# Gameplay

# Signature mods

- 1.16 Project Rankine Very expansive mod, lot of content <a href="https://www.curseforge.com/minecraft/mc-mods/project-rankine">https://www.curseforge.com/minecraft/mc-mods/project-rankine</a>
- 1.12 Pyrotech- fleshed out early game mechanicshttps://www.curseforge.com/minecraft/mc-mods/pyrotech
- 1.16 Eidolon interesting magic mod, mix of TC and BM? <a href="https://www.curseforge.com/minecraft/mc-mods/eidolon">https://www.curseforge.com/minecraft/mc-mods/eidolon</a>
- 1.16- Assembly Line Machines another automation and engineering tech mod. Looks interesting <a href="https://www.curseforge.com/minecraft/mc-mods/assembly-line-machines">https://www.curseforge.com/minecraft/mc-mods/assembly-line-machines</a>
- 1.15- Create vanilla-esque mechanical engineering mod <a href="https://www.curseforge.com/minecraft/mc-mods/create">https://www.curseforge.com/minecraft/mc-mods/create</a>
- 1.12-1.16 Crossroads, magic-tech rube goldberg style automation mod https://www.curseforge.com/minecraft/mc-mods/crossroads-mc/files/3048840

#### Decor

- 1.16 Decorative Blocks as per title <a href="https://www.curseforge.com/minecraft/mc-mods/decorative-blocks">https://www.curseforge.com/minecraft/mc-mods/decorative-blocks</a>
- 1.16 Supplimenteries adds a lot of neat useful features <a href="https://www.curseforge.com/minecraft/mc-mods/supplementaries">https://www.curseforge.com/minecraft/mc-mods/supplementaries</a>
- 1.16 Rainbow Oak- port of the Rainbow Oak from TF https://www.curseforge.com/minecraft/mc-mods/rainbow-oak-trees-2
- 1.16 I like wood adds in mod support for decorative wood <a href="https://www.curseforge.com/minecraft/mc-mods/i-like-wood-immersive-engineering-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-mods/i-like-wood-biomes-o-plenty-plugin-https://www.curseforge.com/minecraft/mc-wood-biomes-o-plugin-https://www.curseforge.com/minecraft/mc-wood-biomes-o-plugin-https://www.curseforge.com/minecraft/mc-wood-biomes-o-plugin-https://www.curseforge.com/minecraft/mc-wood-biomes-o-plugin-https://www.curseforge.com/minecraft/mc-wood-b
- 1.16 Flamboyant adds in a bunch of extra dyed blocks -https://www.curseforge.com/minecraft/mc-mods/flamboyant-recrafted
- 1.16 Addemdum adds a bunch of end based decor <a href="https://www.curseforge.com/minecraft/mc-mods/addendum">https://www.curseforge.com/minecraft/mc-mods/addendum</a>

- 1.16 Lepton adds more variants of vanilla stuff <a href="https://www.curseforge.com/minecraft/mc-mods/lepton">https://www.curseforge.com/minecraft/mc-mods/lepton</a>
- 1.16 Additional Bars- adds more variants of the Iron Bars block <a href="https://www.curseforge.com/minecraft/mc-mods/additional-bars">https://www.curseforge.com/minecraft/mc-mods/additional-bars</a>
- 1.16 Pain in the Glass place glass blocks on the edge of a block <a href="https://www.curseforge.com/minecraft/mc-mods/pane-in-the-glass">https://www.curseforge.com/minecraft/mc-mods/pane-in-the-glass</a>
- 1.16 Addational Blocks Stone Edition- adds some very nice stone blocks <a href="https://www.curseforge.com/minecraft/mc-mods/additional-blocks-stone-edition">https://www.curseforge.com/minecraft/mc-mods/additional-blocks-stone-edition</a>
- 1.6 3D bricks adds some fancy looking bricks with 3D connections for extra fancy-ness <a href="https://www.curseforge.com/minecraft/mc-mods/d-bricks-verticalslabs-and-more/files">https://www.curseforge.com/minecraft/mc-mods/d-bricks-verticalslabs-and-more/files</a>
- 1.15-16 Delicate and Dainty adds a few pastel coloured block to the game <a href="https://www.curseforge.com/minecraft/mc-mods/delicate-and-dainty">https://www.curseforge.com/minecraft/mc-mods/delicate-and-dainty</a>
- 1.16- Skinned Lanterns use mob heads as lanterns <a href="https://www.curseforge.com/minecraft/mc-mods/skinned-lanterns">https://www.curseforge.com/minecraft/mc-mods/skinned-lanterns</a>
- 1.15/1.16- Enhanced Mushrooms adda a bunch of wood-styled decorative blocks out of mushroom blocks <a href="https://www.curseforge.com/minecraft/mc-mods/enhanced-mushrooms">https://www.curseforge.com/minecraft/mc-mods/enhanced-mushrooms</a>
- 1.16- Builders and Crafts bunch of decorative stuff <a href="https://www.curseforge.com/minecraft/mc-mods/buildersaddition">https://www.curseforge.com/minecraft/mc-mods/buildersaddition</a>
- 1.12-1.16 Glassential- adds various functional and decorative variants of glass <a href="https://www.curseforge.com/minecraft/mc-mods/glassential">https://www.curseforge.com/minecraft/mc-mods/glassential</a>
- 1.12 Future MC- adds the later MC features to 1.12 <a href="https://www.curseforge.com/minecraft/mc-mods/future-mc">https://www.curseforge.com/minecraft/mc-mods/future-mc</a>
- 1.14, 1.15, 1.16 Extended lights- adds a bunch of lanterns, candles and modern style lights. Has cool models too. <a href="https://www.curseforge.com/minecraft/mc-mods/extended-lights-mod">https://www.curseforge.com/minecraft/mc-mods/extended-lights-mod</a>
- 1.16 Additional Bars adds extra bars <a href="https://www.curseforge.com/minecraft/mc-mods/additional-bars">https://www.curseforge.com/minecraft/mc-mods/additional-bars</a>
- 1.16 Premium Wood- adds a few decorative tree/wood types. Also has an exploding tree!! <a href="https://www.curseforge.com/minecraft/mc-mods/premium-wood">https://www.curseforge.com/minecraft/mc-mods/premium-wood</a>

- 1.12, 1.16 Gauges and Switches adds redstone gauges, switches, levers, pads, etc... <a href="https://www.curseforge.com/minecraft/mc-mods/redstone-gauges-and-switches">https://www.curseforge.com/minecraft/mc-mods/redstone-gauges-and-switches</a>
- 1.16- Block Carpentery port of Carpenter's Blocks <a href="https://www.curseforge.com/minecraft/mc-mods/blockcarpentry">https://www.curseforge.com/minecraft/mc-mods/blockcarpentry</a>
- 1.12 More Rods -adds a bunch of decorative rods <a href="https://www.curseforge.com/minecraft/mc-mods/more-rods-mod">https://www.curseforge.com/minecraft/mc-mods/more-rods-mod</a>
- 1.12 Chinese Workshop adds a bunch of oriental themed decor <a href="https://www.curseforge.com/minecraft/mc-mods/chineseworkshop">https://www.curseforge.com/minecraft/mc-mods/chineseworkshop</a>
- 1.12 Vanilla Builders extension- a bunch of vanilla based blocks- stairs/fences ect <a href="https://www.curseforge.com/minecraft/mc-mods/vanilla-builders-extension">https://www.curseforge.com/minecraft/mc-mods/vanilla-builders-extension</a>
- 1.12 Path under gates- allows path blocks to go under fence gates <a href="https://www.curseforge.com/minecraft/mc-mods/path-under-gates">https://www.curseforge.com/minecraft/mc-mods/path-under-gates</a>
- 1.12 Macaw's Roofs- fancy roofs <a href="https://www.curseforge.com/minecraft/mc-mods/macaws-roofs">https://www.curseforge.com/minecraft/mc-mods/macaws-roofs</a>
- 1.12 Fancy Lamps- adds some fancy looking lamps <a href="https://www.curseforge.com/minecraft/mc-mods/fancy-lamps">https://www.curseforge.com/minecraft/mc-mods/fancy-lamps</a>
- 1.12 Immersive Posts- more posts for ImEng https://www.curseforge.com/minecraft/mc-mods/immersiveposts
- 1.12 Blockcraftery- Carpenters block clone (abandoned??)https://www.curseforge.com/minecraft/mc-mods/blockcraftery
- 1.12 Macaw's bridges- a bunch of aesthetic bridgeshttps://www.curseforge.com/minecraft/mc-mods/macaws-bridges#c3
- 1.12 Light the night a bunch of neat lighting stuffs <a href="https://www.curseforge.com/minecraft/mc-mods/light-the-night">https://www.curseforge.com/minecraft/mc-mods/light-the-night</a>
- 1.12 Additional Ender Blocks- as per title (decor)https://minecraft.curseforge.com/projects/additional-ender-blocks
- 1.12 Light the Night- adds a bunch of aesthitic nature-themed lighting blockshttps://minecraft.curseforge.com/projects/light-the-night
- 1.12 Garden stuff- decor (lots!), enhanced farmland optionhttps://minecraft.curseforge.com/projects/garden-stuff

