

## Lesson 3: Building, Testing, and Improving Your Game Level

### Grade Level:

2nd – 5th Grade

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### Overview:

In this lesson, students move from paper planning to digital building using the **Game Builder in Bloxels**. They begin by renaming their game, changing their default hero, and recreating their level using **Block Mode only**. Students are expected to refer closely to their original **grid paper plan**, reinforcing the importance of intentional design.

After building, students will **playtest their game** to see what does or doesn't work, then complete a short reflection to describe one issue they noticed and how they improved it. To expand their thinking, students will also participate in a **mini peer review session**, where they observe at least one or two other groups' games, and optionally make changes based on new ideas or feedback.

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### Objectives:

- Students will build their level using Block Mode and reference their paper plan.
  - Students will test and revise their level through playtesting and peer observations.
  - Students will reflect on what didn't work in their design and how they improved it.
  - Students will learn from others by exploring different design choices.
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### Materials:

- Devices with Bloxels app
- Completed grid paper plans from Lesson 2

- Student Reflection Sheet or journal page
  - Optional: Sticky notes or discussion cards for peer feedback
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## Procedure:

### 1. Modeling & Setup (10–15 minutes):

- Demonstrate how to open the **Game Builder**, rename the game, and change the hero character to the one they selected.
- Explain that using the **default hero** can affect how power-up blocks appear.
- Model how to start building in **Block Mode**, referring to a paper plan.
- Show how to **test** the level while building.

### 2. Student Building Time (20–25 minutes):

- Students work in pairs to build their level, using their **grid paper as a guide**.
- Remind them to include all block types and **test frequently** to spot problems like tight spaces, overpowered enemies, or broken paths.

### 3. Reflection (5–10 minutes):

- Students complete a short reflection:
  - *What didn't work?*
  - *How did you fix it?*
  - *How did your paper plan help you?*

### 4. Peer Observation & Optional Revisions (10–15 minutes):

- Students meet with **1–2 other groups** to observe or playtest each other's games.
- Encourage discussion:

- *What stood out?*
- *What did they do differently than you?*
- If time allows, students may return to their game to make an improvement based on what they saw or learned from others.

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## Differentiation:

	2nd–3rd Grade	4th–5th Grade
<b>Support</b>	Limit number of observed groups. Provide reflection sentence stems. Focus peer talks on "one cool thing" and "one thing you learned."	Encourage structured peer feedback, and clear explanation of improvements. Allow for questions and critique of other projects.

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## Assessment:

- Observe students referencing and matching their grid plans to the digital level.
  - Review reflections for awareness of problems and how they were addressed.
  - Optional: Use a checklist or exit question after peer walkthroughs:
    - *"What's one idea you got from someone else's level?"*
    - *"Did you make any improvements based on that?"*
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## Student Reflection Prompts:

- *Something that didn't work in my level was...*
- *I fixed it by...*
- *I learned this from my paper plan: \_\_\_\_\_*
- *One thing I saw in another group's level that I liked was...*

- *I decided to change \_\_\_\_\_ in my game after seeing theirs.*