EDUCATOR GUIDE

Animate Your Name

With this guide, you can plan and lead a one-hour workshop using Scratch. Participants will gain experience with coding as they animate the letters in their name.

Workshop Overview

Here’s a suggested agenda for a one-hour workshop:

First, gather as a group to introduce the theme and spark ideas.

IMAGINE
10 minutes

Next, help participants as they animate their names, working at their own pace.

CREATE
40 minutes

At the end of the session, gather together to share and reflect.

SHARE
10 minutes
Get Ready for the Workshop

Use this checklist to prepare for the workshop.

☐ **Preview the Tutorial**
The Animate Your Name tutorial shows participants how to create their own projects. Preview the tutorial before your workshop and try the first few steps: [scratch.mit.edu/name](http://scratch.mit.edu/name)

☐ **Print the Activity Cards**
Print a few sets of Animate Your Name cards to have available for participants during the workshop. [scratch.mit.edu/name/cards](http://scratch.mit.edu/name/cards)

☐ **Make sure participants have Scratch accounts**
Participants can sign up for their own Scratch accounts at [scratch.mit.edu](http://scratch.mit.edu), or you can set up student accounts if you have a Teacher Account. To request a Teacher Account, go to: [scratch.mit.edu/educators](http://scratch.mit.edu/educators)

☐ **Set up computers or laptops**
Arrange computers so that participants can work individually or in pairs.

☐ **Set up a computer with projector or large monitor**
You can use a projector to show examples and demonstrate how to get started.

Imagine

Begin by gathering the participants to introduce the theme and spark ideas for projects.

**Warm-up Activity: Letter Shapes**

Gather the group in a circle. Ask each participant to say their name, and then have everyone in the group act out the shape of the first letter.

**Provide Ideas and Inspiration**

Show the introductory video for the Animate Your Name tutorial. The video shows a variety of projects for ideas and inspiration.

View at [scratch.mit.edu/name](http://scratch.mit.edu/name) or [vimeo.com/llk/name](http://vimeo.com/llk/name)
Demonstrate the First Steps

Demonstrate the first few steps of the tutorial so participants can see how to get started.

In Scratch, click Create. Choose a letter from the Sprite Library:

- New sprite: 
- Sprite Library

Make it do something:

- when this sprite clicked
- change color effect by 25

Add a sound:

- Scripts
- Costumes
- Sounds

- New sound: 
- when this sprite clicked
- change color effect by 25
- play sound zoom

Choose a new backdrop:

- New backdrop: 
- Backdrop Library

Create

Support participants as they create interactive name projects.

Start with Prompts
Ask participants questions to get started

- Do you want to animate your name, initials, or username?
- Which letter do you want to start with?

Provide Resources
Offer options for getting started

- Some participants may want to follow the online tutorial: scratch.mit.edu/name
- Others may want to explore using the printed activity cards.

Suggest Ideas for Starting

- Choose a letter
- Make it change color
- Add a sound
- Add a backdrop
More Things to Try

- Draw a letter
- Make it spin
- Make it glide
- Change size

Support collaboration

- When someone gets stuck, connect them to another participant who can help.
- See a cool idea? Ask the creator to share with others.

Encourage experimenting

Help participants feel comfortable trying different combinations of blocks and seeing what happens.

To understand their thought process, you can ask questions:

- What are you working on now?
- What are you thinking of trying next?

Share

Have participants share their project with their neighbors.

Ask questions they can discuss:

- What do you like best about the project you made?
- What was the hardest part?
- If you had more time, what would you add or change?

What’s Next?

Participants can use the ideas and concepts from this workshop to create a wide variety of projects. Here are a few variations on the animated name project you could suggest.

Other Names
Animate the name of a favorite character from a book or movie. Or, animate the letters of the name of your school or town.

Start with an Image
Have participants bring in a picture (or find a picture on the web) and animate a word that goes with the picture.

Acrostics
Make an interactive acrostic (a poem in which the first letters of each line spell out a word reading down).

Scratch is a project of the Lifelong Kindergarten Group at the MIT Media Lab.
EDUCATOR GUIDE

Make a Chase Game

With this guide, you can plan and lead a one-hour workshop using Scratch. Participants will make a game that includes a variable to keep score.

