**Task:** An unknown substance has been found at a crime scene. It has been sent back to the crime lab where you work and you have been asked to identify the powder.

**Process:** You may use any of the following liquids to help you identify the powder: water, vinegar, and iodine. You may also use physical descriptions and observations of the unknown substance.

**Report:** At the end of the tests, you will be asked to justify and explain your reasoning for identifying the powder on the crime scene report.

### Unknown Substance

<table>
<thead>
<tr>
<th>Physical Description</th>
<th>Water</th>
<th>Vinegar</th>
<th>Iodine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unknown</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Compare your unknown substance findings to your Mystery Powders Test Sheet.

I think this unknown substance is: ________________________________________

My reason is (Support your reason with evidence): __________________________

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**Crime Scene - Do Not Cross**