**Bath Bomb Creations: Materials and Instructions**

**Materials Needed (per person)**

1. 1/2 Cornstarch bag
2. 1/2 Citric Acid bag
3. 1/2 Baking Soda bag
4. Soap Dye
5. Water (not provided)
6. 1 Bowl
7. 1 Plastic Spoon
8. Dried Flowers
9. Bath Bomb Mold
10. Gloves
11. 1 Pipette

**Instructions**

1. Put on plastic gloves.
2. Mix
3. Pour a few drops (25-30) of water using a pipette and bath bomb soap into the bowl and stir.
4. Press the ingredients into the mold. Make sure the contents are tightly packed, no gaps or cracks between mixture and cup. If the mixture is too wet, add more of all the dry ingredients.
5. Add dry flower for decoration.
6. Let bath bomb dry for one day.

So how does it work? It’s all about the chemical interactions between the cornstarch, citric acid, water, and baking soda. The citric acid donates a hydrogen ion to the baking soda, producing CO2 gas, which create the fizzing in your bath. This occurs because the negatively charged bicarbonate component of baking soda attracts the positively charged hydrogen ion. This is the same chemistry that personal care companies use to produce bath bombs.

**Summary**

Students will learn the chemistry as they create their bath bombs. Explain the acid and base chemistry that occurs when the bicarbonate component reacts with the citric acid. Explain how when creating the bath bomb recipe, companies need to consider how to lower material costs while maintaining product functionality.