- 1.12 Stone ladders- fancy 3D self supporting scaffolds/laddershttps://minecraft.curseforge.com/projects/stone-ladder
- 1.12 More Rods- more end rod varients <a href="https://minecraft.curseforge.com/projects/more-rods-mod">https://minecraft.curseforge.com/projects/more-rods-mod</a>
- 1.12 Bone Torch- adds a bone torch (decor)
  <a href="https://minecraft.curseforge.com/projects/sbm-bone-torch">https://minecraft.curseforge.com/projects/sbm-bone-torch</a>
- 1.12 Desire Paths- wears down dirt with frequent footfallshttps://minecraft.curseforge.com/projects/desirepaths
- 1.12- truly magical enchantment glints- lets you recolour the enchantemnet glow for each enchant- <a href="https://minecraft.curseforge.com/projects/enchantmentglint">https://minecraft.curseforge.com/projects/enchantmentglint</a>
- 1.12 Mod Drop Blocks- some fancy building blocks. Looks nice than vanilla ones. <a href="https://minecraft.curseforge.com/projects/mob-drops-storage-blocks">https://minecraft.curseforge.com/projects/mob-drops-storage-blocks</a>
- 1.12 Unlimited Chisel Works- adds a tonne of chisel blocks for other modshttps://minecraft.curseforge.com/projects/unlimited-chisel-works
- 1.12 Cathedral- add on for Chisel mod. More cool building blocks; <a href="https://minecraft.curseforge.com/projects/cathedral">https://minecraft.curseforge.com/projects/cathedral</a>
- 1.12 Charset immersion- place ingots plates ect in world. https://minecraft.curseforge.com/projects/charset-immersion
- 1.10/1.12 ArchitectureCraft- like carpenters blocks
  <a href="https://minecraft.curseforge.com/projects/architecturecraft">https://minecraft.curseforge.com/projects/architecturecraft</a>
  <a href="https://www.curseforge.com/minecraft/mc-mods/architecturecraft-tridev">https://www.curseforge.com/minecraft/mc-mods/architecturecraft-tridev</a>
- 1.12- ATLCraft Candles. Adds a bunch of pretty lightshttps://minecraft.curseforge.com/projects/atlcraft-candles-mod
- 1.10/1/12- Fancy Fluid Storage. Multiblock Tanks
- 1.10/1.11/1.12 Platforms- custom stairs, railings, slopes, platforms ect <a href="https://minecraft.curseforge.com/projects/platforms">https://minecraft.curseforge.com/projects/platforms</a>

# Difficulty and configurables

- 1.15/1.16- Let them grow slows down plant/sapling/animal growth https://www.curseforge.com/minecraft/mc-mods/let-them-grow
- 1.16- village fix fixes the broken op village trades from 1.14 update https://www.curseforge.com/minecraft/mc-mods/villagerfix
- 1.12 Delta Hard Mode- configurable hardmode tweakshttps://minecraft.curseforge.com/projects/delta-hard-mode
- 1.12 Easy Pickings- A pile of easymode features/tweaks from random modshttps://minecraft.curseforge.com/projects/easy-pickings
- 1.12 Inspiration- adds pretty stuff- <a href="https://minecraft.curseforge.com/projects/inspirations">https://minecraft.curseforge.com/projects/inspirations</a>

Worldgen (Dimensions, Structures, & Biomes)

- 1.16 Hostile Villagers replaces villagers with hostile mobs <a href="https://www.curseforge.com/minecraft/mc-mods/hostile-villages">https://www.curseforge.com/minecraft/mc-mods/hostile-villages</a>
- 1.16 OreTweaker add basic custom ore generation <a href="https://www.curseforge.com/minecraft/mc-mods/ore-tweaker">https://www.curseforge.com/minecraft/mc-mods/ore-tweaker</a>
- 1.16 Autumnity- adds in a few autumn themed biomes https://www.curseforge.com/minecraft/mc-mods/autumnity/screenshots
- 1.16 Towers of the Nether- adds in some worldgen <a href="https://www.curseforge.com/minecraft/mc-mods/towers-of-nether">https://www.curseforge.com/minecraft/mc-mods/towers-of-nether</a>
- 1.16 Yungs Better Portals- changes Nether portals to be based off worldgen structures <a href="https://www.curseforge.com/minecraft/mc-mods/yungs-better-portals">https://www.curseforge.com/minecraft/mc-mods/yungs-better-portals</a>
- 1.16 The outer end- adds new biomes, dungeons, and monsters to the end. Compatible with other End mods <a href="https://www.curseforge.com/minecraft/mc-mods/the-outer-end">https://www.curseforge.com/minecraft/mc-mods/the-outer-end</a>
- 1.16 Cave Generator customise caves <a href="https://www.curseforge.com/minecraft/mc-mods/cave-generator">https://www.curseforge.com/minecraft/mc-mods/cave-generator</a>
- 1.16 Better Badlands- improves badlands generations and adds some nice decorhttps://www.curseforge.com/minecraft/mc-mods/better-badlands

- 1.16 The outer end <a href="https://www.curseforge.com/minecraft/mc-mods/the-outer-end">https://www.curseforge.com/minecraft/mc-mods/the-outer-end</a>
- 1.16 Bloom and Gloom- adds some lively plants to the worlds (currently 2) <a href="https://www.curseforge.com/minecraft/mc-mods/bloom-and-gloom">https://www.curseforge.com/minecraft/mc-mods/bloom-and-gloom</a>
- 1.16 Traverse (reforged) nice looking worldgen <a href="https://www.curseforge.com/minecraft/mc-mods/traverse-reforged">https://www.curseforge.com/minecraft/mc-mods/traverse-reforged</a>
- 1.16 Terraforged- epic changes to worldgen morphology, should work with modded biomes. https://www.curseforge.com/minecraft/mc-mods/terraforged
- 1.15/1.16 towers of the wild adds some interesting towers to worldgen. Also has a useful interaction with waystones. <a href="https://www.curseforge.com/minecraft/mc-mods/towers-of-the-wild">https://www.curseforge.com/minecraft/mc-mods/towers-of-the-wild</a>
- 1.12 Realistic Mountains adds in some very nice looking mountains https://www.curseforge.com/minecraft/mc-mods/realistic-mountains
- 1.16 Repurposed Structures adds biome based versions of vanilla structures <a href="https://www.curseforge.com/minecraft/mc-mods/repurposed-structures">https://www.curseforge.com/minecraft/mc-mods/repurposed-structures</a>
- 1.16 Premium Wood- adds a few decorative tree/wood types. Also has an exploding tree!! https://www.curseforge.com/minecraft/mc-mods/premium-wood
- 1.16- Youngs Better Mineshafts and Caves- improvements to caves/mineshafts <a href="https://www.curseforge.com/minecraft/mc-mods/yungs-better-mineshafts-forge">https://www.curseforge.com/minecraft/mc-mods/yungs-better-mineshafts-forge</a>
- 1.16- extended caves add more cave features <a href="https://www.curseforge.com/minecraft/mc-mods/extended-caves">https://www.curseforge.com/minecraft/mc-mods/extended-caves</a>
- 1.16- oh the biomes you'll go full scale worlgen/biome mod <a href="https://www.curseforge.com/minecraft/mc-mods/oh-the-biomes-youll-go">https://www.curseforge.com/minecraft/mc-mods/oh-the-biomes-youll-go</a>
- 1.12 Wild Nature- very nice biome mod <a href="https://www.curseforge.com/minecraft/mc-mods/wildnature">https://www.curseforge.com/minecraft/mc-mods/wildnature</a>
- 1.12 Environmental Rads- sets NC radation levels to specific dimensionshttps://www.curseforge.com/minecraft/mc-mods/environmental-rads
- 1.14 Ultra Amplified, terrain turned up to 1.14 <a href="https://www.curseforge.com/minecraft/mc-mods/ultra-amplified-mod">https://www.curseforge.com/minecraft/mc-mods/ultra-amplified-mod</a>

- 1.12 Clay, Sand, and Dirt Ocena Floor- as per titlehttps://minecraft.curseforge.com/projects/ocean-floor-clay-sand-and-dirt
- 1.12 High World- configurable cave-world generator. <a href="https://minecraft.curseforge.com/projects/high-world">https://minecraft.curseforge.com/projects/high-world</a>
- 1.12 The Midnight- adds a new (dark) dimension. Portals to it only appear at nighthttps://minecraft.curseforge.com/projects/the-midnight
- 1.12 Special Al- harder mob behaviour- <a href="https://minecraft.curseforge.com/projects/special-ai">https://minecraft.curseforge.com/projects/special-ai</a>
- 1.12 Additional Structures- adds more structures to worldgenhttps://minecraft.curseforge.com/projects/additional-structures
- 1.12 Stigyan End- adds 2 new biomes to the End dimensionhttps://minecraft.curseforge.com/projects/stygian-end-biome-expansion
- 1.12 Pirates- adds new ghost pirate mob and dungeonhttps://minecraft.curseforge.com/projects/pirates
- 1.12 Novam Terram- biome mod <a href="https://minecraft.curseforge.com/projects/novam-terram">https://minecraft.curseforge.com/projects/novam-terram</a>
- 1.12 Terra- biome mod (new biomes), <a href="https://minecraft.curseforge.com/projects/terra-biomes-stuff">https://minecraft.curseforge.com/projects/terra-biomes-stuff</a>
- 1.10/1.11/1.12 Ocean floor clay, sand, and dirt- adds said blocks to gravel gen <a href="https://minecraft.curseforge.com/projects/ocean-floor-clay-sand-and-dirt">https://minecraft.curseforge.com/projects/ocean-floor-clay-sand-and-dirt</a>
- 1.10/1.11/1.12 Sky Islands- skylands worldgen mod <a href="https://minecraft.curseforge.com/projects/skyislands">https://minecraft.curseforge.com/projects/skyislands</a>

#### Mechanics

- 1.16 Simple Rails adds in some basic rail items https://www.curseforge.com/minecraft/mc-mods/simplerail
- 1.16 Stupendous Travels- speed boost/slow depending on the block your walking on <a href="https://www.curseforge.com/minecraft/mc-mods/stupendous-travels">https://www.curseforge.com/minecraft/mc-mods/stupendous-travels</a>
- 1.16 Better Burning improves mob burning mechanics . <a href="https://www.curseforge.com/minecraft/mc-mods/better-burning">https://www.curseforge.com/minecraft/mc-mods/better-burning</a>