Workshop Overview

Here’s a suggested agenda for a one-hour workshop:

**IMAGINE**

First, gather as a group to introduce the theme and spark ideas.

10 minutes

**CREATE**

Next, help participants as they make chase games, working at their own pace.

40 minutes

**SHARE**

At the end of the session, gather together to share and reflect.

10 minutes
Get Ready for the Workshop

Use this checklist to prepare for the workshop.

☐ Preview the Tutorial
The Make a Chase Game tutorial shows participants how to create their own projects. Preview the tutorial before your workshop and try the first few steps.

☐ Print the Activity Cards
Print a few sets of Chase Game cards to have available for participants during the workshop. You can download the cards at: scratch.mit.edu/ideas

☐ Make sure participants have Scratch accounts
Participants can sign up for their own Scratch accounts at scratch.mit.edu, or you can set up student accounts if you have a Teacher Account. To request a Teacher Account, go to: scratch.mit.edu/educators

☐ Set up computers or laptops
Arrange computers so that participants can work individually or in pairs.

☐ Set up a computer with projector or large monitor
You can use a projector to show examples and demonstrate how to get started.

Imagine

Begin by gathering the participants to introduce the theme and spark ideas for projects.

Warm-up Activity: Imaginary Chase
Gather the participants in a circle. Start by giving an example of one thing chasing another, such as “The dog is chasing the dinosaur.” The next person adds on, such as, “The dinosaur is chasing a donut.” The following person adds on by saying, “The donut is chasing a duck.” or whatever creature or object they choose. Continue until each person has added on to this imaginary game of chase.

Provide Ideas and Inspiration
To spark ideas, watch the Make a Chase Game video at the start of the tutorial.

View the video at scratch.mit.edu/chase
Demonstrate the First Steps

Demonstrate the first few steps of the tutorial so participants can see how to get started.

Create

Support participants as they create catch games. Suggest working in pairs.

Start with Prompts
Ask participants questions to get started

Which backdrop would you like to choose for your game? Who do you want as the main character in your game? What will it chase?

Provide Resources
Offer options for getting started

Some participants may want to follow the online tutorial: scratch.mit.edu/chase
Others may want to explore using the printed cards: scratch.mit.edu/ideas

Suggest Ideas for Starting
• Choose a backdrop
• Choose or draw a main character
• Make it move with arrow keys.
• Select an object to chase.
More Things to Try

- Code the star or other sprite to chase
- Add a variable to keep score
- Add sounds
- Add a level
- Show a message when reaching the new level

Encourage Tinkering

- Encourage participants to feel comfortable trying combinations of blocks and seeing what happens.
- Suggest participants look inside other chase games to see the code.
- If they find code they like, they can drag the scripts or sprites into the backpack to reuse in their own project.

Prepare to Share

To add instructions and credits to a project, click the button: “See project page”.

Share

Have participants share their projects with their neighbors.

Ask questions that encourage reflection:

- What do you like best about your game?
- If you had more time, what would you add or change?

What’s Next?

Chase Game projects provide an introduction to creating interactive games in Scratch. Here are a few ways that learners can build on the concepts they learned from this project.

Add Obstacles
For a more complex game, add obstacles to avoid. Subtract points when you hit the obstacles.

Make a Two-Player Game
For an extra challenge, make a version of the game that allows two players to play.

Video Sensing
If the computers have a web camera attached or built-in, learners can make a game that they interact by moving their bodies. See the Video Sensing tutorial and educator guide for support.

Created by the Scratch Team
Create a Story

With this guide, you can plan and lead a one-hour workshop using Scratch. Participants will create a story with settings, characters, and dialogue.

Workshop Overview

Here’s a suggested agenda for a one-hour workshop:

**IMAGINE**
10 minutes
First, gather as a group to introduce the theme and spark ideas.

**CREATE**
40 minutes
Next, help participants as they create story projects, working at their own pace.

**SHARE**
10 minutes
At the end of the session, gather together to share and reflect.
Get Ready for the Workshop

Use this checklist to prepare for the workshop.

