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^{v t} This article is about the item in Minecraft. For the currency in Minecraft Dungeons, see *MCD:Emerald*. For the gem formerly known as emeralds, see *Diamond*. For other uses, see *Emerald family*.

Emeralds are minerals that are used primarily as the currency for trading with villagers and wandering traders.

Contents

Obtaining

- Mining
- Crafting
- Smelting
- Trading
- Mob loot
- Generated loot

Usage

- Trading
- Crafting ingredient
- Beacons
- Smithing ingredient

Data values

- ID

Achievements

Advancements

Videos

History

- Java Edition
Bedrock Edition
Legacy Console Edition
New Nintendo 3DS Edition

Issues

Gallery

- Screenshots
- In other media

References

Navigation



Obtaining

Mining




Emerald ore drops one emerald when mined using an iron pickaxe or better. If the pickaxe is enchanted with Fortune, it may drop an extra emerald per level of Fortune, up to a maximum of 4 emeralds with Fortune III. If the ore is mined using a pickaxe enchanted with Silk Touch, it drops itself in ore form instead of as an emerald.

Crafting












































































































| Ingredients | Crafting recipe [hide] |
|-----------------------------|--|
| <div>Block of Emerald</div> | <div><div><div><div><div></div><div></div><div></div></div><div><div><div></div></div></div><div><div><div></div><div></div><div></div></div></div></div><div><div><div></div></div></div></div></div> |




























































































Smelting












































| Ingredients | Smelting recipe [hide] |
|--|---|
| <div>Emerald Ore or Deepslate Emerald Ore + Any fuel</div> | <div><div><div><div></div><div></div></div><div><div><div></div></div></div><div>1</div></div></div> |

Trading

Emeralds can be obtained by trading with villagers and wandering traders, since they are the currency that villagers use for trading. Villagers and wandering traders buy various goods in return for emeralds. Trading is typically a faster way to obtain emeralds than by mining, as an emerald ore is rarer than a diamond ore.

| Villager | | Probability | | Villager wants | Player receives | Trades in stock | Villager experience | Price multiplier |
|---|--|-------------|-----------|--|--|-----------------|---------------------|------------------|
| | | <i>JE</i> | <i>BE</i> | | | | | |
|  <u>Librarian</u> |  Novice | 67% | 100% | 24 ×  Paper |  Emerald | 16 | 2 | 0.05 |
| |  Apprentice | 67% | 100% | 4 ×  Book |  Emerald | 12 | 10 | 0.05 |
| |  Journeyman | 67% | 100% | 5 ×  Ink Sac |  Emerald | 12 | 20 | 0.05 |
| |  Expert | 50% | 100% |  Book and Quill +  Book and Quill ^[† 1] |  Emerald | 12 | 30 | 0.05 |
|  <u>Farmer</u> |  Novice | 40% | 25% | 20 ×  Wheat |  Emerald | 16 | 2 | 0.05 |
| | | 40% | 25% | 26 ×  Potato |  Emerald | 16 | 2 | 0.05 |
| | | 40% | 25% | 22 ×  Carrot |  Emerald | 16 | 2 | 0.05 |
| | | 40% | 25% | 15 ×  Beetroot |  Emerald | 16 | 2 | 0.05 |
| |  Apprentice | 67% | 100% | 6 ×  Pumpkin |  Emerald | 12 | 10 | 0.05 |
| |  Journeyman | 100% | 100% | 4 ×  Melon |  Emerald | 12 | 20 | 0.05 |
|  <u>Butcher</u> |  Novice | 50% | 33% | 14 ×  Raw Chicken |  Emerald | 16 | 2 | 0.05 |
| | | 50% | 33% | 4 ×  Raw Rabbit |  Emerald | 16 | 2 | 0.05 |
| | | 50% | 33% | 7 ×  Raw Porkchop |  Emerald | 16 | 2 | 0.05 |
| |  Apprentice | 67% | 100% | 15 ×  Coal |  Emerald | 16 | 2 | 0.05 |
| |  Journeyman | 100% | 50% | 10 ×  Raw Beef |  Emerald | 16 | 20 | 0.05 |
| | | 100% | 50% | 7 ×  Raw Mutton |  Emerald | 16 | 20 | 0.05 |
| |  Expert | 100% | 100% | 10 ×  Dried Kelp Block |  Emerald | 12 | 30 | 0.05 |
| |  Master | 100% | 100% | 10 ×  Sweet Berries |  Emerald | 12 | 30 | 0.05 |
|  <u>Cleric</u> |  Novice | 100% | 100% | 32 ×  Rotten Flesh |  Emerald | 16 | 2 | 0.05 |
| |  Apprentice | 100% | 100% | 3 ×  Gold Ingot |  Emerald | 12 | 10 | 0.05 |
| |  Journeyman | 100% | 100% | 2 ×  Rabbit's Foot |  Emerald | 12 | 20 | 0.05 |
| |  Expert | 67% | 50% | 4 ×  Turtle Scute |  Emerald | 12 | 30 | 0.05 |
| | | 67% | 50% | 9 ×  Glass Bottle |  Emerald | 12 | 30 | 0.05 |
| |  Master | 100% | 100% | 22 ×  Nether Wart |  Emerald | 12 | 30 | 0.05 |
|  <u>Fletcher</u> |  Novice | 67% | 100% | 32 ×  Stick |  Emerald | 16 | 2 | 0.05 |
| |  Apprentice | 100% | 100% | 26 ×  Flint |  Emerald | 12 | 10 | 0.05 |
| |  Journeyman | 100% | 100% | 14 ×  String |  Emerald | 16 | 20 | 0.05 |
| |  Expert | 100% | 100% | 24 ×  Feather |  Emerald | 16 | 30 | 0.05 |
| |  Master | 67% | 100% | 8 ×  Tripwire Hook |  Emerald | 12 | 30 | 0.05 |
|  <u>Shepherd</u> |  Novice | 40% | 25% | 18 ×  White Wool |  Emerald | 16 | 2 | 0.05 |
| | | 40% | 25% | 18 ×  Brown Wool |  Emerald | 16 | 2 | 0.05 |
| | | 40% | 25% | 18 ×  Black Wool |  Emerald | 16 | 2 | 0.05 |
| | | 40% | 25% | 18 ×  Gray Wool |  Emerald | 16 | 2 | 0.05 |
| |  Apprentice | 5% | 20% | 12 ×  White Dye |  Emerald | 16 | 10 | 0.05 |
| | | 5% | 20% | 12 ×  Gray Dye |  Emerald | 16 | 10 | 0.05 |
| | | 5% | 20% | 12 ×  Black Dye |  Emerald | 16 | 10 | 0.05 |
| | | 5% | 20% | 12 ×  Light Blue Dye |  Emerald | 16 | 10 | 0.05 |

