

How Do I Update Minecraft?

It can also be about adventuring with friends or watching the sunrise over a blocky ocean. It's pretty. Brave players battle terrible things in The Nether, which is more scary than pretty. You can also visit a land of mushrooms if it sounds more like your cup of tea.

How do I update Minecraft?

Open the Minecraft Launcher. Click on "Options," next to the username text box, then press "Force update!" and login with your Minecraft credentials afterwards. Minecraft will start updating itself. This can also be used to get a fresh Minecraft installation, which will keep your saved games and texture packs, but not your mods.

What is the difference between Minecraft Java Edition and Minecraft Bedrock Edition?

Java is, by and large, the more powerful and feature-rich version of Minecraft, but it lacks the compatibility and cross-play support of Bedrock. Furthermore, Bedrock Edition comes packaged with microtransactions, RTX support, and a handful of other exclusive functions (not to mention a broader set of supported devices).

Java Edition is PC only and players can only interact with other Java Edition players. Meanwhile, Bedrock Edition is multi-platform which means Bedrock players can interact with each other be it console, mobile or PC.

Gamers on the Java Edition have access to numerous communities and endless mods. These two combined make the multiplayer experience of the game a lot more malleable. The biggest con for Java Edition is that it requires higher spec machines to run smoothly.

Bedrock Edition does offer a few things that the Java Edition does not have. Mainly its marketplace, where you can acquire skins and add-ons, and the option to use controllers. Parental controls via Xbox services also provide peace of mind to parents.

How do I find other Minecraft players online?

To play Minecraft with other players, find a server first. Different servers offer different gameplay. Some are centered around building, others offer an MMO experience, and others are centered around survival.

There is a universe of possibilities, so your best bet is use any search engine to find Minecraft servers with the kind of gameplay style you're looking for. Such is the diversity that if you're looking for gameplay similar to GTA all you have to do is search "Grand Theft Auto Minecraft servers" to get a list of options. Once you have found a server, open Minecraft, select Multiplayer, and choose "Add Server."

Note: To play Minecraft Java Edition please download and install Java first. (Minecraft 1.19

requires Java 17)

What's New

The Wild Update - Java Edition 1.19 and Bedrock Edition 1.19.0 - is themed around "scary things" and natural wilderness. It introduces the deep dark and mangrove biomes; ancient cities; mobs such as the warden, the frog, the tadpole, and the allay, as well as new items obtainable only in these new biomes. Complete release notes for Minecraft 1.19 can be found [here](#).

Notable features

Froglight

- Is dropped by tiny magma cubes when they are eaten by frogs.[2]
- Has three variants: pearlescent (purple), verdant (green), and ochre (yellow). - Which variant is dropped depends on the frog variant that eats the magma cube. - A pearlescent froglight is dropped if a warm (white) frog eats the magma cube.
- A verdant froglight is dropped if a cold (green) frog eats the magma cube.
- An ochre froglight is dropped if a temperate (orange) frog eats the magma cube.

Frogspawn

- Can't be obtained in survival.
- Is laid by frogs when they are bred with slime balls. - Tadpoles are born from them soon after.

Mangrove Leaves

- Generated in mangrove trees.
- A decorative block.

Mangrove Log

- Generated as a part of mangrove trees, which are located in swamps and mangrove swamps.
- Can be crafted into mangrove planks and wood.

Mangrove Planks

- Crafted from mangrove logs.
- Can be used to craft respective slabs, stairs, fences, fence gates, pressure plates, signs, buttons, doors, boats and trapdoors.

Mangrove Propagule

- Grows into a mangrove tree when planted.
- Grows underneath mangrove leaves.
- Can be placed both on land and in water, making it the first tree sapling that can be placed underwater.

Mangrove Propagule (Hanging)

- Generated in mangrove leaves.
- Bees can pollinate it.
- Has four growth stages.

Mangrove Roots

- A decorative block.
- Can be waterlogged.

Mud

- Found in mangrove swamp biomes.
- Can be created by using a water bottle on a dirt block.
- Can be placed on top of dripstone to dehydrate and form clay. - This, in turn, enables renewable clay in Bedrock Edition (clay is already renewable in Java Edition).

Mud Bricks

- Crafted using 4 packed mud.
- Can be crafted into mud brick slabs, stairs, and walls using a crafting table or stonecutter.

