Cup Slide

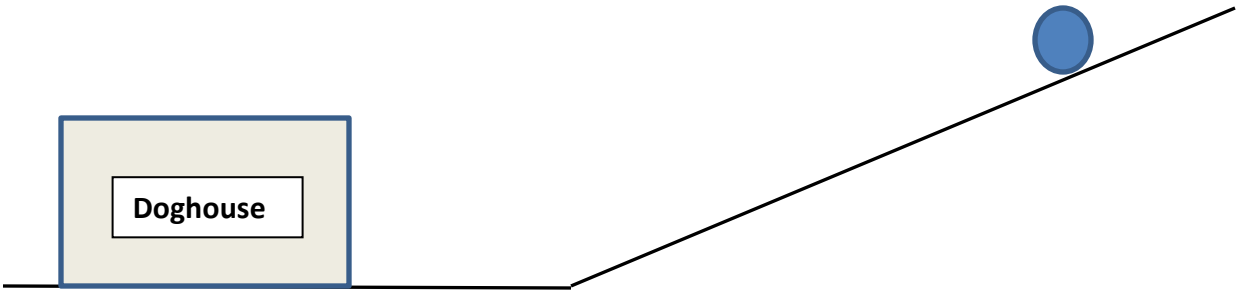
The Silly Scenario

You are standing at the top of a small hill when you accidentally drop a bowling ball. The ball rolls down the hill ---- and is headed directly toward a doghouse. Fortunately, the doghouse is empty when the ball rolls through the door. The bowling ball collides with the back wall of the doghouse, and the whole doghouse slides a bit across the grass before coming to rest.

The Questions

1. How does the speed of a bowling ball affect how far a doghouse will slide?

2. How does the mass of the bowling ball affect how far a doghouse will slide?



The Experiment

Design, conduct, analyze, and communicate about an experiment using a cup (instead of a doghouse) and marbles and/or ball bearings (instead of a bowling ball) to answer the two experimental questions.

Part One: *The Effect of Speed*

Procedure:

Data:

Graph:

Conclusion:

Part Two: *The Effect of Mass*

Procedure:

Data:

Graph:

Conclusion: