Minecraft for Parents

For The Maker Spot, by DrUsual@live.com

What is Minecraft?

At its heart Minecraft is a building game. Players search for resources to build structure, tools, and devices. Despite the blocky, "old school" look and feel of the native game, Minecraft is incredibly popular. The game has persisted for over a decade with over 100 million registered players.

There are many ways to play Minecraft and tremendous capability for modifying the game engine.

Minecraft is Not…

- Substantially violent. Some modes include fighting, but it's not the central focus.

- Expensive. Minecraft accounts are a one-time purchase. (Note: console versions include the possibility of buying downloadable content.)

- Antisocial. People play together on servers, sometimes in theaters or gaming events, and have online communities.

- Mind numbing. There are many opportunities to learn and exercise creativity.

Editions and Platforms

Editions

Minecraft can be played on numerous platforms. Each platform has its own edition:

- Personal Computer (PC Edition)
- Xbox, Playstation, Wii
- Pocket Edition (Phone)
- Minecraft for Education
- Window 10

Players on different editions are not able to interact with one another, with the exception of Windows 10: this edition allows cross-platform play with the Pocket Edition.

Minecraft for Education is a special service hosted by Microsoft. More information can be found here.

The PC Edition is available to both Windows and Apple computers. Players can create a private, individual world directly on the computer, can host a server on a personal network, or join a server with up to thousands of other players via the Internet.

Creating a Player Account

Obtaining an account is the first step in playing Minecraft – an account is required to download the demo version or to buy the full game.

Minecraft.net is Minecraft's home on the web, but you can jump directly to the Account page to create an account.

Once you've created an account you'll be asked to create a username. This is the name that identifies you to other players in a Minecraft server, so choose appropriately.

Note: if you have difficulty with account setup, you can find the official Help page here.

Bargain Pricing

At the time of this writing, the Minecraft PC version costs less than $30 and is a one-time charge. I've had my Minecraft account for eight years and never paid a penny more, unless you count the ridiculous amount I've spent on Minecraft Lego sets.

The Minecraft Wiki

The Gamepedia Wiki for Minecraft may be the single most useful resource to a Minecraft player. Located here, it includes a reference guide, tutorials, and a portal to community resources.

Example: search for "shovel" on the Wiki page. The main "shovel" page will explain how to obtain or craft a shovel, how to use it, and any special considerations about shovels (such as using it as a weapon.)

Crafting [edit | edit source]

Ingredients	Crafting recipe
Any Wood Planks or Cobblestone or Iron Ingot or Gold Ingot or Diamond + Stick	
Damaged Matching **Shovel**	

(That's http://minecraft.gamepedia.com/Minecraft_Wiki if you're reading this in print.)

Vocabulary!

Block	A specific object which makes up part of the Minecraft environment, such as a unit of dirt, a piece of a cactus, or a door. For reference, the player is two blocks high and one square block around.
Item	An object which can't be placed, but can be used in some way – wielded (such as a sword, shovel or compass), eaten (a pork chop or cookie), used as a crafting ingredient (diamonds, clay, string) or used in some other way (book, coal, lead.)
Mob	A living, moving game entity. Some are passive and useful, such as horses, rabbits, and pigs, while others are aggressive and harmful, such as zombies, creepers, and skeletons.
Respawn	When a player dies he/she will appear again at an established spawn point. All items in the players possession will be available temporarily at the spot where the death occurred.
Craft	Many items in the Minecraft world are created by combining materials. For example, two sticks plus one unit of another item (rock, iron, diamond) can be used to create a shovel.
PvP	Player versus Player. When a server allows PvP, players may attack other players, raid their constructions, and take their collected objects.
Griefing	Destroying other players' constructions or server constructs. Many servers ban players for griefing.
Admin	A player with administrative capabilities; they can authorize or ban people from servers, provide players with materials, and many other functions.
Redstone	A system of automation within the Minecraft world; players build circuits of redstone devices to create machines such as powered railways, secret doors, automated farms, and much more.

