable** button.

Name this variable **points** and then click OK.

ADD THIS CODE



Select your flying sprite.



TRY IT

Click the green flag to start



Make a Card



1. Fold the card in half

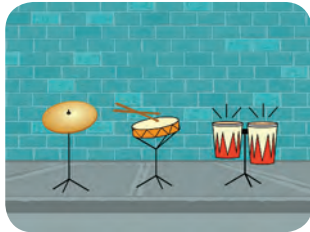
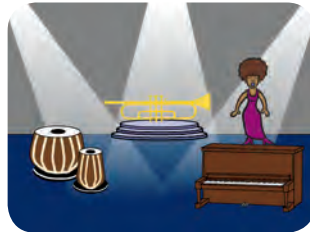


2. Glue the backs together



3. Cut along the dashed line

Make Music Cards



Choose instruments, add sounds,
and press keys to play music.

Make Music Cards

Try these cards in any order:

- Play a Drum
- Make a Rhythm
- Animate a Drum
- Make a Melody
- Play a Chord
- Surprise Song
- Beatbox Sounds
- Record Sounds
- Play a Song

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Play a Drum

Press a key to make a drum sound.



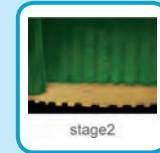
Play a Drum

scratch.mit.edu/music

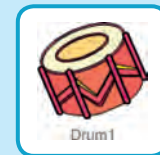
GET READY



Choose a backdrop.



Choose a drum from the Music theme.



ADD THIS CODE

when **space** key pressed

play sound **low tom**

Select the sound you want from the menu.

TRY IT

Press the **space** key to start.

Make a Card



1. Fold the card in half



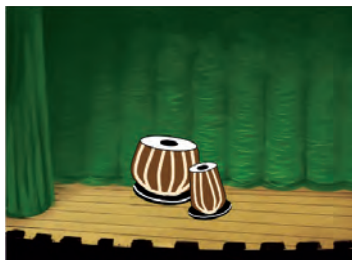
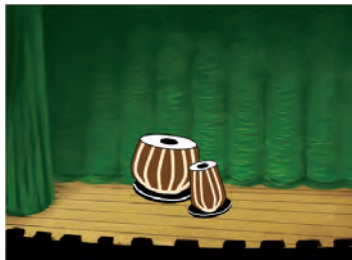
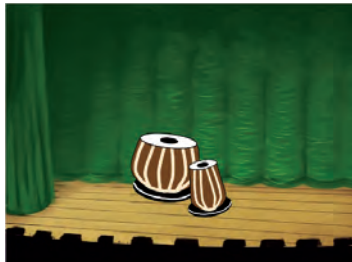
2. Glue the backs together



3. Cut along the dashed line

Make a Rhythm

Play a sequence of drum sounds.



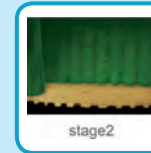
Make a Rhythm

scratch.mit.edu/music

GET READY



Choose a backdrop.



Choose a drum from the Music theme.



ADD THIS CODE

```
when space key pressed
  repeat 3
    play sound hi na tabla
    wait 0.25 secs
    play sound hi tun tabla
    wait 0.25 secs
```

Type how many times you want to repeat.

Try different numbers to change the rhythm.

TRY IT

Press the **space** key to start.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Animate a Drum

Switch between costumes to animate.



Make Music

3



Animate a Drum

scratch.mit.edu/music

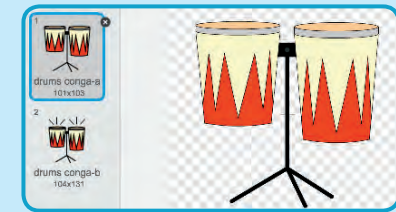
GET READY

Choose a drum from the Music theme.

New sprite:    



Click the **Costumes** tab to see the costumes.



You can use the paint tools to change colors.

ADD THIS CODE

Click the **Scripts** tab.

```
when left arrow key pressed
repeat 4
  play sound high conga
  next costume
  wait 0.25 secs
  play sound low conga
  next costume
  wait 0.25 secs
```

TRY IT

Press the **left arrow** key to start.

Make a Card



1. Fold the card in half



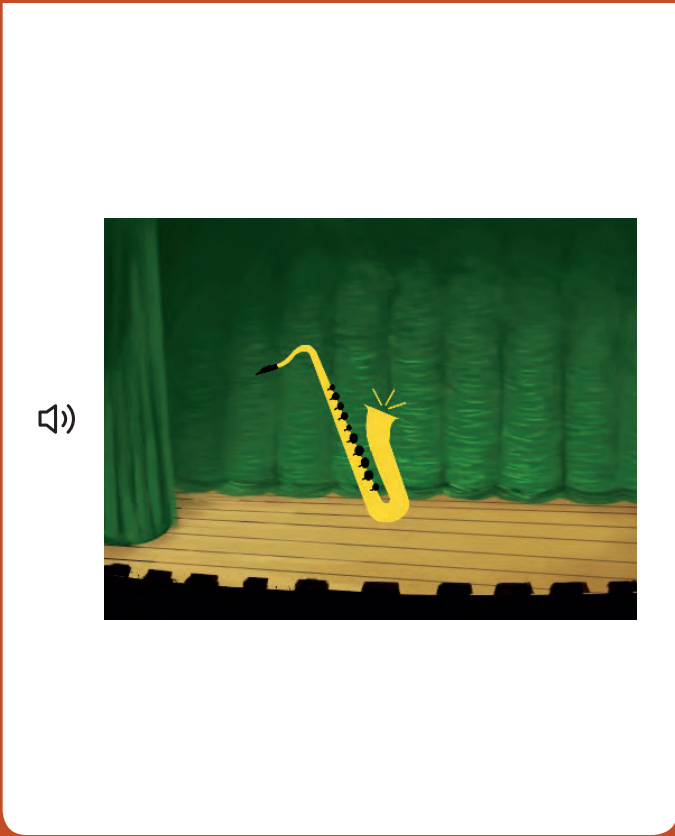
2. Glue the backs together



3. Cut along the dashed line

Make a Melody

Play a series of notes.



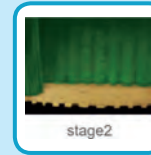
Make a Melody

scratch.mit.edu/music

GET READY



Choose a backdrop.



Choose an instrument from the Music theme.

New sprite:



ADD THIS CODE

```
when up arrow key pressed
  play sound C2 sax
  wait 0.25 secs
  play sound G sax
  wait 0.25 secs
  play sound E sax
```

Choose up arrow (or another key).

Choose different sounds.

TRY IT

Press the **up arrow** key to start.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Play a Chord

Play more than one sound at a time to make a chord.



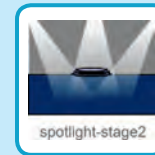
Play a Chord

scratch.mit.edu/music

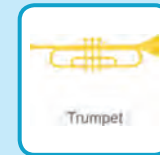
GET READY



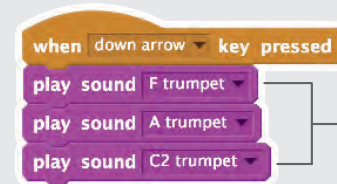
Choose a backdrop.



Choose an instrument from the Music theme.



ADD THIS CODE



Choose **down arrow** (or another key).

Choose different sounds.

TIP

Use the **play sound** block to make sounds play at the same time.

Use **play sound until done** to play sounds one after another.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Surprise Song

Play a random sound from a list of sounds.



Make Music

6

SCRATCH

Surprise Song

scratch.mit.edu/music

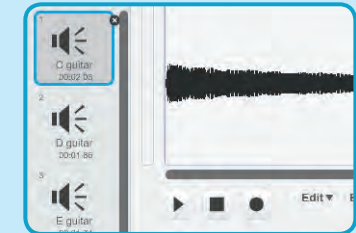
GET READY

Choose an instrument from the Music theme.

New sprite:



Click the **Sounds** tab to see all the sounds of your instrument.



ADD THIS CODE

Click the **Scripts** tab.

when **right arrow** key pressed

Choose **right arrow**.

play sound **pick random 1 to 8**

Insert a **pick random** block.

change **color** effect by **25**

Type the number of sounds in your instrument.

TRY IT

Press the **right arrow** key to start.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Beatbox Sounds

Play a series of vocal sounds.



Beatbox Sounds

scratch.mit.edu/music

GET READY

Choose the Microphone.

New sprite:



Click the **Sounds** tab to see all the beatbox sounds.



ADD THIS CODE

Click the **Scripts** tab.

```
when b key pressed — Choose b (or another key).
repeat 4
  play sound bass beatbox
  wait 0.25 secs
  play sound pick random 1 to 10 — Insert a pick random block.
  wait 0.25 secs
```

TRY IT

Press the **B** key to start.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Record Sounds

Make your own sounds to play.



Make Music

8

SCRATCH

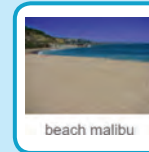
Record Sounds

scratch.mit.edu/music

GET READY

New backdrop:

Choose a backdrop.



Choose any sprite you want.

New sprite:



Click the **Sounds** tab.

New sound:

Click this icon. (You'll need a microphone.)



Click to record a short sound, like "boing" or "bop."

ADD THIS CODE

Click the **Scripts** tab.



Choose c (or another key).

TRY IT

Press the C key to start.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Play a Song

Add a music loop as background music.



Play a Song

scratch.mit.edu/music

GET READY

Choose a sprite,
like Speaker.

New sprite:



Click the **Sounds** tab.

New sound:



Select a sound from the
Music Loops category.

ADD THIS CODE

Click the **Scripts** tab.

when clicked

forever

play sound **drum jam** until done

TIP

Make sure to use **play sound** until done (not **play sound**)
or else the music will interrupt itself.

Make a Card



1. Fold the card in half

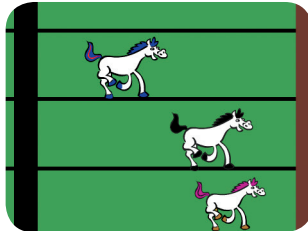
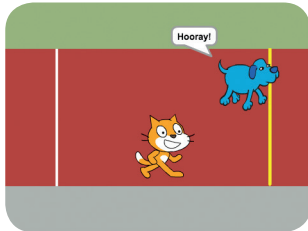


2. Glue the backs together



3. Cut along the dashed line

Race to the Finish Cards



Make a game where two characters race each other.

Race to the Finish Cards

Use these cards in this order:

- 1 Start the Race
- 2 On Your Mark
- 3 Reach the Finish Line
- 4 Choose a Racer
- 5 Add a Sound
- 6 Animate the Run
- 7 Race the Computer

Make a Card



1. Fold the card in half



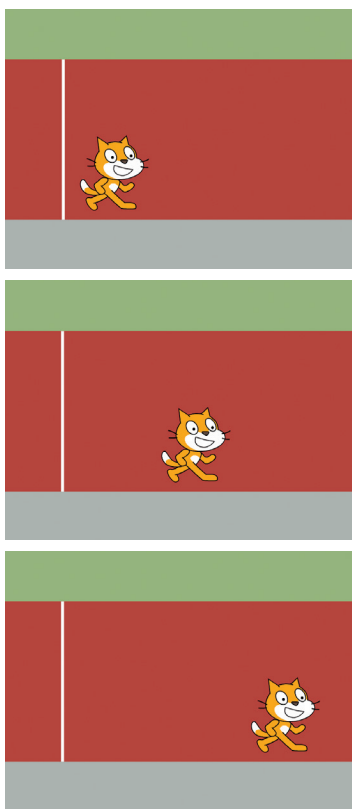
2. Glue the backs together



3. Cut along the dashed line

Start the Race

Make your sprite move on a racetrack.



Race to the Finish

1

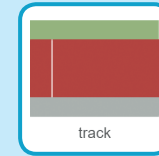


Start the Race

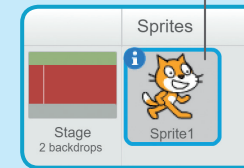
scratch.mit.edu/racegame

GET READY

New backdrop:
Choose a backdrop.



Click to select the cat.



ADD THIS CODE

Click the Scripts tab.

when space key pressed

move 5 steps

Try different numbers to change the speed.

TRY IT

Press the **space** key to move the sprite.

Make a Card



1. Fold the card in half



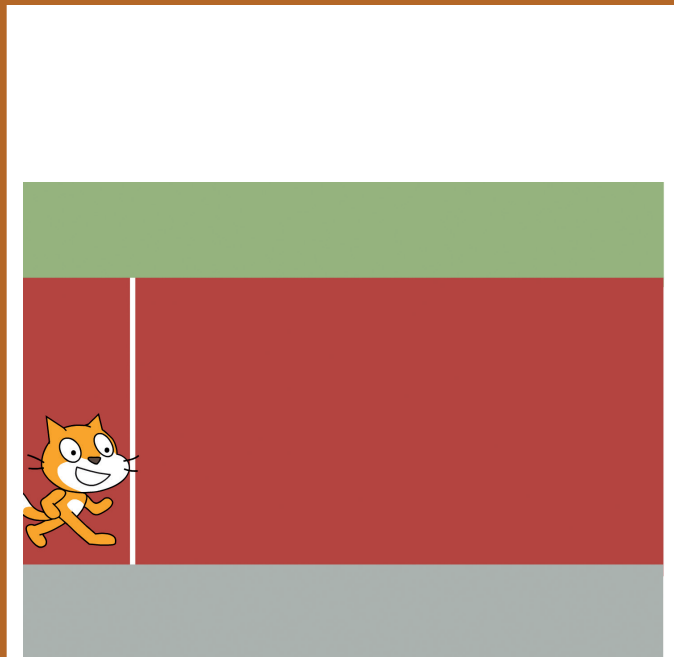
2. Glue the backs together



3. Cut along the dashed line

On Your Mark

Choose a starting point for your sprite.



