

Core Skills Analysis

Physics (Air Resistance and Gravity)

- Fynn learned about gravity by observing how objects fall to the ground, understanding that heavier objects fall faster.
- She recognized the concept of air resistance when comparing how parachutes made of different materials affected the fall rate.
- Through experimentation, she developed a basic understanding of cause and effect as she noted the differences in fall rates between the parachute and the free-falling man.
- Fynn engaged in hands-on learning, which allowed her to visualize and physically experience these scientific concepts.

Engineering and Design

- Fynn demonstrated creativity by designing and constructing parachutes using available materials.
- She appreciated the importance of testing her designs, a fundamental principle in engineering, through her observations of the parachutes and the little men.
- By discussing the outcomes of her experiment, Fynn engaged in critical thinking and problem-solving, reflecting on what worked and what didn't.
- The activity encouraged Fynn to think like an engineer by exploring material properties and their effects on performance.

Tips

To further explore these concepts, Fynn could try different shapes of parachutes, such as circular or triangular, to investigate how design affects air resistance. Additionally, she could experiment with varying the weight of the payloads used with each parachute, enabling a deeper understanding of how weight impacts falling speed and the effect of air resistance.

Book Recommendations

- [Look, I'm an Engineer](#) by David G. Derrick: This book introduces young readers to engineering concepts through fun, relatable scenarios of children participating in engineering projects.
- [The Most Magnificent Thing](#) by Ashley Spires: This story follows a little girl who sets out to create the most magnificent thing, highlighting the engineering design process and problem-solving skills.
- [What Do You Do With an Idea?](#) by Kobi Yamada: This charming tale inspires creativity and innovation, encouraging children to nurture their ideas and explore the world around them.