Multiplayer Game Guide

Whether you're playing together in class or remotely from home, hosting multiplayer games is a great way to encourage collaboration, communication, and problem solving as students work together on projects in a shared Minecraft world.

Minecraft: Education Edition offers multiplayer functions that connect players through picture-based join codes so they can play together at the same time in the same Minecraft world. Multiplayer games in Minecraft: Education Edition can take place between users within the same Office 365 Education tenant. For most users, this means the part of your email address after the "@" symbol matches that of the other players.

A single multiplayer game can host a maximum of 30 players, and can connect players across all supported platforms. All players will need to be running the same version of

Minecraft: Education Edition to be able to host and join worlds together. Watch the video of [how to host and join a world in Minecraft: Education Edition](#) to learn more.

Multiplayer is possible across different internet connections in Minecraft: Education Edition as long as all participants meet the criteria outlined in the [Multiplayer Requirements](#) section below. Every home network is configured differently which can pose challenges for some players to join a multiplayer session. Players must take care to configure anti-virus and firewall applications to allow access to Minecraft: Education Edition.

Multiplayer Requirements

Here are the requirements for the best possible multiplayer experience:

- Multiplayer is possible for players within the same Office 365 tenant.
- Players should have the most [up-to-date version](#) of Minecraft: Education Edition.
- All players need to be running the same version of Minecraft: Education Edition to be able to host and join worlds together.

Review the [Troubleshooting](#) section if you are having issues with your Multiplayer game.

All multiplayer users should use the most current release of Minecraft: Education Edition. If the following message appears, it's an indication that not everyone is running the most recent version of Minecraft: Education Edition or that the proper ports aren't open.

Please [download](#) and install the most recent version of Minecraft: Education Edition before you start. **Be sure to save and backup any work-in-progress before you update as uninstalling the game will delete any worlds on your device**.

How to Host a World

Click **Play** on the home screen.

HOST AN EXISTING WORLD

Choose an existing world to host from the **View My Worlds** collection. You can also import and launch a new world from the **Library Collection.** Follow the instructions in the How to host a game in-progress section below to host a world that you open from the Library Collection.

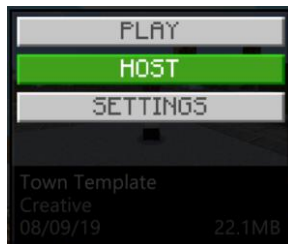Click on a world in your **My Worlds** collection and then click **Host**.
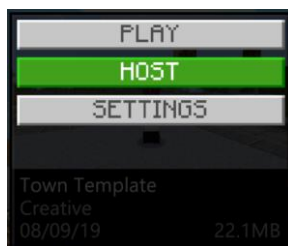
Read the [Configure settings for your Multiplayer](#) game section below to learn how to access your Join Code and change settings for your hosted world.

CREATE A NEW WORLD TO HOST

On the Play screen, click **Create New** and then click **New.**

Select the options you would like applied to your new world, and then click **Host.**

Read the [Configure settings for your Multiplayer game](#) section to learn how to access your Join Code and change settings for your hosted world.

HOW TO HOST A GAME IN-PROGRESS

Pause the game and from the **Friends tab** click **Start Hosting** then click **Confirm**.
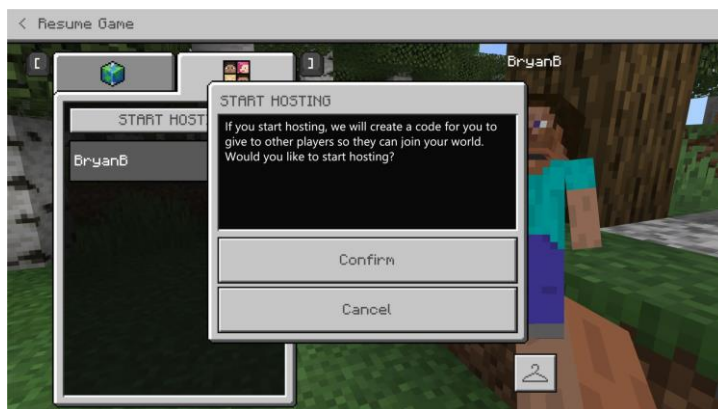
Read the [Configure settings for your Multiplayer game](#) section to learn how to access your Join Code and change settings for your hosted world.