Race to the Finish

2

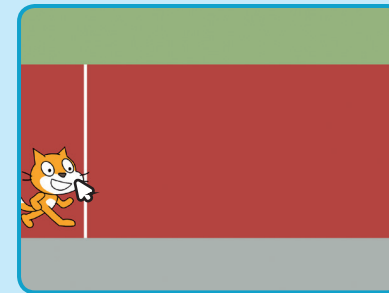
SCRATCH

On Your Mark

scratch.mit.edu/racegame

GET READY

Drag your sprite to where you want it on the Stage.



ADD THIS CODE



when  clicked

go to x: -200 y: -45

— Set the starting position.
(Your numbers may be different.)

TRY IT

Press the **space** key to move your sprite.

Click the green flag to reset.



Make a Card



1. Fold the card in half



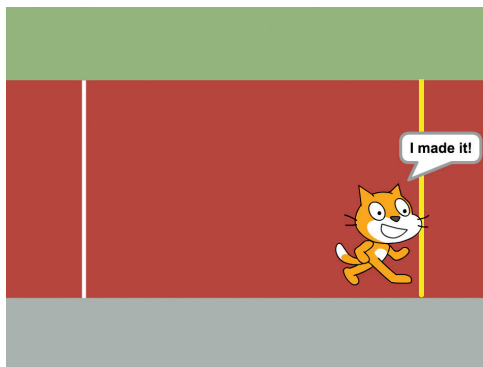
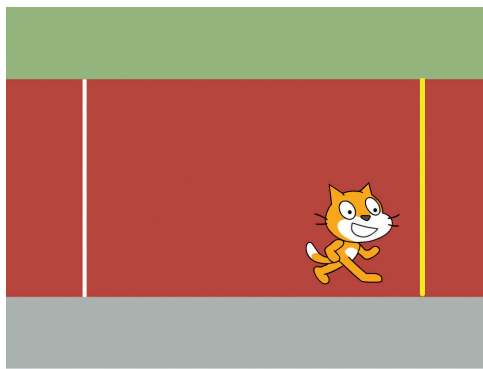
2. Glue the backs together



3. Cut along the dashed line

Reach the Finish Line

Make your sprite do something when it reaches the finish line.



Race to the Finish

3

SCRATCH

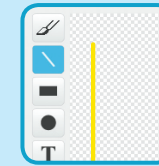
Reach the Finish Line

scratch.mit.edu/racegame

GET READY

Click the paintbrush to draw a new sprite.

New sprite:



Choose the **Line** tool and draw a line.

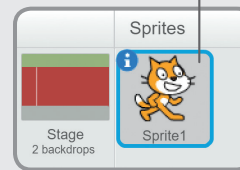
To make a straight line, hold down the Shift key while drawing.

Drag the line (Sprite2) to where you want it on the Stage.

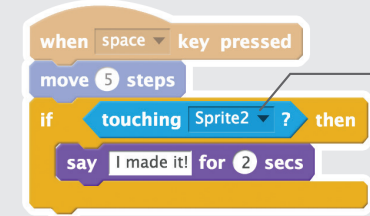


ADD THESE BLOCKS

Click to select the cat.



Click the **Scripts** tab.



Choose **Sprite2**.

Add these blocks.

TRY IT

Click the green flag to start.



Keep pressing the **space** key until you cross the finish line!

Make a Card



1. Fold the card in half



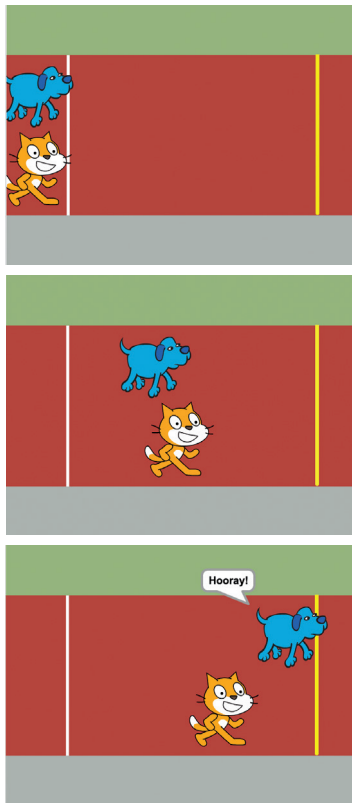
2. Glue the backs together



3. Cut along the dashed line

Choose a Racer

Add another sprite so you can have a race.



Race to the Finish

4



Choose a Racer

scratch.mit.edu/racegame

GET READY

Choose a sprite to be the second racer.

New sprite:



ADD THIS CODE

Drag your sprite to where you want it to start.

```
when green flag clicked
  go to x: -200 y: 60
```

Choose **right arrow** or a different key.

```
when right arrow key pressed
  move 5 steps
  if touching Sprite2 ? then
    say Hooray! for 2 secs
```

TRY IT

Click the green flag to start.



Press the **space** key and the **right arrow** key to make your sprites race.

Make a Card



1. Fold the card in half



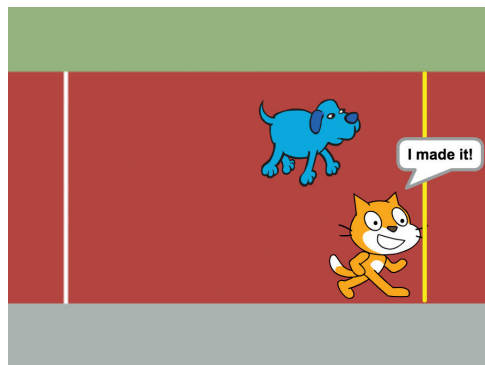
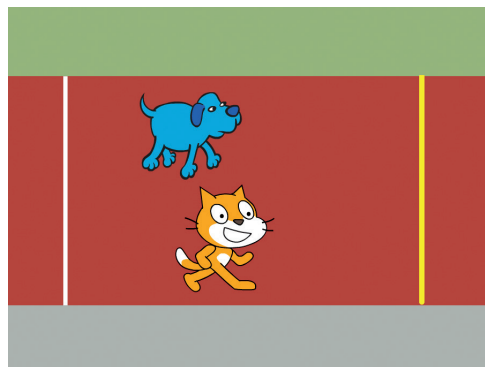
2. Glue the backs together



3. Cut along the dashed line

Add a Sound

Play a sound when you win the race.



Race to the Finish

5

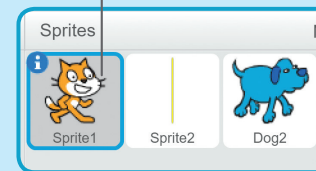


Add a Sound

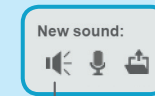
scratch.mit.edu/racegame

GET READY

Click to select the cat.



Click the **Sounds** tab.



Then choose a sound from the Sound library, like cheer.

ADD THIS BLOCK

Click the **Scripts** tab.



— Add this block to play the sound.

TRY IT

Click the green flag to start.



Press the **space** key until you cross the finish line!

Make a Card



1. Fold the card in half



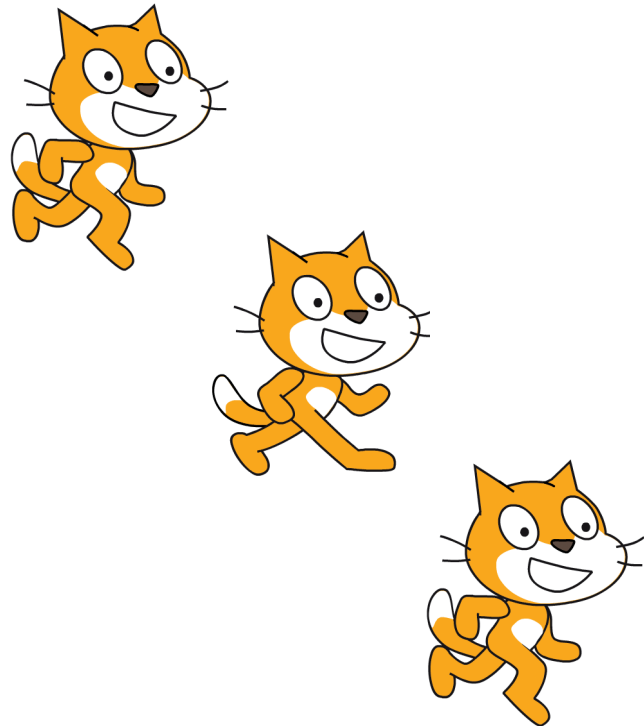
2. Glue the backs together



3. Cut along the dashed line

Animate the Run

Switch costumes to make your sprite look like it's running.



Race to the Finish

6

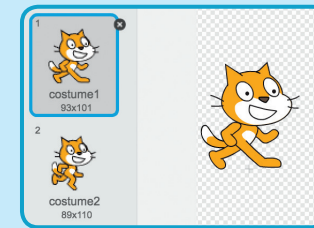


Animate the Run

scratch.mit.edu/racegame

GET READY

Click the **Costumes** tab to see your sprite's costumes.



ADD THIS BLOCK

Click the **Scripts** tab.



```
when space key pressed
  move 5 steps
  next costume
  if touching Sprite2 ? then
    say I made it! for 2 secs
    play sound cheer
```

Add this block to switch between costumes.

TRY IT

Press the **space** key.

TIP

You can animate any sprite that has more than one costume.

Make a Card



1. Fold the card in half



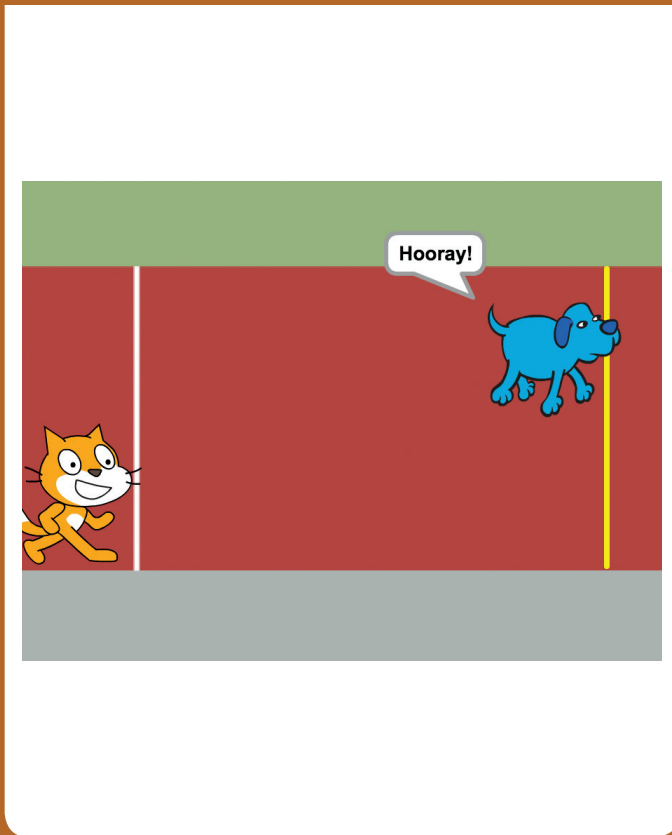
2. Glue the backs together



3. Cut along the dashed line

Race the Computer

Race against a sprite that moves automatically.



Race to the Finish

7

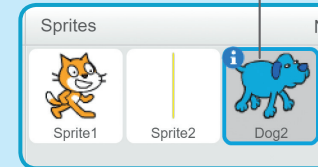
SCRATCH

Race the Computer

scratch.mit.edu/racegame

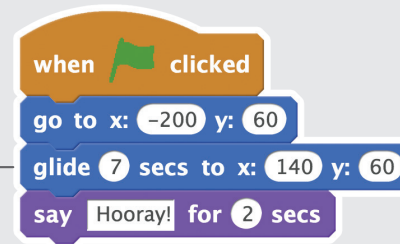
GET READY

Choose the sprite you want to move automatically.



ADD THIS CODE

Type a smaller number of seconds to go faster.



TRY IT

Click the green flag to start.



Press the **space** key to move the other sprite.

Make a Card



1. Fold the card in half

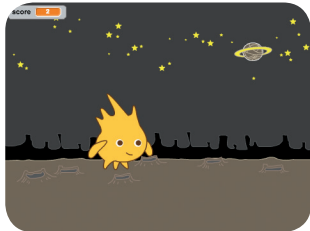


2. Glue the backs together



3. Cut along the dashed line

Hide and Seek Cards



Make a hide-and-seek game with characters that appear and disappear.

Hide and Seek Cards

Use these cards in this order:

- 1 Disappear
- 2 Click and Say
- 3 Surprise Timing
- 4 Go Random!
- 5 Click for Points
- 6 Hiding Place

Make a Card



1. Fold the card in half



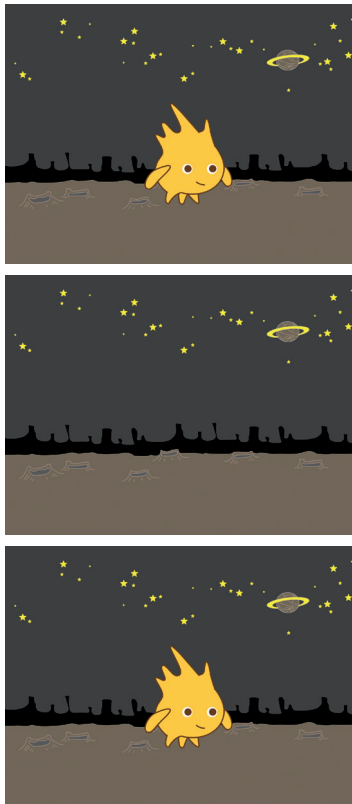
2. Glue the backs together



3. Cut along the dashed line

Disappear

Make a sprite disappear and appear again.



Hide and Seek

1

SCRATCH

Disappear

scratch.mit.edu/hide

GET READY

Choose a backdrop.

New backdrop:

space

Choose a sprite to hide.

New sprite:

Gobo

ADD THIS CODE



```
when clicked
  forever
    hide
    wait 1 secs
    show
    wait 1 secs
```

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Click and Say

Make a sprite speak when you click it.