Muddy Mangrove Roots

- Muddy variant of mangrove roots.

Packed Mud

- Crafted using mud and wheat.
- Can be used to craft mud bricks.

Reinforced Deepslate

- Found only in ancient cities.
- It is unobtainable in survival mode.
- Has some unknown "interesting" purpose.
- Currently can be broken only by mining for a long time, and is immune to explosions, withers, and ender dragons.

Sculk

- Generates in the deep dark biomes.
- Has an animated texture.
- Drops only experience when broken without Silk Touch.
- Sculk blocks grow underneath a mob corpse around a sculk catalyst.

Sculk Catalyst

- Generates in the deep dark biome.
- Made of sculk and a bone-like material.
- Spreads sculk blocks to wherever a nearby mob dies. The amount it spreads depends on the amount of experience the mob is meant to drop. - This means that even if the mob doesn't drop experience as it wasn't killed by a player, the blocks would still spread based on the amount of experience it normally drops.

Sculk Shrieker

- Generates in the deep dark biome.
- Has two soul-shaped patterns in the center.
- Has the ability to "shriek", emitting ring-like/sonic particles.
- Is activated by a sculk sensor.
- Gives players the Darkness effect when activated.
- Naturally generated sculk shriekers summon a warden from the ground if activated too many times. - Sculk shriekers summon wardens only if there isn't one within 48 blocks.
- Sculk shriekers placed by the player or grown from a sculk catalyst cannot summon wardens.

Sculk Vein

- Generates in the deep dark biome only.
- Generates in a layer on top of blocks, similar to snow.
- Can be placed in all directions, like glow lichen.
- Has an animated texture.
- Drops nothing when broken without Silk Touch.
- Some have parts that are transparent, allowing the player to see the block it is on top of.

Items

Spawn Eggs

- Warden spawn egg.
- Frog spawn egg.
- Tadpole spawn egg.

- Allay spawn egg.

Bucket of Tadpole

- Obtained by using a water bucket on a tadpole, similar to obtaining a bucket of fish or axolotls.
- Can be used to transport tadpoles to another location, similarly with fish and axolotls.

Echo Shards

- Can be found only in loot chests of ancient cities.
- Can be used to craft the recovery compass.

Goat Horn

- Drops when a goat rams a tree or any other hard block that occurs naturally where goats spawn. - Includes copper ore, emerald ore, iron ore, log, packed ice, or stone.
- Goats do not ram other solid blocks.
- The 8 variants are: Ponder, Sing, Seek, Feel, Admire, Call, Yearn and Dream
- Can also be found in pillager outposts.

Recovery Compass

- A new type of compass which points to the last place where the player died.
- Randomly spins when the player is not in the same dimension that they last died in.
- Can be crafted by 1 compass surrounded by 8 echo shards.

Disc Fragment

- A fragment of the Music Disc "5", which can be crafted into the disc.
- Can be obtained only from the chests in the ancient cities. They are extremely rare and hard to obtain.

Mangrove Boat

- A new boat variant, crafted with mangrove planks.

Music Disc 5

- A new music disc, by Samuel ...berg, titled "5".
- Obtained by restoring it from a fragmented state: can be obtained only through crafting by using 9 Disc Fragments for the disc.
- Track is similar in nature to "11".

Allay

- Voted to be in the update during Minecraft Live 2021.
- If given a block or item, finds dropped blocks or items of the same type and bring them to the player.
- Picks up dropped items in loaded chunks and can carry up to a stack at a time, and cannot duplicate items or take items out of chests. It drops its collected items when in range of a note block that was played within 30 seconds.

Frog

- Grows from a tadpole.
- Comes in three variants: temperate, cold, and warm. - The temperate variant is orange, the warm variant is white, and the cold variant is green.
- Frog variant depends on the temperature of the biome where it turns from a tadpole to a frog.
- Each variant is planned to have a unique use for players, which remains unknown.
- One known use is Froglight production.

- Each frog variant drops a different variant of froglight.
- The temperate frog drops ochre (yellow) froglights.
- The cold frog drops verdant (green) froglights.
- The warm frog drops pearlescent (purple) froglights.
- Are bred with slimeballs.

Tadpole

- Grows up into a frog after birth. Frog type depends on the temperature of the biome it grows in.
- The first different baby mob
- Can be held in a water bucket.
- Panics on land and pathfinds to a nearby water source.
- If there are any axolotls nearby, it panics.

