

Write up as a Lab Report in Lab Book ... Include All sections ✓

LAB: The Effect of Potential Energy on Kinetic Energy

Objective

The purpose of this experiment is to find out whether the height of a ramp (potential energy) will affect the distance traveled by a toy car (kinetic energy).

Hypothesis

Materials

- 1 Hot Wheels® car
- 1 Hot Wheels® ramp
- 3 textbooks
- metric ruler
- meter stick

Procedure

1. Put track on the table.
2. Raise with a book, measure height and enter it.
3. Let car roll down ramp.
4. Measure and record the distance traveled by the car.
5. Repeat 3 – 4.
6. Average the answers and enter.
7. Add another textbook.
8. Measure height and do steps 3 – 6.
9. Add another textbook, find height and do steps 3 – 6.
10. Draw a line graph

Data/Results

Ramp Height	Distance traveled by the toy car			Average distance traveled by the toy car

A graph would go here.

Discussion

In "The Effect of Potential Energy on Kinetic Energy" Lab a car traveled down a ramp whose incline was increased with each trial. Each time the ramp was increased the car traveled farther. As the height of the ramp the distance traveled by the car I my hypothesis because I was in predicting that the ramp height the distance traveled by the car. In the trial, there was one number that was a lot higher than the other two. That was the only slightly unusual result.

Conclusion

The objective of this lab was "to find out whether the height of a ramp (potential energy) will effect the distance traveled by a toy car (kinetic energy)." The objective was met because we were able to calculate average distances traveled by the car, which is dependent on ramp height. One error is that the wheels would sometimes stick on the car, and we would have to redo the run. In this lab I learned how potential energy could be converted into kinetic energy. This goes along with what we learned in class. We talked about how the more you stretch a rubber band (potential energy) the farther it will fly (kinetic energy). If I were to improve the experiment, I would not use the track and car. I would get a metal track, so that it can't warp or sag and use a ball bearing since it will roll more freely.