

# CURIOSITY AT HOME

## BALL BOUNCE



### MATERIALS

- Several different types of balls (like a tennis ball, bouncy ball, baseball, kickball)
- A tape measure or yard stick
- A pencil and piece of paper

### PROCEDURE

- For each ball you have, compare its size, shape and weight and other characteristics. Is it hollow or solid? Is the surface hard or squishy? Predict which will bounce the highest.
- Drop each ball (be sure to drop and not throw the ball), and measure how high the ball bounces.
- Check your result by dropping each ball two more times, and graph the heights of each ball in the table below.

Was your prediction of which ball would bounce the highest correct, or were you surprised? Was your highest bouncing ball hollow or solid? What was it made of?

### CURIOSITY FOR ALL AGES: EXPLORE MORE

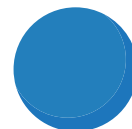
Material science can also help us understand the properties of the surface the ball is dropped on. Try dropping the balls again on different surfaces, such as grass, a wooden porch, or the sidewalk.

- Which surfaces caused the balls to bounce the highest?
- Which ball bounces the most times?
- If you could bounce any type of ball on any surface, what would you try?

*Experiment continued on next page...*



Show us how you're being curious! Share your results with us.



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