- Spawns in the deep dark biome, specifically when too many sculk shriekers are activated.
- "Emerges" from the ground when summoned by sculk shriekers. - Digs back into the ground when it doesn't sense any vibration after 60 seconds.

- Because of this, it stumbles as it walks.
- Has a sense of smell. It can detect and pathfind toward the general location of a player or mob through a "smelling" action.
- Prioritizes smelling the player or mob that it is most suspicious of, rather than the one closest to it.
- Has a sense of vibration. When sensing movement, it pathfinds toward the source of the movement. It follows and attacks players, mobs, and other entities that make vibrations.

- It does not attack other wardens.
 - When it detects a vibration, the growths on its head rattle and light up, similar to the sculk sensor.
 - Seems to follow the same rules as the sculk sensor when detecting vibrations.
 - If any projectile (e.g. egg, snowball, arrow) lands near it, the warden inspects the location where the projectile landed, due to the projectile creating significant vibrations. This feature can be used in order to cause a distraction.
 - It becomes angry at a player who fires more than two projectiles in five seconds.
 - Does not detect players that are sneaking.
 - Because of this, it can detect players or mobs that have the invisibility effect.
 - It can also feel players that bump into it.
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- Has a way to counter "cheesing" strategies like pillaring up to avoid attacks. The solution does not involve block breaking. rather, more related to psychological effects.
 - Incredibly strong, doing 32 - 16 damage, bringing players wearing full netherite armor from full health to 7 health points.
 - When the player is out of range for the warden to attack, it uses its ranged attack, a blast of particles that kills the player immediately (without any armor).
 - Currently has 500 - 250 health points.
 - At least as fast as a walking player.
 - Seems to have knockback resistance.
 - Because of this, the warden isn't needed to receive the advancement, Monsters Hunted.
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- The core creates a low throbbing or "heartbeat" sound as it pulses. The sound and animation speed up rapidly as the warden gets more suspicious of or closer to attacking a player or mob.

World generation

Ancient City

- A large structure that generates at y=-54 within the deep dark biome.
- Includes all of the deep dark features within it.
- Made of deepslate and its variants, basalt blocks and its variants, planks, and wool.[25]
- Decorated with soul sand, soul fire, soul lanterns, candles, and skeleton skulls.
- Contains chests with unique loot including a unique enchantment, a new material, and music disc fragments.[26] - The loot is intended to be items that cannot be found anywhere else in the world, and that provide unique abilities and mechanics to players that weren't possible before and are not attainable by other methods.[27]

Deep Dark

- New biome at the "deepest depths of the world".
- Originally planned for Caves & Cliffs, and was then postponed to The Wild Update due to

increased scope.

- May not contain any water or lava aquifers.
- May be the rarest cave biome in the game.
- Tends to generate under mountainous areas.
- Generates exclusively within the deepslate layer between Y=-1 and Y=-64.
- Contains ancient cities.
- Wardens can spawn there through the activation of sculk shriekers.
- Contains all sculk family blocks.
- With the exception of spawners, no mobs other than wardens can spawn there, similar to mushroom fields.

Mangrove Swamp

- New variant of the swamp that tends to generate alongside hotter biomes.
- Contains mangrove trees, and are the only trees that can generate there unlike the regular swamp that can also generate oak trees.
- The surface ground is composed of a mix of grass blocks and mud.

Mangrove Tree

- New type of tree.
- Composed of mangrove logs and leaves.
- Generates roots composed of mangrove root blocks, with moss carpets growing on top.
- Propagules hang from the leaves of the tree.
- Found in mangrove swamp biomes.

Non-mob entities

- Similar to a minecart with chest but with a boat instead of a minecart.
- A single player can ride in it.
- Comes in all wood plank variants, including the newly added mangrove wood plank variant.

Enchanting

- Added the Swift Sneak enchantment. - This enchantment can be found exclusively in chests in ancient cities.
- Cannot be obtained by fishing, enchanting, trading, or other loot chests, similar to Soul Speed.
- Has a total of three levels.
- Available for leggings; no longer available for boots.
- Allows the player to walk faster while sneaking, with an increment of 15% per level, for 45%/60%/75% of walking speed with level I/II/III, respectively.
- Sculk Soul - Emitted by sculk catalysts when activated by mob deaths.

