# **Core Skills Analysis**

## **Critical Thinking**

- The Trash panda game encourages critical thinking as students need to strategize and plan their moves to collect the most trash cans.
- Players have to evaluate risks and rewards when deciding which actions to take, fostering critical thinking skills.
- The game challenges students to think creatively to outsmart their opponents, promoting innovative problem-solving abilities.
- Through gameplay, students enhance their decision-making skills by considering multiple possibilities and consequences.

#### **Mathematics**

- Students practice basic arithmetic skills such as addition and subtraction while counting their collected trash cans in the game.
- The game involves probability calculations as players assess the chances of drawing certain cards or obtaining specific items.
- Players engage in mental math to calculate scores and determine strategies based on numerical values, improving their math proficiency.
- Trash panda game introduces simple mathematical concepts like probability and chance through practical application in a fun setting.

### **Tips**

To enhance learning from the Trash panda game, consider creating custom variations or challenges to deepen critical thinking skills. Encourage players to think outside the box by introducing new rules or constraints that require adaptability and strategic planning. Additionally, incorporate discussions after gameplay sessions to reflect on decisions made and explore different approaches for future games.

#### **Book Recommendations**

- <u>Math Games for Number and Operations</u> by Jennifer Bay-Williams: This book offers a collection of math games and activities that promote number sense and operations skills, perfect for reinforcing concepts learned through games like Trash panda.
- <u>Critical Thinking: An Introduction</u> by Alec Fisher: A comprehensive guide to critical thinking, this book provides strategies and principles for developing critical thinking abilities, ideal for students looking to enhance their skills through activities like Trash panda game.
- <u>STEM Play: Integrating Inquiry into Learning Centers</u> by Deirdre Englehart: Exploring STEM concepts through play, this book offers hands-on activities and games that encourage critical thinking and problem-solving, aligning well with the educational benefits of games like Trash panda.