



Polymer Activity from the:

Teachers may reproduce this activity for their use

Atlanta NSTA "Make and Take" Activity: April 2004

THAT'S THE WAY THE BALL BOUNCES

Grades: Elementary to Middle Level

Science Standards: Content Standard B: Physical Science: Content Standard E: Science and Technology



DIRECTIONS

1. Pour powder into the mold. Colors may be mixed.
2. Gently shake the mold while pouring so that the powder fills to the top of the mold where it becomes smaller like a balloon.
3. Gently drop the mold into water for approximately two minutes.**Make sure the water is at least room temperature or slightly above. It will not work with cold water.
4. Remove from the water and put onto a towel. You might want to hold it so it will not "pop open". Wait for three minutes. Gently remove it from the plastic mold.
5. To maintain bounceability, keep it in a sealed container when not in use.

EXTENSION ACTIVITIES

- A. Which kind of ball will bounce the highest? - Have students compare the amount of bounce that results from dropping different types of balls from various heights. Balls that work well are ping-pong, basketball, tennis, superball, golf ball and the polymer ball they made themselves.

- B. Discuss the variables involved in dropping the balls.
- C. Measure the circumference and mass to determine if this has an effect on the bounce.
- D. Vary the height of dropping the balls.

These "make-it-yourself" bouncing balls come in kits with two different chemicals and a plastic round form. The most inexpensive ones we have found were purchased from Oriental Trading Co. Inc. Tele. # 1-800-228-2269. The item no. for these balls is 12/9.

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Polymer Ambassador Web Site: www.polymerambassadors.org