☐ **Preview the Tutorial**

The *Create a Story* tutorial shows participants how to create their own projects. Preview the tutorial before your workshop and try the first few steps:

[scratch.mit.edu/story](http://scratch.mit.edu/story)

☐ **Print the Activity Cards**

Print a few sets of *Create a Story* cards to have available for participants during the workshop.

[scratch.mit.edu/story/cards](http://scratch.mit.edu/story/cards)

☐ **Make sure participants have Scratch accounts**

Participants can sign up for their own Scratch accounts at [scratch.mit.edu](http://scratch.mit.edu), or you can set up student accounts if you have a Teacher Account. To request a Teacher Account, go to:

[scratch.mit.edu/educators](http://scratch.mit.edu/educators)

☐ **Set up a studio for project sharing on Scratch**

Set up a studio so participants will be able to add their projects. Go to your *My Stuff* page, then click the + *New Studio* button. Type in a name for the studio (such as ‘Our Fashion Projects’).

☐ **Set up computers or laptops**

Arrange computers so that participants can work individually or in pairs.

---

**Imagine**

Begin by gathering the participants to introduce the theme and spark ideas for projects.

**Warm-up Activity: Draw a Hat**

Give each participant a piece of paper. Ask them to think of a favorite character (for example, from a book, movie, or their imagination). Then, ask them to imagine a new scene. Where could their character go? Who would they meet there? What would they say? Suggest that they write or draw the scene from their story. Ask them to share their scene with someone else in the group.

**Provide Ideas and Inspiration**

Show some example Story projects to spark ideas. You can find some in the *Create a Story examples Studio* on the Scratch website.

View the studio at: [scratch.mit.edu/studios/3757922](http://scratch.mit.edu/studios/3757922)
Demonstrate the First Steps

Demonstrate the first few steps of the tutorial so participants can see how to get started.

In Scratch, click Create. Choose a setting from the Backdrop library:

Choose a character from the Sprite library:

Start your story:

Choose a new character and make it appear:

Create

Support participants as they create Story projects, on their own or in pairs.

Start with Prompts
Ask participants questions to get started

Where will your story take place? What will happen first?

Provide Resources
Offer options for getting started

Some participants may want to follow the online tutorial: scratch.mit.edu/story
Others may want to explore using the activity cards: scratch.mit.edu/story/cards

Suggest Ideas for Starting

- Choose a backdrop.
- Choose a character.
- Make a character say something
- Make a character hide and show.
Share

Help the participants add their projects to a shared studio in Scratch. Give them a link to the studio. Then they can click ‘Add Projects’ at the bottom of the page.

Ask for volunteers to show their project to the group.

What’s Next?

Participants can use these ideas and concepts to create a variety of projects. Here are some variations on the story project you could suggest:

- **Retell a story**
  Start with a story you know and make it in Scratch. Imagine a new ending or a different setting.

- **Neighbourhood story**
  Take photos of your classroom, school, or neighborhood and use them as backdrops in your story.

- **Round-robin story**
  Give everyone 5 minutes to start a story. Then, have them switch to the next computer to add to the story. Repeat.

Prepare to Share

To add instructions and credits to a project, click the button: “See project page”.

This video shows how to share a project on the Scratch website: vimeo.com/llk/share

Support Tinkering

Scratch is designed to support creating by experimenting and tinkering. So, your participants may want to start their stories without planning beforehand. As they create, one idea can spark another. Celebrate their sparks of creativity and the unexpected turns their stories may take.

More Things to Try

- Switch backdrops.
- Make your characters have a conversation.
- Move your characters.
- Change something when you click on it.
EDUCATOR GUIDE

Make Music

With this guide, you can plan and lead a one-hour workshop using Scratch. Participants will choose instruments, add sounds, and press keys to play music.

Workshop Overview

Here’s a suggested agenda for a one-hour workshop:

First, gather as a group to introduce the theme and spark ideas.

IMAGINE
10 minutes

Next, help participants as they create musical projects, working at their own pace.

CREATE
40 minutes

At the end of the session, gather together to share and reflect.

SHARE
10 minutes
Get Ready for the Workshop

Use this checklist to prepare for the workshop.