Hide and Seek

2

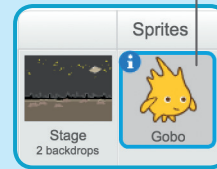


Click and Say

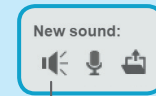
scratch.mit.edu/hide

GET READY

Click to select your sprite.



Click the **Sounds** tab.



Then choose a sound from the Sound library.

ADD THIS CODE

Click the **Scripts** tab.

when this sprite clicked

play sound **hey**

say **You found me!** for **1** secs

Type what you want your sprite to say.

TRY IT

Click your sprite.



Make a Card



1. Fold the card in half



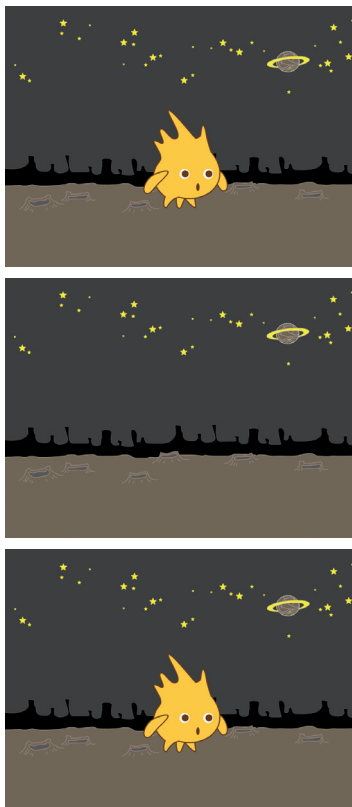
2. Glue the backs together



3. Cut along the dashed line

Surprise Timing

Make a sprite wait for a random amount of time before appearing again.

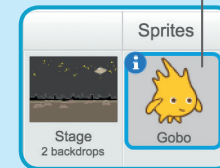


Surprise Timing

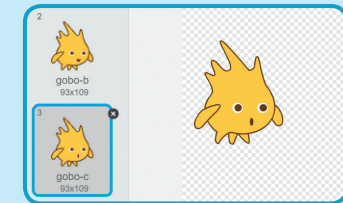
scratch.mit.edu/hide

GET READY

Click to select your sprite.

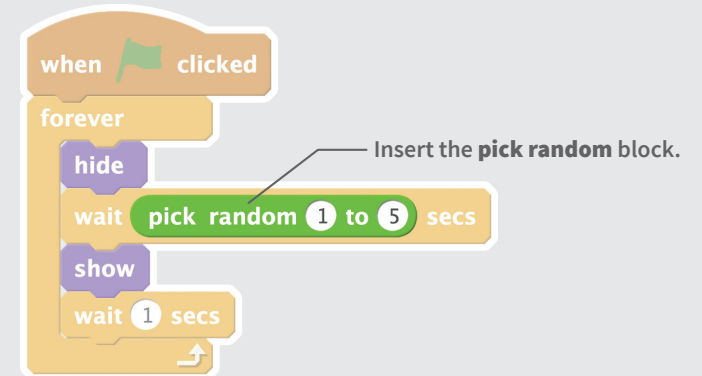


Click the **Costumes** tab and choose the costume you want.



ADD THIS BLOCK

Click the **Scripts** tab.



TIP

Play with the timing! Try typing in a different range of numbers.



Hide and Seek

3

SCRATCH

Make a Card



1. Fold the card in half



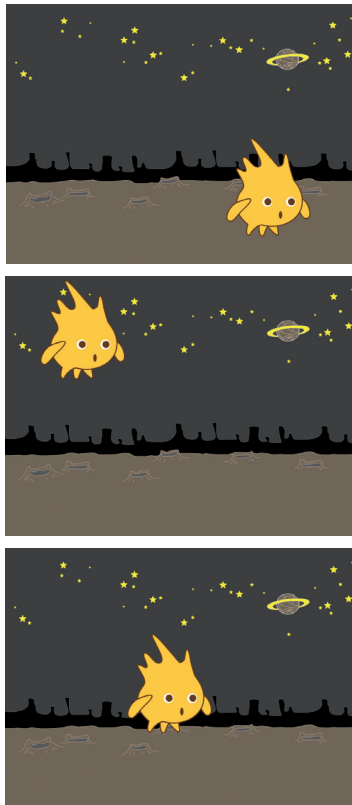
2. Glue the backs together



3. Cut along the dashed line

Go Random!

Make a sprite jump to random spots on the Stage.

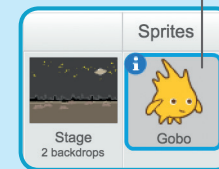


Go Random!

scratch.mit.edu/hide

GET READY

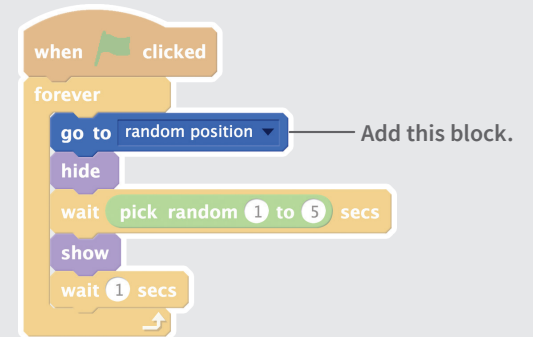
Click to select your sprite.



ADD THIS BLOCK



Choose **random position** from the menu.



TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



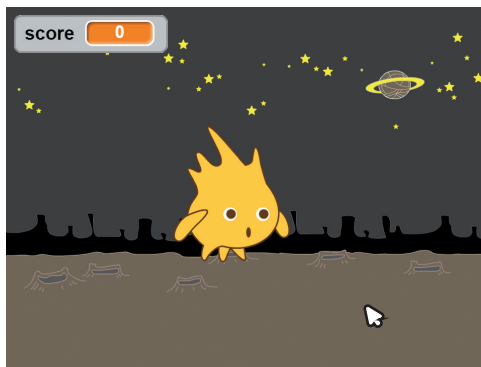
2. Glue the backs together



3. Cut along the dashed line

Click for Points

Add a point each time you click a sprite.

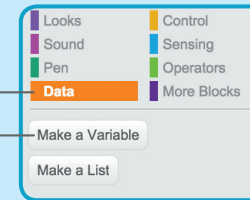


Click for Points

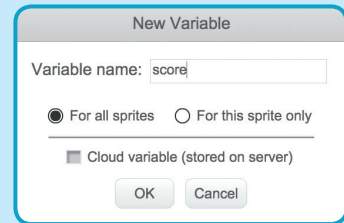
scratch.mit.edu/hidden

GET READY

Choose **Data**.

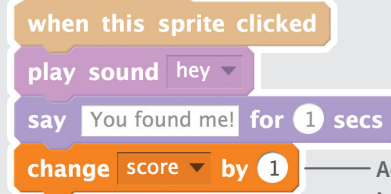


Click the **Make a Variable** button.



Name this variable **score** and then click **OK**.

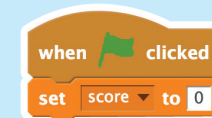
ADD THIS BLOCK



Add this block to increase the score.

TIP

Add this script to make the score reset to 0 when you click the green flag.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Hiding Place

Make a sprite hide behind something.



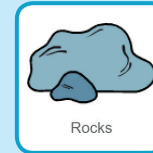
Hiding Place

scratch.mit.edu/hide

GET READY

Choose a sprite to be a hiding place, like Rocks.

New sprite:



Rocks

Then choose another sprite who will hide.

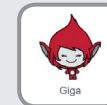


Giga

ADD THIS CODE



Rocks



Giga



TIP

Click the **Grow** or **Shrink** tool and then click the sprite to change its size.

Grow Shrink



Make a Card



1. Fold the card in half

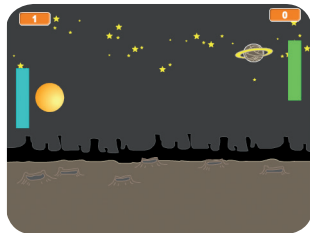
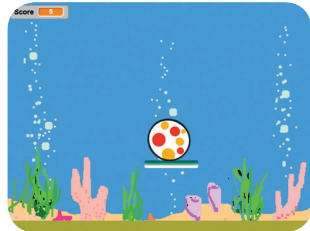
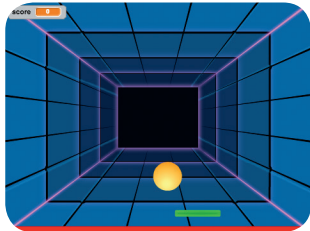


2. Glue the backs together



3. Cut along the dashed line

Pong Game Cards



Make a bouncing ball game with sounds, points, and other effects.

Pong Game Cards

Use these cards in this order:

- 1 Bounce Around
- 2 Move the Paddle
- 3 Bounce Off the Paddle
- 4 Game Over
- 5 Score Points
- 6 Win the Game

Make a Card



1. Fold the card in half



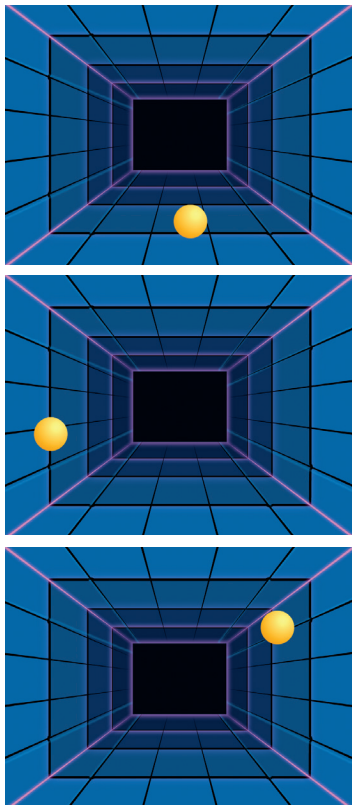
2. Glue the backs together



3. Cut along the dashed line

Bounce Around

Make a ball move around the Stage.



Pong Game

1



Bounce Around

scratch.mit.edu/pong

GET READY

Choose a backdrop.

New backdrop:

neon tunnel

Choose a ball.

New sprite:

Ball

ADD THIS CODE

when clicked

turn 15 degrees

forever

move 15 steps

if on edge, bounce

Type a bigger number to move faster.

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



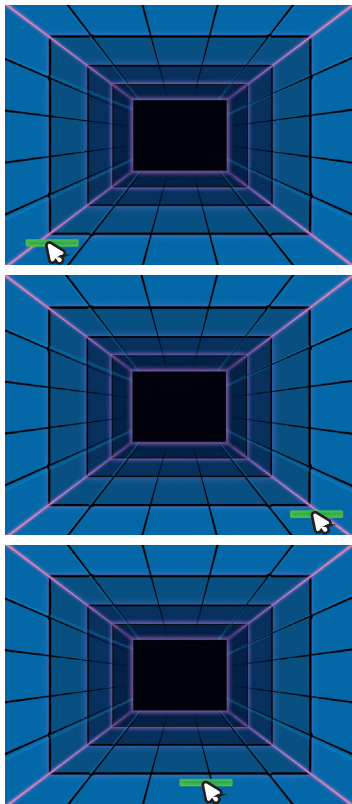
2. Glue the backs together



3. Cut along the dashed line

Move the Paddle

Control a paddle by moving your mouse pointer.



Pong Game

2



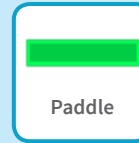
Move the Paddle

scratch.mit.edu/pong

GET READY

Choose a sprite for hitting the ball, such as Paddle

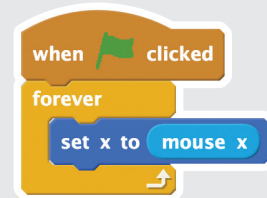
New sprite:    



Then, drag your paddle to the bottom of the Stage.

ADD THIS CODE

Insert the **mouse x** block in the **set x to** block.



TRY IT

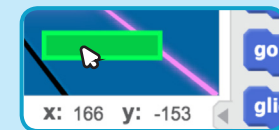
Click the green flag to start.



Move your mouse pointer to move the paddle.

TIP

You can see the **x** position change as you move the mouse across the Stage.



Make a Card



1. Fold the card in half



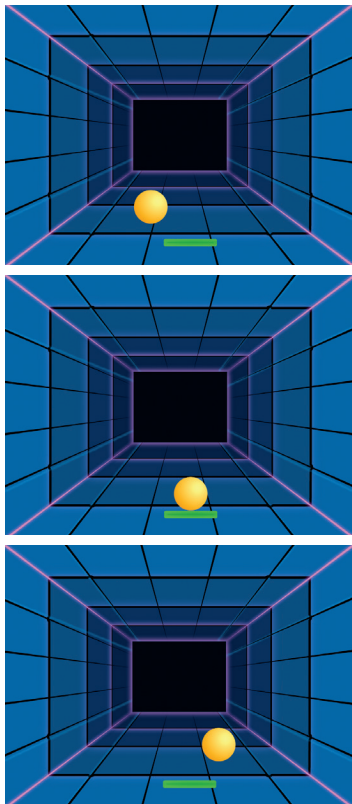
2. Glue the backs together



3. Cut along the dashed line

Bounce Off the Paddle

Make the ball bounce off the paddle.



Pong Game

3

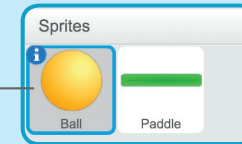


Bounce Off the Paddle

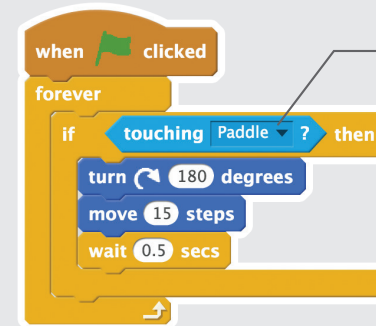
scratch.mit.edu/pong

GET READY

Click to select the **Ball** sprite.



