

# Bumper Coaster with Hills!

No alligators,  
guaranteed!

Name: \_\_\_\_\_

**mystery science**

Why is the first hill of a roller coaster always the highest?

**Set up your experiments like this.** (Each experiment uses 2 marbles. ● ● The Hill Marble always starts at the top. The Bumper Marble is in a different place each time.)

Do each experiment 4 times (do 4 trials).  
Draw where both of the marbles ended up in your trial.



1.		
2.		
3.		
4.		

5. What pattern do you notice about the experiments where BOTH marbles made it to the goal? \_\_\_\_\_

6. How could you explain this pattern in terms of energy? \_\_\_\_\_