- 1.16 Herd Mentality tweaks mob AI to make the herd react to your actions <a href="https://www.curseforge.com/minecraft/mc-mods/herd-mentality">https://www.curseforge.com/minecraft/mc-mods/herd-mentality</a>
- 1.16 Transport- adds a few rail types <a href="https://www.curseforge.com/minecraft/mc-mods/transport">https://www.curseforge.com/minecraft/mc-mods/transport</a>
- 1.16 Tinker's Mechworks adds in a drawbridge and a few other neat featureshttps://www.curseforge.com/minecraft/mc-mods/tinkers-mechworks
- 1.16 Survival Addons -adds in some early game tools and decorhttps://www.curseforge.com/minecraft/mc-mods/survival-additions
- 1.16 Pretty Pipes- adds in a simple but effective transport pipes, might be similar to logistics? <a href="https://www.curseforge.com/minecraft/mc-mods/pretty-pipes">https://www.curseforge.com/minecraft/mc-mods/pretty-pipes</a>
- 1.16 Colssal Chests -adds in multiblock storage chests https://www.curseforge.com/minecraft/mc-mods/colossal-chests
- 1.12 Fluid Drawers fluid storage mod <a href="https://www.curseforge.com/minecraft/mc-mods/fluid-drawers">https://www.curseforge.com/minecraft/mc-mods/fluid-drawers</a>
- 1.14-1.16 item collectors adds 2 tiers of item collector <a href="https://www.curseforge.com/minecraft/mc-mods/item-collectors">https://www.curseforge.com/minecraft/mc-mods/item-collectors</a>
- 1.15, 1.16 Tubes a tubes/item piping mod <a href="https://www.curseforge.com/minecraft/mc-mods/tubes-reloaded">https://www.curseforge.com/minecraft/mc-mods/tubes-reloaded</a>
- 1.15- Thermal Locomotives CoFH minecarts and rails <a href="https://www.curseforge.com/minecraft/mc-mods/thermal-locomotion">https://www.curseforge.com/minecraft/mc-mods/thermal-locomotion</a>
- 1.16 Productive Bees vanilla bees that collect resources <a href="https://www.curseforge.com/minecraft/mc-mods/productivebees">https://www.curseforge.com/minecraft/mc-mods/productivebees</a>
- 1.15/1.16 Buzzier Bees- mod compat for vanilla bees
  -https://www.curseforge.com/minecraft/mc-mods/buzzier-bees
- 1.16 Element Craft small magic mod with a few useful mechanics <a href="https://www.curseforge.com/minecraft/mc-mods/elemental-craft">https://www.curseforge.com/minecraft/mc-mods/elemental-craft</a>
- 1.16 Click machine adds an auto clicker <a href="https://www.curseforge.com/minecraft/mc-mods/click-machine">https://www.curseforge.com/minecraft/mc-mods/click-machine</a>
- 1.16- Durability bank- item that looses durability instead of th held tool. Could work well as a magical item. <a href="https://www.curseforge.com/minecraft/mc-mods/durability-banks">https://www.curseforge.com/minecraft/mc-mods/durability-banks</a>

- 1.16- Better Weather adds a few vanilla style weather events <a href="https://www.curseforge.com/minecraft/mc-mods/better-weather">https://www.curseforge.com/minecraft/mc-mods/better-weather</a>
- 1.16 Simple Planes adds simple vanilla style planes <a href="https://www.curseforge.com/minecraft/mc-mods/simple-planes">https://www.curseforge.com/minecraft/mc-mods/simple-planes</a>
- 1.12, 1.16 Gauges and Switches adds redstone gauges, switches, levers, pads, etc... <a href="https://www.curseforge.com/minecraft/mc-mods/redstone-gauges-and-switches">https://www.curseforge.com/minecraft/mc-mods/redstone-gauges-and-switches</a>
- 1.16- Hold yer breath- adds a vanilla style bottle of air for swimming underwater <a href="https://www.curseforge.com/minecraft/mc-mods/hold-yer-breath">https://www.curseforge.com/minecraft/mc-mods/hold-yer-breath</a>
- 1.16- Extended Crafting- adds 3x3, 5x5, 7x7, 9x9, and a Thaumcrafft style Rf driven crafting alter <a href="https://www.curseforge.com/minecraft/mc-mods/extended-crafting">https://www.curseforge.com/minecraft/mc-mods/extended-crafting</a>
- 1.16 ropes adds climbable rope <a href="https://www.curseforge.com/minecraft/mc-mods/ropes-mod">https://www.curseforge.com/minecraft/mc-mods/ropes-mod</a>
- 1.16 Configurable Beacons Adds more configuration to beacons <a href="https://www.curseforge.com/minecraft/mc-mods/configurable-beacons">https://www.curseforge.com/minecraft/mc-mods/configurable-beacons</a>
- 1.16- Regrowth animals and plants regrow -https://www.curseforge.com/minecraft/mc-mods/regrowth
- 1.12, 1.14, 1.16 Waystones- adds a teleportation system using blocks placed/generated in world <a href="https://www.curseforge.com/minecraft/mc-mods/waystones">https://www.curseforge.com/minecraft/mc-mods/waystones</a>

Arcane Archines - magical item and fluid storage. Very pretty. <a href="https://www.curseforge.com/minecraft/mc-mods/arcane-archives">https://www.curseforge.com/minecraft/mc-mods/arcane-archives</a>

Extra Alchemy- adds in a bunch of extra vanilla style potion effects. Very configurable mod - https://www.curseforge.com/minecraft/mc-mods/extra-alchemy

Career Bees- Forestry bees that do jobs instead of generating resources - <a href="https://www.curseforge.com/minecraft/mc-mods/career-bees">https://www.curseforge.com/minecraft/mc-mods/career-bees</a>

Ore Reeds- grow ores as reeds - <a href="https://www.curseforge.com/minecraft/mc-mods/ore-reeds">https://www.curseforge.com/minecraft/mc-mods/ore-reeds</a>

Thaumic Add-ons- adds a bunch of TC stuffhttps://www.curseforge.com/minecraft/mc-mods/thaumic-additions

Waterworks- adds water collection mechanicshttps://www.curseforge.com/minecraft/mc-mods/waterworks

- 1.12 Simple Quarry- adds a simple quarry <a href="https://www.curseforge.com/minecraft/mc-mods/simple-quarry">https://www.curseforge.com/minecraft/mc-mods/simple-quarry</a>
- 1.12 Stone Catalysts allows different stone types to be output from a cobblegen <a href="https://www.curseforge.com/minecraft/mc-mods/stonecatalysts">https://www.curseforge.com/minecraft/mc-mods/stonecatalysts</a>
- 1.12 Immersive Technology- alternate version of ImTech, has CT support <a href="https://www.curseforge.com/minecraft/mc-mods/immersive-technology">https://www.curseforge.com/minecraft/mc-mods/immersive-technology</a>
- 1.12 Canny Composter- adds a composter. Configurable <a href="https://www.curseforge.com/minecraft/mc-mods/composter">https://www.curseforge.com/minecraft/mc-mods/composter</a>
- 1.12 Extra Reeds- adds extra reed crops for gunpowder, lapis, glowstone. Could be tweakered for other stuff if needed? <a href="https://www.curseforge.com/minecraft/mc-mods/extra-reeds">https://www.curseforge.com/minecraft/mc-mods/extra-reeds</a>
- 1.12 Polluted Earth- adds a configurable block which spreads <a href="https://www.curseforge.com/minecraft/mc-mods/polluted-earth-reborn">https://www.curseforge.com/minecraft/mc-mods/polluted-earth-reborn</a>
- 1.12 Fragile blocks break apart and collapse, can cause cave-inshttps://www.curseforge.com/minecraft/mc-mods/fragile-blocks
- 1.12 Restrictions- adds devices to pull/push mobshttps://www.curseforge.com/minecraft/mc-mods/restrictions
- 1.12 Power Converters coverts between power systems (could be 'hidden' with some renaming and other such magics) <a href="https://www.curseforge.com/minecraft/mc-mods/energy-converters">https://www.curseforge.com/minecraft/mc-mods/energy-converters</a>
- 1.12 Metal in Motion adds a bunch of new minecarts <a href="https://www.curseforge.com/minecraft/mc-mods/metaltransport">https://www.curseforge.com/minecraft/mc-mods/metaltransport</a>
- 1.12-1.16 BluePower. RedPower clone <a href="https://www.curseforge.com/minecraft/mc-mods/blue-power">https://www.curseforge.com/minecraft/mc-mods/blue-power</a>
- 1.12, Redstone Plus Plus- few new redstone mechanics/tweakshttps://www.curseforge.com/minecraft/mc-mods/redstoneplusplus
- 1.12 Arcane Archives- interesting storage optionshttps://www.curseforge.com/minecraft/mc-mods/arcane-archives

1.12 Configurable Cane- adds configurable sugarcanes for other resources. Might be cool once MT'd and dropt'd sufficiently...

https://www.curseforge.com/minecraft/mc-mods/configurable-cane

1.12 Water Strainer- passive resource generator using water. <a href="https://minecraft.curseforge.com/projects/water-strainer">https://minecraft.curseforge.com/projects/water-strainer</a>