| Villager | Probability | | Villager wants | Player receives | Trades in stock | Villager experience | Price multiplier | | |
|--|--|--|---------------------------------|--|---|---|------------------|------|------|
| | <i>JE</i> | <i>BE</i> | | | | | | | |
| | Journeyman | 5% | 20% | 12 ×  Lime Dye |  Emerald | 16 | 10 | 0.05 | |
| | | 10% | 20% | 12 ×  Yellow Dye |  Emerald | 16 | 20 | 0.05 | |
| | | 10% | 20% | 12 ×  Light Gray Dye |  Emerald | 16 | 20 | 0.05 | |
| | | 10% | 20% | 12 ×  Orange Dye |  Emerald | 16 | 20 | 0.05 | |
| | | 10% | 20% | 12 ×  Red Dye |  Emerald | 16 | 20 | 0.05 | |
| | | 10% | 20% | 12 ×  Pink Dye |  Emerald | 16 | 20 | 0.05 | |
| |  Expert | 9% | 17% | 12 ×  Brown Dye |  Emerald | 16 | 30 | 0.05 | |
| | | 9% | 17% | 12 ×  Purple Dye |  Emerald | 16 | 30 | 0.05 | |
| | | 9% | 17% | 12 ×  Blue Dye |  Emerald | 16 | 30 | 0.05 | |
| | | 9% | 17% | 12 ×  Green Dye |  Emerald | 16 | 30 | 0.05 | |
| | | 9% | 17% | 12 ×  Magenta Dye |  Emerald | 16 | 30 | 0.05 | |
| |  Fisherman |  Novice | 50% | 50% | 20 ×  String |  Emerald | 16 | 2 | 0.05 |
| | | | 50% | 50% | 10 ×  Coal |  Emerald | 16 | 2 | 0.05 |
| | |  Apprentice | 67% | 100% | 15 ×  Raw Cod |  Emerald | 16 | 10 | 0.05 |
| | |  Journeyman | 100% | 100% | 13 ×  Raw Salmon |  Emerald | 16 | 20 | 0.05 |
|  Expert | | 100% | 100% | 6 ×  Tropical Fish |  Emerald | 12 | 30 | 0.05 | |
|  Master | | 100% | 100% | 4 ×  Pufferfish |  Emerald | 12 | 30 | 0.05 | |
| | | 100% | 100% |  Boat ^[t 2] |  Emerald | 12 | 30 | 0.05 | |
|  Armorer |  Novice | 40% | 100% | 15 ×  Coal |  Emerald | 16 | 2 | 0.05 | |
| |  Apprentice | 50% | 100% | 4 ×  Iron Ingot |  Emerald | 12 | 10 | 0.05 | |
| |  Journeyman | 40% | 100% |  Lava Bucket |  Emerald | 12 | 20 | 0.05 | |
| | | 40% | 100% |  Diamond |  Emerald | 12 | 20 | 0.05 | |
|  Leatherworker |  Novice | 67% | 100% | 6 ×  Leather |  Emerald | 16 | 2 | 0.05 | |
| |  Apprentice | 67% | 100% | 26 ×  Flint |  Emerald | 12 | 10 | 0.05 | |
| |  Journeyman | 100% | 100% | 9 ×  Rabbit Hide |  Emerald | 12 | 20 | 0.05 | |
| |  Expert | 100% | 100% | 4 ×  Turtle Scute |  Emerald | 12 | 30 | 0.05 | |
|  Cartographer |  Novice | 100% | 100% | 24 ×  Paper |  Emerald | 12 | 2 | 0.05 | |
| |  Apprentice | Depends on the villager's biome | Depends on the villager's biome | 11 ×  Glass Pane |  Emerald | 12 | 10 | 0.05 | |
| |  Journeyman | 67% | 67% |  Compass |  Emerald | 12 | 10 | 0.05 | |
|  Wandering Trader | Purchase | 33% | 33% |  Hay Bale |  Emerald | 2 | — | — | |
| | | 33% | 33% |  Water Bottle |  Emerald | 2 | — | — | |
| | | 33% | 33% | 4 ×  Baked Potato |  Emerald | 2 | — | — | |
| | | 33% | 33% |  Milk Bucket | 2 ×  Emerald | 2 | — | — | |
| | | 33% | 33% |  Water Bucket | 2 ×  Emerald | 2 | — | — | |
| | | 33% | 33% |  Fermented Spider Eye | 3 ×  Emerald | 2 | — | — | |



| Villager | | Probability | | Villager wants | Player receives | Trades in stock | Villager experience | Price multiplier |
|---|--|-------------|-----------|--|--|-----------------|---------------------|------------------|
| | | <i>JE</i> | <i>BE</i> | | | | | |
|  Mason |  Novice | 100% | 100% | 10 ×  Clay Ball |  Emerald | 16 | 2 | 0.05 |
| |  Apprentice | 100% | 100% | 20 ×  Stone |  Emerald | 16 | 10 | 0.05 |
| |  Journeyman | 29% | 33% | 16 ×  Granite |  Emerald | 16 | 20 | 0.05 |
| | | 29% | 33% | 16 ×  Andesite |  Emerald | 16 | 20 | 0.05 |
| | | 29% | 33% | 16 ×  Diorite |  Emerald | 16 | 20 | 0.05 |
| |  Expert | 6% | 100% | 12 ×  Nether Quartz |  Emerald | 12 | 30 | 0.05 |
|  Toolsmith |  Novice | 40% | 100% | 15 ×  Coal |  Emerald | 16 | 2 | 0.05 |
| |  Apprentice | 100% | 100% | 4 ×  Iron Ingot |  Emerald | 12 | 10 | 0.05 |
| |  Journeyman | 40% | 100% | 30 ×  Flint |  Emerald | 12 | 20 | 0.05 |
| |  Expert | 67% | 100% |  Diamond |  Emerald | 12 | 30 | 0.05 |
|  Weaponsmith |  Novice | 67% | 100% | 15 ×  Coal |  Emerald | 16 | 2 | 0.05 |
| |  Apprentice | 100% | 100% | 4 ×  Iron Ingot |  Emerald | 12 | 10 | 0.05 |
| |  Journeyman | 100% | 100% | 24 ×  Flint |  Emerald | 12 | 20 | 0.05 |
| |  Expert | 100% | 100% |  Diamond |  Emerald | 12 | 30 | 0.05 |

1. In *Java Edition* only one is requested per trade because of MC-248042 — Librarian's book and quill trade is always discounted to 1 since books are unstackable. In *Bedrock Edition*, the second book is placed in another slot instead.
2. The type of boat trade depends on the biome outfit of the villager. Plains villagers buy oak boats, taiga and snowy villagers buy spruce boats, desert and jungle villagers buy jungle boats, savanna villagers buy acacia boats, and swamp villagers buy dark oak boats.

Mob loot

Java Edition:









Decimal Fraction Distribution Expectation

| Mob | | Quantity / Chance / Average | | | | | | | | | | | |
|---|----------------------------------|-----------------------------|--------|------|-----------|--------|------|------------|--------|------|-------------|--------|------|
| | | Default | | | Looting I | | | Looting II | | | Looting III | | |
|  | <u>Evoker</u> ^[A] | 0–1 | 50.00% | 0.50 | 0–2 | 75.00% | 1.00 | 0–3 | 87.50% | 1.50 | 0–4 | 91.67% | 2.00 |
|  | <u>Vindicator</u> ^[A] | 0–1 | 50.00% | 0.50 | 0–2 | 75.00% | 1.00 | 0–3 | 87.50% | 1.50 | 0–4 | 91.67% | 2.00 |

A. Only when killed by a player or a tamed wolf.

Bedrock Edition:

Decimal Fraction Distribution Expectation

| Mob | | Quantity / Chance / Average | | | | | | | | | | | |
|---|------------------------------|-----------------------------|--------|------|-----------|--------|------|------------|--------|------|-------------|--------|------|
| | | Default | | | Looting I | | | Looting II | | | Looting III | | |
|  | Evoker | 0–1 | 50.00% | 0.50 | 0–2 | 50.00% | 0.75 | 0–3 | 50.00% | 1.00 | 0–4 | 50.00% | 1.25 |
|  | Vindicator ^{[A][B]} | 0–1 | 50.00% | 0.50 | 0–2 | 50.00% | 0.75 | 0–3 | 50.00% | 1.00 | 0–4 | 50.00% | 1.25 |
|  | Vindicator ^{[A][C]} | 0–7 | 80.00% | 1.44 | 0–10 | 80.00% | 2.04 | 0–13 | 80.00% | 2.64 | 0–16 | 80.00% | 3.24 |
|  | Vindicator ^{[D][C]} | 0–6 | 60.00% | 0.94 | 0–8 | 60.00% | 1.29 | 0–10 | 60.00% | 1.64 | 0–12 | 60.00% | 1.99 |
|  | Vindicator ^{[A][E]} | 0–7 | 81.15% | 1.54 | 0–10 | 81.15% | 2.17 | 0–13 | 81.15% | 2.79 | 0–16 | 81.15% | 3.41 |
|  | Vindicator ^{[D][E]} | 0–6 | 62.31% | 1.04 | 0–8 | 62.31% | 1.42 | 0–10 | 62.31% | 1.79 | 0–12 | 62.31% | 2.16 |
|  | Pillager ^[C] | 0–6 | 60.00% | 0.94 | 0–8 | 60.00% | 1.29 | 0–10 | 60.00% | 1.64 | 0–12 | 60.00% | 1.99 |
|  | Pillager ^[E] | 0–6 | 62.31% | 1.04 | 0–8 | 62.31% | 1.42 | 0–10 | 62.31% | 1.79 | 0–12 | 62.31% | 2.16 |


























- A. Only when killed by a player.
- B. Only if not spawned in a raid.
- C. Only if spawned in a raid and the difficulty is easy or normal.
- D. Only when *not* killed by a player or a tamed wolf.
- E. Only if spawned in a raid and the difficulty is hard.



