Mathematics, Grade 6 Unit VIII: Lesson 1

## Display / Graph: SuperBall Drop

The makers of SuperBalls claim their product will rebound to $80 \%$ of the height dropped. Buy or borrow a SuperBall and test whether this claim is true.

Collect data comparing the height of the rebound with the distance the SuperBall fell. Vary the height of the drop and repeat the experiment many times until you have a consistent pattern. Graph your data on a coordinate grid. Calculate the percent of rebound, comparing the value with the manufacturer's claim. Does the size or mass of the SuperBall make any difference on the \% of rebound?

Repeat this experiment, varying the surface the ball is dropped on. Compare the results.
Repeat the experiment using a variety of non super type balls. Calculate the average percent of rebound for each kind.

Create a science fair type display of the process and results of your research. The display will include balls, graphs, illustrations and written explanations. Display your project in the classroom.