- Emitted by sculk shriekers when activated by sculk sensors.
- Emitted by sculks and sculk veins when a sculk charge generated by sculk catalysts travels along them.
- Emitted by wardens when using their ranged attack.
- Emitted by wardens and sculk sensors when they detect a player or when the allay hears a note block.

Effects

- A status effect triggered by the sculk shrieker block, causing the player's camera to dim in brightness, thus limiting the vision of players

Custom world generation

- Added biomes field in configured structure files, which is a tag.
- Added spline density function: general-purpose building block that allows user to express almost any function using a cubic spline.

Compliance requirements

- Added gameplay timers and notices in compliance with gaming laws of South Korea to everyone who is playing in South Korea, in order to remind these players to take occasional breaks from gameplay.

Debug screen

- Now contains the chunk position in the region file, and the name of this region file which the player is currently in, at the end of the "Chunk" row.
- Added Friulian.
- Added a JSON file related to the new compliance requirements, located at `assets/[namespace]/regional_compliances.json`.

Ender Chest

- No longer gift wrapped around Christmas.

Mobs

Dolphins

- Now pick the closest structure more accurately, regardless of structure type.

Glow Squids

- Now require complete darkness to spawn.

Tropical Fish

- Now only spawn if the block above is a full water block.

Fixes

- MC-3524 - Structure related mobs do not spawn in flat type world generation.
- MC-4533 - Water graphical glitch when connecting diagonally.
- MC-53850 - Invulnerable item entities and experience orbs are removed client-side when they take damage.
- MC-70848 - Water looks like it flows up.
- MC-72248 - Falling sand creates invisible blocks.
- MC-83938 - Standing on entities with solid collision boxes (shulkers, boats) kicks you for flying.
- MC-94025 - A world with seed 0 cannot be copied using the "Re-Create" option.
- MC-98727 - Server: Entering a boat/minecart/horse while going upwards from jumping causes a kick for flying.
- MC-105317 - Structure blocks do not rotate entities correctly when loading.
- MC-111082 - Riding a boat with NoGravity on a server without flight enabled causes kick for flying.
- MC-126772 - Underwater fog doesn't hide edge of chunks correctly at low render distances.
- MC-135989 - Kicked for flying using trident with riptide enchantment.
- MC-138717 - /locate command does not locate certain structures in Superflat.
- MC-146854 - Player movement favors x axis when in a corner.
- MC-156309 - TNT entities don't properly collide with blocks when being fired in X direction.
- MC-165974 - Game pushes east/west when jumping from the inside corner.
- MC-167763 - Blindness does not work underwater for certain graphics cards.
- MC-179315 - Ruined portals never generate in Superflat worlds by default.
- MC-185545 - Knockback Resistance on players is still affected by chance.
- MC-185695 - Twisting vines don't reliably protect the player from fall damage.
- MC-192361 - /locate stronghold does not locate stronghold in Superflat worlds despite them generating.
- MC-197128 - If a custom biome uses multiple configured structure features of the same type, only one of them can generate.
- MC-205232 - Player can see farther in powder snow with blindness effect.
- MC-210612 - Strongholds do not generate in certain customized worlds despite /locate saying otherwise.
- MC-214289 - Pointed dripstone can replace blocks when generating.
- MC-216004 - Wood pillars from mineshafts are generating on pointed dripstones.

- MC-216589 - Abandoned Mineshafts don't delete dripstone in certain situations.
- MC-223834 - Pointed dripstone can form below some non-full (non-solid) blocks.
- MC-226359 - The Zero-Width Non-Joiner shows as a "ZWNJ" box.
- MC-229313 - Some blocks that negate fall damage don't reliably protect mobs at certain heights.
- MC-230905 - Sky background is visible on certain reduced fog situations.
- MC-232290 - Foxes will lay down in powder snow and not try to escape even when taking damage.
- MC-232822 - Various structures not generating in Superflat worlds.
- MC-233599 - /spreadplayers command does not allow for negative "under" values.
- MC-235574 - Game crashes when replacing a block with a wall with blockstate up:false.
- MC-242331 - Entities are displayed faster than chunks.
- MC-248225 - Incorrect BlockPos getSquaredDistance() calculation.