ADD THIS CODE



Choose the **Paddle** sprite from the menu.

TRY IT

Click the green flag to start.



TIP

Want the ball to turn randomly? Insert a **pick random** block into the turn block:



Type in numbers around 180.

Make a Card



1. Fold the card in half



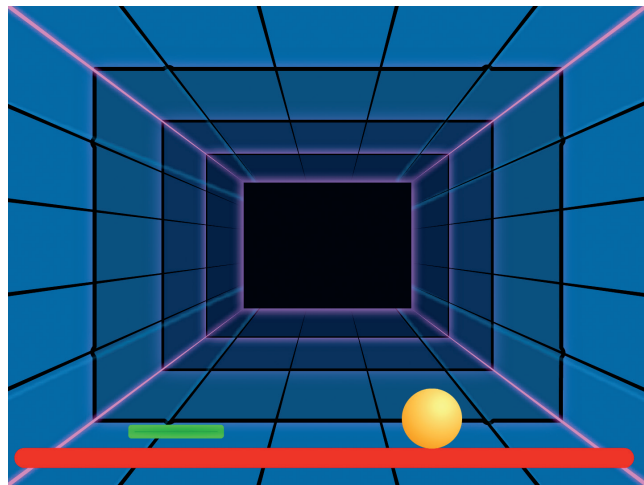
2. Glue the backs together



3. Cut along the dashed line

Game Over

Stop the game if the ball hits the red line.



Pong Game

4



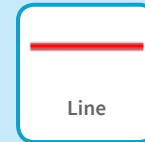
Game Over

scratch.mit.edu/pong

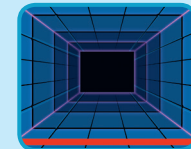
GET READY

Choose a sprite called Line.

New sprite:



Drag the Line to the bottom of the Stage.



ADD THIS CODE

```
when green flag clicked
  go to x: 0 y: -170
  forever loop
    if touching Ball then
      stop all
```

Choose the **Ball** sprite from the menu.

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



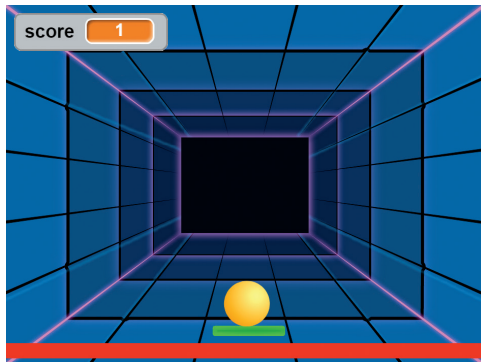
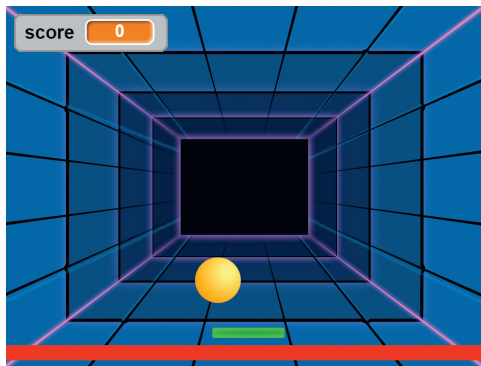
2. Glue the backs together



3. Cut along the dashed line

Score Points

Add a point each time you hit the ball with the paddle.

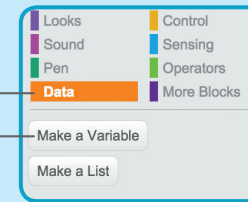


Score Points

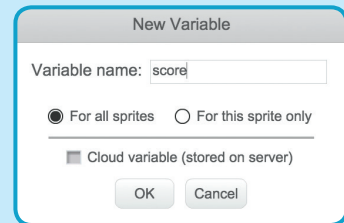
scratch.mit.edu/pong

GET READY

Choose **Data**.



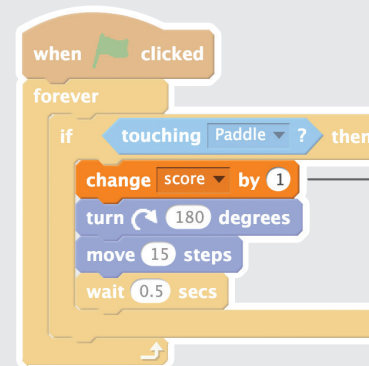
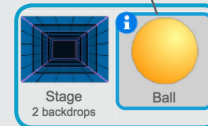
Click the **Make a Variable** button.



Name this variable **score** and then click **OK**.

ADD THIS BLOCK

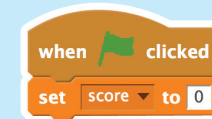
Click to select the **Ball** sprite.



Add this block to increase the score.

TIP

Use a **set score to 0** block to reset the score when you click the green flag.



Make a Card



1. Fold the card in half



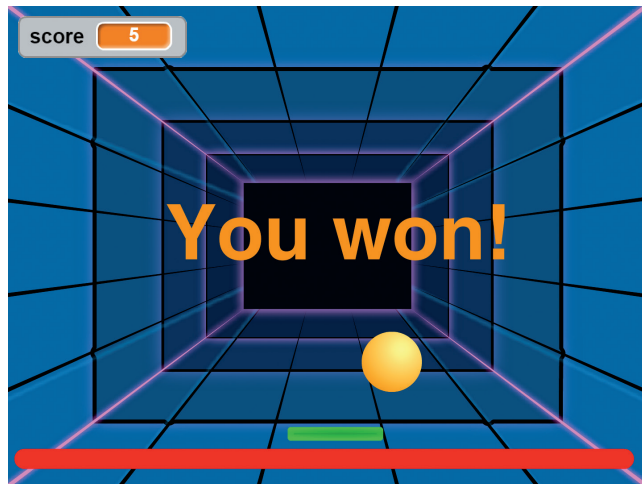
2. Glue the backs together



3. Cut along the dashed line

Win the Game

When you score enough points,
display a winning message!



Pong Game

6



Win the Game

scratch.mit.edu/pong

GET READY

Click the paintbrush
to draw a new sprite.

New sprite:   

Bitmap Mode

Convert to vector

Click the **Convert
to vector** button.

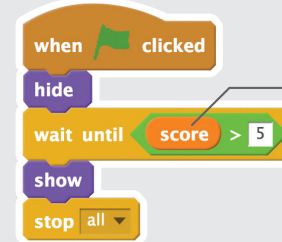
Use the **Text** tool to write
a message, like "You won!"

You won!

You can change the font
color, size, and style.

ADD THIS CODE

Click the **Scripts** tab.



Insert the **score** block.

TRY IT

Click the green
flag to start.



Play until you score
enough points to win!

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Fashion Game Cards



Dress up a character with different clothes and styles.

Fashion Game Cards

Start with the first card and then try the other cards in any order:

- Choose Your Character
- Play with Colors
- Change Styles
- Change Backdrops
- Lay Out Your Clothes
- Glide into Place
- Snap into Place

Make a Card



1. Fold the card in half



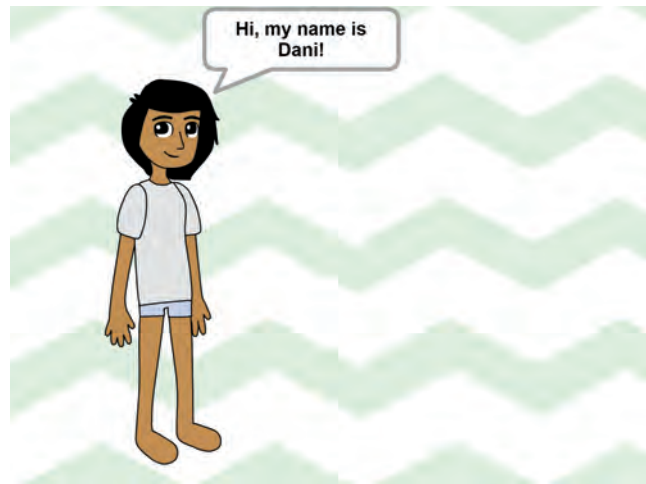
2. Glue the backs together



3. Cut along the dashed line

Choose Your Character

Choose your character and have them say something.



Fashion Game

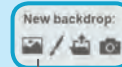
1



Choose Your Character

scratch.mit.edu/fashion

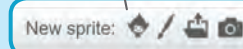
GET READY



Choose a backdrop.



Choose a character from the Dress-Up theme.



Click the **Costumes** tab.

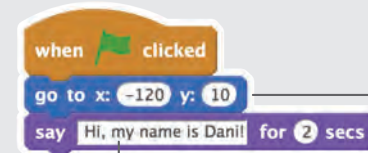
Then select the look you want.



You can use the paint bucket to change colors!

ADD THIS CODE

Click the **Scripts** tab.



Set the starting position.

Type what you want your character to say.

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



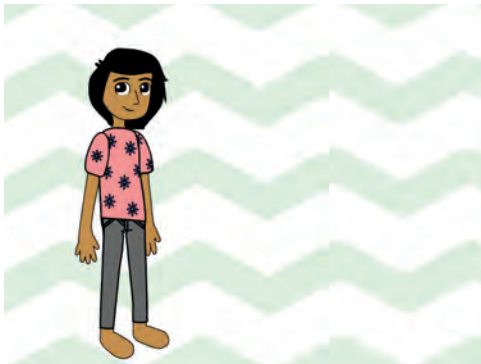
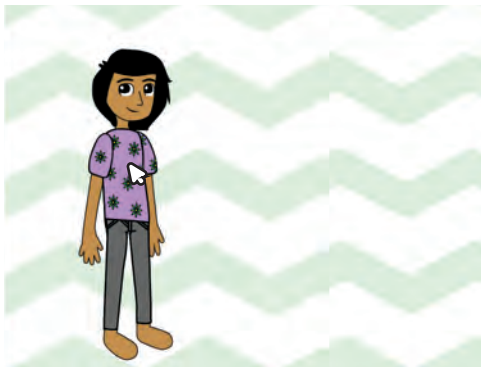
2. Glue the backs together



3. Cut along the dashed line

Play with Colors

Click to change the color of clothing.



Fashion Game

2



Play with Colors

scratch.mit.edu/fashion

GET READY

Choose a piece of clothing, like Shirt2.

New sprite:



Drag the clothing onto your character.



ADD THIS CODE

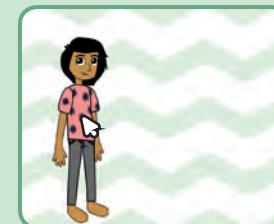


when this sprite clicked

change color effect by 25

TRY IT

Click your clothing to make it change color.



Make a Card



1. Fold the card in half



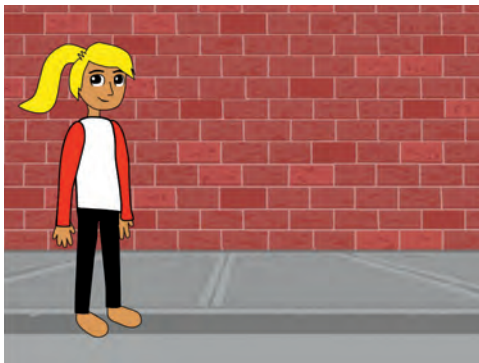
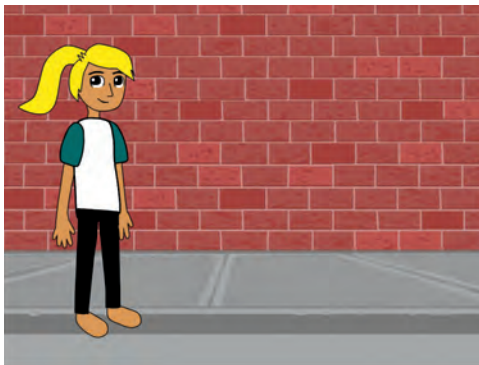
2. Glue the backs together



3. Cut along the dashed line

Change Styles

Press a key to switch costumes.



Fashion Game

3



Change Styles

scratch.mit.edu/fashion

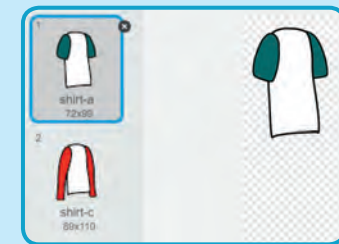
GET READY

Choose a piece of clothing, like Shirt.

New sprite:

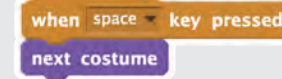


Click the **Costumes** tab.



ADD THIS CODE

Click the **Scripts** tab.



Switch between costumes.



Keep the shirt in front of your character.

TRY IT

Click the green flag to start.



Press the **space** key to switch between styles.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Change Backdrops

Click a button to switch backdrops.



Fashion Game

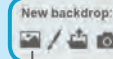
4



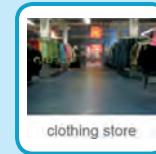
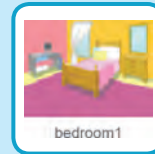
Change Backdrops

scratch.mit.edu/fashion

GET READY



Choose two backdrops.



Choose a button sprite, like Arrow1.



ADD THIS CODE



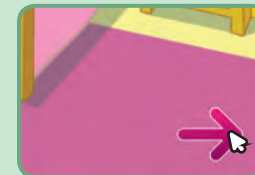
when this sprite clicked

switch backdrop to next backdrop ▾

Choose **next backdrop** from the menu.

TRY IT

Click your button to switch backdrops.



