Introduction:
Yeast is a single-celled fungus that is too small to see with a naked eye. There are hundreds of different species of yeast, but the species most commonly used in baking is named *Saccharomyces cerevisiae*. When you activate baking yeast with warm water and sugar, it begins to “breathe,” releasing carbon dioxide gas - just like us when we exhale! When used in baking, the carbon dioxide forms bubbles and allows the dough to rise and bake into fluffy bread. What happens if you bake one loaf of bread with sugar, and one without?

Instructions: **you may need an adult to help you**
1. Using the recipe below, prepare two loaves of white bread – one with the 2 tablespoons of sugar added, and the other without the sugar.
2. Continue to follow recipe directions.
3. Let bread cool before slicing.
4. Compare texture and flavor.

White Bread Recipe:
Preheat oven to 400°F
Makes 1 loaf.

- 3-1/2 to 4 cups bread flour
- 1 packet (1/4 oz. or 2-1/4 tsp) Active Dry Yeast
- 2 tablespoons sugar
- 1-1/2 teaspoons salt
- 1/2 cup water
- 1/2 cup milk
- 2 tablespoons vegetable oil

Preparing Dough
In a mixing bowl, combine 1-1/4 cups flour, yeast, sugar and salt; mix well. Add very warm water and milk (120°-130°F) and oil to flour mixture. Blend
at low speed until moistened; beat 3 minutes at medium speed. By hand, gradually stir in enough remaining flour to make a firm dough. Knead on floured surface until smooth and elastic, 5 to 8 minutes. Place in greased bowl, turning to grease top. Cover; let rise in warm place until doubled in size.

**Shaping and Baking**
Punch down dough. On lightly floured surface, roll or pat to a 14- x 7-inch rectangle. Starting with shorter side, roll up tightly, pressing dough into roll with each turn. Pinch edges and ends to seal. Place in greased 9- x 5-inch or 8- x 4-inch bread pan. Cover; let rise in a warm place until doubled in size. Bake in a preheated 400°F oven for 35 to 40 minutes or until golden brown. Remove from pan and place on wire rack to cool.

*Which loaf of bread tastes better, and why?*
*Which loaf of bread had better volume and texture, and why?*
*Were there any other differences between the two loaves of bread?*