Previous release notes

From released versions before 1.18

- MC-152198 - Actual render distance is 2 chunks lower than render distance setting.
- MC-219507 - Beacon's power reverts back to previous one on world reload.
- MC-229321 - Bees inside of bee hives / nests sometimes despawn when the world is reloaded.

From 1.18

- MC-242729 - Observer activating without any updates nearby, caused by /clone.
- MC-243216 - Chunk render distance on servers seems shorter than in 1.17.1.
- MC-243253 - Minecraft Realms screen is loading for long time.
- MC-243796 - Random non fatal exceptions in console: Failed to store chunk ConcurrentModificationException.

Other

- Fixed an issue that would cause players on low-bandwidth connections to get timeout errors when connecting to a server.
- Fixed a critical security issue in which attackers are able to execute code on others' devices (RCE exploit) via in-game messaging or other methods where the game logs a certain exploitable string formatted as \$jndi:ldap://, due to an upstream vulnerability in log.

Fog:

- World fog now starts further away from the player, to make distant terrain more visible.
- Instead of applying fog as a spherical volume it is now applied as a cylindrical volume.

Additions

- Music Disc - Added a new music disc from Lena Raine titled "otherside". - Can be found on rare occasions in stronghold corridor chests, or much more rarely in dungeon chests.
- Has a blue and green color to the ring area of the disc.

World generation:

- Caves - Completely overhauled.
- Now stretch down to $Y=-59$.
- The caves now generate in 2 layers of different stone bases depending on the depth. - The layer above $Y=8$ is made up of regular stone.
- Stone transitions to deepslate from $Y=8$ to $Y=0$.
- Deepslate completely replaces stone from $Y=0$ to bedrock. - Certain types of ores and structures still generate in the deepslate layer, as well as tuff and gravel.
- Dirt, diorite, granite and andesite do not generate in this layer.
- Aquifers below $Y=0$ sometimes generate with lava instead of water.
- Cheese caves have large stone towers stretching from the bottom of the cave to the top, and are often large enough to allow safe elytra flight.
- Spaghetti caves are long, thin caves that have small aquifers and are more similar to original caves.
- Noodle caves are thinner, squigglier, and more claustrophobic variants of spaghetti caves.
- Come in 6 sub-biomes:
 - Meadow - A grassy elevated biome that looks like a flowery and colder plains, with an aqua grass color and dark blue water color.
 - Generates in plateaus and the lowest layers of some mountains, usually near plains and other temperate biomes.
 - Contains grass, tall grass, dandelions, azure bluets, cornflowers, poppies, daisies and alliums
 - Birch and oak trees can rarely appear in this biome, and always have bee nests.
 - Only rabbits, donkeys, and sheep spawn in this biome.
 - titan launcher and minecraft server stuff and pillager outposts can generate in this biome.
- Generates in the slopes of a snowy mountain when next to forested biomes.
- Reminiscent of a snowy taiga with a surface of snow blocks and powder snow, instead of grass blocks.
- Rabbits, wolves, foxes, sheep, pigs, chickens and cows spawn in this biome.
- Pillager outposts can generate in this biome.
- Generates in the slopes of a mountain when next to plains and snowy tundra.
- Covered in snow, snow block and powder snow.
- Only rabbits and goats spawn in this biome.
- Igloos and pillager outposts can generate in this biome.

- One of three biomes that generate in the mountain peaks.
 - Covered in snow, snow blocks and stone.
 - Tends to generate in sharp and jagged peaks in areas with snowy, cold, and temperate biomes.
 - Only goats spawn in this biome.
 - Pillager outposts can generate in this biome.
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- One of three biomes that generate in the mountain peaks.
 - Covered in snow, snow blocks, ice, and packed ice.
 - Tends to generate in smoother and less jagged peaks in areas with snowy, cold, and temperate biomes.
 - Only goats spawn in this biome.
 - Pillager outposts can generate in this biome.
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- One of three biomes that generate in the mountain peaks.
 - Covered in stone, gravel, and strips of calcite.
 - Tends to generate in any peak surrounded by warm biomes such as jungles and savannas, to avoid temperature clashes.
 - No animals spawn in this biome.
 - Pillager outposts can generate in this biome.
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- Long and rare ore formations.
 - Copper ore veins mixed with granite and blocks of raw copper generate above $Y=0$.
 - Iron ore veins mixed with tuff and blocks of raw iron generate below $Y=0$.

