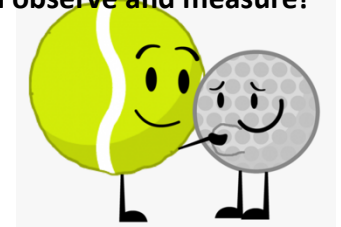


Transfer of Energy: Ball Bounce Experiment! Try it! (I didn't predict well!)

__1 Work with one other person or ask 2 people to do this for you so you can observe and measure!

__2 You need 2 different sized balls, such as a tennis and a ping pong ball.

Note: Start with smaller sizes, and FOR LARGER sizes, work OUTSIDE!



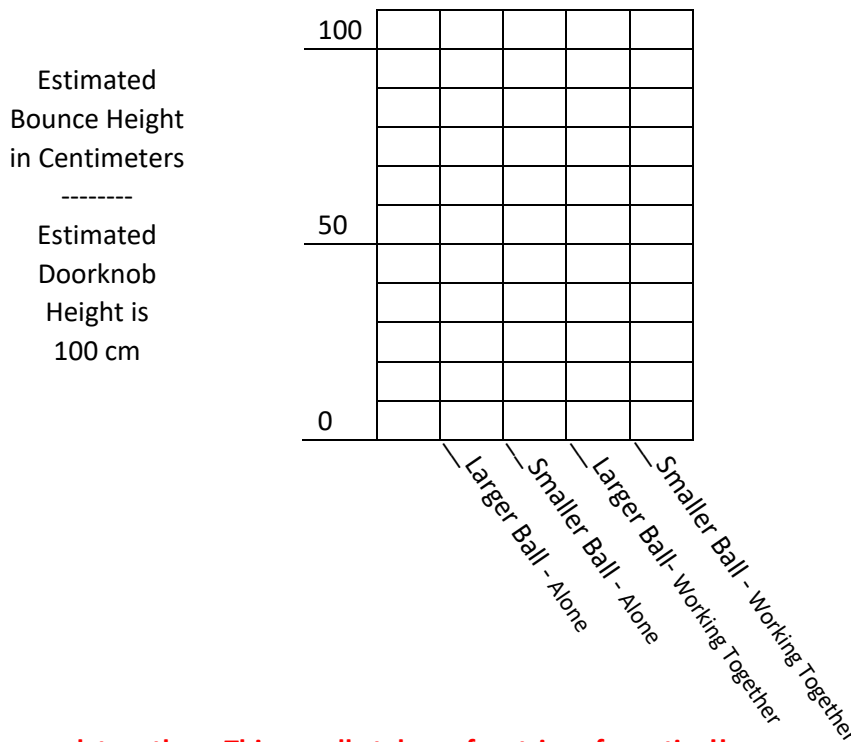
__3. Work together! __a) Person 1 has a tennis ball OR the larger ball.

__b) Person 2 has the ping pong OR smaller ball.

__4. Take turns. Observe both. Drop your ball from about 100 cm (1 m) high. Use door knob height.

__5. Estimate each ball's bounce height. Record both on the graph below.

__6. Predict and mark the graph for each, when working together.



__7. Now, work together. This usually takes a few tries of practice!!

- __a) Tennis ball Person should hold the larger, or tennis ball, smooth part up, as if ready to drop it.
- __b) Ping Pong Person should rest and hold the smaller ball exactly on top center of the tennis ball. BUT, hold the smaller, or ping pong ball, only on the top and only with one finger.
- __c) Each of you watch and estimate the balls bounce heights as Tennis ball Person drops the larger ball.

__8. Record the bounce heights in the graph. Note: It is ok to extend the graph through the directions.

__9. Write a descriptive conclusion about the transfer of energy and/or the transfer of force.

__10. Try other combinations for bouncing balls. Try a basketball or soccer ball, BUT... Go outside!

Try any size you have. Try some that are the same size.