

Core Skills Analysis

Science

- The student learned about potential and kinetic energy as they observed how these concepts are applied in the design of roller coasters.
- They gained an understanding of the role of friction in controlling the speed and motion of the roller coaster.
- The student explored the effects of gravity on the movement of objects on the roller coaster track.
- Through the activity, they were able to apply principles of physics to real-world engineering designs.

Tips

To further enhance the learning experience from the roller coaster activity, encourage the student to research and explore different types of roller coasters and their unique design features. They can also experiment with building miniature roller coaster models using household materials to grasp the principles of physics involved in more depth. Additionally, watching documentaries or videos on roller coaster engineering can provide valuable insights into the technology behind these thrilling amusement rides.

Book Recommendations

- [Roller Coaster](#) by Marla Frazee: A captivating children's book that takes readers on an exciting roller coaster journey while subtly introducing physics concepts.
- [How Roller Coasters Work](#) by Nicky Flowers: An informative book that delves into the science behind roller coaster design, making it an engaging read for young enthusiasts.
- [Roller Coaster Tycoon: Bumbly Beach](#) by David Anaxagoras: A novel that combines fiction with roller coaster adventures, perfect for young readers looking for an entertaining yet educational story.