During your museum visit, look for as many ingredients of the Johnstown Flood disaster as you can. Don’t worry yet about which ingredients were most important. For now look for every possible thing that contributed to the damage the Flood caused. (Continue on back.)

### Directions
1. List each Flood ingredient that you find;
2. Explain how this ingredient made the disaster worse;
3. Give your opinion whether this ingredient can be changed (fixed, controlled, prevented, or planned for — anything to lessen damage);
4. Suggest how it can be fixed, prevented or planned for;
5. Imagine how damage might have been different if this ingredient had been fixed, prevented, or planned for before 1889.

### Stone Bridge

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>How this ingredient made the disaster worse</th>
<th>Can it be changed?</th>
<th>How could it be changed (fixed, prevented, planned for, etc.)?</th>
<th>How different might damage have been if this ingredient had been changed before 1889?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thick arches didn’t collapse in flood. Clogged with debris and acted as a dam, flooding more of Johnstown with backwash. Debris caught fire, trapped people died.</td>
<td>Yes</td>
<td>Build future bridges higher with wider spans (more distance between piers). Keep spans free of debris.</td>
<td>If the bridge collapsed, Johnstown would have had less backwash, no fire. Less clean up without 30 acres of debris behind the bridge. Downstream towns would have been hit harder with more debris.</td>
<td></td>
</tr>
</tbody>
</table>

Continue list on back of paper>