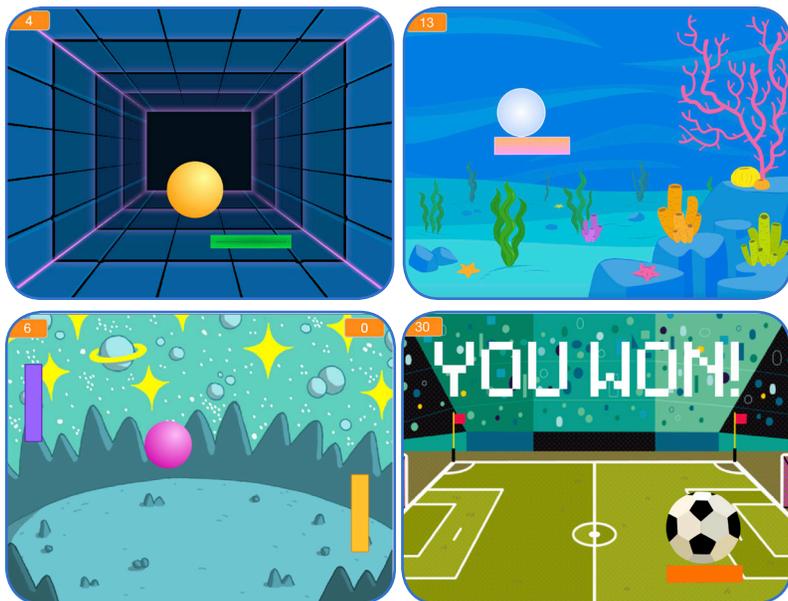


## EDUCATOR GUIDE

# 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.

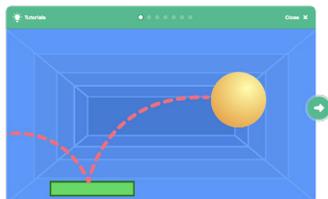
## Get Ready for the Workshop

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](https://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/ideas](https://scratch.mit.edu/ideas)



### Make sure participants have Scratch accounts

Participants can sign up for their own Scratch accounts at [scratch.mit.edu](https://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](https://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.

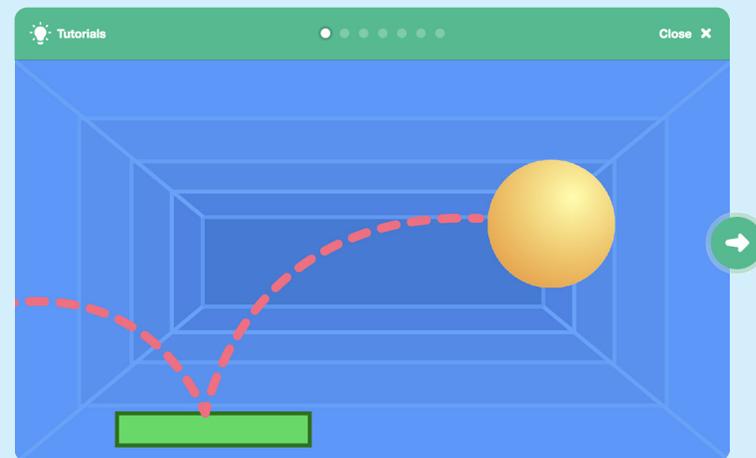
## Imagine



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

### Provide Ideas and Inspiration

Show the introductory video for the *Pong Game* tutorial. The video shows pong games with a variety of themes, including everything from soccer to a magic potion-themed Pong game.



View at [scratch.mit.edu/pong](https://scratch.mit.edu/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.

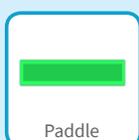
Go to the Scratch website. Click Create.  
Choose a new backdrop:



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

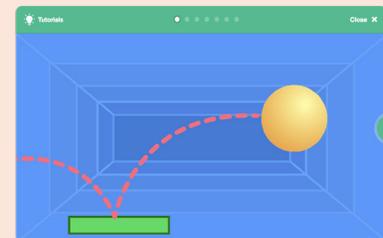
Ask participants questions to get started

*What background do you want for your game?*

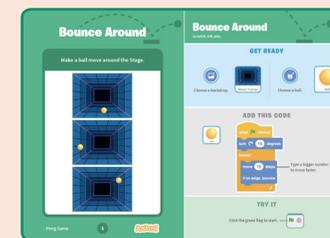
*What color or type of ball?*

### Provide Resources

Offer options for getting started



Some participants may want to follow the online tutorial:  
[scratch.mit.edu/pong](https://scratch.mit.edu/pong)



Others may want to use the printed activity cards:  
[scratch.mit.edu/ideas](https://scratch.mit.edu/ideas)

### 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



CREATE

### 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, click the button: "See project page".

Then click the Share button if you want the project visible to others online.



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/](https://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.