HOW TO JOIN A WORLD

Click **Play** on the Home screen and then click **Join World.**

Enter the **Join Code** for the world you want to join by clicking on each picture in order.

If a student enters incorrect join codes repeatedly, they'll get a warning after 3 failed attempts. After 5 failed attempts, they will be required to wait a few minutes before they can enter another Join Code. This prevents students from guessing Join Codes and entering sessions they are not invited to.

Configure Settings for Your Multiplayer Game
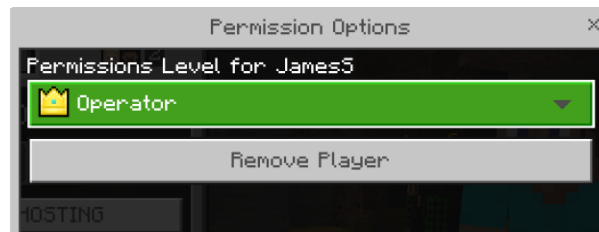
WORLD SETTINGS

Pause the game, and then click **Settings** on the **World Settings** tab.

Select the default permissions you would like players to have when they join your world: Visitor, Member or Operator.   Note that any Instructor who joins a world will always have Operator permissions. You can also configure other World settings from this screen.

PLAYER PERMISSIONS

Pause your game and click the **Friends tab**. Hosts and teachers are able to edit the permission levels and remove other players from the world from the hosting panel. Watch a short video on setting permissions for your multiplayer world to learn more.

HOST SETTINGS

Pause your game and click the **Friends tab**. Take note of the four pictures in your **Join Code** and share them with players that you want invite into your world.

RESTRICTING ACCESS TO YOUR WORLD

At some point you may want to limit other players from joining your world. This can be done in a few ways:

- Change the Join Code by pausing the game and selecting the refresh symbol next to the Join Code. Players in the world will not have to re-enter their Join Code, however any new players must use the new Join Code.
- Use the command /setmaxplayers to limit the amount of people in your world

A teacher or host of a world will always be able to edit their own permissions as well as permissions for other players in the world.

Troubleshooting

PERFORMANCE ISSUES

If you can connect to a multiplayer game but start to see decreased performance as more players join your game, try the following to improve your experience:

- It is recommended that the host computer has at least 1.5 Mbps of bandwidth.
- Examine your network speed and ensure the number of players is not overloading your network.
- Turn down the render speed to 4 chunks and turn off fancy graphics in the Video area of the World Settings screen.
- For more information on how to best utilize multiplayer with 30 or more students you can connect with other teachers in our community forums.

CONNECTION ISSUES

- Your network needs to allow communications with https://meeservices.azurewebsites.net (the URL needs to be "white listed" by any systems in your network that block access to the internet such as router settings, anti-virus or your firewall software).
- Often an antivirus software or your firewall can block multiplayer connection. This link can provide guidance on ensuring your antivirus or firewall is not blocking the multiplayer connection.
- If players are not using the same version of Minecraft: Education edition they will see the error "Could not connect. Outdated server." Use our download page to update to the latest version.
- If the host computer disconnects (even temporarily) everyone on the world will lose connection. The host will need to re-start the hosting session and all players will need to re-connect with the new join code
- Try connecting your modem directly to your computer using a network cable.
- Make sure that port 19132 is not blocked in your network configuration.
- You also may need to forward port 19132 on your router. Forwarding ports is useful because it can help to make your network connection more stable and sometimes even faster.
    - Forward Port 19132 TCP AND UDP.
    - This link can help provide guidance on forwarding Port 19132

Alternatives to Multiplayer Games

If network conditions do not allow students to play a multiplayer game, but they still wish to collaborate on a Minecraft project, another option is for students to work asynchronously on a Minecraft world. With this method, students export their Minecraft world and then share it with a classmate who can import that world on their own machine to work on at a different time. This short video explains how to use the import and export feature in Minecraft: Education Edition.

Users of the consumer version Minecraft can also create multiplayer games using Minecraft Realms.

Additional Resources

- Visit the Minecraft: Education Edition technical support community
- Read Remote learning with Minecraft: Education Edition