Make a Card



1. Fold the card in half



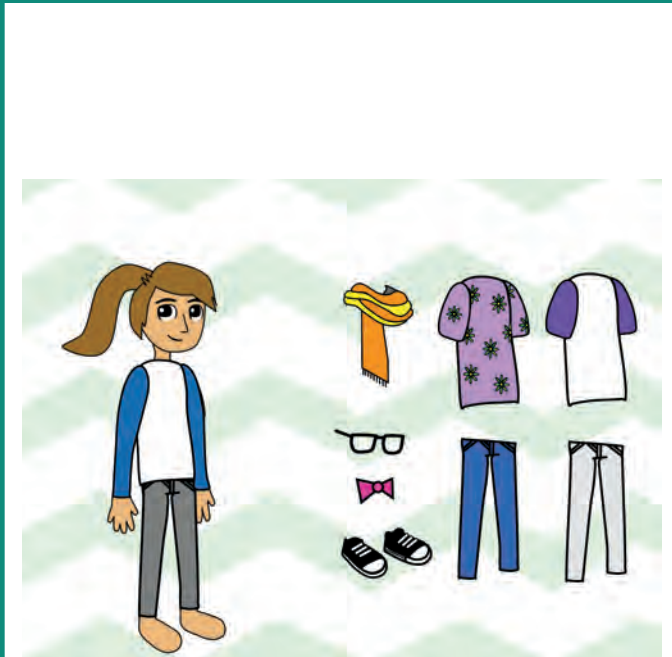
2. Glue the backs together



3. Cut along the dashed line

Lay Out Your Clothes

Set out your clothes in their starting positions.



Fashion Game

5



Lay Out Your Clothes

scratch.mit.edu/fashion

GET READY

Choose some clothes and accessories.

New sprite:

Arrange them next to your character.



ADD THIS CODE

Set the starting position for each piece of clothing.
(Your numbers may be different.)



when clicked

go to x: 170 y: 70

go to front



when clicked

go to x: 170 y: -20

go to front

TRY IT

Drag the clothes onto your character.

Click the green flag to reset.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Glide into Place

Make accessories glide to the right place.



Fashion Game

6

Scratch

Glide into Place

scratch.mit.edu/fashion

GET READY

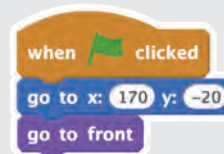
Choose a piece of clothing or an accessory, like Sunglasses1.

New sprite:



ADD THIS CODE

Set the starting position.



Drag the sunglasses onto your character and then add the glide block.



Your numbers may be different.

TRY IT

Click the green flag to reset.



Click the sunglasses to make them glide to your character.

Make a Card



1. Fold the card in half



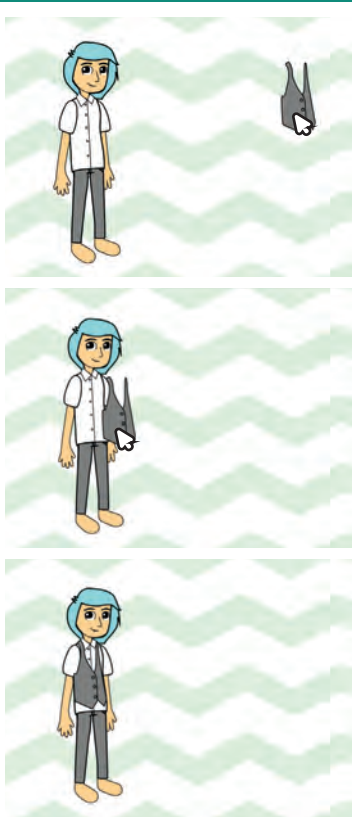
2. Glue the backs together



3. Cut along the dashed line

Snap into Place

Make clothes snap into place.



Fashion Game

7



Snap into Place

scratch.mit.edu/fashion

GET READY

Choose a piece of clothing or an accessory, like Vest.

New sprite:



ADD THIS CODE

Drag the clothing onto your character and then add this code.

```
when green flag clicked
  forever loop
    if touching Dani? then
      go to x: -125 y: 5
    else
      go to x: 150 y: 50
```

Choose your character.

Snap onto your character.

Go to starting position.

TRY IT

Click the green flag to start.



Drag the clothing onto your character. Then it will snap into place!

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Create a Story Cards



Choose characters, add conversation, and bring your story to life.

Create a Story Cards

Start with the first card and then try the other cards in any order:

- Start a Story
- Show a Character
- Make a Conversation
- Switch Scenes
- Glide to a Spot
- Appear in a Scene
- Make It Interactive
- Add Your Voice
- Click a Button

Make a Card



1. Fold the card in half



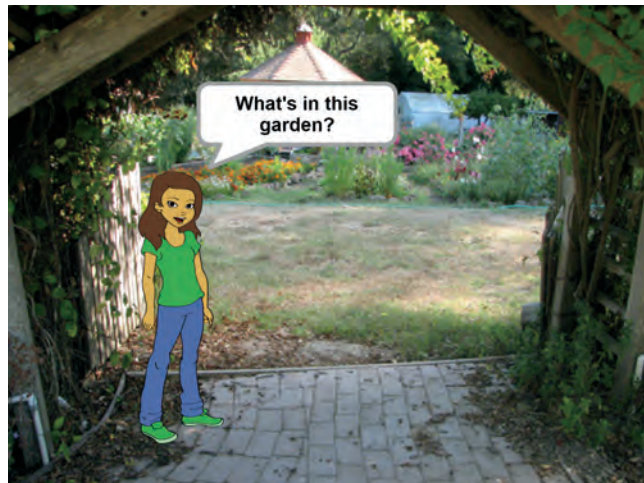
2. Glue the backs together



3. Cut along the dashed line

Start a Story

Choose a scene and introduce a character.



Create a Story

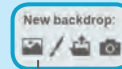
1



Start a Story

scratch.mit.edu/story

GET READY



Choose a backdrop.



Choose a character.



ADD THIS CODE



when clicked

switch backdrop to pathway

say What's in this garden? for 2 secs

Type what you want your character to say.

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Show a Character

Make a new character appear in the scene.



Create a Story

2



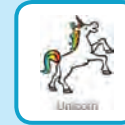
Show a Character

scratch.mit.edu/story

GET READY

Choose a character.

New sprite:



Click the **Sounds** tab.

New sound:

Then choose a sound, like fairydust.

ADD THIS CODE

Click the **Scripts** tab.

when clicked

hide

wait 3 secs

play sound fairydust

show

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Make a Conversation

Make your characters talk with each other.



Create a Story

3



Make a Conversation

scratch.mit.edu/story

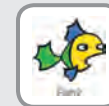
GET READY

Choose two characters.

New sprite:



ADD THIS CODE



when clicked

say Have you seen Pearl? for 2 secs

say I can't find her. for 2 secs

broadcast message1

Broadcast a message.



when I receive message1

Tell this character what to do when it receives the message.

say Yes! Follow me! for 2 secs

TRY IT

Click the green flag to start.



TIP

broadcast message1

message1

new message...

You can click the drop-down menu to add a new message.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Switch Scenes

Change the backdrop and make something happen.



Create a Story

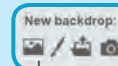
4



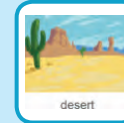
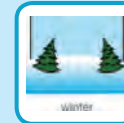
Switch Scenes

scratch.mit.edu/story

GET READY



Choose two backdrops.

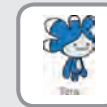


Choose a character.

New sprite:



ADD THIS CODE



when clicked

switch backdrop to winter

say Brrrrr! It's so cold here! for 2 secs

say I miss the sun! for 2 secs

wait 1 secs

switch backdrop to desert

Type what you want your character to say.

Make something happen when the backdrop switches.

when backdrop switches to desert

say Ahh that's better! for 2 secs

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Glide to a Spot

Make a character glide across the screen.



Create a Story

5



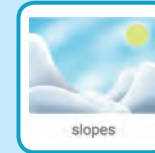
Glide to a Spot

scratch.mit.edu/story

GET READY

New backdrop:

Choose a backdrop.

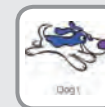


Choose a character.

New sprite:



ADD THIS CODE



when clicked

point in direction 120

go to x: -190 y: 60

glide 1 secs to x: -20 y: -170

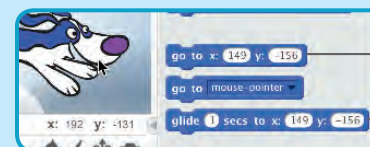
point in direction 90

Set a starting point.

Glide to another point.

TIP

Drag your sprite to where you want it and then add a **go to** or a **glide** block to your script.



When you drag a sprite, its **x** and **y** position will update in the Blocks palette.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Appear in a Scene

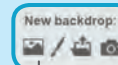
Change the backdrop and make a new character appear.



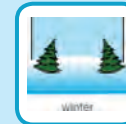
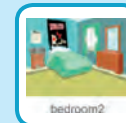
Appear in a Scene

scratch.mit.edu/story

GET READY



Choose two backdrops.

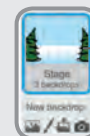


Choose a character.

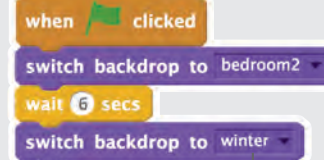
New sprite:



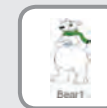
ADD THIS CODE



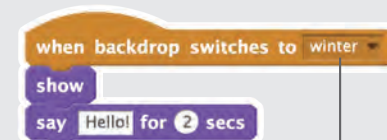
Click the Stage thumbnail.



Switch to this scene.



Hide at the beginning.



Appear in this scene.

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Make It Interactive

Click a sprite to make it do something.



Create a Story

7



Make It Interactive

scratch.mit.edu/story

GET READY

Choose a sprite.



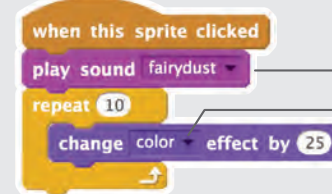
Click the **Sounds** tab.



Then choose a sound from the Sound library.

ADD THIS CODE

Click the **Scripts** tab.



Choose your sound.

You can select different effects from the menu.

TRY IT

Click your sprite to start.

TIP



To clear the effect, click the stop sign.

Make a Card



1. Fold the card in half



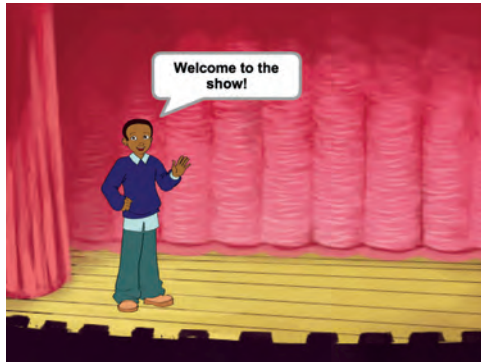
2. Glue the backs together



3. Cut along the dashed line

Add Your Voice

Record your voice to make a character talk.



Create a Story

8



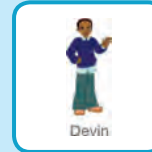
Add Your Voice

scratch.mit.edu/story

GET READY

Choose a character.

New sprite:



Click the **Sounds** tab.

New sound:

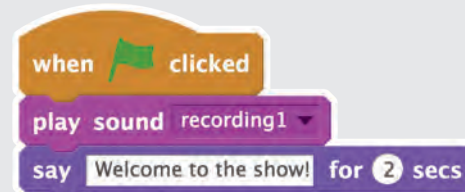
Click this icon. (You'll need a microphone.)



Click to record your voice.

ADD THIS CODE

Click the **Scripts** tab.



TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Click a Button

Click a button to switch scenes.



Create a Story

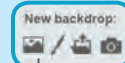
9



Click a Button

scratch.mit.edu/story

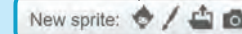
GET READY



Choose two backdrops.



Choose a button sprite, like Arrow1.



ADD THIS CODE



when this sprite clicked

switch backdrop to next backdrop

hide

wait 3 secs

show

Choose next backdrop from the menu.

Type how long to wait before showing the button.

TRY IT

Click your button to start.

TIP

Add this script to set the first scene. Then click the green flag to start.

when green flag clicked

switch backdrop to atom playground

hide

wait 3 secs

show

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Let's Dance Cards



Design an animated dance scene with music and dance moves.

Let's Dance Cards

Try these cards in any order:

- Dance Sequence
- Dance Loop
- Play Music
- Take Turns
- Starting Position
- Shadow Effect
- Leave a Trail
- Color Effect
- Bop a Bit
- Interactive Dance

Make a Card



1. Fold the card in half



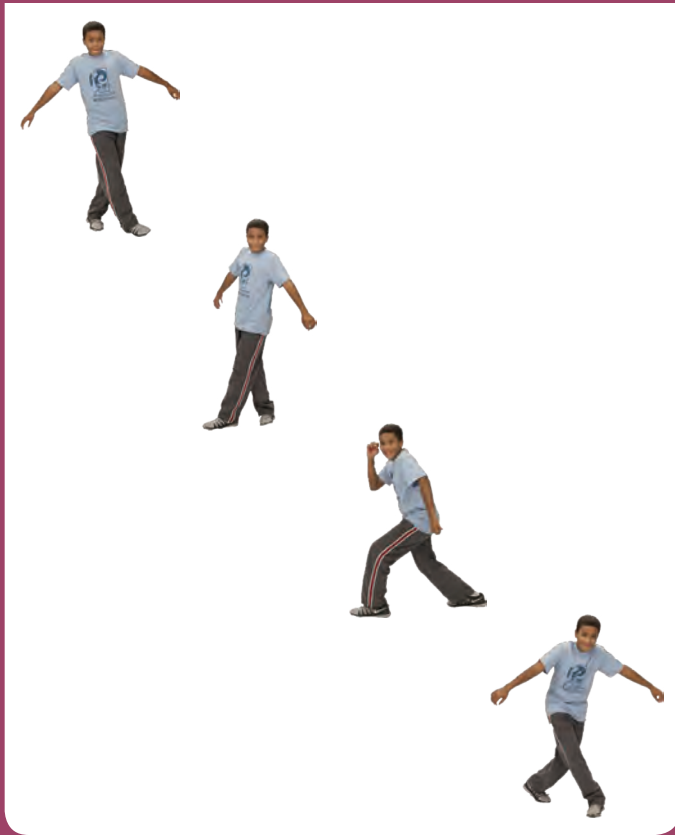
2. Glue the backs together



3. Cut along the dashed line

Dance Sequence

Make an animated dance.