☐ Preview the Tutorial
The Make Music tutorial shows participants how to create their own projects. Preview the tutorial before your workshop and try the first few steps: scratch.mit.edu/music

☐ Print the Activity Cards
Print a few sets of Make Music cards to have available for participants during the workshop. scratch.mit.edu/music/cards

☐ Make sure participants have Scratch accounts

☐ Check sound on computers or laptops
Check to make sure that the sound output is working on the computers or laptops. You may want to make headphones available (including headphone splitters to allow participants to listen together).

☐ Check microphone if recording sounds (optional)
For the optional step of recording sounds, see if the computers have a microphone (sound input) turned on or added. Tip: To record sounds in Scratch, participants will need to check “Allow” to give Scratch access to the microphone:

Imagine

Begin by gathering the participants to introduce the theme and spark ideas for projects.

Warm-up Activity: Repeat a Rhythm
Gather the group in a circle and get ready to make music. Take turns tapping or clapping a short rhythm, then have the group repeat it back.

Provide Ideas and Inspiration
Show the introductory video for the Make Music tutorial. The video shows a variety of projects for ideas and inspiration.

View at scratch.mit.edu/music or vimeo.com/llk/music
Demonstrate the First Steps

Demonstrate the first few steps of the tutorial so participants can see how to get started.

<table>
<thead>
<tr>
<th>In Scratch, choose a new sprite and select a drum from the Music theme.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New sprite:</strong> 🎶 🎼 📈</td>
</tr>
</tbody>
</table>

**Theme**
- Castle
- City
- Dance
- Dress-Up
- Flying
- Holiday
- Music
- Space

| Drum-Conga |

<table>
<thead>
<tr>
<th>Make the drum play a sound when you press a key:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>when</strong> space ↩️ <strong>key pressed</strong></td>
</tr>
<tr>
<td><strong>play sound</strong> high conga ↩️</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Make it play a rhythm:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>when</strong> space ↩️ <strong>key pressed</strong></td>
</tr>
<tr>
<td><strong>play sound</strong> high conga ↩️</td>
</tr>
<tr>
<td><strong>wait</strong> 0.25 <strong>secs</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Choose an instrument from the music theme and make it play a note.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New sprite:</strong> 🎶 🎼 📈</td>
</tr>
</tbody>
</table>

| **when** up arrow ↩️ **key pressed** |
| **play sound** C2 sax ↩️ |

Create

Support participants as they create musical projects, on their own or in pairs.

**Start with Prompts**
Ask participants questions to get started

- **Which instruments or sounds do you want to try first?**
- **What kind of rhythms or musical patterns can you make?**

**Provide Resources**
Offer options for getting started

- Some participants may want to follow the online tutorial: [scratch.mit.edu/music](http://scratch.mit.edu/music)
- Others may want to explore using the printed activity cards.

**Suggest Ideas for Starting**
- Choose a drum or other instrument
- Press a key to play a sound
- Create a rhythm
- Try changing the rhythm
More Things to Try

- Add musical instruments
- Play with musical patterns
- Play a random note or sound
- Add animation
- Use beatbox sounds in a loop
- Record short sounds to play

Keep going! Expanding and enhancing projects

Check in with participants as they work and offer support to take their projects further.
- Suggest that participants experiment with new instruments and ways of adding sound to their projects.
- Get inspired by someone else’s project: What have they tried? What variations might you try?

Prepare to Share

Suggest adding instructions so others know how to play the project, such as which keys to press.

To add instructions and credits to a project online, click the button: ‘See project page’.

This video shows how to share a project on the Scratch website: vimeo.com/llk/share

Share

Have participants walk around the room to see and listen to each others’ musical projects on their computers or laptops.

Reflect as a group:

What do you like best about the project you made or heard? What else might you like to add?

What’s Next?

If you have access to Makey Makey boards (makeymakey.com), you can connect a Scratch project to the physical world. Participants can interact with their musical projects using coins, clay, cardboard, and more.

Scratch + Makey Makey

To learn how to use Makey Makey with Scratch, see scratch.mit.edu/makeydrum or scratch.mit.edu/makeypiano

Scratch is a project of the Lifelong Kindergarten Group at the MIT Media Lab.
EDUCATOR GUIDE

Pong Game

With this guide, you can plan and lead a one-hour workshop using Scratch. Participants will gain experience with coding as they design a bouncing ball game.

