

Name: _____ . Period: _____

Date: _____

Let's Build a Roller Coaster!

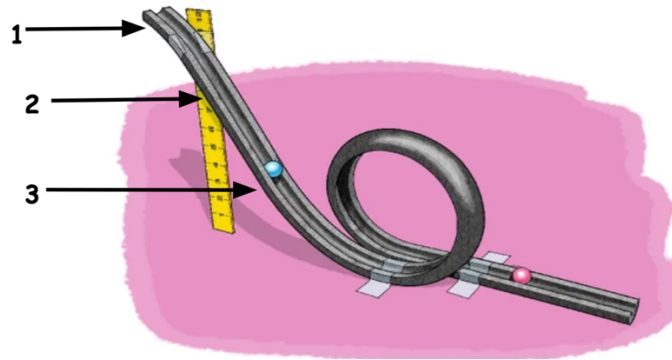
Materials:

1 six-foot section of pipe insulation (cut in half)

1 marble

1 metal ball

Masking tape



Instructions:

1. Carefully tape one end of the pipe insulation to the table. Make sure the tape follows the shape of the pipe insulation exactly or the marble/metal ball will not travel smoothly on the roller coaster.
2. Create a loop and place a piece of tape at the beginning of the loop and secure it to the floor and then place a piece of tape at the end of the loop and secure it to the floor.
3. Get THREE pieces of masking tape and label them 1, 2 and 3.
4. Place each piece of tape:
 - a. **#1:** TOP of roller coaster
 - b. **#2:** BETWEEN #1 & #3
 - c. **#3:** closest to the start of the loop
5. Start your marble at each starting position (#1, #2, #3) and record your observations, THEN...
6. Start your metal ball at each starting position (#1, #2, #3) and record your observations

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Observations: (What did you notice? What happened?)

START Location	Marble	Metal ball
#1 (top)		
#2 (middle)		
#3 (bottom)		

Questions:

1. Why did you test two different roller coaster "cars" (marble and metal ball)?
2. Why did you start the marble or metal ball at different heights?
3. If you had another day and could modify the roller coaster, what would you do and why?