Let's Dance

1



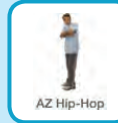
Dance Sequence

scratch.mit.edu/dance

GET READY

Choose a dancer from the Dance theme.

New sprite:



Click the **Costumes** tab to see the different dance moves.



ADD THIS CODE

Click the **Scripts** tab.

when clicked

switch costume to AZ top R step

Choose a dance move.

wait 0.5 secs

switch costume to AZ top L step

wait 0.5 secs

Type how long to wait.

switch costume to AZ top freeze

wait 0.5 secs

switch costume to AZ top R cross

wait 0.5 secs

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



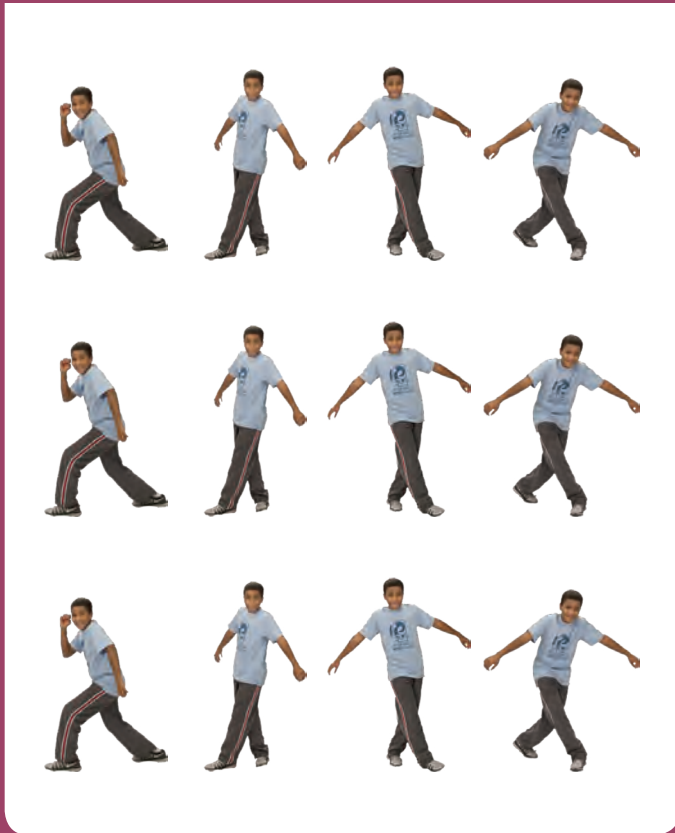
2. Glue the backs together



3. Cut along the dashed line

Dance Loop

Repeat a series of dance steps.



Let's Dance

2



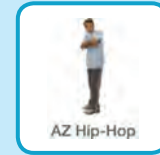
Dance Loop

scratch.mit.edu/dance

GET READY

Choose a dancer from the Dance theme.

New sprite:



ADD THIS CODE

```
when green flag clicked
  switch costume to AZ stance — Choose a dance pose.
  wait 2 secs
  repeat 4 — Type how many times you want to repeat the dance.
    switch costume to AZ top R step
    wait 0.5 secs
    switch costume to AZ top L step
    wait 0.5 secs
    switch costume to AZ top freeze
    wait 0.5 secs
    switch costume to AZ top R cross
    wait 0.5 secs
```

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Play Music

Play and loop a song.



Let's Dance

3

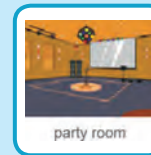
SCRATCH

Play Music

scratch.mit.edu/dance

GET READY

New backdrop:
Choose a backdrop.



Click the **Sounds** tab.

New sound:
Choose a song from the **Music Loops** category.

Or upload an MP3 or other sound file.

ADD THIS CODE

Click the **Scripts** tab.



Type how many times you want the song to repeat.

TIP

Make sure to use **play sound until done** (not **play sound**) or else the music won't finish playing before it begins again.

Make a Card



1. Fold the card in half



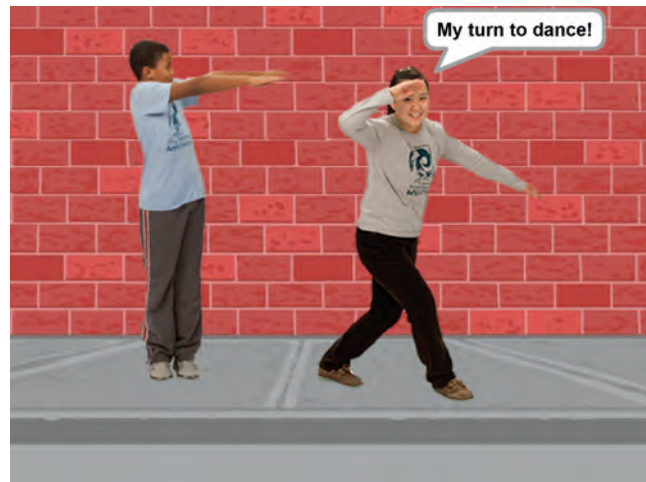
2. Glue the backs together



3. Cut along the dashed line

Take Turns

Coordinate dancers so that one begins after the other.



Let's Dance

4

SCRATCH

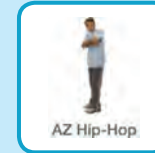
Take Turns

scratch.mit.edu/dance

GET READY

Choose two dancers from the Dance theme.

New sprite:

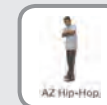


AZ Hip-Hop



Anina Hip-Hop

ADD THIS CODE



when clicked

switch costume to AZ top L step

wait 0.5 secs

switch costume to AZ top R step

wait 0.5 secs

switch costume to AZ stance

broadcast message1 Broadcast a message.



when I receive message1 Tell this dancer what to do when it receives the message.

say My turn to dance! for 2 secs

repeat 4

next costume

wait 1 secs

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Starting Position

Tell your dancers where to start.



Let's Dance

5

SCRATCH

Starting Position

scratch.mit.edu/dance

GET READY

Choose a dancer that you want to start.

New sprite:



Jouvi Hip-Hop

ADD THIS CODE

when clicked

go to x: -100 y: 20 — Tell it where to start.

set size to 90 % — Set its size.

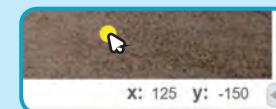
switch costume to jo stance — Choose the starting costume.

show — Make sure the sprite is showing (not hiding).

TIP

Use to set a sprite's position on the Stage.

You can find an x and y position by pointing with the mouse pointer.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Shadow Effect

Make a dancing silhouette.



Let's Dance

6



Shadow Effect

scratch.mit.edu/dance

GET READY

Choose a dancer from the Dance theme.

New sprite:



ADD THIS CODE

Choose **brightness** from the menu.



Set the brightness to **-100**.



TRY IT

Click the green flag to start.



Click the stop sign to stop.



Make a Card



1. Fold the card in half



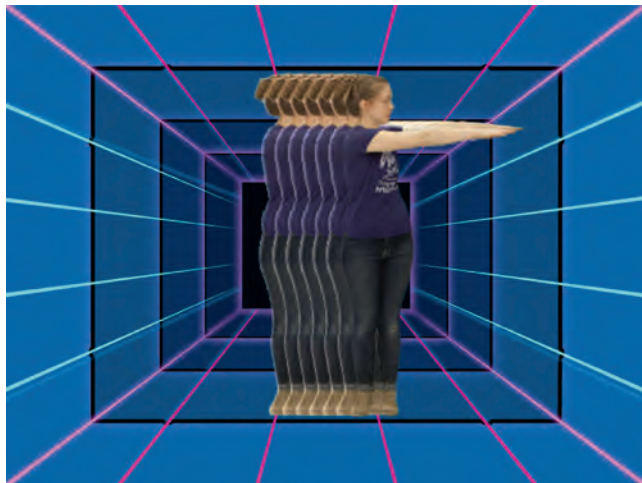
2. Glue the backs together



3. Cut along the dashed line

Leave a Trail

Stamp a trail as your dancer moves.



Let's Dance

7

SCRATCH

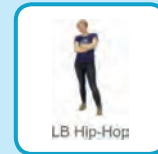
Leave a Trail

scratch.mit.edu/dance

GET READY

Choose a dancer from the Dance theme.

New sprite:   



ADD THIS CODE

```
when green flag clicked
  repeat 6
    stamp
    move 10 steps
    wait 0.1 secs
  clear
```

— Type how many times to repeat.

Stamp the current costume on the Stage.

Clear all the stamps.

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Color Effect

Make the backdrop change colors.



Let's Dance

8

SCRATCH

Color Effect

scratch.mit.edu/dance

GET READY



Choose a backdrop.



ADD THIS CODE

Click the **Scripts** tab.



when clicked

forever

change color effect by 25

wait 0.5 secs

Try different numbers.

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



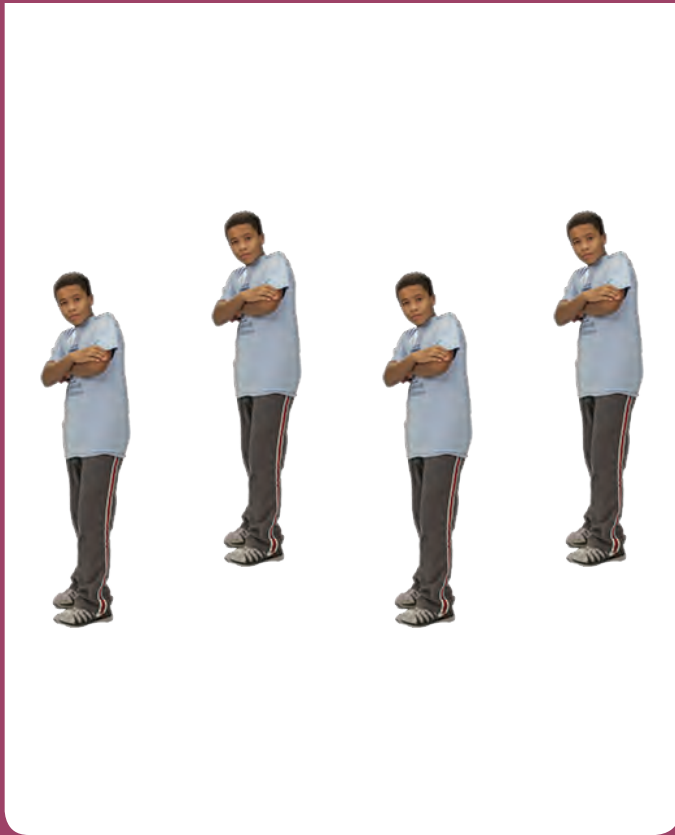
2. Glue the backs together



3. Cut along the dashed line

Bop a Bit

Move your dancer up and down a little to look lively.



Let's Dance

9



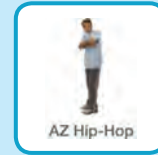
Bop a Bit

scratch.mit.edu/dance

GET READY

Choose a dancer from the Dance theme.

New sprite:



ADD THIS CODE

```
when clicked
repeat 8
  change y by 1
  wait 0.5 secs
  change y by -1
  wait 0.5 secs
```

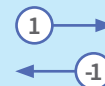
Type a positive number to move up.

Type a negative number to move down.

TIP



To move up or down, you can use `change y by`.



To move left or right, you can use `change x by`.

Make a Card



1. Fold the card in half



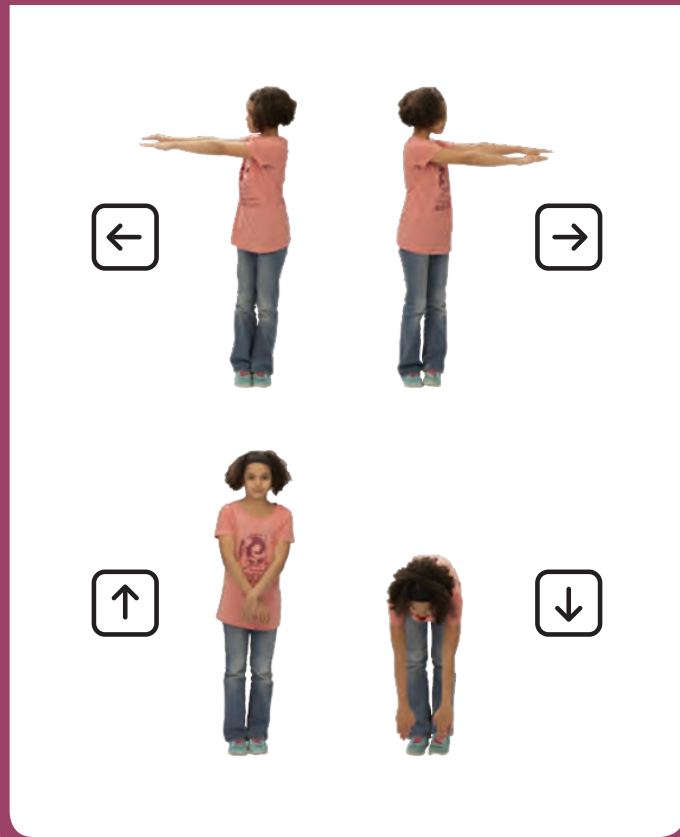
2. Glue the backs together



3. Cut along the dashed line

Interactive Dance

Press keys to switch dance moves.



Let's Dance

10



Interactive Dance

scratch.mit.edu/dance

GET READY

Choose a dancer from the Dance theme.

New sprite:



ADD THIS CODE

when left arrow key pressed

switch costume to jo pop left

when right arrow key pressed

switch costume to jo pop right

when up arrow key pressed

switch costume to jo top stand

when down arrow key pressed

switch costume to jo pop down

TRY IT

Press the arrow keys to make your dancer move.

