



MAKING BATH BOMBS

and Observing the Chemical Reaction



Name: _____ Date: _____

? QUESTION

What happens when a bath bomb is placed in water?

💡 HYPOTHESIS

I think _____

because _____

📋 MATERIALS

- 1 cup baking soda
- 1/2 cup citric acid
- 1/2 cup cornstarch
- 1/2 cup Epsom salt (optional)
- 2–3 tsp water
- 1–2 tsp carrier oil (e.g., coconut oil)
- Food coloring (optional)
- Essential oil or fragrance (optional)
- Bath bomb mold (or round mold)
- Large clear bowl or container
- Spoon
- Measuring cups and spoons

⚙️ PROCEDURE

1. In a large bowl, mix baking soda, citric acid, cornstarch, and Epsom salt.
2. In a small bowl, mix water, carrier oil, food coloring, and essential oil.
3. Slowly add the wet mixture to the dry ingredients a little at a time. Mix until the mixture feels like damp sand and holds together when squeezed.
4. Pack the mixture tightly into the mold.
5. Let the bath bomb dry for at least 24 hours.
6. Fill the container with warm water.
7. Gently place the bath bomb into the water.
8. Observe the reaction and record your observations.
9. (Optional) Time how long it takes for the bath bomb to fully dissolve.

THE CHEMICAL REACTION

When the bath bomb is placed in water, citric acid (an acid) and baking soda (a base) react together to form:

- Carbon dioxide gas (bubbles)
- Water
- Sodium citrate (dissolves in water)

This is called an acid–base reaction.

The bubbles you see are carbon dioxide gas being released!



👁️ OBSERVATIONS

Record what you see, hear, and notice. Use your senses!

Time	What I Saw (Visual)	What I Heard	What I Smelled	Other Observations
0 seconds (start)				
15 seconds				
30 seconds				
1 minute				
2 minutes				
End (when dissolved)				

✅ CONCLUSION

1. What happened when the bath bomb was placed in water? _____
2. Did the experiment support your hypothesis? Why or why not? _____