Upgrading of old worlds

- Terrain from new chunks will now blend with existing terrain from old chunks. Any player-made structures in these chunks will be either intact, buried, or deteriorated.
- The old bedrock layer between $Y=0$ and $Y=4$ in old chunks gets replaced with deepslate.
- If there is any bedrock at $Y=0$, lower places under non-air block in old chunks will be generated by new world generation.
- A new bedrock layer is placed at $Y=-64$.

Command format

`/jfr`

- When enabled, begins profiling with Java FlightRecorder, as well as the following custom events:
 - `minecraft.ServerTickTime`: Sampling event exposing average server tick times in intervals of a second
 - `minecraft.ChunkGeneration`: Time taken to generate individual chunk stages
 - `minecraft.PacketRead` / `minecraft.PacketSent`: Network traffic
 - `minecraft.WorldLoadFinishedEvent`: Initial world loading duration

Gameplay

- Advancements - Added four new advancements: - Caves & Cliffs - Fall from the top to the bottom of the Overworld.
- Ride a strider on lava for 50 blocks in the Overworld.
- Play music with a jukebox in a meadow biome.
- Trade with a villager at the build height limit.
- Triggered when a player lands after falling - ride_entity_in_lava
- Triggered for every tick when player rides in lava.
- Debug screen - Added three new lines: Multinoise, biome builder, and terrain. - Only appear if the dimension where the player is uses the multi-noise biome source type.
- Multinoise lists the parameters used at the player's position in order to place a biome. C is continentalness, E is erosion, T is temperature, H is humidity, and W is weirdness. - Continentalness goes up as you go more inland. In areas with low continentalness values, oceans may generate.
- Erosion determines how flat or mountainous terrain is. Higher values result in flatter areas, lower values result in mountainous areas.
- Temperature and humidity have no impact on the terrain itself, and only determine biome placement.
- Weirdness indirectly drives the PV (peaks and valleys) noise and determines which biome variant gets placed.

Font

- Added illageralt, the rune-like font from Minecraft Dungeons.
- Currently only usable via commands

Languages

- Added Lombard.[note 1]
- Added Toki Pona.[note 2]

Loot tables

- Added the type field, which is mandatory. - Written into BlockEntityTypeTag.id to ensure that the tag can be migrated correctly between versions
- Has following parameters: id: Potion ID

Music

- Added new music to the Overworld (when playing in survival mode), distributed to the new biomes, and to the main menu. [note 3] - By Lena Raine: "Stand Tall", "Left to Bloom", "One More Day", "Wending" and "Infinite Amethyst": - "Stand Tall" plays in the snowy slopes, jagged peaks, frozen peaks and stony peaks biomes, as well as the menu screen.
- "Left to Bloom" plays in the meadow and lush caves biomes, as well as the menu screen.
- "One More Day" plays in the meadow, snowy slopes and lush caves biomes, as well as the menu screen.
- "Wending" plays in the grove, jagged peaks, stony peaks and dripstone caves biomes, as well as the menu screen.
- "Infinite Amethyst" plays in the grove and dripstone caves biomes, as well as the menu screen.
- "Floating Dream" plays in the jagged peaks and lush caves biomes.
- "Comforting Memories" plays in the grove biome.
- "An Ordinary Day" plays in the snowy slopes, dripstone caves and lush caves biomes.

NBT tags

- Spawners now have a new CustomSpawnRules tag, which lets players override the spawn rules of the spawned mob. - In the tag, players can specify BlockLightLimit, which indicates the highest block-light the spawners will spawn mobs at.

Options

- Can now disable lightning flashes, which prevents lightning from making the sky flash. Lightning bolts themselves will still appear.
- The device the game outputs audio to can now be chosen in-game.
- Added "Chunk Builder" to video settings. - Determines as to which chunk sections are updated synchronously in a single frame.
- Three options: Fully Blocking, which corresponds to how chunk sections were updated before 21w37a, and Semi Blocking and Threaded, which reduce stuttering when placing or removing blocks. However, the latter two options may cause rare visual delays in world updates.
- Entities, blocks and fluids will not be updated outside of simulation distance.
- Allows higher render distance with less CPU load.
- Lower limit is 5 chunks.
- The indicator appears in the bottom right of the screen whenever the game is saving the world file.
- Defaults to on.
- The "Realms Notifications" option has been moved to this screen.
- Contains the new "Allow Server Listings" option. - When deactivated, the player name will

not show up in server online player listings.

