

## Core Skills Analysis

### Math

- The child applied mathematical concepts by calculating the weight of the jet and determining if it was within the takeoff limits.
- They utilized basic arithmetic skills to assess the engine power required for lift-off based on the weight of the jet.
- The child experimented with different engine configurations, which involved understanding ratios and proportions to optimize performance.
- They grasped the concept of trajectory by adjusting the angles and speeds for the jet to reach higher altitudes.

### Science

- The child explored the principles of physics by testing how different engine powers affected the jet's acceleration and velocity.
- They engaged in scientific inquiry by hypothesizing how weight distribution could impact the jet's stability during flight.
- Through trial and error, the child learned about aerodynamics and drag forces while trying to make the jet reach space.
- They gained a basic understanding of rocket science as they worked on achieving the optimal thrust-to-weight ratio for space travel.

### Tips

Encourage the child to further enhance their learning by exploring real-life examples of aerodynamics and space travel. They could conduct simple experiments using household items to understand concepts like lift, drag, and propulsion. Additionally, introducing them to educational space documentaries or visiting a planetarium can provide valuable insights into space exploration and physics principles.

### Book Recommendations

- [The Ultimate Book of Space](#) by Anne-Sophie Baumann: An interactive book filled with fascinating facts about space exploration, rockets, and the solar system, perfect for young space enthusiasts.
- [Rosie Revere, Engineer](#) by Andrea Beaty: A storybook that inspires children to embrace their creativity and problem-solving skills through the exciting journey of a young aspiring engineer.
- [Math Curse](#) by Jon Scieszka: A humorous book that integrates math concepts into everyday situations, engaging young readers in a fun and entertaining learning experience.