

What makes roller coasters go so fast?

Distance and Height Experiments!

Always release the Change the distance of the Hill Marble at the Bumper Marble from the alligator:	Did the Hill Marble get eaten? (It's ok if the Bumper Marble got eaten.)			
"High" mark:	Trial 1	Trial 2	Trial 3	Trial 4
→ High				
20 cm	eaten	eaten	eaten	eaten
	safe	safe	safe	safe
→ High				
32 cm	eaten	eaten	eaten	eaten
	safe	safe	safe	safe
• High				
High 44 cm	eaten	eaten	eaten	eaten
	safe	safe	safe	safe

DISTANCE RESULTS: Moving the Bumper Marble farther away from the alligator (**always** / **sometimes** / **never**) kept the Hill Marble from getting eaten. Currently, the Bumper Coaster ride has (**too much** / **just enough** / **too little**) energy.

Change the height Always place the Bumper Markla 22 are from the allignment	Did the Hill Marble get eaten? (It's ok if the Bumper Marble got eaten.)			
Hill Marble: Marble 32 cm from the alligator:	Trial 1	Trial 2	Trial 3	Trial 4
High 32 cm	eaten	eaten	eaten	eaten
	safe	safe	safe	safe
Medium 32 cm	eaten	eaten	eaten	eaten
	safe	safe	safe	safe
Low 32 cm	eaten	eaten	eaten	eaten
	safe	safe	safe	safe

HEIGHT RESULTS: Moving the Hill Marble lower on the hill (**always / sometimes / never**) kept it from getting eaten. Currently, the Bumper Coaster ride has (**too much / just enough / too little**) energy.