Particles

- Added block_marker, to replace light and barrier.
- Renders with texture declared in particle slot for model assigned to configured block state.
- Summoned with same syntax as block particle (i.e. block_marker wheat[age=2]).

server.properties

- Added simulation-distance.
- Added hide-online-players, which when set to "True", will not send a player list on status requests.

Subtitles

- Added subtitles for various bundle sounds.
- Added a new subtitle for the crop sound of shears.

Tags

- Added the animals_spawnable_on block tag. - Contains grass block.
- Animals can spawn on blocks in this tag.
- Contains clay.
- Axolotls can spawn on blocks in this tag.
- Contains #dirt, #sand, #terracotta, snow block, and powder snow.
- Contains #lush_ground_replaceable, #terracotta and red sand.
- Contains #dirt, #small dripleaf placeable, and farmland.
- Big dripleaf can be placed on blocks in this tag.
- Contains dirt, grass block, podzol, coarse dirt, mycelium, rooted dirt, and moss block.
- Contains grass block, snow, snow block, podzol and coarse dirt.
- Foxes can spawn on blocks in this tag.
- Contains stone, snow, snow block, powder snow, packed ice and gravel.
- Goats can spawn on blocks in this tag.
- Contains mycelium.
- Mooshrooms can spawn on blocks in this tag.

- Contains grass block, air, #leaves and #logs.
- Parrots can spawn on blocks in this tag.
- Contains ice.
- Polar bears can spawn on blocks in this tag when in the frozen ocean biome.
- Contains grass block, snow, snow block and sand.
- Rabbits can spawn on blocks in this tag.
- Contains grass, fern, dead bush, vine, glow lichen, sunflower, lilac, rose bush, peony, tall grass, large fern, and hanging roots.
- Contains terracotta and the 16 variants of colored terracotta.
- Contains grass block, snow and snow block.
- Wolves can spawn on blocks in this tag.

Telemetry

- Readded, previously a part of game known as "snooper" until 18w20c. - Only implemented in world load event now.
- Sent data when loading singleplayer world or connecting to multiplayer server.
- Contains following information:
 - Launcher identifier
 - User identifier (XUID)
 - Client session ID (changes on restart)
 - World session ID (changes per world load, to be reused for later events)
 - Game version
 - Operating system name and version
 - Java runtime version
 - If client or server is modded (same information as on crash logs)
 - Server type (single player, Realms or other)
 - Game mode
 - Cannot be disabled,[5]

Changes

Blocks:

- Anvil
- Slightly changed the hammer texture on its GUI.
- Big Dripleaf
- Restricted big dripleaf placement to clay, coarse dirt, dirt, farmland, grass blocks, moss blocks, mycelium, podzol and rooted dirt.
- Carrot crop
- Texture of crop stage3 was changed from Carrots Age 3 JE2 BE2.png to Carrots Age 3 JE3.png, removed an extra pixel.

- Cartography Table
- Texture was changed from Cartography Table JE2 BE1.png to Cartography Table JE3.png, to match the plank texture updated in the texture update.
- Cave Vines, Kelp, Twisting Vines, and Weeping Vines
- Now stop growing if shears are used on the tip.
- This action changes the age block state of the tip to 25.
- Changed cave vines plant texture from Cave Vines Plant JE2.png to Cave Vines Plant JE1 BE1.png.
- Cocoa Beans
- Textures of cocoa pods (stage0 and stage1) were changed.
- Conduit
- Now has an assigned tool, the pickaxe.
- Copper Ore
- Now drop 2-5 Raw Copper when mining instead of 2-3.
- Dirt Path
- Side texture was changed to match its top texture.
- Doors
- Changed spruce door's model, to fix top/bottom texture.
- Changed textures of oak door and iron door, to remove the extra horizontal line.
- Enchanting Table
- Now emits a light level of 7.
- Changed the texture of the lapis icon in the GUI from Lapis Lazuli (enchancing slot) JE1 BE1.png to Lapis Lazuli (enchancing slot) JE2.png.
- Glass Pane
- Top texture was changed to match its side texture.
- Lectern
- Base texture was changed to match the plank texture updated in the texture update.
- Logs
- Top textures of crimson stems and warped stems were changed, to match Bedrock Edition.
- Changed the top texture of dark oak log.
- Changed the side texture of stripped dark oak log, to match the color of its top texture.
- Magma Blocks
- Slightly increased the frequency of underwater magma.
- Redstone Comparator
- Changed the base texture of lit comparators from Powered Redstone Comparator (S) JE4.png Powered Subtracting Redstone Comparator (S) JE5.png to Powered Redstone Comparator (S) JE5.png Powered Subtracting Redstone Comparator (S) JE6.png.
- Stained Glass
- Changed textures of blue stained glass and red stained glass, to match transparency of other types of stained glass.
- Stonecutter
- Block of Copper can be converted to 4 Cut Copper using stonecutter.