Foxes that are holding emeralds also have a chance of 100% to drop the emerald they are holding upon death. Alternatively, the player can drop a food item to entice the fox to drop the emerald without killing it.

Generated loot

See also: Emerald Ore § Natural generation

Emeralds can generate in chests in some village houses or other generated structures.


































































































| Item | Structure | Container | Quantity | Chance [hide] |
|---|---|------------------------------|----------|-------------------------------|
| Java Edition | | | | |
|  Emerald |  Buried Treasure | Chest | 4–8 | 59.9% |
| |  Desert Pyramid | Suspicious sand | 1 | 12.5% |
| | | Chest | 1–3 | 17% |
| |  Desert well | Suspicious sand | 1 | 12.5% |
| |  End City | Chest | 2–6 | 8.6% |
| |  Igloo | Chest | 1 | 7.6% |
| |  Jungle Pyramid | Chest | 1–3 | 8.6% |
| |  Ocean ruins | Warm ruins suspicious sand | 1 | 13.3% |
| | | Cold ruins suspicious gravel | 1 | 13.3% |
| |  Shipwreck | Treasure chest | 1–5 | 73.7% |
| |  Trail Ruins | Suspicious gravel | 1 | 4.4% |
| |  Trial Chambers | Corridor pot | 1–3 | 35.6% |
| | | Ominous Vault | 4–10 | 56.2% |
| | | Vault and reward chest | 2–4 | 38.4% |
| |  Ocean Ruins | Big ruins chest | 1 | 14.1% |
| | | Small ruins chest | 1 | 15.4% |
| |  Village | Tanner's chest | 1–4 | 17.3% |
| | | Desert house chest | 1–3 | 14.3% |
| | | Snowy house chest | 1–4 | 9.9% |
| | | Temple chest | 1–4 | 25.4% |
| | | Savanna house chest | 1–4 | 21.5% |
| | | Fletcher's chest | 1 | 12.3% |
| | | Butcher's chest | 1 | 10.2% |
| | | Plains house chest | 1–4 | 22.8% |
| | | Mason's chest | 1 | 20.8% |
| | | Shepherd's chest | 1 | 12.3% |
| | | Fisherman's chest | 1 | 24.2% |
| | | Taiga house chest | 1–4 | 18.6% |
| | | Armorer's chest | 1 | 31.8% |
| | | Bedrock Edition | | |
|  Emerald |  Buried Treasure | Chest | 4–8 | 53.1% |
| |  Desert Pyramid | Suspicious sand | 1 | 12.5% |
| | | Chest | 1–3 | 17% |
| |  Desert well | Suspicious sand | 1 | 12.5% |
| |  End City | Chest | 2–6 | 8.6% |
| |  Igloo | Chest | 1 | 7.6% |
| |  Jungle Pyramid | Chest | 1–3 | 8.6% |
| |  Ocean ruins | Warm ruins suspicious sand | 1 | 13.3% |
| | | Cold ruins suspicious gravel | 1 | 13.3% |
| |  Shipwreck | Treasure chest | 1–5 | 73.7% |
| |  Stronghold | Altar chest | 1–3 | 7.1% |
| |  Trail Ruins | Suspicious gravel | 1 | 4.3% |
| |  Trial Chambers | Ominous Vault | 4–10 | 56.2% |
| | | Corridor pot | 1–3 | 35.6% |





















































































| Item | Structure | Container | Quantity | Chance | [hide] |
|------|--|----------------------------|----------|--------|---------------------|
| | | <i>Java Edition</i> | | | |
| | | Vault and reward chest | 2–4 | 39.7% | |
| | | Big ruins chest | 1 | 14.1% | |
| |  Ocean Ruins | Small ruins chest | 1 | 15.4% | |
| | | Desert house chest | 1–3 | 14.3% | |
| | | Tanner's chest | 1–4 | 17.3% | |
| |  Village | Taiga house chest | 1–4 | 20.3% | |
| | | Plains house chest | 1–4 | 22.8% | |
| | | Fletcher's chest | 1 | 12.3% | |
| | | Butcher's chest | 1 | 10.2% | |
| | | Snowy house chest | 1–4 | 9.9% | |
| | | Mason's chest | 1 | 20.8% | |
| | | Temple chest | 1–4 | 25.4% | |
| | | Shepherd's chest | 1 | 12.3% | |
| | | Savanna house chest | 1–4 | 21.5% | |
| | | Armorer's chest | 1 | 31.8% | |

























































































Usage












Trading
























































































The main use of emeralds is as currency for trading with villagers and wandering traders. They sell various items in return for emeralds and occasionally additional other items.