Make a Card



1. Fold the card in half

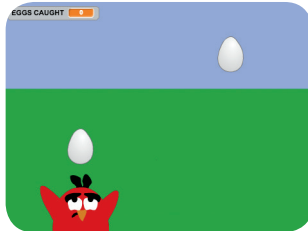
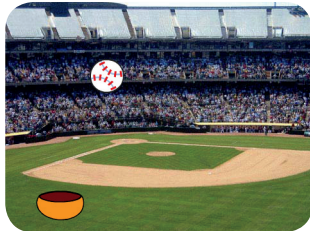
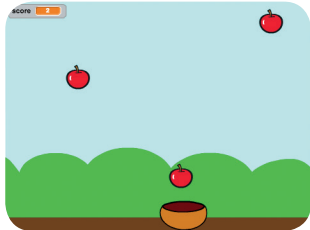


2. Glue the backs together



3. Cut along the dashed line

Catch Game Cards



Make a game where you catch things falling from the sky.

Catch Game Cards

Use these cards in this order:

- 1 Go to the Top
- 2 Fall Down
- 3 Move the Catcher
- 4 Catch It!
- 5 Keep Score
- 6 Bonus Points
- 7 You Win!

Make a Card



1. Fold the card in half



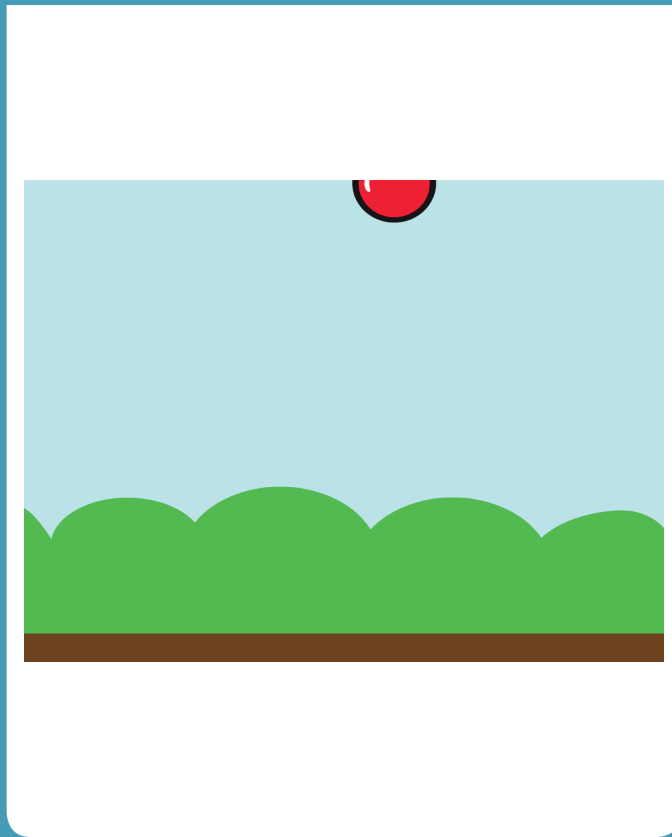
2. Glue the backs together



3. Cut along the dashed line

Go to the Top

Start from a random spot at the top of the Stage.



Catch Game

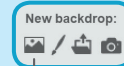
1



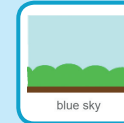
Go to the Top

scratch.mit.edu/catch

GET READY



Choose a backdrop.



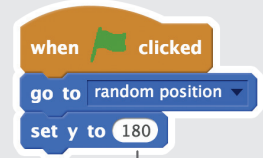
Choose a sprite, like Apple.



ADD THIS CODE



Choose **random position** from the menu.



Type **180** to go to the top of the Stage.

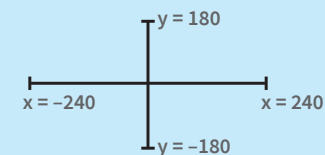
TRY IT

Click the green flag to start.



TIP

y is the position on the Stage from top to bottom.



Make a Card



1. Fold the card in half



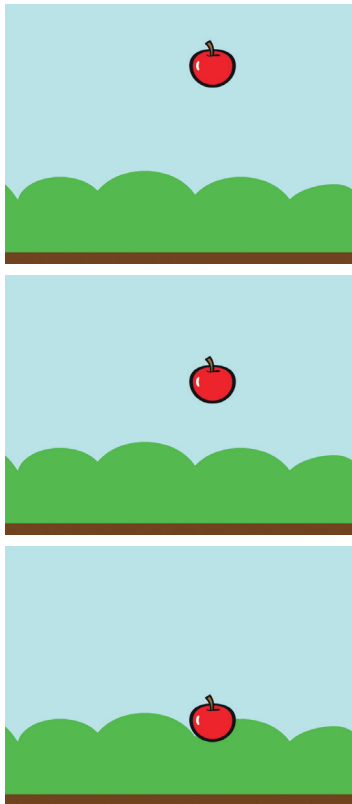
2. Glue the backs together



3. Cut along the dashed line

Fall Down

Make your sprite fall down.



Catch Game

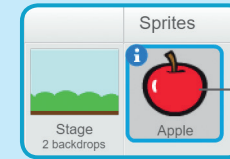
2



Fall Down

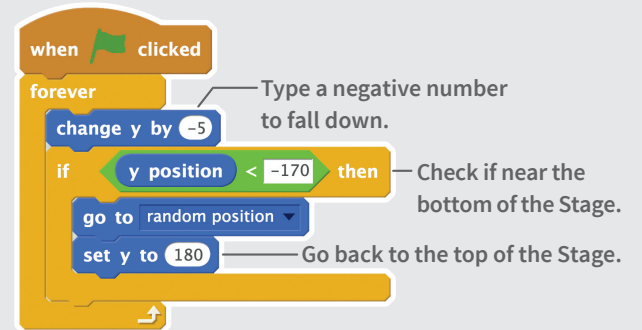
scratch.mit.edu/catch

GET READY



Click to select the **Apple**.

ADD THIS CODE



TRY IT

Click the green flag to start.



Click the stop sign to stop.

TIP

Use **change y by** to move up or down.

Use **set y to** to set the sprite's vertical position.

Make a Card



1. Fold the card in half



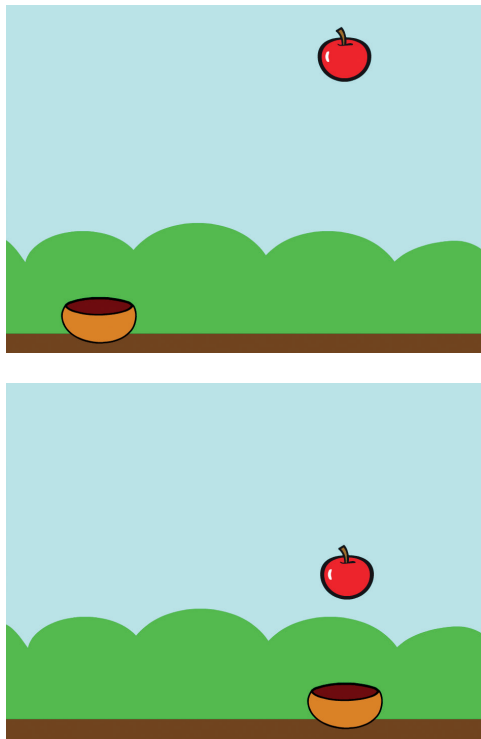
2. Glue the backs together



3. Cut along the dashed line

Move the Catcher

Press the arrow keys so that the catcher moves left and right.



Catch Game

3



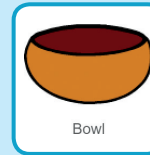
Move the Catcher

scratch.mit.edu/catch

GET READY

Choose a catcher, like Bowl.

New sprite:



Drag the Bowl to the bottom of the Stage.

ADD THIS CODE

```
when green flag clicked
  forever loop
    if key right arrow pressed? then
      change x by 10
    if key left arrow pressed? then
      change x by -10
```

TRY IT

Click the green flag to start.



Press the arrow keys to move the catcher.

Make a Card



1. Fold the card in half



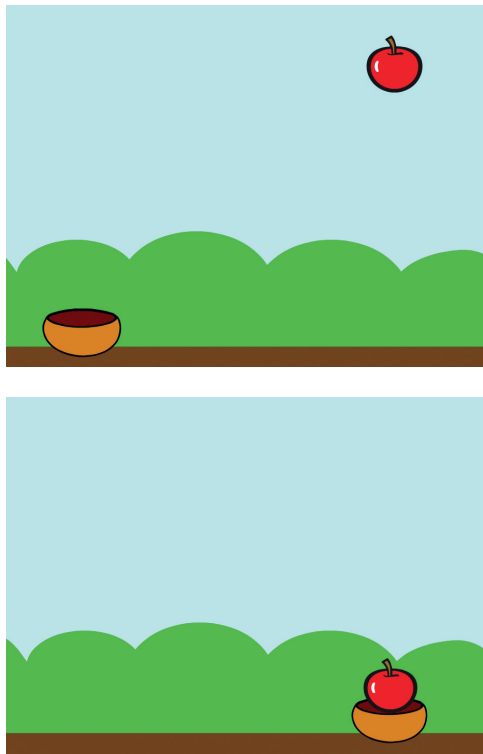
2. Glue the backs together



3. Cut along the dashed line

Catch It!

Catch the falling sprite.



Catch Game

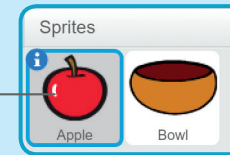
4

SCRATCH

Catch It!

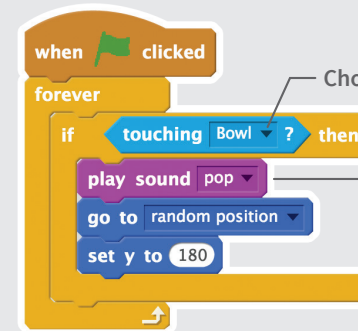
scratch.mit.edu/catch

GET READY



Click to select the **Apple**.

ADD THIS CODE



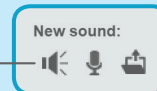
Choose **Bowl** from the menu.

Choose a sound.

TIP

If you want to add a different sound, click the **Sounds** tab.

Then choose a sound from the Sound library.



Make a Card



1. Fold the card in half



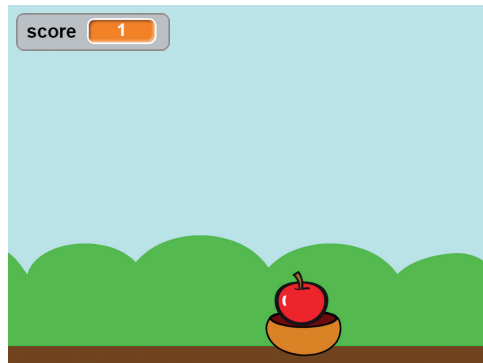
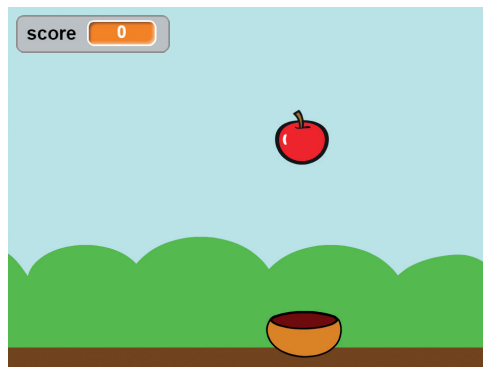
2. Glue the backs together



3. Cut along the dashed line

Keep Score

Add a point each time you catch the falling sprite.



Catch Game

5

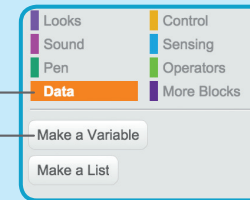


Keep Score

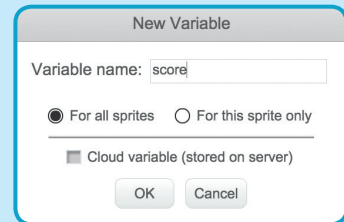
scratch.mit.edu/catch

GET READY

Choose **Data**.



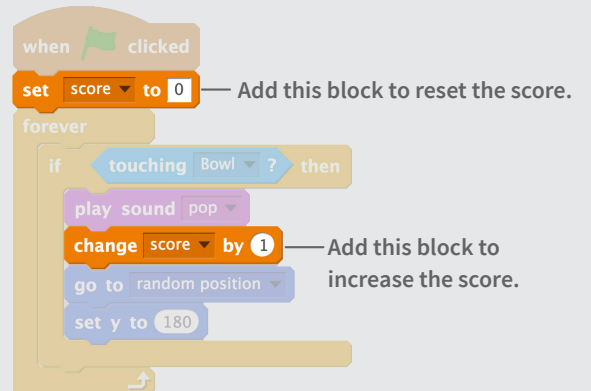
Click the **Make a Variable** button.



Name this variable **score** and then click **OK**.

ADD THESE BLOCKS

Add two new blocks to the script you made:



TRY IT

Catch apples to score points!

Make a Card



1. Fold the card in half



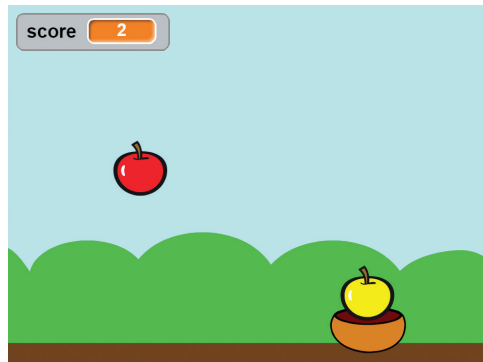
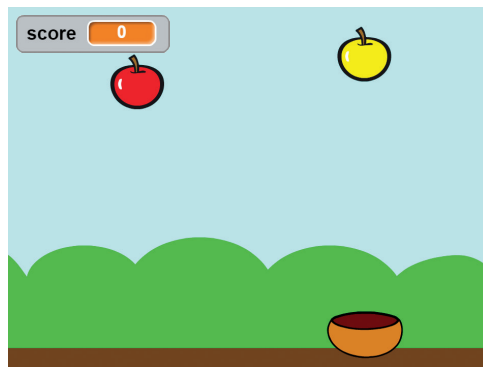
2. Glue the backs together



3. Cut along the dashed line

Bonus Points

Get extra points when you catch a golden sprite.



