

**How does
temperature affect
the bounciness of a bouncy ball?**

A 6th Grade Science Fair Projects

Purpose of the Experiment:

I wanted to do this experiment because its fun to find out how high a ball bounces at different temperatures

Question:

What is the effect of different temperatures on 3 bouncy balls if one is kept in the freezer and heated, one is room temperature?

Materials used

- 3 bouncy balls
- A sock with rice
- A freezer
- A microwave
- A measuring tape
- Cell phone for videoing

Procedures

- Put one ball in a freezer for an hour
- Put another ball in a sock filled with rice and microwave it for 1 minute and 30 seconds
- Leave the third ball at a room temperature
- Drop all the balls at a time where someone is videoing them and see which ball bounces the highest by checking the video seeing exactly where they bounced and measuring the spots on the hit

HOW DOES TEMPERATURE AFFECT THE BOUNCINESS OF A BOUNCY BALL

Closing

In my experiment I figured out which ball bounces higher just by the differences from temperatures. I found this project out on a website called wonderopolis.com. My hypothesis was that the warmer ball would bounce higher than the cold ball and the room temperature ball. I found a recipe for how to do this experiment. All I needed was 3 balls and a freezer, a sock filled with rice and a tape measure. This experiment was a fun one. I also learned something new and it was GLORIOUS.

Hypothesis

If I put each bouncy ball in different temperatures and bounce each one of them, how high they will bounce. Then the ball that have the highest bounce will be the ball that warmer than the others.

Variables:

Independent variables: different temperatures of the bouncy balls.
Dependent variables: I am measuring the height of each bouncy ball.
Control: same way I bounce the ball, and bounce it in the same place.

DATA

Temperatures of Bouncy Balls	Trial 1 (in)	Trial 2 (in)	Trial 3 (in)	Trial 4 (in)	Trial 5 (in)	AVG. (in)
Normal	36	35	34	35	35	35
Warm	38	38	38	37	38	37.8
Cold	22	24	25	26	27	24.8

Data Showing How High Bounce Balls Bounced



Reflection

I thought this experiment turned out just great. I think this project was perfect, the results were right, and the experiment was right.

QUESTION

What is the effect of different temperatures on 3 bouncy balls if one is heated, one is kept in the freezer and one is room temperature?

VARIABLES

Variables:

Independent variables: different temperatures of the bouncy balls.

Dependent variables: i am measuring the height of each bouncy ball

Control: same way I bounce the ball, and bounce it in the same place.

HYPOTHESIS

Hypothesis:

If I put each bouncy ball in different temperatures and bounce each one of them to see how high they will bounce, then the ball that will have the highest bounce will be the ball that is warmer than the others.

PURPOSE OF THE EXPERIMENT

Purpose of the Experiment:

I wanted to do this experiment because it came to mind on which ball bounces higher by different temperatures

MATERIALS USED

Materials used:

- 3 bouncy balls
- A sock with rice
- A freezer
- A microwave
- A measuring tape
- Cell Phone for videoing

PROCEDURES

Procedures:

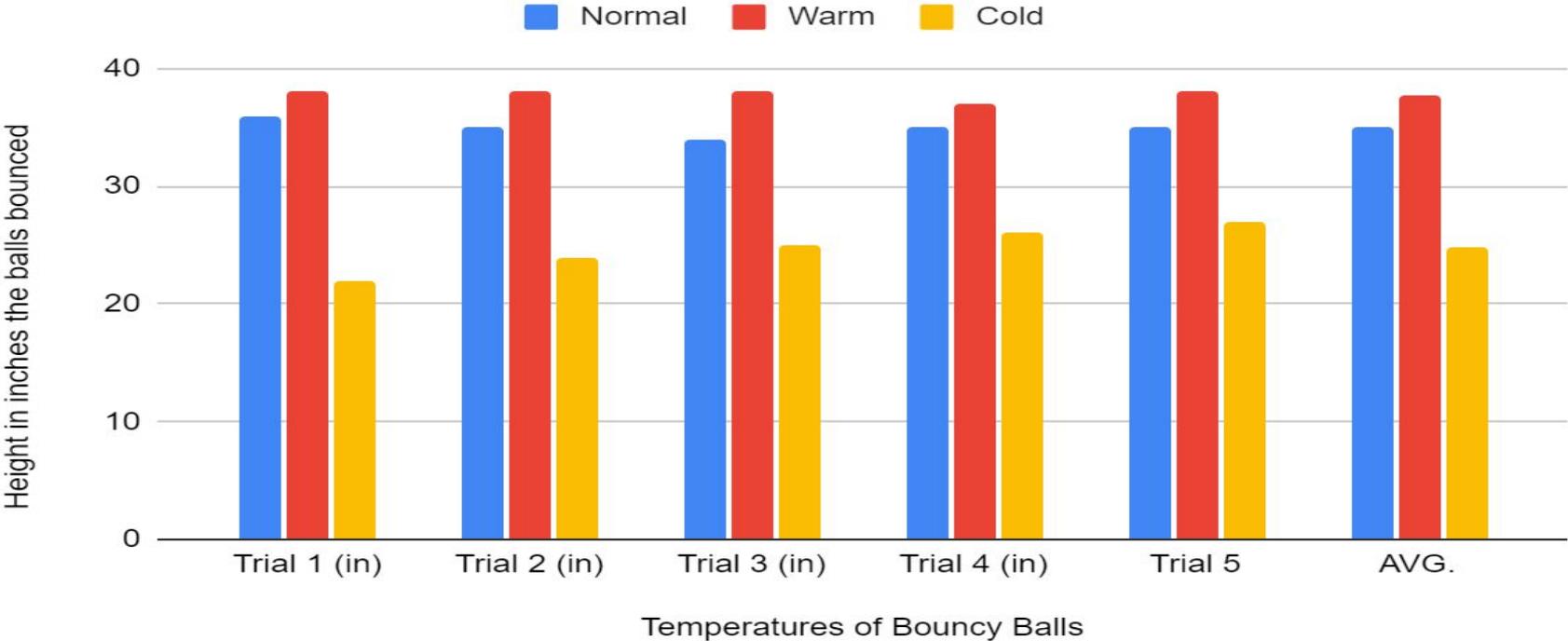
1. Put one ball in a freezer for an hour
2. Put another ball in a sock filled with rice and microwave it for
1 minute and 30 seconds
3. Leave the third ball in a room temperature
4. Drop all the balls at a time while someone is videotaping them and see which ball bounces the highest by viewing the video, seeing exactly where they bounced and measuring the spots on the wall where they hit.

OBSERVATION AND DATA

Temperatures of Bouncy Balls	Trial 1 (in)	Trial 2 (in)	Trial 3 (in)	Trial 4 (in)	Trial 5 (in)	AVG. (in)
Normal	36	35	34	35	35	35
Warm	38	38	38	37	38	37.8
Cold	22	24	25	26	27	24.8

DATA CHART

DATA SHOWING HEIGHT BOUNCY BALLS BOUNCED



CLOSING

Closing: In my experiment I figured out which ball bounces higher just by the differences from temperature. My hypothesis was that the warmer ball would bounce higher than the cold ball and the room temperature ball. The results that I got from my experiment showed on my data that the the warmest ball always bounced the highest.

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REFLECTIONS

I thought this experiment turned out just great. From my research, I found that my hypothesis would probably be correct, but I wanted to try it out, because it was really interesting and fun. I loved doing this experiment and if I were to do it again I might use a different type of ball, like a tennis ball, golf ball or even a dodgeball. I also learned something new about how to create a Science Fair Project and it was GLORIOUS .

BIBLIOGRAPHY

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