# **Core Skills Analysis**

#### **Mathematics**

- Liam practiced basic arithmetic by calculating the costs of building upgrades and managing ingame currency.
- He developed an understanding of resource allocation and budgeting through strategizing on how to maximize profits within the game.
- The game's incremental costing system helped Liam grasp concepts of multiplication and addition as resources and expenses increased.
- Liam experienced practical problem-solving by predicting the outcomes of investments and balancing risk and reward.

### **Economics**

- Liam was introduced to the principles of supply and demand as he managed his tower's capacity to attract more customers.
- He learned about entrepreneurship by operating a virtual business, making decisions about expansion and marketing within the game.
- The concept of profit and loss became clearer to Liam as he tracked revenues against expenditures to improve his tower's success.
- Liam gained an understanding of competitive strategy by observing how his tower performed relative to others' towers.

### **Technology and Digital Literacy**

- Playing Tower Tycoon enhanced Liam's digital navigation skills within the Roblox platform.
- He learned to make strategic decisions based on real-time data and game feedback, promoting critical thinking in a digital environment.
- Liam became familiar with the functionalities of a simulation game, including resource management tools and interfaces.
- Interaction with game mechanics improved his understanding of cause and effect in a virtual digital system.

### **Tips**

To deepen Liam's understanding, parents and teachers could encourage him to document his strategies and outcomes in a journal, helping to reflect on successful and unsuccessful decisions. They might challenge Liam to set specific goals within the game to develop planning skills or introduce basic spreadsheet use to track his finances in the game, linking digital literacy with math. Exploring similar business simulation games, such as RollerCoaster Tycoon or SimCity, could provide varied perspectives on economic principles. Additionally, incorporating offline activities like designing a simple business model or experimenting with budgeting real or play money can enhance transfer of skills learned digitally to real life.

### **Book Recommendations**

- <u>The Lemonade War</u> by Jacqueline Davies: A story about two siblings who compete in a lemonade stand business, teaching principles of entrepreneurship, pricing, and competition.
- <u>Economics for Kids: How to Understand Money and Business</u> by Paul Mason: An engaging introduction to basic economic concepts tailored for children, including money management and simple business ideas.
- <u>Coding Games in Roblox Studio: A Guide to Building Your Own Games</u> by Zander Brumbaugh: This book introduces children to the basics of game development within Roblox, enhancing understanding of digital design and logic.

Unlocking Learning Through Roblox Tower Tycoon: Math, Economics, and Digital Skills for Kids / Subject Explorer / LearningCorner.co

## **Learning Standards**

- CCSS.MATH.CONTENT.4.OA.A.3 Solve multistep word problems posed with whole numbers using the four operations
- CCSS.MATH.CONTENT.5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm
- CCSS.ELA-LITERACY.RI.5.7 Draw on information from multiple print or digital sources to locate an answer
- CCSS.ELA-LITERACY.W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic