

BOUNCING BALL

INVESTIGATION

QUESTION: How does the drop height affect how high a ball bounces?

QUICK SETUP

Choose a ball and a safe testing area with a hard floor. Hold the ball at a measured height and release it without pushing. Observe and measure the height of the first bounce. Repeat the test several times and compare your results.

My Prediction

I think _____

Drop Height	Trial 1 Bounce Height	Trial 2 Bounce Height	Trial 3 Bounce Height	Average Bounce Height
25 cm				
50 cm				
75 cm				
100 cm				

OBSERVATIONS

What did you notice during your investigation?

ANALYZE YOUR RESULTS

Which drop height produced the highest bounce?

Did the ball bounce back to the same height from which it was dropped?

Yes

No

Why do you think this happened?

My Conclusion

I learned _____

SCIENCE CONNECTION

A ball held above the ground has potential energy, or stored energy. When the ball falls, that stored energy changes into kinetic energy, or energy of motion. When the ball hits the floor, some energy is transferred back into the ball, causing it to bounce. Not all of the energy is returned, which is why the ball usually does not bounce back to its original height.