Science

- The child learned about gravity and its effects on the movement of objects as they observed the Lego figure sliding down the zipline.
- They gained an understanding of force and motion as they pulled the zipline and observed how it propelled the Lego figure forward.
- They explored the concept of engineering and design as they built and adjusted the zipline structure to ensure a smooth and successful ride.
- They developed critical thinking skills as they troubleshooted and problem-solved any issues that arose during the construction and testing of the Lego zipline.

In order to further develop their understanding of these concepts, the child could experiment with different materials for the zipline, such as string or yarn, and observe how it affects the movement of the Lego figure. They could also explore different angles and heights for the zipline to see how it impacts the speed and trajectory of the figure.

Book Recommendations

- <u>LEGO Chain Reactions: Make Amazing Moving Machines</u> by Pat Murphy: This book provides step-by-step instructions for building various moving machines using Legos, including a zipline.
- <u>STEM Starters for Kids Engineering Activity Book</u> by Jenny Jacoby: This book offers hands-on activities and projects to introduce kids to engineering principles, including building and testing a zipline.
- <u>How to Build a LEGO Tree House: 75 Easy Ways to Build for Hours of Fun</u> by Peter Dollard: Although not specifically about ziplines, this book provides inspiration and building ideas for Lego structures, encouraging creativity and problem-solving skills.

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