Workshop Overview

Here’s a suggested agenda for a one-hour workshop:

**IMAGINE**
10 minutes

First, gather as a group to introduce the theme and spark ideas.

**CREATE**
40 minutes

Next, help participants as they make games, working at their own pace.

**SHARE**
10 minutes

At the end of the session, gather together to share and reflect.
Get Ready for the Workshop

Use this checklist to prepare for the workshop.

☐ **Preview the Tutorial**

The *Pong Game* tutorial shows participants how to create their own projects. Preview the tutorial before your workshop and try the first few steps: [scratch.mit.edu/pong](http://scratch.mit.edu/pong)

☐ **Print the Activity Cards**

Print a few sets of *Pong Game* cards to have available for participants during the workshop. [scratch.mit.edu/pong/cards](http://scratch.mit.edu/pong/cards)

☐ **Make sure participants have Scratch accounts**

Participants can sign up for their own Scratch accounts at [scratch.mit.edu](http://scratch.mit.edu), or you can set up student accounts if you have a Teacher Account. To request a Teacher Account, go to: [scratch.mit.edu/educators](http://scratch.mit.edu/educators)

☐ **Set up computers or laptops**

Arrange computers so that participants can work individually or in pairs.

☐ **Set up a computer with projector or large monitor**

You can use a projector to show examples and demonstrate how to get started.

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**Imagine**

Begin by gathering the participants to introduce the theme and spark ideas for projects.

**Provide Ideas and Inspiration**

Show the introductory video for the *Pong Game* tutorial. The video shows pong games with a variety of themes, such as space pong (using images of planets for the ball and stars for the backdrop).

View at [scratch.mit.edu/pong](http://scratch.mit.edu/pong) or [vimeo.com/llk/pong](http://vimeo.com/llk/pong)

**Warm-up Activity: Bouncing Ideas**

To get participants thinking about a theme for their game, take turns calling out a theme, such as pizza pong or flower pong and brainstorming ideas for the type of images they could use to represent the theme.
Demonstrate the First Steps

Demonstrate the first few steps of the tutorial so participants can see how to get started.

Go to the Scratch website. Click Create. Choose a new backdrop:

Choose a ball sprite and make it bounce around:

Add a paddle sprite and control it with the mouse:

Create

Support participants as they create pong games, on their own or in pairs.

Start with Prompts
Ask participants questions to get started

What background do you want for your game?
What color or type of ball?

Provide Resources
Offer options for getting started

Some participants may want to follow the online tutorial: scratch.mit.edu/pong
Others may want to use the printed activity cards.

Suggest Ideas for Starting
• Choose a backdrop
• Choose or draw a ball sprite and make it bounce around
• Add a paddle sprite that you can control
• Make the ball bounce off the paddle
More Things to Try

- Add sounds and color effects
- Keep score by adding a variable
- Add a way to win or lose the game
- Change the backdrop when you reach a certain number of points
- Duplicate the ball for an added challenge

Offer strategies for problem solving

- Talk out what you’re working on with someone
- Try out small bits of code at a time to figure out what's happening at each step
- Look closely at the blocks on the tutorial or activity cards to see if they are the same or different from the blocks you’re using
- Look at the code for other pong games on the Scratch site

Prepare to Share

To add instructions and credits to a project online, click the button: ‘See project page’.

This video shows how to share a project on the Scratch website: vimeo.com/llk/share

Share

Have participants share their projects with others in the room.

Ask questions to encourage reflection:

- What did you notice about the games you tried?
- What ideas might you add to your game?

What’s Next?

Here are a couple of other directions you could suggest:

- Two-Player Game
  For a more advanced project, try making a two-player game. To make a new version of your own project, click File > Save as a Copy.

- Remix a Game
  A different way to make a pong game is to remix someone else’s project, adding images and ideas. Find a project to remix in the Pong Game Studio: scratch.mit.edu/studios/644508/ Click ‘See inside’, then click the ‘Remix’ button.

Scratch is a project of the Lifelong Kindergarten Group at the MIT Media Lab.