| Villager | | Probability | | Villager wants | Player receives | Trades in stock | Villager experience | Price multiplier |
|---|--|-------------|-----------|---|--|-----------------|---------------------|------------------|
| | | <i>JE</i> | <i>BE</i> | | | | | |
|  <u>Librarian</u> |  Novice | 67% | 50% | 9 ×  Emerald |  Bookshelf | 12 | 1 | 0.05 |
| | | 67% | 50% | 5–64 ×  Emerald +  Book |  Enchanted Book ^[t 1] | 12 | 1 | 0.2 |
| |  Apprentice | 67% | 50% |  Emerald |  Lantern | 12 | 5 | 0.05 |
| | | 67% | 50% | 5–64 ×  Emerald +  Book |  Enchanted Book ^[t 1] | 12 | 5 | 0.2 |
| |  Journeyman | 67% | 50% |  Emerald | 4 ×  Glass | 12 | 10 | 0.05 |
| | | 67% | 50% | 5–64 ×  Emerald +  Book |  Enchanted Book ^[t 1] | 12 | 10 | 0.2 |
| |  Expert | 50% | 33% | 4 ×  Emerald |  Compass | 12 | 15 | 0.05 |
| | | 50% | 33% | 5 ×  Emerald |  Clock | 12 | 15 | 0.05 |
| | | 50% | 33% | 5–64 ×  Emerald +  Book |  Enchanted Book ^[t 1] | 12 | 15 | 0.2 |
| |  Master | 100% | 100% | 20 ×  Emerald |  Name Tag | 12 | 30 | 0.05 |
|  <u>Farmer</u> |  Novice | 40% | 100% |  Emerald | 6 ×  Bread | 16 | 1 | 0.05 |
| |  Apprentice | 67% | 50% |  Emerald | 4 ×  Pumpkin Pie | 12 | 5 | 0.05 |
| | | 67% | 50% |  Emerald | 4 ×  Apple | 16 | 5 | 0.05 |
| |  Journeyman | 100% | 100% | 3 ×  Emerald | 18 ×  Cookie | 12 | 10 | 0.05 |
| |  Expert | 29% | 17% |  Emerald |  Suspicious Stew ^[t 2] | 12 | 15 | 0.05 |
| | | 29% | 17% |  Emerald |  Suspicious Stew ^[t 3] | 12 | 15 | 0.05 |
| | | 29% | 17% |  Emerald |  Suspicious Stew ^[t 4] | 12 | 15 | 0.05 |
| | | 29% | 17% |  Emerald |  Suspicious Stew ^[t 5] | 12 | 15 | 0.05 |
| | | 29% | 17% |  Emerald |  Suspicious Stew ^[t 6] | 12 | 15 | 0.05 |
| | | 29% | 17% |  Emerald |  Suspicious Stew ^[t 7] | 12 | 15 | 0.05 |
| | | 29% | 100% |  Emerald |  Cake | 12 | 15 | 0.05 |
| |  Master | 100% | 50% | 3 ×  Emerald | 3 ×  Golden Carrot | 12 | 30 | 0.05 |
| | | 100% | 50% | 4 ×  Emerald | 3 ×  Glistering Melon Slice | 12 | 30 | 0.05 |
|  <u>Butcher</u> |  Novice | 50% | 100% |  Emerald |  Rabbit Stew | 12 | 1 | 0.05 |
| |  Apprentice | 67% | 50% |  Emerald | 8 ×  Cooked Chicken | 16 | 5 | 0.05 |
| | | 67% | 50% |  Emerald | 5 ×  Cooked Porkchop | 16 | 5 | 0.05 |
|  <u>Cleric</u> |  Novice | 100% | 100% |  Emerald | 2 ×  Redstone Dust | 12 | 1 | 0.05 |
| |  Apprentice | 100% | 100% |  Emerald |  Lapis Lazuli | 12 | 5 | 0.05 |
| |  Journeyman | 100% | 100% | 4 ×  Emerald |  Glowstone | 12 | 10 | 0.05 |
| |  Expert | 67% | 100% | 5 ×  Emerald |  Ender Pearl | 12 | 15 | 0.05 |
| |  Master | 100% | 100% | 3 ×  Emerald |  Bottle o' Enchanting | 12 | 30 | 0.05 |
|  <u>Fletcher</u> |  Novice | 67% | 50% |  Emerald | 16 ×  Arrow | 12 | 1 | 0.05 |
| | | 67% | 50% | 10 ×  Gravel +  Emerald | 10 ×  Flint | 12 | 1 | 0.05 |
| |  Apprentice | 100% | 100% | 2 ×  Emerald |  Bow | 12 | 5 | 0.05 |

| Villager | | Probability | | Villager wants | Player receives | Trades in stock | Villager experience | Price multiplier |
|---|--|-------------|-----------|--|--|-----------------|---------------------|------------------|
| | | <i>JE</i> | <i>BE</i> | | | | | |
| |  Journeyman | 100% | 100% | 3 ×  Emerald |  Crossbow | 12 | 10 | 0.05 |
| |  Expert | 100% | 100% | 7–21 ×  Emerald ^[t 8] |  Enchanted Bow ^[t 9] | 3 | 15 | 0.05 |
| |  Master | 67% | 50% | 8–22 ×  Emerald ^[t 10] |  Enchanted Crossbow ^[t 9] | 3 | 15 | 0.05 |
| | | 67% | 50% | 2 ×  Emerald + 5 ×  Arrow | 5 ×  Tipped Arrow ^[t 11] | 12 | 30 | 0.05 |
|  Shepherd |  Novice | 40% | 100% | 2 ×  Emerald |  Shears | 12 | 1 | 0.05 |
| |  Apprentice | 68% | 50% |  Emerald |  Any color Wool ^[t 12] | 16 | 5 | 0.05 |
| | | 68% | 50% |  Emerald |  4 × Any color Carpet ^[t 12] | 16 | 5 | 0.05 |
| |  Journeyman | 95% | 100% | 3 ×  Emerald |  Any color Bed ^[t 12] | 12 | 10 | 0.05 |
| |  Expert | 94% | 100% | 3 ×  Emerald |  Any color Banner ^[t 12] | 12 | 15 | 0.05 |
| |  Master | 100% | 100% | 2 ×  Emerald | 3 ×  Painting | 12 | 30 | 0.05 |
|  Fisherman |  Novice | 50% | 50% | 3 ×  Emerald |  Bucket of Cod | 16 | 1 | 0.05 |
| | | 50% | 50% | 6 ×  Raw Cod +  Emerald | 6 ×  Cooked Cod | 16 | 1 | 0.05 |
| |  Apprentice | 67% | 50% | 2 ×  Emerald |  Campfire | 12 | 5 | 0.05 |
| | | 67% | 50% | 6 ×  Raw Salmon +  Emerald | 6 ×  Cooked Salmon | 16 | 5 | 0.05 |
| |  Journeyman | 100% | 100% | 8–22 ×  Emerald ^[t 13] |  Enchanted Fishing Rod ^[t 14] | 3 | 10 | 0.2 |
|  Armorer |  Novice | 40% | 25% | 5 ×  Emerald |  Iron Helmet | 12 | 1 | 0.2 |
| | | 40% | 25% | 9 ×  Emerald |  Iron Chestplate | 12 | 1 | 0.2 |
| | | 40% | 25% | 7 ×  Emerald |  Iron Leggings | 12 | 1 | 0.2 |
| | | 40% | 25% | 4 ×  Emerald |  Iron Boots | 12 | 1 | 0.2 |
| |  Apprentice | 50% | 33% | 36 ×  Emerald |  Bell | 12 | 5 | 0.2 |
| | | 50% | 33% | 3 ×  Emerald |  Chainmail Leggings | 12 | 5 | 0.2 |
| | | 50% | 33% |  Emerald |  Chainmail Boots | 12 | 5 | 0.2 |
| |  Journeyman | 40% | 33% |  Emerald |  Chainmail Helmet | 12 | 10 | 0.2 |
| | | 40% | 33% | 4 ×  Emerald |  Chainmail Chestplate | 12 | 10 | 0.2 |
| | | 40% | 33% | 5 ×  Emerald |  Shield | 12 | 10 | 0.2 |
| |  Expert | 100% | 50% | 19–33 ×  Emerald ^[t 15] |  Enchanted Diamond Leggings ^[t 16] | 3 | 15 | 0.2 |
| | | 100% | 50% | 13–27 ×  Emerald ^[t 17] |  Enchanted Diamond Boots ^[t 16] | 3 | 15 | 0.2 |
| |  Master | 100% | 50% | 13–27 ×  Emerald ^[t 17] |  Enchanted Diamond Helmet ^[t 16] | 3 | 30 | 0.2 |
| | | 100% | 50% | 21–35 ×  Emerald ^[t 18] |  Enchanted Diamond Chestplate ^[t 16] | 3 | 30 | 0.2 |
|  Leatherworker |  Novice | 67% | 50% | 3 ×  Emerald |  Leather Pants ^[t 19] | 12 | 1 | 0.2 |

