

# TARWATER ELEMENTARY SCHOOL STEM LAB

Activity ID: P-5

Activity Name: Growing Polymer Balls

## MATERIALS:

Materials Provided in Bin:

Item:	Quantity:	Notes:
Sheet 8.5" X 11" Paper	1	
Lesson Plan	1	
Polymer Balls	5	Polymer balls are in Ziploc bags that should be distributed one per table. There is enough in each Ziploc bag for each student at the table to get 5 polymer balls.
Plastic Cup	1 per person	

Materials In STEM Lab or Classroom (Common Items):

Item:	Quantity:	Notes:
Paper Towels	1 roll	
Water	$\frac{3}{4}$ of the cup	

Materials Teacher/Parents Need to Provide:

Item:	Quantity:	Notes:
Gummy Bears	1 per person	Optional: You can add a gummy bear to the cup during the hydration process to compare the polymer balls.
Food Coloring	1 drop	Optional: You can add food coloring/coloring powder to the cup during the hydration process and observe what happens to the color.

## WHAT ARE WE DOING?

Growing Polymer Balls - Physical Changes

## VIDEOS / LINKS:

None

## SAFETY NOTES:

Get permission from an adult before starting your experiment.

Do not put polymer balls anywhere around your face or head.

## SCIENCE TERMS:

Physics (Physical Changes)

Environment Science

## STEPS:

Step 1. Grab 1 cup and fill it $\frac{3}{4}$  full.

Step 2. Grab 5 polymer balls from the Ziploc at your table and drop them into your cup of water.

Step 3. Observe the soaking polymer balls every 3 hours, leaving them overnight.

Step 4. Remove the polymer balls from the cup of water the next day.

Step 5. Get a paper that has words. Gently roll one of the polymer balls over the words on the paper. What happens?

Step 6. Put all polymer balls on a paper towel and allow them to sit overnight. What happens?

### QUESTIONS TO ASK STUDENTS:

What did you notice as the polymer balls soaked in the water?

Why do you think the polymer ball expanded so much?

What do you see when you hold your cup full of polymer balls up to the light?

### CLEAN-UP:

Into the Bin = Lesson, paper towels, extra polymer balls, extra cups.

Back to classroom = Take polymer balls with cup and lid.

**IF RUNNING OUT OF A SUPPLY IN THE BIN, PLEASE  
CONTACT LAURIE JONES IN THE OFFICE (X4307)  
[JONES.LAURIE@CUSD80.COM](mailto:JONES.LAURIE@CUSD80.COM)**