Blueprint Builders: Designing Your Minecraft Dream House

Materials Needed:

- Access to Minecraft (Creative Mode is best for this lesson)
- Grid paper (graph paper)
- Pencil and eraser
- Crayons or colored pencils
- **Optional:** Building blocks like LEGOs or wooden blocks for hands-on planning

Learning Objectives:

By the end of this lesson, you will be able to:

- Identify simple 2D shapes (square, rectangle) used in building.
- Create a simple floor plan (a blueprint) for a house on grid paper.
- Build a basic structure in Minecraft by following your own blueprint.

Lesson Plan

1. Introduction (5 minutes)

The Hook:

"Have you ever built a super cool house in Minecraft, but then wished you had planned it out a little better? Maybe you ran out of room for your bed, or you forgot to add windows! That happens to the best builders. Today, we're going to become real-life architects. Architects are people who design buildings. We'll learn their secret trick: making a special map called a 'blueprint' *before* we even start building in the game!"

Today's Goals:

"By the end of our lesson, you will be an official 'Blueprint Builder!' You'll be able to:

1. Spot the simple shapes that make up big buildings.
2. Draw a top-down map of your dream house on paper.
3. Build that house in Minecraft using your map as a guide!"

2. Body of the Lesson (20-25 minutes)

This part follows the 'I do, We do, You do' model to help you learn step-by-step.

Part 1: Shape Detectives (I do, We do)

- **I do (I'll show you):** "First, let's be 'Shape Detectives.' Architects use simple shapes to make buildings. In Minecraft, almost everything is a square block! But when we put them together, we

make bigger shapes. Watch me in Minecraft. I'm putting blocks together to make a long **rectangle** for a wall. Now I'm making a perfect **square** for a window opening. These flat shapes are the basic pieces of any building."

- **We do (Let's do it together):** "Now it's our turn to be detectives in our own room! Can we find a rectangle? (A door, a book, a window). How about a square? (A tile, a coaster). Great! Finding shapes is the first step to being an architect."

Part 2: Making a Blueprint (I do, We do)

- **I do (I'll show you):** "This is grid paper. Let's pretend each little square on the paper is one block in Minecraft. I'm going to draw a blueprint for a very simple one-room house. I'll draw a big rectangle for the outside walls. See how I'm just tracing the lines? Now, I need a door. I'll erase two squares on one wall. Inside, I'll draw a small square and write 'C' for 'Crafting Table' and two little rectangles side-by-side for a bed. This map is a blueprint! It shows what the house looks like from the top, as if we were a bird flying over it."

- **We do (Let's do it together):** "Let's plan one room together on your paper. What's the most important room? A bedroom! Okay, let's draw a big rectangle for the walls. Where should the door go? Let's erase a spot for it. Now, what two things should we put inside? A bed and a chest? Great! Let's draw the shapes for those inside our room."

Part 3: You're the Architect! (You do)

- **You do (Your turn!):** "Now it's your turn to be the master architect! On your own piece of grid paper, design your very own Minecraft dream house. Here are the rules for your design:

  1. It must have at least **two** different rooms (like a bedroom and a kitchen).
  2. You must show where the doors and windows will go.
  3. Label the rooms or draw the furniture inside (like a square for a furnace or a rectangle for a bed).

  You can use your colored pencils to color-code the different rooms to make your blueprint extra clear. Take your time and have fun designing!"

Formative Assessment (Quick Check-in):

While you work, I'll check in and ask: "Can you show me the rectangle shape you used for your living room? How many blocks long is that wall? Let's count the squares! Where will you enter your house?" This helps make sure you're on the right track.

Success looks like: A drawing on grid paper with at least two connected shapes for rooms, with openings for doors.

3. Conclusion & Application (15+ minutes)

Closure and Recap (5 minutes)

- **Show and Tell:** "Okay, Blueprint Builder, tell me about your amazing plan! What's your favorite room? What was the most fun part about drawing your blueprint?"

- **Reviewing What We Learned:** "We did something awesome today! We learned how to think like an architect. What were the big steps we followed?" (Guide the student to recall: 1. We found shapes, 2. We drew a blueprint, and 3. We are now ready to build!). "Why is making a plan like this helpful before you build in Minecraft?" (Possible answers: So you know how big to make it, so you don't forget rooms, so it looks organized).

Summative Assessment: The Big Build! (10+ minutes)

Now for the best part! It's time to bring your vision to life.

- **The Challenge:** Open up Minecraft in Creative Mode. Find a nice flat spot. Now, use your blueprint as your guide to build your dream house. Remember to count the squares on your paper to know how many blocks to place in the game!

- **How We Know You Succeeded:** You will have successfully learned today's lesson when you have built a house in Minecraft that matches the basic shape and room layout of the blueprint you designed. The decorations can be whatever you want!

Differentiation (Ways to make it easier or more challenging)

- **For Extra Support (Scaffolding):**
    - Start by building with LEGOs or blocks first to make a 3D model of the plan before drawing it.
    - Use a pre-drawn house outline and just have the student draw the walls and furniture inside.
    - Start with a simple one-room-shack challenge before trying a multi-room house.
- **For an Extra Challenge (Extension):**
    - Design and build a two-story house, which means you'll need to draw a separate blueprint for each floor!
    - After drawing, calculate the area of each room by counting the total number of squares inside it.
    - Add outdoor features to your plan, like a fence, a farm, or a swimming pool, and then build those too.