| Villager | Probability | | Villager wants | Player receives | Trades in stock | Villager experience | Price multiplier | |
|---|---|--|---------------------------------|--|--|---|------------------|------|
| | <i>JE</i> | <i>BE</i> | | | | | | |
| | | | | | | | | |
|  |  Apprentice | 67% | 50% | 7 ×  Emerald |  Leather Tunic ^[t 19] | 12 | 1 | 0.2 |
| | | 67% | 50% | 5 ×  Emerald |  Leather Cap ^[t 19] | 12 | 5 | 0.2 |
| | | 67% | 50% | 4 ×  Emerald |  Leather Boots ^[t 19] | 12 | 5 | 0.2 |
| |  Journeyman | 100% | 100% | 7 ×  Emerald |  Leather Tunic ^[t 19] | 12 | 10 | 0.2 |
| |  Expert | 100% | 100% | 6 ×  Emerald |  Leather Horse Armor ^[t 19] | 12 | 15 | 0.2 |
| |  Master | 100% | 50% | 5 ×  Emerald |  Leather Cap ^[t 19] | 12 | 30 | 0.2 |
| | | 100% | 50% | 6 ×  Emerald |  Saddle | 12 | 30 | 0.2 |
| |  <u>Cartographer</u> |  Novice | 100% | 100% | 7 ×  Emerald |  Empty Map | 12 | 1 |
|  Apprentice | | 100% | 100% | 8 ×  Emerald +  Compass |  Explorer Map ^[t 20] | 12 | 5 | 0.2 |
|  Journeyman | | 67% | 67% | 13 ×  Emerald +  Compass |  Ocean Explorer Map ^[t 21] | 12 | 10 | 0.2 |
| | | 67% | 67% | 12 ×  Emerald +  Compass |  Trial Explorer Map ^[t 21] | 12 | 10 | 0.2 |
|  Expert | | Depends on the villager's biome | Depends on the villager's biome | 7 ×  Emerald |  Item Frame | 12 | 15 | 0.05 |
| | | 100% | 100% | 3 ×  Emerald |  Banner ^[t 22] | 12 | 15 | 0.05 |
|  Master | | 100% | 100% | 8 ×  Emerald |  Globe Banner Pattern | 12 | 30 | 0.05 |
| | | 100% | 100% | 14 ×  Emerald +  Compass |  Woodland Explorer Map | 12 | 30 | 0.2 |
|  <u>Wandering Trader</u> | Special | 13% | 13% |  Emerald |  Packed Ice | 6 | — | — |
| | | 13% | 13% |  Emerald | 4 ×  Gunpowder | 2 | — | — |
| | | 13% | 13% |  Emerald | 8 ×  Acacia Log | 4 | — | — |
| | | 13% | 13% |  Emerald | 8 ×  Birch Log | 4 | — | — |
| | | 13% | 13% |  Emerald | 8 ×  Cherry Log | 4 | — | — |
| | | 13% | 13% |  Emerald | 8 ×  Dark Oak Log | 4 | — | — |
| | | 13% | 13% |  Emerald | 8 ×  Jungle Log | 4 | — | — |
| | | 13% | 13% |  Emerald | 8 ×  Mangrove Log | 4 | — | — |
| | | 13% | 13% |  Emerald | 8 ×  Oak Log | 4 | — | — |
| | | 13% | 13% |  Emerald | 8 ×  Pale Oak Log | 4 | — | — |
| | | 13% | 13% |  Emerald | 8 ×  Spruce Log | 4 | — | — |
| | | 13% | 13% | 3 ×  Emerald | 3 ×  Podzol | 6 | — | — |
| | | 13% | 13% | 5 ×  Emerald |  Potion of Invisibility ^[t 23] | 1 | — | — |
| | | 13% | 13% | 6 ×  Emerald |  Blue Ice | 6 | — | — |
| | | 13% | 13% | 6–20 ×  Emerald ^[t 24] |  Enchanted Iron Pickaxe ^[t 25] | 1 | — | — |
| | Ordinary | 7% | 7% |  Emerald |  Fern | 12 | — | — |
| | | 7% | 7% |  Emerald |  Sugar Cane | 8 | — | — |
| | | 7% | 7% |  Emerald |  Pumpkin | 4 | — | — |
| | | 7% | 7% |  Emerald |  Dandelion | 12 | — | — |
| | | 7% | 7% |  Emerald |  Poppy | 12 | — | — |
| | | 7% | 7% |  Emerald |  Allium | 12 | — | — |

| Villager | Probability | | Villager wants | Player receives | Trades in stock | Villager experience | Price multiplier |
|----------|-------------|-----------|---|---|-----------------|---------------------|------------------|
| | <i>JE</i> | <i>BE</i> | | | | | |
| | 7% | 7% |  Emerald |  Azure Bluet | 12 | — | — |
| | 7% | 7% |  Emerald |  Red Tulip | 12 | — | — |
| | 7% | 7% |  Emerald |  Orange Tulip | 12 | — | — |
| | 7% | 7% |  Emerald |  White Tulip | 12 | — | — |
| | 7% | 7% |  Emerald |  Pink Tulip | 12 | — | — |
| | 7% | 7% |  Emerald |  Oxeye Daisy | 12 | — | — |
| | 7% | 7% |  Emerald |  Cornflower | 12 | — | — |
| | 7% | 7% |  Emerald |  Blue Orchid | 8 | — | — |
| | 7% | 7% |  Emerald |  Lily of the Valley | 7 | — | — |
| | 7% | 7% |  Emerald |  Open Eyeblossom | 7 | — | — |
| | 7% | 7% |  Emerald |  Wheat Seeds | 12 | — | — |
| | 7% | 7% |  Emerald |  Beetroot Seeds | 12 | — | — |
| | 7% | 7% |  Emerald |  Pumpkin Seeds | 12 | — | — |
| | 7% | 7% |  Emerald |  Melon Seeds | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  White Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Light Gray Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Gray Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Black Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Brown Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Red Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Orange Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Yellow Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Lime Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Green Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Cyan Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Light Blue Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Blue Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Purple Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Magenta Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Pink Dye | 12 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Vines | 4 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Pale Hanging Moss | 4 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Brown Mushroom | 4 | — | — |
| | 7% | 7% |  Emerald | 3 ×  Red Mushroom | 4 | — | — |
| | 7% | 7% |  Emerald | 5 ×  Lily Pad | 2 | — | — |
| | 7% | 7% |  Emerald | 2 ×  Small Dripleaf | 5 | — | — |
| | 7% | 7% |  Emerald | 8 ×  Sand | 8 | — | — |
| | 7% | 7% |  Emerald | 4 ×  Red Sand | 6 | — | — |
| | 7% | 7% |  Emerald | 2 ×  Pointed Dripstone | 5 | — | — |
| | 7% | 7% |  Emerald | 2 ×  Rooted Dirt | 5 | — | — |
| | 7% | 7% |  Emerald | 2 ×  Moss Block | 5 | — | — |
| | 7% | 7% |  Emerald | 2 ×  Pale Moss Block | 5 | — | — |
| | 7% | 7% |  Emerald |  Wildflowers | 12 | — | — |



