# **Core Skills Analysis**

#### **Mathematics**

- Ella practiced arithmetic skills by calculating the cost of different building materials and furniture.
- She applied spatial reasoning while designing the layout of the houses, understanding dimensions and area.
- Ella developed budgeting skills by managing her in-game finances to purchase items effectively.
- She learned to estimate quantities of materials needed based on her house design.

## **Art and Design**

- Ella explored color theory and design principles while selecting aesthetics for her houses.
- She expressed creativity through custom decorations and unique architectural choices.
- Ella analyzed symmetry and balance by arranging furniture and room layouts.
- She gained an understanding of visual balance by ensuring that the external and internal designs complement each other.

## **Computer Science**

- Ella enhanced her critical thinking and problem-solving skills while navigating the game interface.
- She learned about architectural concepts and basic programming logic through the game's building mechanics.
- Ella practiced decision-making skills when choosing styles and features that match her vision.
- She gained digital literacy by using the game to communicate her ideas visually.

### **Tips**

To further enhance Ella's learning experience, consider encouraging her to document her building processes in a journal. She can sketch designs before building them and record the materials used. Additionally, introducing her to online tutorials or forums could enhance her understanding of advanced building techniques. Organizing group building projects with friends can help her develop teamwork skills, and you might also explore challenges within the game that focus on specific architectural styles to deepen her engagement.

#### **Book Recommendations**

- <u>Minecraft: The Complete Handbook</u> by Mojang AB: This handbook covers various building techniques, guiding players to improve their skills in Minecraft.
- <u>Build Your Own Minecraft Adventure</u> by Megan Miller: A book that prompts readers to create unique scenarios and structures within the world of Minecraft.
- <u>The Art of Minecraft</u> by Lizzie Preedy: An insightful guide on the creative aspects of Minecraft, focusing on design concepts and artistic expression.

### **Learning Standards**

- MA.5.AR.1: Apply concepts of multiplication and division to solve problems.
- VA.3.C.1: Use organizational structures in the creative process to create artworks.
- CS.3.CS.1: Demonstrate the ability to decompose problems into smaller parts.