- 1.12 Essentia Braizier- TC research minigame helperhttps://minecraft.curseforge.com/projects/essentia-brazier
- 1.12 Spawner Upgrade- upgrade for vanilla spawnershttps://minecraft.curseforge.com/projects/spawner-upgrade
- 1.12 Advanced finders- adds a compass to point to oreshttps://minecraft.curseforge.com/projects/advanced-finders
- 1.12 Sift- adds a sifting table like ExNihlo- <a href="https://minecraft.curseforge.com/projects/sift">https://minecraft.curseforge.com/projects/sift</a>
- 1.12 Engineered Golems- TC golems made from IE materialshttps://minecraft.curseforge.com/projects/engineered-golems
- 1.12 Floralchemy- adds a liquid [oil/fuel] burning flower to make manahttps://minecraft.curseforge.com/projects/floralchemy
- 1.12 Find your way. Adds a compass type that'll point to different structureshttps://minecraft.curseforge.com/projects/find-your-way
- 1.12 Flying things- adds broomstick and magic carpet. Magic alternative to airships?https://minecraft.curseforge.com/projects/the-flying-things
- 1.12 Morechids-

Convert ANY blocks into ANY other blocks with ANY number of crazy flower variations you can think of!

https://minecraft.curseforge.com/projects/morechids

- 1.12 Coherent Villagers- makes villages more sensible <a href="https://minecraft.curseforge.com/projects/coherent-villages">https://minecraft.curseforge.com/projects/coherent-villages</a>
- 1.7.10- Atomic Science. Interesting nuclear physics/reactors ect Keep an eye out for eventual 1.12 release <a href="https://minecraft.curseforge.com/projects/atomic-science">https://minecraft.curseforge.com/projects/atomic-science</a> NuclearCraft is a decent stand in for this-<a href="https://minecraft.curseforge.com/projects/nuclearcraft-mod">https://minecraft.curseforge.com/projects/nuclearcraft-mod</a>

- 1.12 Liquid Blocks- pourable liquids that solidify into MC blocks
- -https://minecraft.curseforge.com/projects/liquid-blocks
- 1.12 Hungering Darkness- darkness itself can hurt you.
- -https://minecraft.curseforge.com/projects/hungering-darkness
- 1.12 Ex Nihlo Creatio- 1.12 port, interesting early game mechanics when configered for non-skyblock use <a href="https://minecraft.curseforge.com/projects/ex-nihilo-creatio">https://minecraft.curseforge.com/projects/ex-nihilo-creatio</a>
  1.16 Ex Nihlo Sequentia- 1.16 port -

https://www.curseforge.com/minecraft/mc-mods/ex-nihilo-sequentia

- 1.12 Snow++ few neat snow related features. <a href="https://minecraft.curseforge.com/projects/snow">https://minecraft.curseforge.com/projects/snow</a>
- 1.12 ProjectX- XYcraft clone- <a href="https://minecraft.curseforge.com/projects/projectx-2">https://minecraft.curseforge.com/projects/projectx-2</a>
- 1.12 Hunger Overhaul- massive pile of tweaks to hunger/farming <a href="https://minecraft.curseforge.com/projects/hunger-overhaul">https://minecraft.curseforge.com/projects/hunger-overhaul</a>
- 1.12 entity spring- tie entities together- https://minecraft.curseforge.com/projects/entity-spring
- 1.12 Signals- minecart routing system (RC replacement?)https://minecraft.curseforge.com/projects/signals
- 1.12 Waterworks- adds some water collection mechanicshttps://minecraft.curseforge.com/projects/waterworks
- 1.10/1.11/1.12 Soul Shards the old ways. Nuff said <a href="https://minecraft.curseforge.com/projects/soul-shards-the-old-ways">https://minecraft.curseforge.com/projects/soul-shards-the-old-ways</a>
- 1.10 Reliquia- adds pretty stuff https://minecraft.curseforge.com/projects/reliquia
- 1.10/1.11/1.12 Viescraft airships- airship mod, like pchan3's <a href="https://minecraft.curseforge.com/projects/viescraft-airships">https://minecraft.curseforge.com/projects/viescraft-tweaker</a> Viescraft tweaker- <a href="https://minecraft.curseforge.com/projects/viescraft-tweaker">https://minecraft.curseforge.com/projects/viescraft-tweaker</a>
- 1.10/1/12- Fancy Fluid Storage. Multiblock Tanks
- 1.12 Better Boilers- alternative to RC boilers. Lot simpler, lacks a few features <a href="https://minecraft.curseforge.com/projects/better-boilers">https://minecraft.curseforge.com/projects/better-boilers</a>

- 1.12 Charset Tanks- like Buildcraf fluid tankshttps://minecraft.curseforge.com/projects/charset-storage-tanks
- 1.10/1.11/1.12 Scavange- pull stuff out of blocks on rightclick (customisable) <a href="https://minecraft.curseforge.com/projects/scavenge">https://minecraft.curseforge.com/projects/scavenge</a>
- 1.10/1.11/1.12 Valkyrien Warfare- Build airships out of any block in gamehttps://minecraft.curseforge.com/projects/valkyrien-warfare
- 1.10+ Booster rockets- vanilla in 1.11+, rockets boost elytra flight <a href="https://minecraft.curseforge.com/projects/booster-rockets">https://minecraft.curseforge.com/projects/booster-rockets</a>
- 1.12 Charset storage- adds barrels, mod woods supported. <a href="https://minecraft.curseforge.com/projects/charset-storage-barrels">https://minecraft.curseforge.com/projects/charset-storage-barrels</a>
- 1.7/1.10/1.11/1.12 Hardcore Darkness. Adds proper darkness to the game. <a href="https://minecraft.curseforge.com/projects/hardcore-darkness">https://minecraft.curseforge.com/projects/hardcore-darkness</a>
- 1.12- Extreme Energy. Might be an interesting tech mod/EE2 thingy? <a href="https://minecraft.curseforge.com/projects/extreme-energy">https://minecraft.curseforge.com/projects/extreme-energy</a>
- 1.12 Alternating Flux- adds higher voltage transmission to ImEng <a href="https://minecraft.curseforge.com/projects/alternating-flux">https://minecraft.curseforge.com/projects/alternating-flux</a>

#### Mobs

Help Wanted - adds a way to bring new villagers into the village - <a href="https://www.curseforge.com/minecraft/mc-mods/help-wanted">https://www.curseforge.com/minecraft/mc-mods/help-wanted</a>

Conjouring - adds in mob spawners - https://www.curseforge.com/minecraft/mc-mods/conjuring

- 1.16 Additional Ender items, some good stuff, some stuff to tweak, overall a good one to have -https://www.curseforge.com/minecraft/mc-mods/additional-ender-items
- 1.16 resourceful bees gives ability for pack devs to add custom bees https://www.curseforge.com/minecraft/mc-mods/resourceful-bees
- 1.12-1.16 Spiders 2.0 makes spiders climb walls/ceilings like they're supposed to <a href="https://www.curseforge.com/minecraft/mc-mods/spiders-2-0">https://www.curseforge.com/minecraft/mc-mods/spiders-2-0</a>
- 1.16 Herd Mentality mobs panic/aggro when you attack other mobs of the same kind <a href="https://www.curseforge.com/minecraft/mc-mods/herd-mentality">https://www.curseforge.com/minecraft/mc-mods/herd-mentality</a>

- 1.15/1.16 Savage and Ravage makes improvements to illagers. Check if creeper features are configurable <a href="https://www.curseforge.com/minecraft/mc-mods/savage-and-ravage">https://www.curseforge.com/minecraft/mc-mods/savage-and-ravage</a>
- 1.16 Brazier Adds a beacon like structure to block mob spawns
- 1.12 Webslinger- spiders shoot webs <a href="https://www.curseforge.com/minecraft/mc-mods/web-slinger">https://www.curseforge.com/minecraft/mc-mods/web-slinger</a>
- 1.12 Zombie horse spawn. As per title, also a companion skeleton one <a href="https://www.curseforge.com/minecraft/mc-mods/zombie-horse-spawn">https://www.curseforge.com/minecraft/mc-mods/zombie-horse-spawn</a>
- 1.12 Organic Creepers- creepers can grow from creeper planthttps://minecraft.curseforge.com/projects/organic-creepers
- 1.12+ Guard Illagers- makes the woodland mansion a little tougherhttps://minecraft.curseforge.com/projects/guard-illagers
- 1.12 Spawner Upgrade- upgrade for vanilla spawnershttps://minecraft.curseforge.com/projects/spawner-upgrade
- 1.12- various oddities- adds more monsters to the gamehttps://minecraft.curseforge.com/projects/various-oddities
- 1.12 Pirates- adds new ghost pirate mob and dungeonhttps://minecraft.curseforge.com/projects/pirates
- 1.12 Outfox- adds a fox mob which can sniff out ore blocks. <a href="https://minecraft.curseforge.com/projects/outfox">https://minecraft.curseforge.com/projects/outfox</a>
- 1.12 Mad Villagers- villagers get annoyed by players breaking blocks in the village <a href="https://minecraft.curseforge.com/projects/mad-villagers">https://minecraft.curseforge.com/projects/mad-villagers</a>
- 1.12 Mean Mobs- makes mobs smarter/tougherhttps://minecraft.curseforge.com/projects/mean-mobs
- 1.12 Epic Siege Mod- ramps up mob difficultyhttps://minecraft.curseforge.com/projects/epic-siege-mod
- 1.12 Environmental Creepers- control of creeper explosions. Can cause chain reactions <a href="https://minecraft.curseforge.com/projects/environmental-creepers">https://minecraft.curseforge.com/projects/environmental-creepers</a>
- 1.12 You Ate My Mother! Animals take issue with you eating meat.