| Villager | | Probability | | Villager wants | Player receives | Trades in stock | Villager experience | Price multiplier |
|---|--|-------------|-----------|--|--|-----------------|---------------------|------------------|
| | | <i>JE</i> | <i>BE</i> | | | | | |
| | | 7% | 7% |  Emerald |  Tall Dry Grass | 12 | — | — |
| | | 7% | 7% | 2 ×  Emerald |  Sea Pickle | 5 | — | — |
| | | 7% | 7% | 2 ×  Emerald |  Glowstone | 5 | — | — |
| | | 7% | 7% | 3 ×  Emerald |  Bucket of Tropical Fish | 4 | — | — |
| | | 7% | 7% | 3 ×  Emerald |  Bucket of Pufferfish | 4 | — | — |
| | | 7% | 7% | 3 ×  Emerald |  Kelp | 12 | — | — |
| | | 7% | 7% | 3 ×  Emerald |  Cactus | 8 | — | — |
| | | 7% | 7% | 3 ×  Emerald |  Brain Coral Block | 8 | — | — |
| | | 7% | 7% | 3 ×  Emerald |  Bubble Coral Block | 8 | — | — |
| | | 7% | 7% | 3 ×  Emerald |  Fire Coral Block | 8 | — | — |
| | | 7% | 7% | 3 ×  Emerald |  Horn Coral Block | 8 | — | — |
| | | 7% | 7% | 3 ×  Emerald |  Tube Coral Block | 8 | — | — |
| | | 7% | 7% | 3 ×  Emerald |  Firefly Bush | 12 | — | — |
| | | 7% | 7% | 4 ×  Emerald |  Slimeball | 5 | — | — |
| | | 7% | 7% | 5 ×  Emerald |  Acacia Sapling | 8 | — | — |
| | | 7% | 7% | 5 ×  Emerald |  Birch Sapling | 8 | — | — |
| | | 7% | 7% | 5 ×  Emerald |  Cherry Sapling | 8 | — | — |
| | | 7% | 7% | 5 ×  Emerald |  Dark Oak Sapling | 8 | — | — |
| | | 7% | 7% | 5 ×  Emerald |  Jungle Sapling | 8 | — | — |
| | | 7% | 7% | 5 ×  Emerald |  Mangrove Propagule | 8 | — | — |
| | | 7% | 7% | 5 ×  Emerald |  Oak Sapling | 8 | — | — |
| | | 7% | 7% | 5 ×  Emerald |  Pale Oak Sapling | 8 | — | — |
| | | 7% | 7% | 5 ×  Emerald |  Spruce Sapling | 8 | — | — |
| | | 7% | 7% | 5 ×  Emerald |  Nautilus Shell | 5 | — | — |
|  Mason |  Novice | 100% | 100% |  Emerald | 10 ×  Brick | 16 | 1 | 0.05 |
| |  Apprentice | 100% | 100% |  Emerald | 4 ×  Chiseled Stone Bricks | 16 | 5 | 0.05 |
| |  Journeyman | 29% | 25% |  Emerald | 4 ×  Dripstone Block | 16 | 10 | 0.05 |
| | | 29% | 25% |  Emerald | 4 ×  Polished Andesite | 16 | 10 | 0.05 |
| | | 29% | 25% |  Emerald | 4 ×  Polished Diorite | 16 | 10 | 0.05 |
| | | 29% | 25% |  Emerald | 4 ×  Polished Granite | 16 | 10 | 0.05 |
| |  Expert | 74% | 50% |  Emerald |  Any color Stained Glass Block ^[t 26] | 12 | 15 | 0.05 |
| | | 74% | 50% |  Emerald |  Any color Glazed Terracotta ^[t 26] | 12 | 15 | 0.05 |
| |  Master | 100% | 50% |  Emerald |  Quartz Pillar | 12 | 30 | 0.05 |
| | | 100% | 50% |  Emerald |  Block of Quartz | 12 | 30 | 0.05 |
|  Toolsmith |  Novice | 40% | 25% |  Emerald |  Stone Axe | 12 | 1 | 0.2 |
| | | 40% | 25% |  Emerald |  Stone Shovel | 12 | 1 | 0.2 |
| | | 40% | 25% |  Emerald |  Stone Pickaxe | 12 | 1 | 0.2 |
| | | 40% | 25% |  Emerald |  Stone Hoe | 12 | 1 | 0.2 |
| |  Apprentice | 100% | 100% | 36 ×  Emerald |  Bell | 12 | 5 | 0.2 |

| Villager | Probability | | Villager wants | Player receives | Trades in stock | Villager experience | Price multiplier | |
|---|--|-----------|---|---|---|---------------------|------------------|------|
| | <i>JE</i> | <i>BE</i> | | | | | | |
|  Journeyman | 40% | 25% | 6–20 ×  Emerald ^[t 27] |  Enchanted Iron Axe ^[t 28] | 3 | 10 | 0.2 | |
| | 40% | 25% | 7–21 ×  Emerald ^[t 29] |  Enchanted Iron Shovel ^[t 28] | 3 | 10 | 0.2 | |
| | 40% | 25% | 8–22 ×  Emerald ^[t 30] |  Enchanted Iron Pickaxe ^[t 28] | 3 | 10 | 0.2 | |
| | 40% | 25% | 4 ×  Emerald |  Diamond Hoe | 3 | 10 | 0.2 | |
|  Expert | 67% | 50% | 17–31 ×  Emerald ^[t 31] |  Enchanted Diamond Axe ^[t 28] | 3 | 15 | 0.2 | |
| | 67% | 50% | 10–24 ×  Emerald ^[t 32] |  Enchanted Diamond Shovel ^[t 28] | 3 | 15 | 0.2 | |
|  Master | 100% | 100% | 18–32 ×  Emerald ^[t 33] |  Enchanted Diamond Pickaxe ^[t 28] | 3 | 30 | 0.2 | |
|  Weaponsmith |  Novice | 67% | 100% | 3 ×  Emerald |  Iron Axe | 12 | 1 | 0.2 |
| | | 67% | 100% | 7–21 ×  Emerald ^[t 34] |  Enchanted Iron Sword ^[t 35] | 3 | 1 | 0.05 |
| |  Apprentice | 100% | 100% | 36 ×  Emerald |  Bell | 12 | 5 | 0.2 |
| |  Expert | 100% | 100% | 17–31 ×  Emerald ^[t 36] |  Enchanted Diamond Axe ^[t 35] | 3 | 15 | 0.2 |
| |  Master | 100% | 100% | 13–27 ×  Emerald ^[t 37] |  Enchanted Diamond Sword ^[t 35] | 3 | 30 | 0.2 |

- The enchantment is chosen randomly with equal chance of any enchantment type occurring (except for Soul Speed, Swift Sneak, and Wind Burst) and equal chance to get any level of the enchantment, meaning high-level enchantments are as likely as low-level enchantments. It is possible for a librarian to sell the same book more than once. The price in emeralds depends on the enchantment level and "treasure" status. The minimum price of a book is given by $2 + 3 \times (\text{enchantment level})$, while the maximum price is $6 + 13 \times (\text{enchantment level})$. The possible values are 5–19 emeralds for Lvl I, 8–32 for Lvl II, 11–45 for Lvl III, 14–58 for Lvl IV, and 17–71 for Lvl V. For treasure enchantments the price is doubled. The cost is capped at 64 emeralds. All values below this cap are equally probable.
- The stew gives 6 seconds of Blindness in *Java Edition*, or 5 seconds of Night Vision in *Bedrock Edition*.
- The stew gives 8 seconds of Jump Boost in *Java Edition*, or 5 seconds of Night Vision in *Bedrock Edition*.
- The stew gives 5 seconds of Night Vision.
- The stew gives 14 seconds of Poison in *Java Edition*, or 5 seconds of Night Vision in *Bedrock Edition*.
- The stew gives 0.35 seconds of Saturation in *Java Edition*, or 5 seconds of Night Vision in *Bedrock Edition*.
- The stew gives 7 seconds of Weakness in *Java Edition*, or 5 seconds of Night Vision in *Bedrock Edition*.
- The price of this trade is the base price, 2 emeralds, plus the random enchantment level chosen (5–19).
- When creating an enchantment offer, the game uses a random enchantment level from 5 to 19. The enchantments are never treasure enchantments.
- The price of this trade is the base price, 3 emeralds, plus the random enchantment level chosen (5–19).
- In *Java Edition*, the type of arrow is chosen randomly from all possible brewable potions with effects, including extended and strengthened versions.
In *Bedrock Edition*, the type of arrow is randomly chosen from 15 options: Night Vision, Invisibility, Leaping, Fire Resistance, Swifttness, Slowness, Water Breathing, Healing, Harming, Poison, Regeneration, Strength, Weakness, Turtle Master, or Decay (Level 2).
- The list of possible offers contains individual offers for each color, so multiple colors may be offered by the same villager as separate trades.
- The price of this trade is the base price, 3 emeralds, plus the random enchantment level chosen (5–19).
- When creating an enchantment offer, the game uses a random enchantment level from 5 to 19. The enchantments are never treasure enchantments.
- The price of this trade is the base price, 14 emeralds, plus the random enchantment level chosen (5–19).
- When creating an enchantment offer, the game uses a random enchantment level from 5 to 19. The enchantments are never treasure enchantments.
- The price of this trade is the base price, 8 emeralds, plus the random enchantment level chosen (5–19).
- The price of this trade is the base price, 16 emeralds, plus the random enchantment level chosen (5–19).
- The leather armor has a random color created by two dyes (possibly the same dye twice.)

