Reactions with Crystals and Powder
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Abstract
What happens when things such as baby powder, iodine, baking soda, flour, sugar, salt, and sand? I thought this experiment most of them dissolved and some had a chemical reaction.

Introduction
I wanted to work with crystals and powders to see if they would dissolve or have a chemical reaction with different liquids. If the crystal or powder dissolves, it will go in the water and if it reacts, it will bubble or change color.

Hypothesis
I think they will dissolve.
Materials

tray salt iodine water vinegar baby powder
baking soda ALUM sugar red cabbage
juice wax paper

Method

1. put paper down on tray
2. put wax paper on paper
3. put down crystals and powders
4. add liquids to crystals and powders
5. make observations
6. record results
### Results Table

<table>
<thead>
<tr>
<th>Unknown</th>
<th>Water Test</th>
<th>Vinegar Test</th>
<th>Iodine Test</th>
<th>R.C.J. Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar</td>
<td>Dissolve</td>
<td>Dissolve</td>
<td>Dissolve and light purple</td>
<td>Turned dark and dissolve</td>
</tr>
<tr>
<td>Alum</td>
<td>Dissolve</td>
<td>Dissolve</td>
<td>Dissolve and turned color</td>
<td>Hot pink and dissolves</td>
</tr>
<tr>
<td>Baby Powder (Talc)</td>
<td>Water slipped off</td>
<td>Turned another color</td>
<td>Turned yellow</td>
<td>Sticky</td>
</tr>
<tr>
<td>Baking Soda</td>
<td>Sticky and bubbly</td>
<td>Fizz and bubbly</td>
<td>Turned cloudy</td>
<td>Turned green</td>
</tr>
</tbody>
</table>

### Conclusions

The baking soda with vinegar and baking soda with red cabbage juice had a chemical reaction because I saw fizz and a color change. Talc didn’t dissolve at all but most of the chemicals dissolved.

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**About the Author:** TyJuan is a third-grade student at Carter-Lawrence Elementary Math and Science Magnet School.