## https://minecraft.curseforge.com/projects/you-ate-my-mother

Tools, Armour, Wearables

- 1.16 Majo's Broom- adds a flying broomstick, controlled by exp level https://www.curseforge.com/minecraft/mc-mods/majos-broom
- 1.16 Blackpowder adds in gunpowder firearms https://www.curseforge.com/minecraft/mc-mods/black-powder
- 1.16 Simple Platinum add in platinum tools/armour etc <a href="https://www.curseforge.com/minecraft/mc-mods/simply-platinum">https://www.curseforge.com/minecraft/mc-mods/simply-platinum</a>
- 1.16 Simple Magnets -simple item magnetshttps://www.curseforge.com/minecraft/mc-mods/simple-magnets

Dash - adds a 'dash' enchant which gives a short bust of speed - <a href="https://www.curseforge.com/minecraft/mc-mods/dash">https://www.curseforge.com/minecraft/mc-mods/dash</a>

- 1.12 Pipe Goggles- goggles that reveal pipes ect (configurable) <a href="https://www.curseforge.com/minecraft/mc-mods/pipe-master-2000">https://www.curseforge.com/minecraft/mc-mods/pipe-master-2000</a>
- 1.12 Sparks tools- adds hammer, lumber axe ect, can define custom tools with JSON <a href="https://www.curseforge.com/minecraft/mc-mods/sparks-tools">https://www.curseforge.com/minecraft/mc-mods/sparks-tools</a>
- 1.12 Wings- fancy flying wings- https://minecraft.curseforge.com/projects/wings
- 1.12 Dragon Wings Elytra- infinite thrust for elytrahttps://minecraft.curseforge.com/projects/dragonwingselytra
- 1.12 composite gear- tech non-powered armour stuff based off IC2 composite vesthttps://minecraft.curseforge.com/projects/compositegear
- 1.12 Flying things- adds broomstick and magic carpet. Magic alternative to airships?https://minecraft.curseforge.com/projects/the-flying-things

Mod add ons etc

- 1.16- Create Crafts and Additions- RF<-> Create power conversion, adds a new Create machine <a href="https://www.curseforge.com/minecraft/mc-mods/createaddition">https://www.curseforge.com/minecraft/mc-mods/createaddition</a>
- 1.16 Immersive Cowardance- allows a few QoL tweakshttps://www.curseforge.com/minecraft/mc-mods/immersive-cowardice

- 1.12 Portable drill for ImEng- less tedious for finding excavator deposits <a href="https://www.curseforge.com/minecraft/mc-mods/portable-drill-for-immersive-engineering">https://www.curseforge.com/minecraft/mc-mods/portable-drill-for-immersive-engineering</a>
- 1.12 Framed Compacting Drawers- as per title <a href="https://www.curseforge.com/minecraft/mc-mods/framed-compacting-drawers">https://www.curseforge.com/minecraft/mc-mods/framed-compacting-drawers</a>
- 1.12 Modular Magic- magic support for Modular Machinery. <a href="https://www.curseforge.com/minecraft/mc-mods/modular-magic">https://www.curseforge.com/minecraft/mc-mods/modular-magic</a>
- 1.12 Storage Drawers Unlimited- mod woods for storage drawers <a href="https://www.curseforge.com/minecraft/mc-mods/storage-drawers-unlimited">https://www.curseforge.com/minecraft/mc-mods/storage-drawers-unlimited</a>

#### Tweaks

1.16- fabrication and forgery - adds in a pile of small tweaks - https://www.curseforge.com/minecraft/mc-mods/fabrication

Team Abnormals - dev team who releases small Vanilla++ style modshttps://www.curseforge.com/members/teamabnormals/projects

Better Burning - improves fire/burning mob mechanics - <a href="https://www.curseforge.com/minecraft/mc-mods/better-burning">https://www.curseforge.com/minecraft/mc-mods/better-burning</a>

- 1.14-1.16 Scaffolding drops nearby scaffolding always lands at your feet instead of everywhere https://www.curseforge.com/minecraft/mc-mods/scaffolding-drops-nearby
- 1.14-1.16 Easy Elytra takeoff take off directly from the ground with a firework, no more awkward jumps -

https://www.curseforge.com/minecraft/mc-mods/easy-elytra-takeoff

- 1.16- Tiny Tweaks a bunch of tiny tweaks <a href="https://www.curseforge.com/minecraft/mc-mods/tinytweaks">https://www.curseforge.com/minecraft/mc-mods/tinytweaks</a>
- 1.12-1.16 Just Player Heads- allows dropping on player heads on death. Lag free https://www.curseforge.com/minecraft/mc-mods/just-player-heads
- 1.12/1.14 Whoops- makes botania pure daily place blocks by right clicking the flower <a href="https://www.curseforge.com/minecraft/mc-mods/whoops">https://www.curseforge.com/minecraft/mc-mods/whoops</a>
- 1.12 Nether Portal Spread- the Nether spreads out into the overworldhttps://www.curseforge.com/minecraft/mc-mods/nether-portal-spread
- 1.12 Unmending- makes the mending enchantment less stupid and more balancedhttps://minecraft.curseforge.com/projects/unmending
- 1.12 Permafrost- prevents light sources from melting snow/icehttps://minecraft.curseforge.com/projects/permafrost
- 1.12 Hungering Darkness- darkness itself can hurt you.
  -https://minecraft.curseforge.com/projects/hungering-darkness
- 1.12 Eternal Sleep- time sets to day when someone dies. https://minecraft.curseforge.com/projects/eternal-sleep

#### 1.10 MAtmos- adds ambient soundFX

http://www.minecraftforum.net/forums/mapping-and-modding-java-edition/minecraft-mods/12744 87-matmos-environmental-sound-atmosphere-simulator

## **Ports**

- 1.16 Masterful Machinery port of modular machinery https://www.curseforge.com/minecraft/mc-mods/masterful-machinery
- 1.16 Chiseled port of Chisel <a href="https://www.curseforge.com/minecraft/mc-mods/chiseled">https://www.curseforge.com/minecraft/mc-mods/chiseled</a>
- 1.16- caves and cliffs- backport of vanilla 1.7 https://www.curseforge.com/minecraft/mc-mods/caves-and-cliffs
- 1.15, 1.16 ZyCraft Port of XyCraft <a href="https://www.curseforge.com/minecraft/mc-mods/zycraft">https://www.curseforge.com/minecraft/mc-mods/zycraft</a>
- 1.16 REI Port of JEI -

https://www.curseforge.com/minecraft/mc-mods/roughly-enough-items-forge

- 1.16 Industrial Reborn port of IC2
- -https://www.curseforge.com/minecraft/mc-mods/industrial-reborn
- 1.16- Linked Storage port of Ender Chests <a href="https://www.curseforge.com/minecraft/mc-mods/linked-storage">https://www.curseforge.com/minecraft/mc-mods/linked-storage</a>

Bluepower- port of the old Redpower mod. Complete with Blutricity! <a href="https://www.curseforge.com/minecraft/mc-mods/blue-power">https://www.curseforge.com/minecraft/mc-mods/blue-power</a>

# Misc

- 1.16 Greater Eye of Ender- for locating other structures <a href="https://www.curseforge.com/minecraft/mc-mods/greater-eye-of-ender-forge">https://www.curseforge.com/minecraft/mc-mods/greater-eye-of-ender-forge</a>
- 1.16- Its the little things, lets you change the game title and icon <a href="https://www.curseforge.com/minecraft/mc-mods/its-the-little-things">https://www.curseforge.com/minecraft/mc-mods/its-the-little-things</a>

Player Drops - makes players drop specific items on death - <a href="https://www.curseforge.com/minecraft/mc-mods/player-drops">https://www.curseforge.com/minecraft/mc-mods/player-drops</a>

Antique Atlas- better than a minimap mod - <a href="https://www.curseforge.com/minecraft/mc-mods/antique-atlas">https://www.curseforge.com/minecraft/mc-mods/antique-atlas</a>

Infinite Music - Infinite looping of MC's - <a href="https://www.curseforge.com/minecraft/mc-mods/infinite-music">https://www.curseforge.com/minecraft/mc-mods/infinite-music</a>

Extended Bonemral- allows additionaly bonemealing and bonemeal QOL stuffs - <a href="https://www.curseforge.com/minecraft/mc-mods/extended-bone-meal">https://www.curseforge.com/minecraft/mc-mods/extended-bone-meal</a>

Permafrost- torches ect wont melt snow/icehttps://minecraft.curseforge.com/projects/permafrost

## Performance enhancement

- 1.16 smooth Boot- prevents lag and CPU hogging during startup, allowing for multitasking
  - https://www.curseforge.com/minecraft/mc-mods/smooth-boot-forge
- 1.14 Fast Bamboo fixes some lag with bamboo rendering <a href="https://www.curseforge.com/minecraft/mc-mods/fast-bamboo">https://www.curseforge.com/minecraft/mc-mods/fast-bamboo</a>
- 1.12 Thaumic enhancement- speeds up loading time of big packs <a href="https://www.curseforge.com/minecraft/mc-mods/thaumic-speedup">https://www.curseforge.com/minecraft/mc-mods/thaumic-speedup</a>
- 1.12 Cull particles stops particles from rendering if they can't be seen by a player <a href="https://www.curseforge.com/minecraft/mc-mods/particle-culling">https://www.curseforge.com/minecraft/mc-mods/particle-culling</a>
- 1.12- 1.15 Performant improves performance and reduces lag <a href="https://www.curseforge.com/minecraft/mc-mods/performant">https://www.curseforge.com/minecraft/mc-mods/performant</a>
- 1.12 Phosphor- lighting improvement and performance stuffhttps://minecraft.curseforge.com/projects/phosphor
- 1.12 Fast Furnace- improves furnace performancehttps://minecraft.curseforge.com/projects/fastfurnace
- 1.12 Fast Workbench- improves workbench performancehttps://minecraft.curseforge.com/projects/fastworkbench
- 1.12 Born in a Barn- fixes a vanilla issue with villagers and chunkloading; <a href="https://minecraft.curseforge.com/projects/born-in-a-barn">https://minecraft.curseforge.com/projects/born-in-a-barn</a>