20. The structure that the map leads to depends on the biome the villager is from. Each of the two or three possible maps are counted as independent trades, so a villager trading multiple maps is possible.
21. In *Java Edition*, all copies of the map traded by a particular villager lead to the same structure. In worlds that do not have the structure, this trade is not offered. In *Bedrock Edition*, cartographers adopting the profession in the Nether or the End do not offer explorer maps.
22. The color of the banner depends on the biome the villager is from. The list of possible offers contains individual offers for each color, so multiple colors may be offered by the same villager as separate trades.
23. Duration: 8:00
24. The price of this trade is the base price, 1 emerald, plus the random enchantment level chosen (5–19).
25. When creating an enchantment offer, the game uses a random enchantment level from 5 to 19. The enchantments are never treasure enchantments.
26. The list of possible offers contains individual offers for each color, so multiple colors may be offered by the same villager as separate trades.
27. The price of this trade is the base price, 1 emerald, plus the random enchantment level chosen (5–19).
28. When creating an enchantment offer, the game uses a random enchantment level from 5 to 19. The enchantments are never treasure enchantments.
29. The price of this trade is the base price, 2 emeralds, plus the random enchantment level chosen (5–19).
30. The price of this trade is the base price, 3 emeralds, plus the random enchantment level chosen (5–19).
31. The price of this trade is the base price, 12 emeralds, plus the random enchantment level chosen (5–19).
32. The price of this trade is the base price, 5 emeralds, plus the random enchantment level chosen (5–19).
33. The price of this trade is the base price, 13 emeralds, plus the random enchantment level chosen (5–19).
34. The price of this trade is the base price, 2 emeralds, plus the random enchantment level chosen (5–19).
35. When creating an enchantment offer, the game uses a random enchantment level from 5 to 19. The enchantments are never treasure enchantments.
36. The price of this trade is the base price, 12 emeralds, plus the random enchantment level chosen (5–19).
37. The price of this trade is the base price, 8 emeralds, plus the random enchantment level chosen (5–19).

Crafting ingredient





| Name | Ingredients | Crafting recipe | [hide] |
|-------------------------|-------------|---|---|
| Block of Emerald | Emerald |  |  |

Beacons

Emeralds can be used to select powers from a beacon. The player must select one of the available powers and then insert an emerald into the item slot.

An emerald can be substituted for an iron ingot, a gold ingot, a diamond or a netherite ingot in a beacon.

Smithing ingredient

| Ingredients | Smithing recipe | Description |
|--|---|--|
| Any Armor Trim + Any Armor Piece + Emerald |     | All armor types can be used in this recipe. A netherite chestplate is shown as an example. |

Trim color palette


The following color palette is shown on the designs on trimmed armor:

-


Data values

ID


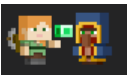

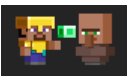


Java Edition:

| Name | Identifier | Form | Item tags | Translation key [hide] |
|---|------------|------|----------------------|-------------------------------------|
|  Emerald | emerald | Item | beacon_payment_items | item.minecraft.emerald |



Bedrock Edition:

| Name | Identifier | Numeric ID | Form | Item tags | Translation key [hide] |
|---|------------|------------|------|--------------------------|-------------------------------------|
|  Emerald | emerald | 512 | Item | minecraft:trim_materials | item.emerald.name |

Achievements

| [hide] | | | | | | |
|---|---|---------------------------|---|---|-------------------|------------------|
| Icon | | Achievement | In-game description | Actual requirements (if different) | Gamerscore earned | Trophy type (PS) |
| PS4 | Other | | | | | |
|  |  | <u>The Haggler</u> | Acquire or spend 30 Emeralds by trading with villagers or with wandering trader. <i>[sic (https://en.wikipedia.org/wiki/Sic)]</i> | — | 30 | Silver |
|  |  | <u>Buy Low, Sell High</u> | Trade for the best possible price. | Buy something for 1 emerald, or when the Hero of the Village effect is applied. | 50 | Gold |
|  |  | <u>Master Trader</u> | Trade for 1,000 emeralds. | Obtain 1,000 emeralds from trading with villagers. | 30 | Silver |

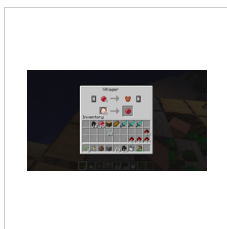
Advancements

| Icon | Advancement | In-game description | Actual requirements (if different) [hide] |
|---|---------------------|--|---|
|  | <u>What a Deal!</u> | Successfully trade with a Villager | Take an item from a villager or wandering trader's trading output slot. |
|  | <u>Star Trader</u> | Trade with a Villager at the <u>build height limit</u> | Stand on any block that is higher than 318 and trade with a villager or wandering trader. |

Videos

History

On May 21, 2012, Jeb released a screenshot of himself testing the trading system.^[1] At this time, what would become emeralds were rubies.^[2]







The first image of the trading system released by [Jeb](#). What would become emeralds can be seen in the [inventory](#) space.






The original ruby texture shown in [Jeb's](#) screenshot.



Java Edition

| <i>Java Edition</i> [hide] | | |
|---|---------------|---|
| 1.3.1 | 12w21a |  Added emeralds and <u>emerald ore</u> . |
| | | Emeralds can be traded with <u>villagers</u> in exchange for different items. |
| | | Added <u>desert pyramids</u> , with a hidden <u>chest</u> room and loot containing emeralds. |
| | |  The texture of <u>rubies</u> can be found in the (at this time unused) file <code>items.png</code> . ^[3] |
| | 12w22a | Block of emerald has now been added, which is crafted from nine emeralds and can be placed as a decorative block. |
| | | Added <u>jungle pyramids</u> , which contain loot chests with emeralds. |
| 1.4.2 | 12w32a | As <u>zombie villagers</u> can now spawn and be cured, emeralds can now still be obtained in <u>trades</u> even if <u>generated structures</u> are disabled. |
| | | Emeralds can be used to activate <u>beacons</u> . |
| 1.9 | 15w31a | Emeralds now generate in <u>end city</u> chests. |
| | 15w43a | Emeralds now generate in <u>igloo</u> basement chests. |
| | 15w44a | The average yield of emeralds in desert pyramid chests has now been increased. |
| 1.11 | 16w39a | Added <u>vindicators</u> and <u>evokers</u> , which drop emeralds if killed by a player. |
| 1.13 | 17w47a | The emerald's ID is changed to <code>minecraft:emerald</code> as part of <i>The Flattening</i> . Before, this item's numeral ID was 388. |
| | 18w09a | Emeralds can now generate in the loot chests of underwater ruins. |
| | 18w10a | Emeralds can now generate in buried treasure chests. |
| | 18w11a | Emeralds can now generate in the chests of shipwrecks. |
| 1.14 | 18w43a |  The texture of emeralds has now been changed. |
| | | Added <u>pillagers</u> , which can drop emeralds. |
| | 18w46a | Pillagers no longer drop emeralds. |
| | 18w48a | Emeralds now generate in chests in village tanneries, fisher cottages and plains village houses. |
| | 18w49a | Emeralds now generate in chests in village shepherd houses, mason houses, butcher shops, and savanna and snowy village houses. |
| | 18w50a | Emeralds now generate in chests in village Fletcher houses, temples, and desert and taiga village houses. |
| | 19w07a | Added <u>foxes</u> , which sometimes spawn with emeralds in their mouths. |
| | 19w08a |  The texture of emeralds has now been changed, once again and it looks smaller. |
| 1.17 | 21w13a | The unused <u>ruby</u> texture was removed. |
| 1.19.4 — Experiment — Update 1.20 | 23w04a | Emeralds can now be used as an armor trim material. |
| | 23w07a | Emeralds now drop when brushing <u>suspicious sand</u> in <u>desert pyramids</u> or <u>desert wells</u> . |
| 1.20 | 23w12a | The probability for the emerald to generate in the suspicious sand in desert pyramid and in desert well has been changed from $\frac{1}{7}$ to $\frac{1}{8}$. |
| | | Emerald can now be found in <u>suspicious gravel</u> and <u>suspicious sand</u> in cold and warm <u>ocean ruins</u> and in <u>trail ruins</u> . |
| | 23w16a | Emerald no longer generates in suspicious sand in trail ruins. |
| | | Due to the split of the archaeological loot tables for the suspicious gravel within the <u>trail ruins</u> ; emerald now is in the common loot. |
| 1.20.3 — Experiment — Update 1.21 | 23w45a | Emeralds now generate in <u>trial chambers</u> in <u>decorated pots</u> . |
| | | Emeralds now generate as loot from trial spawners. |
| 1.20.5 — Experiment — Update 1.21 | 24w05a | Emeralds now generate as loot from <u>vaults</u> . |
| | 24w13a | Emeralds now generate as loot from ominous vaults. |
| | | Emeralds no longer generate as loot from trial spawners. |


