



ROLLER COASTER REQUIREMENTS

YOUR FULL NAMES: _____

YOUR ROLLERCOASTER'S NAME: _____

CATEGORY	POINTS
1. Structure is solid and reliable 10 points	
2. Beams, columns and diagonal supports show quality when assembled 10 points	
3. Height at least 100cm with at least one section of 40 cm wide 10 points . <i>each 10 extra cm of height 5 extra points</i>	
4. Track length at least 200 cm. 10 points . <i>Each 10 extra cm 2 extra points.</i>	
5. One loop 10 points . Each additional loop 5 extra points	
6. 6 turns 10 points . Each additional turn 2 extra points .	
7. Varied materials- at least 1 funnel, 1 sharp curve, 1 wide curve, 1 loop, (5 points each) 20 points	
8. <u>Advance features- every advance feature in worth 10 points</u> . <i>You must complete all the other materials requirements first</i>	
9. Uphill section 10 points . (excluding the loop). Each additional section 5 extra points .	
10. Duration- each second- 1 point!	
11. Interesting name 5 points	
12. Appealing decorations 5 points	
13. Detailed planning that shows improvements 10 points	
14. Beginning section allows for the marble from another roller coaster to be caught easily and guided down the track safely 10 points	
15. End section allows for the marble to be guided down the track safely to the next rollercoaster 10 points	

TOTAL POINTS: _____

Comments:

Grading criteria – BEG (0-99 points), DEV (100-147 points), **ACC (148-160 points)**, EXC (above 160 points). Your roller coaster should be exciting, reliable, and take a long time for the marble to travel from the start to the finish.

Detail sketches of your plan with labels. Show what improvements have you made (10 points):

Trial #1_____

Trial #4_____

Trial #2_____

Trial #5_____

Trial # 3_____

Trial #6_____

Average time _____ (add all and divide by 3).

Average time_____ (showing improvement?)