Experiment for Home

Question: Does the temperature of a baseball, affect its behavior and how it bounces?

Hypothesis: I believe that a cold baseball will bounce _____ compared to a room temperature baseball.

- Higher
- Lower
- The same

Materials

- Baseball
- Ruler
- Phone Camera

Independent Variable: Temperature of the baseball
Dependent Variable: Distance the baseball bounces

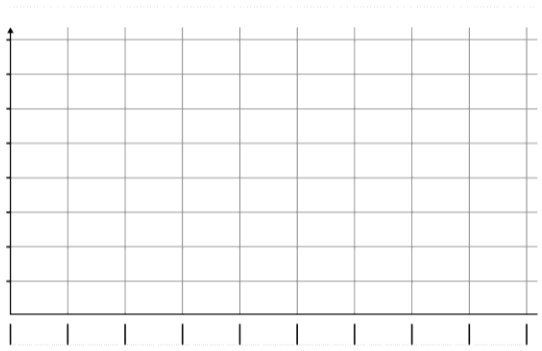
Procedure

- Find a flat area of cement to drop the baseball
- Place the ruler standing vertically where you will drop the baseball
- Set up the camera (in slow-mo mode) so it is viewing the ruler and can record how high the baseball bounces off of the ground when dropped.
- Drop the baseball from waist high (use the same height each time) and record how high it bounces. (repeat this step 3-5 times)
- Place the baseball in the freezer for several hours and repeat dropping the puck and measuring the height bounced.

Data

Trial	Distance of Bounce (cm) Room Temp	Distance of Bounce (cm) Frozen	Distance of Bounce (cm) (your new idea)
1			
2			
3			
4			
5			

Graph (fill it out)



Hypothesis: My hypothesis was _____. The temperature of a baseball _____ have an effect on how it bounces. A baseball will bounce _____ compared to a room temperature baseball.

Correct Incorrect

Does Does Not

Higher Lower Similar

How can you change this to make your own experiment?
- Ask a new question
- Change the Independent Variable
- Drop the baseball onto a different surface
- Measure it differently (time, consistentcy of the bounce, etc)