

Squish Potential Instructions and Data Sheet

1. Mark the bottom of your five cans – each with one of the following numbers.

- 0"
- 6"
- 12"
- 18"
- 36"

Take the yardstick and set it vertically, with its lower edge about 2½ inches from the bottom of the pan (the height of a can on its side). Tape the yardstick in place against the dishpan or wall. Figure 1 shows the ruler is just at top of can. This will allow you to measure the distance above the can for the weight you will drop.



Figure 1 Can with Ruler

2. Measure the diameter of one of the cans and record it on page 3.

Form a tape loop and use it to affix one of the cans to surface (Figure 2).




Figure 2 Tape on Can

3. Take the water jug (weight) and gently balance it on the empty can. Make sure you use your hands just to balance the weight, not support it. You want the full weight on the can (Figure 3).



Figure 3 Jug resting on Can

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<p>4. Remove the weight. Has anything happened to the can? Did it squish the can?</p> <p>Measure the squished portion of the can and record your data on the chart.</p>	
<p>5. Repeat steps 2-4 with the 6" can, except instead of balancing the jug on the can lift the jug six inches above the can and drop the jug on the can.</p> <p>Measure the squished portion of the can and record results.</p>	 <p>Figure 4 - Book as weight held 6 inches above can</p>
<p>6. Pause here and wait for the other groups to finish the first two drops.</p>	
<p>7. Repeat the experiment with the remaining cans, using distances of 12, 18, and 36 inches. Each time, compare the degree of squish of the can with the previous cans.</p> <p>Measure the squished portion of the can and record results.</p>	

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Names of Group Members: _____

Original diameter of can: _____

Height Dropped (inches above can)	Amount Squished Measurement	To find out how much “squish potential” each height has, subtract the amount squished (AS) from the original diameter (OD) of the can and record the results below. OD – AS = Squish Potential
0 inches		
6 inches		
12 inches		
18 inches		
36 inches		

Now, take your data and create a poster to present your results.

A. Fold your poster paper into thirds, creating three sections.

B. On the top third of your poster, write down the question you hoped to answer in your experiment and a sentence about how you conducted the experiment.


C. On the middle third, create five spaces, side by side, for your cans. Label each space with the distance that you dropped the jug and record the amount of squish potential you calculated for each can. Tape the corresponding can in each space.

D. On the bottom third, write one or two complete sentences that express what you have found out about falling water, power, and the relationship between them (see below).

While writing your response for “D,” consider the following questions:

- What relationship did you observe between the distance the weight fell and the amount of squish?
- Why was it necessary to have identical cans as the targets?
- Why did you need to use the same jug of water each time?
- What was the ONLY factor in your experiment that changed each time?
- Why was it important that this factor be the ONLY thing that changed?

B. Question and Experiment



C. Results

D. What did you find out?