Objective

By the end of this lesson, you will be able to understand and apply basic math concepts related to roller coasters.

Materials and Prep

- Paper
- Pencil or pen

No specific prior knowledge is required for this lesson, just come with an open mind and willingness to learn!

Activities

1. Create Your Own Roller Coaster: Draw a roller coaster on a piece of paper. Make sure to include loops, twists, and hills. Label the different sections of the roller coaster.
2. Calculate the Speed: Imagine your roller coaster takes 10 seconds to complete a full ride. Measure the distance of the track using a ruler, then calculate the speed of the roller coaster in meters per second.
3. Count the Loops: Count the number of loops in your roller coaster drawing. Write down the total number of loops.
4. Estimate the Height: Estimate the height of the highest hill in your roller coaster drawing. Use your ruler to measure the height and compare it to your estimation.
5. Calculate the Total Distance: Measure the entire length of your roller coaster track. Add up the distances of each section to find the total distance traveled by the roller coaster.

Talking Points

- "A roller coaster is a thrilling ride that goes up and down, twists, and sometimes even goes upside down!"
- "When we draw our own roller coasters, we can use our imagination to make them as exciting as we want."
- "Speed is how fast something is moving. We can calculate the speed of a roller coaster by dividing the distance it travels by the time it takes."
- "Loops are a fun part of roller coasters. They make us feel like we're upside down!"
- "Estimating means making a guess based on what we think is true. We can estimate the height of the highest hill in our roller coaster."
- "To find the total distance of our roller coaster, we need to measure each section of the track and add them all together."