- 1.12 Surge- performance enhancement; <a href="https://minecraft.curseforge.com/projects/surge">https://minecraft.curseforge.com/projects/surge</a>
- 1.10/1.11/1.12 Better FPS <a href="https://minecraft.curseforge.com/projects/betterfps">https://minecraft.curseforge.com/projects/betterfps</a>
- 1.10/1.11/1.12 Clumps- lumps exp orbs together <a href="https://minecraft.curseforge.com/projects/clumps">https://minecraft.curseforge.com/projects/clumps</a>
- 1.10/1.11/1.12 Tick Dynamic- keeps MC running at 20fps by reducing tick time of individual entities- overall a better world performance.

https://minecraft.curseforge.com/projects/tick-dynamic

# Utility

1.12-1.16 Attribute Fix - increases the limits of the attribute system (No. of protection points provided by armour etc) fixes a lot of mods-

https://www.curseforge.com/minecraft/mc-mods/attributefix

- 1.12 Just the tips- add tips to the loading screens <a href="https://www.curseforge.com/minecraft/mc-mods/justthetips">https://www.curseforge.com/minecraft/mc-mods/justthetips</a>
- 1.12 Potion Icon Remover (HuD)- exactly as describedhttps://www.curseforge.com/minecraft/mc-mods/potion-icon-remover
- 1.12 Dupe Fix- fixes a bunch of mod related dupe bugs <a href="https://www.curseforge.com/minecraft/mc-mods/dupefix-project">https://www.curseforge.com/minecraft/mc-mods/dupefix-project</a>
- 1.12 Mouse Tweaks adds useful functions to mouse controls <a href="https://www.curseforge.com/minecraft/mc-mods/mouse-tweaks">https://www.curseforge.com/minecraft/mc-mods/mouse-tweaks</a>
- 1.12 Toast Control- removes that stupid popup in the corner of the screenhttps://www.curseforge.com/minecraft/mc-mods/toast-control
- 1.12 Anvil Fix- removes level limit on anvil <a href="https://minecraft.curseforge.com/projects/anvil-fix">https://minecraft.curseforge.com/projects/anvil-fix</a> Also <a href="https://www.curseforge.com/minecraft/mc-mods/noexpensive">https://www.curseforge.com/minecraft/mc-mods/noexpensive</a>
- 1.12- Realbench- crafting bench doesn't drop items <a href="https://minecraft.curseforge.com/projects/realbench">https://minecraft.curseforge.com/projects/realbench</a>
- 1.12- Bee Better at Bees- JEI integration showing bee breeding treehttps://minecraft.curseforge.com/projects/beebetteratbees

- 1.12- not enough IDs- extends ID limit, <a href="https://minecraft.curseforge.com/projects/notenoughids">https://minecraft.curseforge.com/projects/notenoughids</a>
- 1.12- Just enough throwing in fluids- JEI recipes for dunking items into fluids. <a href="https://minecraft.curseforge.com/projects/jetif">https://minecraft.curseforge.com/projects/jetif</a>
- 1.12 Tiquality- equalises lag for players who aren't server friendly <a href="https://minecraft.curseforge.com/projects/tiquality">https://minecraft.curseforge.com/projects/tiquality</a>
- 1.10/1.11 LagGoggles- in game lag visualiser <a href="https://minecraft.curseforge.com/projects/laggoggles">https://minecraft.curseforge.com/projects/laggoggles</a>
- 1.10/1.11/1.12- fixes hopper bounding box <a href="https://minecraft.curseforge.com/projects/diet-hoppers">https://minecraft.curseforge.com/projects/diet-hoppers</a>

ReAunth- lets you log back in if session invalidates <a href="https://minecraft.curseforge.com/projects/reauth">https://minecraft.curseforge.com/projects/reauth</a>

JEI Bees- nuff said <a href="https://minecraft.curseforge.com/projects/jei-bees">https://minecraft.curseforge.com/projects/jei-bees</a>

Swing through grass- nuff said <a href="https://minecraft.curseforge.com/projects/swingthroughgrass">https://minecraft.curseforge.com/projects/swingthroughgrass</a>
1.16- Cleancut - <a href="https://www.curseforge.com/minecraft/mc-mods/cleancut">https://www.curseforge.com/minecraft/mc-mods/cleancut</a>

Come Closer- changes player name render- can be line of sighthttps://minecraft.curseforge.com/projects/come-closer No Recipe book- de-crapifies the HUDhttps://minecraft.curseforge.com/projects/no-recipe-book

## Pack tools

Draw.io - software for drawing nice looking flow charts
1.16 Custom Machinery - add your own single block machines!!
<a href="https://www.curseforge.com/minecraft/mc-mods/custom-machinery">https://www.curseforge.com/minecraft/mc-mods/custom-machinery</a>

- 1.16 Skyblock builder- as per title
- -https://www.curseforge.com/minecraft/mc-mods/skyblock-builder
- 1.16 KubeJS- change recipes, add blocks/items, tweak worldgen -https://www.curseforge.com/minecraft/mc-mods/kubejs

- 1.16 Pathing the Way- set tools to change block A to block B <a href="https://www.curseforge.com/minecraft/mc-mods/pathing-the-way">https://www.curseforge.com/minecraft/mc-mods/pathing-the-way</a>
- 1.16 CreateTweaker- CT support for Create <a href="https://www.curseforge.com/minecraft/mc-mods/createtweaker">https://www.curseforge.com/minecraft/mc-mods/createtweaker</a>
- 1.16 Datapack recipe maker add new recipes in game <a href="https://www.curseforge.com/minecraft/mc-mods/datapackrecipemaker">https://www.curseforge.com/minecraft/mc-mods/datapackrecipemaker</a>
- 1.16- Interactio -in world crafting <a href="https://www.curseforge.com/minecraft/mc-mods/interactio">https://www.curseforge.com/minecraft/mc-mods/interactio</a>
- 1.14-1.16 JEI Tweaker JEI CT functionality now has its own mod as its not supported in later CT versions <a href="https://www.curseforge.com/minecraft/mc-mods/jeitweaker">https://www.curseforge.com/minecraft/mc-mods/jeitweaker</a>
- 1.14/1.15 Material Mastery- change properties of blocks and items <a href="https://www.curseforge.com/minecraft/mc-mods/material-master">https://www.curseforge.com/minecraft/mc-mods/material-master</a>
- 1.16 Blame shows the cause of worldgen crashes in the crahslog <a href="https://www.curseforge.com/minecraft/mc-mods/blame">https://www.curseforge.com/minecraft/mc-mods/blame</a>
- 1.16 Tooltip NBT displays NBT data as the tooltip <a href="https://www.curseforge.com/minecraft/mc-mods/nbt-tooltip">https://www.curseforge.com/minecraft/mc-mods/nbt-tooltip</a>
- 1.16 Al Stackable Tweak stackability of items <a href="https://www.curseforge.com/minecraft/mc-mods/all-stackable">https://www.curseforge.com/minecraft/mc-mods/all-stackable</a>
- 1.12 Restriction very conifgurable limits on what and where players can place blocks <a href="https://www.curseforge.com/minecraft/mc-mods/restriction">https://www.curseforge.com/minecraft/mc-mods/restriction</a>
- 1.12 (1.15??) Malek's Multiblock Mobs- use .JSON to make custom multiblock mob spawner structures- <a href="https://www.curseforge.com/minecraft/mc-mods/maleks-multiblock-mobs">https://www.curseforge.com/minecraft/mc-mods/maleks-multiblock-mobs</a>
- 1.12 BiomeTweaker- tweak biome properties (temp/rainfall), biome generation and worldgen, and just about anything else!! <a href="https://www.curseforge.com/minecraft/mc-mods/biometweaker">https://www.curseforge.com/minecraft/mc-mods/biometweaker</a>
- 1.12, 1.14, 1.15 CraftDumper- dumps info about the game (entities, biomes, loottables ect)https://www.curseforge.com/minecraft/mc-mods/craftdumper
- 1.12 FoodTweaker- CT support for food values <a href="https://www.curseforge.com/minecraft/mc-mods/foodtweaker">https://www.curseforge.com/minecraft/mc-mods/foodtweaker</a>
- 1.12 InWorld Crafting- Adds CT functions for in-world crafting (explosions, dropping-in-fluids ect) <a href="https://www.curseforge.com/minecraft/mc-mods/inworldcrafting">https://www.curseforge.com/minecraft/mc-mods/inworldcrafting</a>

