

# BREADY BUBBLE BALLOON



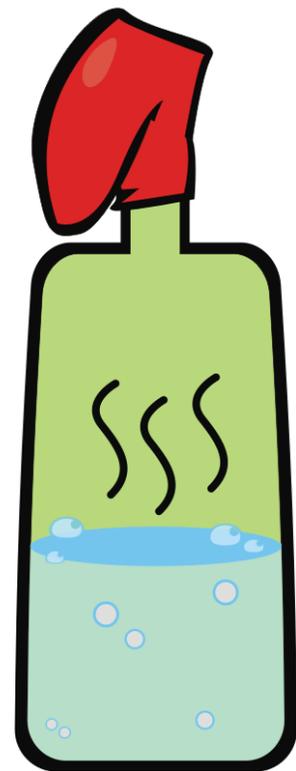
Bubbles are all around your house—in soapsuds, in soda, even in bread! Bubbles in the dough are what make bread rise, but what makes those bubbles?

## WHAT YOU'LL NEED

- Packet of active dry yeast
- Table sugar (a few tablespoons)
- Plain warm water (NOT HOT!)
- Balloon (not inflated)
- Empty, clean plastic drink bottle with narrow opening

## WHAT TO DO

- 1** Put 1 teaspoon of yeast and 3-4 teaspoons of sugar in the bottle. Add warm water up to the bottle neck. Put your finger over the bottle opening and shake the bottle a little. You'll see the solution start bubbling.
- 2** Fit the balloon opening tightly over the bottle's mouth. (You'll get better results if you stretch the balloon a bit in advance.)

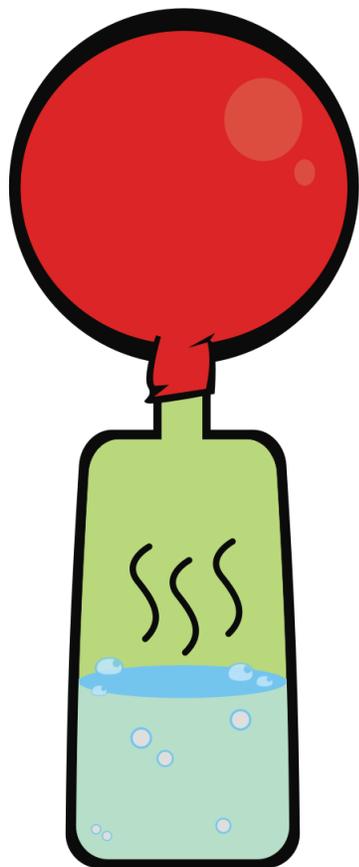


**ACTIVITY CONTINUED ON NEXT PAGE (PAGE 1 OF 2)**

This activity was modified and adapted from the LHS *Bubble-ology* Teacher's Guide published by LHS Great Explorations in Math and Science (GEMS).

## BREADY BUBBLES BALLOON

(ACTIVITY CONTINUED)



**3** Place the bottle in a warm area (room temperature is OK).

**4** Let the bottle sit for at least an hour, then check the balloon. Did anything change? Check again after 2 hours, 4 hours, 6 hours, 8 hours. What do you discover each time?



### DID YOU KNOW?

Living yeast cells eat carbohydrates, like flour or table sugar, by breaking them down into simpler sugar molecules. This reaction gives off carbon dioxide ( $\text{CO}_2$ ) gas—which blows up the balloon here. When bread dough with yeast is baked,  $\text{CO}_2$  bubbles make the bread rise.

(PAGE 2 OF 2)

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