Items:

- Beetroot Seeds and Melon Seeds
- Textures were moved down by 1 pixel.
- Campfire and Soul Campfire
- Changed the item textures from Campfire (item) JE1 BE1.png Soul Campfire (item) JE1 BE1.png to Campfire (item) JE2.png Soul Campfire (item) JE2.png.
- Doors
- Changed the item textures of all doors except crimson and warped from Oak Door (item) JE3 BE2.png Birch Door (item) JE3 BE1.png Spruce Door (item) JE3 BE1.png Jungle Door (item) JE4 BE2.png Acacia Door (item) JE3 BE1.png Dark Oak Door (item) JE3 BE1.png Iron Door (item) JE2 BE2.png to Oak Door (item) JE4.png Birch Door (item) JE4.png Spruce Door (item) JE4.png Jungle Door (item) JE5.png Acacia Door (item) JE4.png Dark Oak Door (item) JE4.png Iron Door (item) JE3.png.
- Item Frames and Glow Item Frames
- Changed the item textures from Item Frame (item) JE2 BE2.png Glow Item Frame (item) JE1 BE1.png to Item Frame (item) JE3.png Glow Item Frame (item) JE2.png.
- Signs
- Changed the item textures from Oak Sign JE2 BE2.png Spruce Sign JE1 BE1.png Birch Sign JE1 BE1.png Jungle Sign JE1 BE1.png Acacia Sign JE1 BE1.png Dark Oak Sign JE1 BE1.png Crimson Sign JE1 BE1.png Warped Sign JE1 BE1.png to Oak Sign JE3.png Spruce Sign JE2.png Birch Sign JE2.png Jungle Sign JE2.png Acacia Sign JE2.png Dark Oak Sign JE2.png Crimson Sign JE2.png Warped Sign JE2.png.

Mobs:

- Axolotls
- Texture of the wild axolotl was changed.
- Now only spawn in water above clay blocks in lush caves.
- Now have their own mob cap.
- Cod, Salmon, Pufferfish, Tropical Fish, Squid, and Dolphins
- Now only spawn in water from Y=50 to Y=64.
- Additionally, tropical fishes now also spawn in lush caves at any height.
- Drowned
- Now can spawn in aquifers inside dripstone caves.
- Evoker, Pillager, Vindicator, and Illusioner
- Will no longer attack baby villagers.
- Removed hoods in the textures of evokers and vindicators.
- Removed a few misplaced pixels in the illusioner's texture.
- Glow Squids
- Now only spawn in water blocks under Y=30.
- Goats
- Now only spawn in snowy slopes, jagged peaks, and frozen peaks biomes.
- Horses, mules, and donkeys
- Now follow players holding golden carrots, golden apples, and enchanted golden apples.

- Llamas
- Now follow players holding hay bales.
- Parrots
- Models were changed to all parrot variants, their wings are not reversed now.
- Witches
- Removed hoods in their textures.
- Wither
- Tweaked the wither skull's texture to use the new wither face from the Texture Update.
- Zombie Villager
- Tweaked the armorer zombie villager's and weaponsmith zombie villager's textures to remove stray villager pixels.

General:

- Hostile mobs will only spawn in areas where the light level is equal to 0.
- This change only affects block-light and not sky-light.[6]
- Optimized AI for Axolotls, Goats, Hoglins, Zoglins, Piglins, Piglin Brutes and Villagers.
- All feedable mobs (except sheep) named Dinnerbone will now look at the player correctly.