Activities

The Magic School Bus Baked in a Cake

Grades: PreK–K, 1–2, 3–5

Overview
In this Activity from the Magic School Bus Series, kids learn about baking and chemistry by making bagels and a simple vinegar/baking soda experiment.

Field Trip Notes
Whoops! It's Ms. Frizzle's birthday, and the kids are planning a surprise - but they've forgotten the cake. A field trip to a bakery seems like the perfect solution. The kids accidentally get shrunk to ingredient size, but still manage to make cake batter and learn about chemistry in the process. Then the baker pours them into the cake pan along with the batter. The Bus is getting baked! Can what they've learned about chemistry save the Magic School Bus kids?
Pretzel Chemistry
Is it baking — or is it chemistry? Ms. Frizzle's class learns that baking is like doing a chemistry experiment. Your kids can make chemistry happen as they follow this recipe for pretzels. You or another adult can help groups of four to eight kids bake batches of pretzels. If you do not have access to an oven, make the dough with children and let them carry portions home in plastic bags to make with their families.

What You Need
- Copies of PRETZEL CHEMISTRY page
- Utensils and ingredients from the recipe
- An oven

Talk About It
As you follow the recipe, encourage children to talk about the changes they observe, and ask as you work through the steps:
1. What happens when you add yeast and honey to the warm water? (The mixture makes bubbles)
2. What happens after you knead the dough and let it sit? (The carbon dioxide makes the dough rise.)
3. What happens to the pretzel shapes while they're baking? (They get fatter.)

Next Stop
Kids can put vinegar and baking soda in a soda bottle, and place a balloon over the top of the bottle. What happens?
WHAT TO DO

1. Preheat oven to 400°F.
2. Combine ingredients in a mixing bowl.
3. Knead until dough is smooth.
4. Roll into rolls of desired length.
5. Place on a baking sheet and bake for 15 minutes.
6. Dip in melted butter and roll in coarse salt.

WHAT YOU NEED

- 2 cups all-purpose flour
- 1 tsp salt
- 1 tsp baking powder
- 1/2 cup butter, melted
- Coarse salt

MATERIALS

- Mixing bowl
- Rolling pin
- Baking sheet
- Oven

Chemistry Pretzel