FLINN SCIENTIFIC

Name_____

Basketball Blaster Student Worksheet

Data Table 1

Ball	Release Height	Maximum Rebound Height				
		Trial 1	Trial 2	Trial 3	Trail 4	Average
Basketball	20 cm					
Rubber ball, small	20 cm					
Rubber ball, large	20 cm					
Ping Pong ball	20 cm					
Marble, glass	20 cm					

Data Table 2

Bottom Ball	Top Ball	Release Height	Maximum Launch Height of the Top Ball				
			Trial 1	Trial 2	Trial 3	Trial 4	Average
Basketball	Marble	20 cm					
Basketball	Ping Pong ball	20 cm					
Basketball	Rubber ball, small	20 cm					
Basketball	Rubber ball, large	20 cm					
Rubber ball, large	Marble	20 cm					
Rubber ball, large	Ping Pong ball	20 cm					
Rubber ball, large	Rubber ball, small	20 cm					
Rubber ball, large	Basketball	20 cm					
		20 cm					
		20 cm					
		20 cm					

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		20 cm					

Post-Lab Questions *(Use a separate sheet of paper to answer the following questions.)*

1. Calculate the average Maximum Rebound Height and Launch Height of the top ball for each experiment. Record these values in Data Tables 1 and 2, respectively.
2. Describe what happened to the top ball during the double-ball drop experiment.
3. Describe what happened to the bottom ball during the double-ball drop experiment.
4. Compare the initial rebound heights (Data Table 1) to the double-ball drop rebound heights for each top ball. Relative to the initial rebound height, which ball performed the best as the top ball?
5. Which top ball launched to the greatest height?
6. Which top ball launched to the lowest height?
7. *(Optional)* Which bottom ball performed the best as a top ball launcher?
8. *(Optional)* What double-ball drop combination resulted in the greatest maximum height of the top ball?
9. Explain some possible sources of error for why the top ball did not launch to the theoretical height of nine times the drop height.