

Objective

By the end of this lesson, Leela will be able to understand ratios and how they are used in Minecraft building projects.

Materials and Prep

- Minecraft game
- Computer or tablet with Minecraft installed
- Pen and paper
- Basic understanding of how to play Minecraft

Activities

- **Activity 1 - Ratio Exploration:** Leela will explore different structures in Minecraft and identify the ratios between various elements such as height, width, and depth.
- **Activity 2 - Building Challenge:** Leela will be given a building challenge where she has to use specific ratios to create a structure, such as a house or a tower.
- **Activity 3 - Pixel Art:** Leela will create pixel art in Minecraft using ratios to determine the size and proportions of the artwork.

Talking Points

- **Ratios are used to compare quantities:** "Ratios help us compare the sizes of different parts of a structure in Minecraft."
- **Ratio example:** "If a house in Minecraft is 10 blocks wide and 5 blocks tall, the ratio of width to height is 10:5, which simplifies to 2:1."
- **Using ratios in building:** "When building in Minecraft, ratios help us maintain proportions and create structures that look balanced and realistic."
- **Pixel art and ratios:** "In pixel art, ratios are used to determine the size of each pixel and how they come together to create a larger image."