

Bounceability



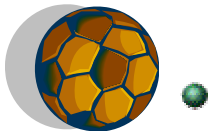
Purpose: Conduct an experiment with different types of balls to explore the transformation of other forms of energy into thermal energy.

Bounceability: How high does a ball bounce when dropped at the same height on different floor surfaces?

1. Materials:
 - Balls- tennis ball, kickball, hokeball, wiffle ball
 - Floor Types- carpet, mat, plastic top, tile and wood table top
 - Meter stick, Chart to record data
2. Assign the following three roles to each member of the group.
 - a. Ball dropper- to hold the meter stick and drop the ball
 - b. Initial Height Checker- to stand back and make sure the initial height is right
 - c. Rebound Height Checker- to note the rebound height
3. Complete the following in your science notebooks (every child records this information in the group)
 - a. First: you must form a hypothesis. Which ball do you think will bounce the highest and on which floor surface? Why?
 - b. Second: Write down the purpose in your notebooks.
 - c. Third: list all materials being used during this experiment.
 - d. Fourth: test each ball on each type of surface and record your information neatly on your chart record sheet
4. State your procedures, (the steps during the experiment) explain your results and give your conclusion (Explain whether or not your hypothesis was right).

Make sure that you write every group members name on your chart.





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Your Goal: Conduct an experiment with different types of balls to explore the transformation of other forms of energy into thermal energy.

1. Make a list of the types of balls that you are using. Give them a letter.
Ex. A- tennis ball
B- rubber ball
2. Make a list of the surfaces that you will test the balls on. Give them a letter.
Ex. A- tile floor
B- rubber mat
3. Assign the following three roles to each member of the group.
 - a. Ball dropper- to hold the meterstick and drop the ball
 - b. Initial Height Checker- to stand back and make sure the initial height is right
 - c. Rebound Height Checker- to note the rebound height
4. Now test each ball:
 - a. First: you must form a hypothesis. Which ball do you think will bounce the highest and why?
 - b. Second: make sure that you write down the purpose in your notebooks. (You can use the goal that I have at the top of this page.
 - c. Third: list all materials being used during this experiment.
 - d. Fourth: test each ball on each type of surface and record your information.
5. State your procedures, explain your results and give your conclusion all in your notebook.
6. Create a graph to show the results of your experiment as a whole group.
Make sure that you write every group members name on your graphs. Also make sure that you give your graph a title and name the x and y axis.