Bedrock Edition

| Pocket Edition Alpha [hide] | | |
|---|-----------------------------------|---|
| <u>v0.9.0</u> | <u>build 1</u> |  Added emeralds. |
| | <u>build 5</u> | Emeralds can now be used to craft blocks of emerald. |
| <u>v0.13.0</u> | <u>build 1</u> | Emeralds can now be found inside <u>desert pyramid</u> chests. |
| <u>v0.15.0</u> | <u>build 1</u> | Added jungle pyramids, which contain loot chests with emeralds. |
| <u>v0.16.0</u> | <u>build 1</u> | Emeralds can now be used to power <u>beacons</u> . |
| Pocket Edition [hide] | | |
| <u>1.0.0</u> | <u>alpha 0.17.0.1</u> | Emeralds can now be found in end city ship chests. |
| | | Emeralds can now be found in igloo basement chests. |
| <u>1.0.4</u> | <u>alpha 1.0.4.0</u> | Emeralds are now used as "currency" for villager trading. |
| <u>1.1.0</u> | <u>alpha 1.1.0.0</u> | Added <u>evokers</u> and <u>vindicators</u> , which <u>drop</u> emeralds when killed. |
| Bedrock Edition [hide] | | |
| <u>1.4.0</u> | <u>beta 1.2.14.2</u> | Emeralds can now be found in some <u>shipwreck</u> chests. |
| | <u>beta 1.2.20.1</u> | Emeralds can now be found inside <u>underwater ruins</u> chests. |
| <u>1.10.0</u> | <u>beta 1.10.0.3</u> | Emeralds can now be used to <u>buy</u> items from <u>wandering traders</u> . |
| | | Emeralds can now be found in plains village house and tannery chests. |
| | |  The texture of emeralds has now been changed. |
| <u>1.11.0</u> | <u>beta 1.11.0.1</u> | Emeralds can now be found in <u>village</u> chests other than plains. |
| | <u>beta 1.11.0.4</u> | <u>Vindicators</u> and <u>pillagers</u> that spawn from <u>raids</u> can now <u>drop</u> bonus emeralds. |
| | <u>beta 1.11.0.5</u> |  The texture of emeralds has now been changed, once again. |
| <u>1.13.0</u> | <u>beta 1.13.0.1</u> | Added foxes, which can drop emeralds. |
| <u>1.19.70</u> — Experiment — Next Major Update | <u>Preview 1.19.70.23</u> | Emeralds now drop when brushing <u>suspicious sand</u> in desert pyramids or desert wells. |
| <u>1.19.80</u> — Experiment — Next Major Update | <u>Preview 1.19.80.21</u> | Emeralds can now be used as an armor trim material. |
| <u>1.20.60</u> — Experiment — Update 1.21 | <u>Preview 1.20.60.20</u> | Emeralds now generate in trial chambers in <u>decorated pots</u> . |
| | | Emeralds now generate as loot from <u>trial spawners</u> . |
| <u>1.20.70</u> — Experiment — Update 1.21 | <u>Preview 1.20.70.21</u> | Emeralds now generate as loot from <u>vaults</u> . |
| <u>1.21.0</u> — Experiment — Update 1.21 | <u>Preview 1.21.0.20</u> | Emeralds now generate as loot from <u>ominous vaults</u> . |
| | | Emeralds no longer generate as loot from trial spawners. |
| <u>1.21.130</u> | <u>Preview 1.21.130.20</u> | Emeralds can now be found in <u>buried treasure</u> chests. |

Legacy Console Edition

| Legacy Console Edition | | | | | | | [hide] |
|------------------------|----------------------|----------------------|----------------------|----------------------|--------------------------|------------------------|---|
| Xbox 360 | Xbox One | PS3 | PS4 | PS Vita | Wii U | Switch | |
| TU14 | CU1 | 1.04 | 1.00 | 1.00 | Patch 1 | 1.0.1 |  Added emeralds. |
| | | | | | | | Emeralds can be traded with villagers in exchange for different items. |
| | | | | | | | Added desert pyramids , with a hidden chest room and loot containing emeralds. |
| | | | | | | | Emeralds can be used to activate beacons . |
| | | | | | | | Emeralds now generate in igloo basement chests. |
| TU19 | CU7 | 1.12 | 1.12 | 1.12 | Patch 13 | | Emeralds now generate in end city chests. |
| TU43 | CU33 | 1.36 | 1.36 | 1.36 | | | Added vindicators and evokers , which drop emeralds if killed by a player. |
| TU46 | CU36 | 1.38 | 1.38 | 1.38 | | | Emeralds can now be found in chests in strongholds . |
| TU54 | CU44 | 1.52 | 1.52 | 1.52 | Patch 24 | 1.0.4 | Emeralds can now generate in the loot chests of underwater ruins . |
| TU60 | CU51 | 1.64 | 1.64 | 1.64 | Patch 30 | 1.0.11 | Emeralds can now generate in buried treasure chests. |
| TU69 | | 1.76 | 1.76 | 1.76 | Patch 38 | | Emeralds can now generate in the chests of shipwrecks . |
| | | | | | | |  The texture of emeralds has now been changed. |
| | | | | | | | Vindicators and pillagers that spawn from raids can now drop bonus emeralds. |

New Nintendo 3DS Edition

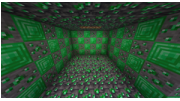
| New Nintendo 3DS Edition | | [hide] |
|--------------------------|---|-----------------|
| 0.1.0 |  | Added emeralds. |

Issues


Issues relating to "Emerald" are maintained on the [bug tracker](https://bugs.mojang.com/issues/?jql=project%20in%20%28MC%2C%20MCPE%29%20AND%20%28resolution%20is%20EMPTY%20OR%20resolution%20in%20%281%2C%202%2C%206%29%29%20AND%20%28summary%20~%20%22Emerald%22%29%20ORDER%20BY%20resolution%20DESC). Issues should be reported and viewed there (<https://bugs.mojang.com/issues/?jql=project%20in%20%28MC%2C%20MCPE%29%20AND%20%28resolution%20is%20EMPTY%20OR%20resolution%20in%20%281%2C%202%2C%206%29%29%20AND%20%28summary%20~%20%22Emerald%22%29%20ORDER%20BY%20resolution%20DESC>).

Gallery


Screenshots



All forms of emeralds in one photo: [emerald](#) (in the form of [block](#), [ore](#) and the [emerald](#) itself).



Noor trading an [emerald](#) for a [diamond](#).



Ari claiming an [emerald](#) from an [ominous vault](#).

In other media

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