# **Core Skills Analysis**

#### **Science**

- Developed an understanding of basic physics through the use of gravity and movement mechanics in the game.
- Learned about ecosystems by exploring different planets and understanding the diverse environments.
- Gained knowledge of chemistry by discovering and utilizing different materials for crafting resources.
- Engaged in problem-solving related to environmental challenges faced on each planet.

#### **Mathematics**

- Practiced spatial awareness and geometry by navigating and building structures in a threedimensional space.
- Applied counting skills in resource gathering and inventory management.
- Used basic addition and subtraction when crafting items and managing resources.
- Developed critical thinking and logical reasoning by solving puzzles and challenges presented in the game.

### **Collaboration Skills**

- Improved teamwork abilities by collaborating with friends in multiplayer mode to explore and build together.
- Learned about communication and negotiation while planning strategies for missions.
- Gained conflict resolution skills when addressing challenges faced during gameplay.
- Encouraged empathy and understanding of others' perspectives when sharing responsibilities.

## **Tips**

Encouraging the student to explore more about space and planetary science through external resources can deepen their understanding of real-world science concepts. Additionally, suggesting to undertake projects or mini-experiments based on the materials discovered in Astroneer will enhance their hands-on learning experience.

#### **Book Recommendations**

- <u>The Wild Robot</u> by Peter Brown: A story about a robot who discovers nature and learns to adapt to it, exploring themes of survival and ecology.
- <u>Astroturf: A Space Adventure</u> by Megan McDonald: A fun and engaging read that takes kids on a thrilling adventure through space, using scientific concepts related to astronomy.
- Math Curse by Jon Scieszka: A humorous story where math shows up in everyday life, helping kids see the fun and importance of mathematics.