- 1.12 JsonifyCraft- define custom blocks and items. Includes rotatable blocks and growing mechanics (more power than CT?) <a href="https://www.curseforge.com/minecraft/mc-mods/jsonifycraft">https://www.curseforge.com/minecraft/mc-mods/jsonifycraft</a>
- 1.12/1.14 Tree Growing Simulator- sprinting/crouching can grow trees (ideas for skyblocks)https://www.curseforge.com/minecraft/mc-mods/tree-growing-simulator
- 1.12- Edit Mob Drops- tweak mob drops <a href="https://www.curseforge.com/minecraft/mc-mods/edit-mob-drops">https://www.curseforge.com/minecraft/mc-mods/edit-mob-drops</a>
- 1.12 Forestry Engine Tweaker- CT support for Peat and Biogas engineshttps://www.curseforge.com/minecraft/mc-mods/forestry-engine-tweaker
- 1.12 Nocturnal players emit a corrupting aura which slowly taints the surrounding area (configurable) <a href="https://www.curseforge.com/minecraft/mc-mods/nocturnal">https://www.curseforge.com/minecraft/mc-mods/nocturnal</a>
- 1.12 MoxLotus Generate- tweak output of lava-water cobble/stone/obsidian generation <a href="https://www.curseforge.com/minecraft/mc-mods/generate">https://www.curseforge.com/minecraft/mc-mods/generate</a>
- 1.16 Cobble Gen Randomiser <a href="https://www.curseforge.com/minecraft/mc-mods/cobblegenrandomizer">https://www.curseforge.com/minecraft/mc-mods/cobblegenrandomizer</a>
- 1.12 Interactions add right click block interactions with JSON <a href="https://www.curseforge.com/minecraft/mc-mods/interactions">https://www.curseforge.com/minecraft/mc-mods/interactions</a>
- 1.12 autojump off- automatically disables autojumphttps://minecraft.curseforge.com/projects/autojump-autooff
- 1.12 Food Editor- change the food value of stuff. <a href="https://minecraft.curseforge.com/projects/food-editor">https://minecraft.curseforge.com/projects/food-editor</a>
- 1.12 Always drop loot- mobs always drop loot and expierencehttps://minecraft.curseforge.com/projects/always-drop-loot
- 1.12 Custom Capacitors- add your own power storage blocks. <a href="https://minecraft.curseforge.com/projects/custom-capacitors">https://minecraft.curseforge.com/projects/custom-capacitors</a>
- 1.12 Bone Meal Control- control bonemeal's plant growth abilityhttps://minecraft.curseforge.com/projects/bonemeal-control
- 1.12 Plant Biomes- configure plant growth for different biomes <a href="https://minecraft.curseforge.com/projects/plant-biomes">https://minecraft.curseforge.com/projects/plant-biomes</a>

- 1.12 Burninator- configure what blocks burn the player on contacthttps://minecraft.curseforge.com/projects/burninator
- 1.12 Botania Tweaks, tweaks Botania- useful tools for pack buildershttps://minecraft.curseforge.com/projects/botania-tweaks
- 1.12 IC2 Tweaker- crafttweaker support for IC2https://minecraft.curseforge.com/projects/ic2-tweaker
- 1.12 Tips- add tips to the loading screens- <a href="https://minecraft.curseforge.com/projects/tips">https://minecraft.curseforge.com/projects/tips</a>
- 1.12 No Nerd Poles- no more 1x1 noob towershttps://minecraft.curseforge.com/projects/no-poles
- 1.12 Controlled Burn- configurable fire spread/mecanicshttps://minecraft.curseforge.com/projects/controlled-burn
- 1.12 Material Changer- changes tool stats/stack count ect... <a href="https://minecraft.curseforge.com/projects/material-changer">https://minecraft.curseforge.com/projects/material-changer</a>
- 1.12 Hit with Axe- allows Ctweak to set block breaking when an axe is used on blocks. (can break into any blocks/items) <a href="https://minecraft.curseforge.com/projects/hitwithaxe">https://minecraft.curseforge.com/projects/hitwithaxe</a>
- 1.12 Rocky core- CTweaker support for anvil/merchent trading <a href="https://minecraft.curseforge.com/projects/rocky-core">https://minecraft.curseforge.com/projects/rocky-core</a>
- 1.12 Artisians worktables- adds different types(/tiers) of crafting table for pack devs to customise recipes. <a href="https://minecraft.curseforge.com/projects/artisan-worktables">https://minecraft.curseforge.com/projects/artisan-worktables</a>
- 1.12 Thaumcraft Research Loader- can tinker with TC research, <a href="https://minecraft.curseforge.com/projects/thaumcraft-research-loader">https://minecraft.curseforge.com/projects/thaumcraft-research-loader</a>
- 1.12 CraftTweakers tools- adds useful functions to CraftTweaker <a href="https://minecraft.curseforge.com/projects/crafttweaker-utils">https://minecraft.curseforge.com/projects/crafttweaker-utils</a>
- 1.12 Vanishment Point- adds a block that vanished based on time of day. <a href="https://minecraft.curseforge.com/projects/vanishment-point">https://minecraft.curseforge.com/projects/vanishment-point</a>
- 1.12 Worldgen indicators- [CraftTweaker] add surface generation to worldgen when certain blocks generate below ground. <a href="https://minecraft.curseforge.com/projects/worldgen-indicators">https://minecraft.curseforge.com/projects/worldgen-indicators</a>
- 1.10/1.11/1.12Custom backgrounds custom background for loading screen <a href="https://minecraft.curseforge.com/projects/custom-backgrounds">https://minecraft.curseforge.com/projects/custom-backgrounds</a>

Default options- set default options/controls <a href="https://minecraft.curseforge.com/projects/default-options">https://minecraft.curseforge.com/projects/default-options</a>

Ingame info XML- configure whats on the F3 screen <a href="https://minecraft.curseforge.com/projects/ingame-info-xml">https://minecraft.curseforge.com/projects/ingame-info-xml</a> ND5U- prevents mods from displaying f3 screen stuff <a href="https://minecraft.curseforge.com/projects/no-debug-5-you">https://minecraft.curseforge.com/projects/no-debug-5-you</a>

1.12/1.11/1.10 Contenttweaker- ability to add new blocks/items/liquids/foods <a href="https://minecraft.curseforge.com/projects/contenttweaker">https://minecraft.curseforge.com/projects/contenttweaker</a>
1.12 Mob drops your way- customise mob drops <a href="https://minecraft.curseforge.com/projects/mob-drops">https://minecraft.curseforge.com/projects/mob-drops</a>

- 1.10/1.11/.112 Lingering Loot- control item despawn times <a href="https://minecraft.curseforge.com/projects/lingering-loot">https://minecraft.curseforge.com/projects/lingering-loot</a>
- 1.10 Custom Tweaks- adds a few custom tweaks to the game <a href="https://minecraft.curseforge.com/projects/custom-tweaks">https://minecraft.curseforge.com/projects/custom-tweaks</a>
- 1.12 Dropt- fully customise bock drops <a href="https://minecraft.curseforge.com/projects/dropt">https://minecraft.curseforge.com/projects/dropt</a>
- 1.10 Block Properties Tweaker- change properites of any block <a href="https://minecraft.curseforge.com/projects/block-properties-tweaker">https://minecraft.curseforge.com/projects/block-properties-tweaker</a>
- 1.12 WG Block Replacement- replace worldgen blocks with another block -https://minecraft.curseforge.com/projects/wg-block-replacer

# **Interesting Mechanics**

Forestry peat- makes dirt as a byproduct; good for skyblocks?

Natura Respawn Obelisk- allows setting of player spawn without a bed Interesting Natura stuff to automate

Natura Fusewood- explosion when harvested Natura Bloodwood- grows upside down

## Thermal Expansion

Cobblegen machine can make granite/diorite ect, can be a progress gate if diorate ect were removed from worldgen.

Thermal Foundation

Config option for fire-resistant mobs to drop sulphur dust. This is a free mob drop that could be reworked into anything.

# Concepts/Ideas

Oil shale processing- burn in coking oven to get liquid oil. Inspired by GT6

A light source affected by gravity- falls with you as you quarry down.

'Dreaded Obsidian Gravel Psudobrookite' ...

Rongm[a]rio Today at 22:04

@phoephoe the latter sounds like a really good metal band name

## Mineral Notes

#### Pure Ores/Native ores

2x ore yield

Consists of a pure element

Byproducts are just a material bonus- no unique materials

Copper ore, Tin ore, Gold ore etc

#### Oxide Ores

2x ore yield

Consists of a single element oxide compound

Byproducts are closely related to the material in question

Cassiterite, Cuprite, Paramonroseite etc

#### Mineral Ores

2-5x ore yield. (Can be higher such as for Redstone)

Consists of simple and more complex multi-element compounds

Byproducts are related to the whole ore deposit in question

Source of unique 'byproduct only' materials/elements

Limonite, Malachite, Uytenbogaardite etc...

## Mineral Names

Aether (Betweenlands/Twilight Forest etc...)

#### Named after mythical creatures

Pegasite, Grithium/Griffium, Phoeniite, Unicite, Threstralite, Wyvite

## Nether

Hadiite (Hades), Lucifite (Lucifer), Demonium (Demon), Cerberite (Cerberus), Tartarite (Tartarus).

Consider latin based names from fire (Ignisium), fear/torment/torture etc Consider the 7 princes and corresponding sins- could use latin base for the sins? Generally Sulphur based minerals, could also include Brimstone as a rich source of Sulphur?

#### The End

Begins with X, to match Endstone being renamed to Xenolith Xifengite, Xilingolite etc...

Xyxite/Xyxaciite, Xyxacium, Xycorite/Xyacorite,

#### Other ideas

Regisite, Lannisite Iraeite, Umbraite (a light/dark ore pairing)

Malachite, Siderite (Iron-Carbonate), Azurite (high grade ore), Produces Copper-Carbonate and Iron-Carbonate byproduct.

# Medieval modpack ideas

Could go for (the) Engineer's Guild
Use old style/alternative names for various chemicals/minerals etc
Sulphur= Brimstone
Tungsten= Wolfram (alt)

Nitric Acid= Aqua Fortis (//Spirit of Niter)
Sulphuric Acid= Oil of Vitriol

Create being the main tech mod, everything else is magic.

Railcraft could also be tweaked to fit- use perpetuum locomotive as an upgrade to stock minecarts and tracks.

Redstone(/Signalum) + Silver/Gold/Platinum(/Mithril?) can produce a 'magnetic impulse' which can drive iron components. (needs some old-timey way of explaining this in the lore book; lodestone driver??- Lodestone Motuus could be a component name?)