Catch Game

6

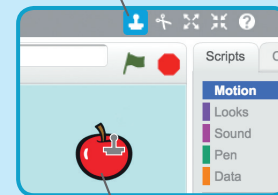


Bonus Points

scratch.mit.edu/catch

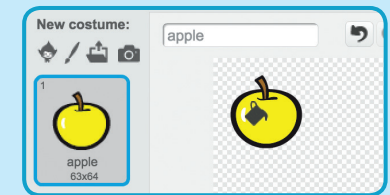
GET READY

Choose the **Duplicate** tool.



Click your sprite to duplicate it.

Click the **Costumes** tab.



You can use the paint tools to make your bonus sprite look different.

ADD THIS CODE

Click the **Scripts** tab.



```
when green flag clicked
  set score to 0
  forever loop
    if touching Bowl? then
      play sound pop
      change score by 2
      go to random position
      set y to 180
```

Type how many points for the bonus sprite.

TRY IT

Catch your bonus sprite to increase your score!

Make a Card



1. Fold the card in half



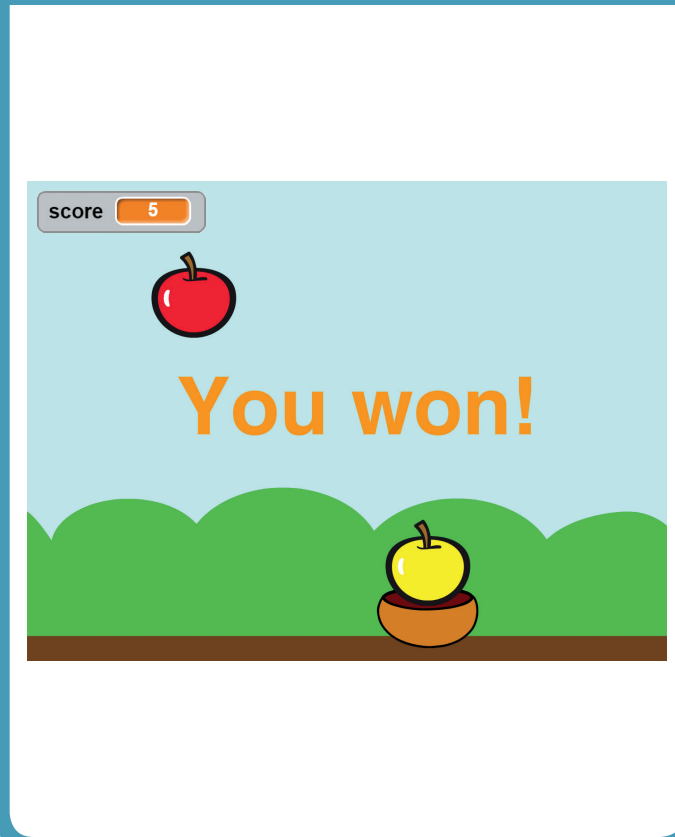
2. Glue the backs together



3. Cut along the dashed line

You Win!

When you score enough points,
display a winning message!



Catch Game

7

SCRATCH

You Win!

scratch.mit.edu/catch

GET READY

Click the paintbrush
to draw a new sprite.

New sprite:   

Bitmap Mode

Convert to vector

Click the **Convert
to vector** button.

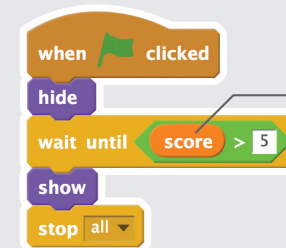
Use the **Text** tool to write
a message, like "You won!"

You won!

You can change the font
color, size, and style.

ADD THIS CODE

Click the **Scripts** tab.



Insert the **score** block.

TRY IT

Click the green
flag to start.



Play until you score
enough points to win!

Make a Card



1. Fold the card in half

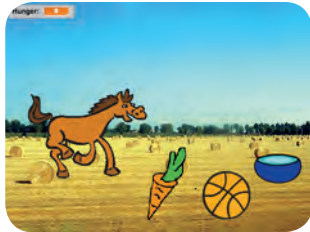


2. Glue the backs together



3. Cut along the dashed line

Virtual Pet Cards



Create an interactive pet that can eat, drink, and play.

Virtual Pet Cards

Use these cards in this order:

- 1 Introduce Your Pet
- 2 Animate Your Pet
- 3 Feed Your Pet
- 4 Give Your Pet a Drink
- 5 What Will It Say?
- 6 Time to Play
- 7 How Hungry?

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Introduce Your Pet

Choose a pet and have it say hello.



Virtual Pet

1

SCRATCH

Introduce Your Pet

scratch.mit.edu/pet

GET READY

New backdrop:



Choose a backdrop.



Choose a pet.

New sprite:



ADD THIS CODE

Drag your pet to where you want it on the Stage.

```
when clicked
  go to x: -60 y: 80
  say My name is Kiki! for 1 secs
```

Set its position.
(Your numbers may be different.)

Type what your pet will say.

TRY IT

Click the green flag to start.



Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Animate Your Pet

Bring your pet to life.



Virtual Pet

2

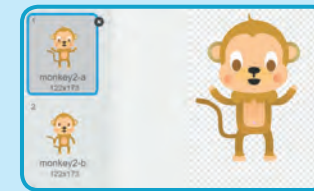


Animate Your Pet

scratch.mit.edu/pet

GET READY

Click the **Costumes** tab to see your pet's costumes.



ADD THIS CODE

Click the **Scripts** tab.

```
when this sprite clicked
  play sound chee chee
  repeat 4
    switch costume to monkey2-b
    wait 0.2 secs
    switch costume to monkey2-a
    wait 0.2 secs
```

— Choose a costume.

— Choose a different costume.

TRY IT

Click your pet to start.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Feed Your Pet

Click the food to feed your pet.



Virtual Pet

3



Feed Your Pet

scratch.mit.edu/pet

GET READY



Click the **Sounds** tab.



Choose a sound from the Sound library, like chomp.

Choose a food sprite.

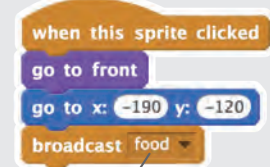
New sprite:



ADD THIS CODE

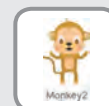


Select a **new message** and name it **food**.



Broadcast the **food** message.

Tell your pet what to do when it receives the message.



Glide to the food.

Glide back.

TRY IT

Click the food to start.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

Give Your Pet a Drink

Give your pet some water to drink.



Virtual Pet

4

SCRATCH

Give Your Pet a Drink

scratch.mit.edu/pet

GET READY

Choose a drink sprite, like Glass Water.

New sprite:



ADD THIS CODE



when this sprite clicked

go to front

go to x: -80 y: -120

broadcast drink — Broadcast a new message.

wait 1 secs

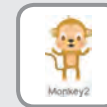
switch costume to glass water-b — Switch to the empty glass.

play sound water drop

wait 1 secs

switch costume to glass water-a — Switch to the full glass.

Tell your pet what to do when it receives the message.



when I receive drink

glide 1 secs to x: -80 y: -100 — Glide to the drink.

wait 1 secs

glide 1 secs to x: -60 y: 100 — Glide back.

TRY IT

Click the drink to start.

Make a Card



1. Fold the card in half



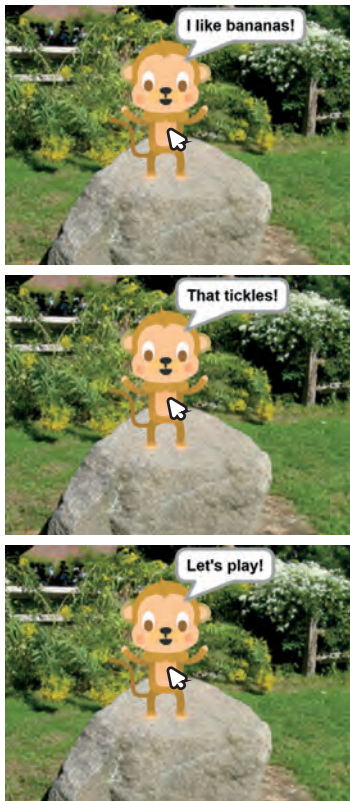
2. Glue the backs together



3. Cut along the dashed line

What Will It Say?

Let your pet choose what it will say.



Virtual Pet

5

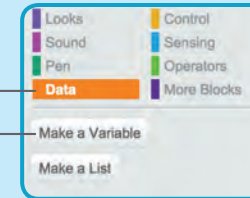
SCRATCH

What Will It Say?

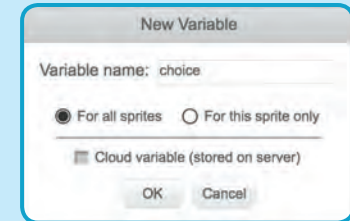
scratch.mit.edu/pet

GET READY

Choose **Data**.

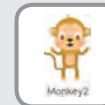


Click the **Make a Variable** button.



Name this variable **choice** and then click **OK**.

ADD THIS CODE



```
when this sprite clicked
  set choice to pick random 1 to 3
  if choice = 1 then
    say I like bananas! for 2 secs
  if choice = 2 then
    say That tickles! for 2 secs
  if choice = 3 then
    say Let's play! for 2 secs
```

Insert the **pick random** block.

Insert the **choice** block.

Type what you want your pet to say.

TRY IT

Click your pet to see what it says.

Make a Card



1. Fold the card in half



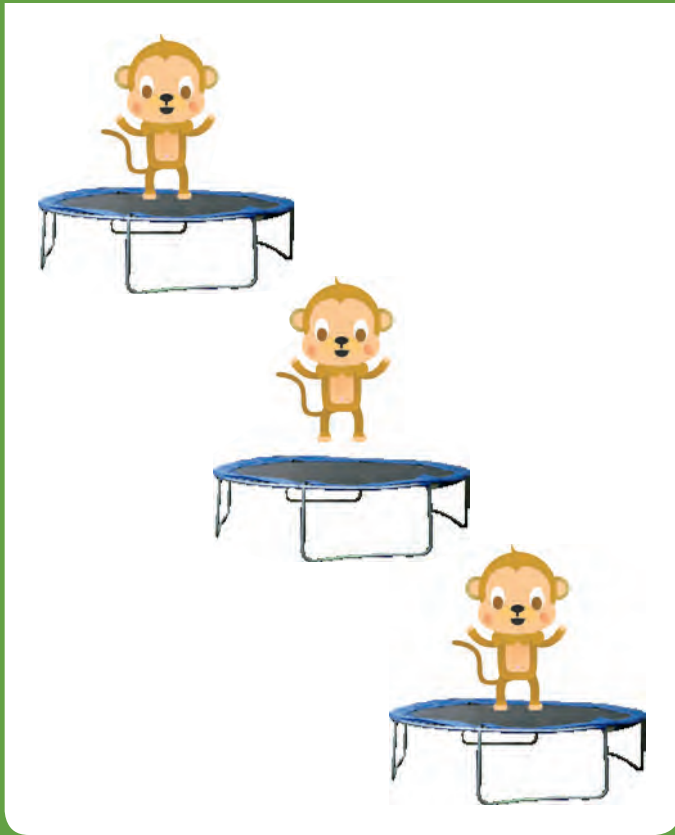
2. Glue the backs together



3. Cut along the dashed line

Time to Play

Have your pet jump on a trampoline.



Virtual Pet

6



Time to Play

scratch.mit.edu/pet

GET READY

Choose the Trampoline.

New sprite:



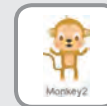
ADD THIS CODE



when this sprite clicked

go to x: 130 y: -120

broadcast play



when I receive play

go to front

glide 1 secs to x: 120 y: -40

repeat 4

change y by 20

wait 0.3 secs

change y by -20

wait 0.3 secs

glide 1 secs to x: -60 y: 100

A positive number makes your pet jump up.

A negative number brings your pet back down.

TRY IT

Click the trampoline.

Make a Card



1. Fold the card in half



2. Glue the backs together



3. Cut along the dashed line

How Hungry?

Keep track of how hungry your pet is.



Virtual Pet

7

SCRATCH

How Hungry?

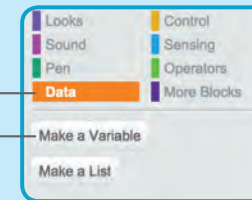
scratch.mit.edu/pet

GET READY

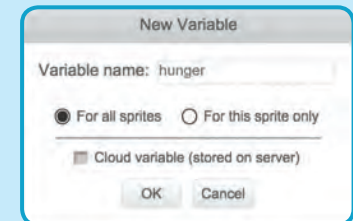


First, add food using the **Feed Your Pet** card. Then, click to select your pet.

Choose **Data**.

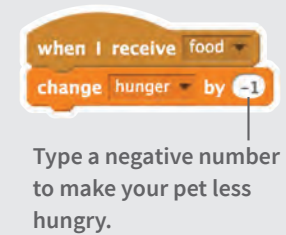
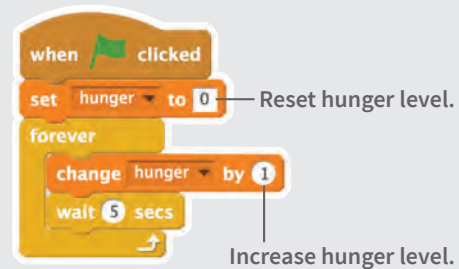


Click the **Make a Variable** button.



Name this variable **hunger** and then click **OK**.

ADD THIS CODE



TRY IT

Click the green flag to start.



Then click the food.