Minecraft Game Modes

Creative

Players can access an unlimited supply of materials via a simple menu. They can breathe underwater, can fly, and don't require food. Mobs, fire, and falling can't hurt the player. They can break any with a single click.

Survival

Players must find and gather materials needed for building and crafting. They must consume food, can only stay underwater for limited durations, and can't fly without a potion or device. They can be hurt by mobs, fire and falling.

Adventure

A special mode where players interact with mobs and objects as they do in Survival, but the map creator can limit the breakability of blocks. Blocks can be set to unbreakable or can require a specific tool to be broken.

Survival Difficulty Settings

- Peaceful – hostile mobs don't spawn.
- Easy – hostile mobs do less damage than normal.
- Normal – hostile mobs damage players. When players die, they respawn.
- Hardcore – hostile mobs do more damage than normal. When the player dies, the map is deleted.

Basic Controls (PC Version)

Mouse	Turn left and right, look up and down. In the control menu you can toggle whether mousing forward looks up vs down.
Mouse button 1	Use the object in your hand – dig with the shovel, attack with the sword, etc. This is also how you break blocks. If your character is holding an axe, hold the left mouse button down to strike a tree repeatedly until it "breaks."
Mouse button 2	Place block or use item. Place a block of wood. Open or close a door or chest. Pull a lever, or place a torch on a wall. Access a submenu system, such as a crafting bench or a furnace. Go to bed.

W	Walk forward.	T	Open the chat window.
S	Walk backward.	Tab	See the list of players online.
A	Slide left.	/	Open the command window.
D	Slide right.	F1	Turn the heads-up display on or off.
Space	Jump.	F2	Take a screenshot.
Left Shift	Sneak.	F3	Open the info menu, which includes coordinates.
E	Open or close the inventory.		
Q	Drop item.		
1-9	Hotbar select.		

Minecraft Servers

Minecraft worlds can be hosted in numerous ways:

1. Single player mode. A world is generated on the player's machine and is not accessible to anyone else.

2. Local network. One machine on a LAN generates a world, other machines on the same LAN can play in that world.

3. Internet server. The player needs an IP address or URL to access the server. If the server is private player access is controlled by a "whitelist." Many servers are open to the public.

More About Servers…

Host Your Own

The easiest way to maintain your own is to rent hosting space from a gaming company. It doesn't cost much, you'll get excellent server speed, and you won't have to learn the details of server setup and administration/security.

Realms

Minecraft Realms is a Microsoft hosting solution for PC-based Minecraft. It's intended for small groups of home players; it only allows 10 players, but does offer pre-configured world types and minigames.

Public Servers

If your children play on public servers, I strongly recommend spending some time on the server yourself to determine if it's appropriate for your family. Many servers will claim to be "family friendly" but have no monitoring in place to ensure players follow the family friendly rules.

817 Republic

The server we use in the MakerSpace classes is actually our family-owned server. We rent it from GGServers.net; it costs less than $20/month for a server that can accommodate dozens of players. We make it family friendly both through plugins and active admins who enforce our rules. If you'd like to play there, please contact me.

Educational Opportunities Using Minecraft

Here are just a few examples of Minecraft scenarios with real world counterparts.

Math
How far apart are those villages? How much iron and gold will we need to build a railway? How much space is actually in that house? And what's the chance of that egg producing a chicken?

Electricity
Minecraft's system for building powered mechanisms, redstone closely parallels electronics and can be used to teach basic electrical theory to advanced circuits.

Water
Just like the physical world, fluids in Minecraft follow well-defined rules and water is essential for life.

Music
Use Minecraft note blocks for a wonderfully visual way to teach chords and timing!

Geology
Those rocks we look for in Minecraft? They're outside, too! Minecraft also uses a Mohs-like hardness scale and introduces "the right tool for the right job."

Art and Architecture
Whether the student is building purely visual art or selecting just the right materials to balance aesthetics with function, Minecraft offers an excellent virtual canvas.