Similar ore-processing chain to BS&G

Hot ingots cooked alchemically, by adding in blaze powder etc and then cooling with cryotheum gel.

#### Metals/Minerals

Will need to nerf ore-processing into nuggets instead of ingots

Consider not being able to directly smelt ore blocks?

Consider not having pure metal ores in the ground? (can be made via magic though)

Gold/Silver/Platinum used for Redstone contraptions

Copper used for Brass/Bronze components

Iron (/Steel) used for bulk of heavy lifting. Lead used for Leadstone (Lead+Redstone Alloy)?? Need a use for Nickel...

Worldgen- all ores generate as impure mineral ores.

## "Reactor" mechanic/idea

Ok, as a rough idea- the reactor is split into 3 sections; each with their own minigame The core- passive shielding/containment. Shield material dictates the durability and maximum temperature.

The ring- active cooling. Keep this filled with coolant. This is also where the reactor "output" goes. This output must have somewhere to go.

The stabalisers- balancing game. Both stabalisers must be identical, and have identical amounts of fluid/items inside them.

Reactor output could be raw energy (Eu/Rf), steam, plasma, or something crazy like a laser/deathray. (used to heat a "boiler").



The stabilisers function as fuel input to control the reactor.

They'll push fuel into the reactor proportional to the amount of power fed to them.

Fuel can either be a liquid "naquadah solution" or naquadah dust+ a liquid consumable

The core itself houses the 'reaction'

This will 'burn' fuel proportional to the fuel level in the core. (say uses 0.5% of its fuel each second)- producing an exponential tail off. (should require a min amount?)

This produces power proportional to the fuel level squared.

Heat level is proportional to the fuel level cubed.

Finally the ring.

This continuously consumes coolant- proportional to heat level (+ power output?)

Power output; if its not raw 'energy' would need an input-unless the coolant has a double use?

## In terms of reactor failures;

The core (overheat, or loss of shielding)- omnidirectional damage. Destroys the entire reactor. The ring (running out of coolant, no space for output)- a ring of damage in the same vertical plane. Destroys the ring, leaving the core and stabilisers.

The stabilisers (imbalance, or loss of fluid input)- 2 cones of damage propagating away from the reactor [along the axis of the stabalisers]. Destroys the stabalisers, leaving the ring and core.

# Mod redesign ideas

#### Redstone Flux

Rebrand as a magical energy system

- A redstone pulse provides a chunk of energy- enough to move minecarts or drive a piston.
- Rf is a high frequency signal- allowing a much higher transmission of power, while the pulse length is too short to interact with the world.

#### Railcraft

Aim to get more players into using trains;

- Make trains free to move stuff- since powered rails make minecarts free to move.
  - Add recipe for perpetuum locomotive
  - Rework electric loco as 'Redstone Locomotive'
    - Use Admin Charge Feeder ("Red Signal Driver") as power source.
    - Remove charge to Rf/Eu power conversion if present
    - [lore] Uses intense red signal from special rails to drive itself forward.

#### Thermal Expansion

Rework as a magic/magitech mod

- Machine recipes involve infusion crafting and alchemical components.
  - Consider zombie brains and golem parts too
- Rename a few machines/upgrades as needed

#### Mod ideas

## [name required]

- Adds cursed earth style blocks to Thermal Suite
- Adds in 3 elemental slimes; Rock Block, Ice Berg, and Thunder Clap (same as Vanilla's Magma Cube)

#### Create More

- Adds more functionality to Create mod
- Basin can be used on its own without press or mixer above
- Adds Blizz Chiller as opposite to Blaze Burner
- Add more heat options to basin, gentle (fire), chill (ice), freeze/cryogenic (blizz chiller)

# Ender Inventory

- Ender chest that directly accesses your personal inventory
- Binds to the first player to open it.
  - Useful for automation/mining trips- such as auto refilling torches/food/tools while taking ore back to base to be processed
- Security
  - About the same as a wooden chest
  - Can be accessed by anything interacting with it
  - Remembers player name, and records its location- resets itself if moved to a different location/dimension, empty when player is offline.
  - The owner can place bricks in individual slots to block them.

#### GeoThermal

- Guild of Engineers style ore gen for Thermal suite.
- Adds in Gregtech inspired processing

## Pearlescent Building Stone

Stone with a gentle rainbow gradient like the rainbow leaves from Twilight Forest

#### Thaumic Defence

- Arcane bore can be upgraded with attack wands/foci
- Golem can sit on the back- increase range and accuracy.
  - Consider upgrade to 4 barrelled variant
- Some kind of anti-grav effect to bring down flying players/mobs?
  - Could have 'thrust' and 'float' mobs
  - Thrust mobs (blaze) drop like a stone and take fall damage
  - Float mobs (ghast) gently drift down

- Also could use fireworks as a missile launcher
- Consider option for manual aiming
  - Consider achievement for launching a rocket at the moon; "Thaumic Space Programme"
- Could use brass and gunpowder to make more traditional bullets- with lead nuggets for the projectile (lead is fairly useless, brass is recoverable via empty shell casings)
  - Use of alchemy to enhance the ammo for various effects; armour pierce, fire, freeze, explosive (no block destruction), knockback
- Research notes could show an exploded schematic for building the turrets.

## Thaumonuclear Overhaul

Magical integration for Nuclearcraft.

- Consider fuels from Blood, Sweat and Gears (TC, Bot, Aby)
- Dummy fuel with 0 heat for daisy chaining coolers
- Magical means of dealing with radiation and rad sickness
- Magical integrations
  - Recharge TC primal pearls with neutron flux
  - o TC void tears drain radioactivity from chunks. This is probably a bad idea.
  - Botania's Terrestrial Agglomeration Alter can be used for neutron irradiation with blocks of Cf252
    - (Achivement: Look mum no reactor!!)
  - o Botania- the elves do not appreciate being given radioactive materials.
  - Blood Magic- using blood in a molten salt reactor
  - Astral Sorcery- related to fusion power (fusion is what powers a star)

## **BS&G Notes**

Defining features

Unique custom ore-gen/world-gen

Big deposits of ore spread across biomes and dimensions

Practical use of explosives.

Overly complex multi-mod ore processing chain

Highest yield routes require material byproducts from less efficient routes; ie some ores must be sacrificed for a better yield on others.

No buckets.

Not because they suck, because the emergent gameplay is better

No minimaps/WALIA/crap on the HUD

Because they suck

Complex other processing chains

Such as oil, ores, and nuclear stuff

Mulit-mod process that combines magic and tech

## Cut out microcrafting

Nested crafting recipes are boring- keep it 2 layers or less. No more than 3 if physically possible.

Minimal tooling in the crafting grid- this gets too annoying

Use machines for shaping components

Same principle for those stupid oversized crafting grids. There is nothing fun about putting items into a grid.

## Engineered solutions

Problems are resolved through design and construction- rather than magic/power armour etc

Build walls/roof to keep monsters out, design of automation etc...

Mob farms are also cool due to the scale of them

#### Renewable resources

Each farming mechanic/resource type should be a unique mechanic

Custom spawner blocks for specific mobs- traditional style of building a mob grinder

Food types encourage different styles of farming, rather than 50 shades of wheat.

#### Creative mode items

Only if they provide unlimited functionality not unlimited resources

By example: RC perpetuum locomotive is in, Storage Drawers creative vending is out.

## Features to consider

#### Buildcraft

• Pipe wires etc require P:R Illuminar dust?

#### Explosives + Mining

- Regular ores can't be directly smelted, and must be broken down beforehand.
- Early on this will require an explosion (of some kind) to shatter the block until a crusher/grinder can be created and powered.
- 'Small ores' which drop less material can provide early game sources.
- A hammer could be a low yield alternative to slowly smash individual blocks?

## Forestry

Backpacks require hemp fabric

## Gregtech

- Consider adding rubber hose (gas proof wooden pipe)
- Consider fibre-reinforced rubber hose (as above, higher throughput)
  - o Good use for hemp fibre
  - Could be crudely made in alloy smelter?
- Consider super-laminar pipes (magically enhanced laminar fluid flow)
- Consider MIxC cable; magically insulated [material] copper cable
  - Find out what MICC stands for with MICC cable
  - Is superconductive?

- Consider the Ct addons to make custom machines
  - Fluid cooler for reprocessing fluids (transformer/reactor coolant etc)
  - Thermoalchemical Generator (power from Alchemical reactions)
  - Mana Generator (consumes mana from items)
  - Radioisotope Generator- RTG genny for Gtech power. Consumes isotopes instead of being an infinite power source.
  - o [Generators are a tier or two above the current tier; LV genny requires HV tech]

## Immersive Engineering

Using alchemy/magic mods to make ImEng bullets for revolver.

## **Logistics Pipes**

Turn off or bypass the research mechanic.

- Looking at LV (or MV?) era tech
- Could be a sink for brass (upgrade to P:R tubes)
- Require P:R Illuminar dust to craft- colour code accordingly.
- Basic pipe recipe also includes IE conduit spool for power dist?

#### Materials

• Replace Red Alloy with Leadstone (Lead-Redstone Alloy)

#### Nuclearcraft

- Using a nuclear reactor to recharge primordial pearls?
- NeS 252 fuel- allows burning of Nether Stars for power
- NC machine upgrades could be magic based?

## Project Red

- Tubes are brass?
- Use of hemp fabric + forestry backpacks to make bags
  - Consider them as magical bags of holding?

## brachy84Yesterday at 08:20

## have something like this:

```
if(mod != entryMod) {
    ore.remove(entry);
    utils.removeAndHide(entry);
}
```