

- ④ Use an eyedropper to add 60 drops of water to the baking powder in the first cup. Stir with the stirring rod. Record your observations in Table 1 in the column labeled "Mixed with water." Clean your stirring rod.
- ⑤ Use a clean dropper to add 20 drops of vinegar to the second cup of baking powder. Stir. Record your observations in Table 1 in the column labeled "Mixed with vinegar." Clean your stirring rod.
- ⑥ Use a clean dropper to add five drops of iodine solution to the third cup of baking powder. Stir. Record your observations in Table 1 in the column labeled "Mixed with iodine solution." Clean your stirring rod. **Caution:** Be careful when using iodine. Iodine will stain your skin and clothes.

- ⑦ Repeat steps 2–5 for each of the other substances (baking soda, cornstarch, and sugar). Use a clean spatula for each substance.

Analyze the Results

- ① **Examining Data** What physical properties do all four substances share?
- ② **Analyzing Data** In Table 2, write the type of change—physical or chemical—that you observed for each substance. State the property that the change demonstrates.

Draw Conclusions

- ③ **Evaluating Results** Classify the four substances by the chemical property of reactivity. For example, which substances are reactive with vinegar (acid)?

Table 1 Observations

Substance	Unmixed	Mixed with water	Mixed with vinegar	Mixed with iodine solution
Baking powder				
Baking soda				
Cornstarch				
Sugar				

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Table 2 Changes and Properties

Substance	Mixed with water		Mixed with vinegar		Mixed with iodine solution	
	Change	Property	Change	Property	Change	Property
Baking powder						
Baking soda						
Cornstarch						
Sugar						

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