



No Prep/ Low Prep Minecraft Education Ideas

Teachers and students can access Minecraft Education on laptops, desktops and Chromebooks. Use the [Individual Build World](#) with [24 build spaces](#) or [40 build spaces](#) so everyone works in one world, but has their own build space. The teacher hosts one world for everyone. Find more lessons on code.org/minecraft.

- Math

- **Volume** - build 2-3 structures with the same volume
- **Area vs perimeter** - build a structure, calculate the area and the perimeter, use a board to explain both
- **Shapes** - create shapes they are learning about
- **Regular and irregular polygons** - build any shapes being learned about (challenge - some shapes are hard to create out of blocks)
- **Numbers** - represent numbers they are learning about (1-10, teens, factors or 5 or 10, etc)
- **Fractions** - represent fractions with different materials, equivalent fractions
- **Graphing** - graph results using blocks
- **Coordinate grids** - plotting points on a coordinate
- **Cost of build** - limit the amount of money students can use (each blocks costs X dollars), or have students assign a cost to materials and calculate the total cost of their build
- **Patterns** - build using a repeating pattern

- Reading/Language Arts

- **Recreate and event** - Build a major event from the story
- **Setting** - Build the setting from a story
- **Plot Roller Coaster** - build the rise and fall of events in a story
- **Letters/words** - create letters or words with blocks
- **Story artifacts** - create items from the story - what would they own, what was important to the plot?
- **Timeline/biography** - use blocks and boards to retell the chronology of events.
- **Story prediction** - build something to predict the events of a story
- **Alternate ending** - build a different ending for a story
- **Short story** - design the settings and use boards to tell your story
- **Book cover** - design a book cover for our story
- **Pixel portraits** - create a portrait of a famous person

- Science

- **Landforms** - students build at least two landforms they learned about
- **Habitat** - place the blocks appropriate for that environment and spawn the mobs that belong
- **Atoms/Molecules** - build the protons, neutrons and electrons in an atom or the structure of a molecule
- **Recycle** - design ways to reduce, reuse, recycle
- **Diagram** - whatever you are learning about, students build it
- **Limited resources** - students may only use a predetermined number of blocks or materials and must figure out how to complete a challenge
- **Circuits** - students build functional circuits with redstone



- **Alternative fuel** - design an alternative fuel source, use a board to explain it
- **Pollination** - build a garden, use boards to explain the pollination process, don't forget the bees!

- **Social Studies**
 - **Community** - build a town, building, or other structure from your community
 - **Historical structure/figure** - recreate a historic place or person through a build
 - **Current events structure/figure** - recreate a place or person currently in the news through a build
 - **Inventions** - recreate a famous invention, use a board to explain what it does or how it works
 - **Pixel portraits** - create a portrait of a famous person

- **Art**
 - **You're the artist** - recreate famous works of art
 - **Architect** - recreate a famous structure (challenge - build it to scale)
 - **Pixel portraits** - create a portrait of a famous person, yourself or a family member

