Balloon Bath

Procedure

1. **Collaborate** Work with a partner.

2. **Measure** Draw a circle around the widest part of each balloon. Label one balloon $A$ and the other $B$. Measure around each balloon on the lines you made. You can use a string to measure if you need to. Record the measurements.

<table>
<thead>
<tr>
<th>Balloon</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A original measurement</td>
<td></td>
</tr>
<tr>
<td>A after cooling</td>
<td></td>
</tr>
<tr>
<td>B original measurement</td>
<td></td>
</tr>
<tr>
<td>B after cooling</td>
<td></td>
</tr>
</tbody>
</table>

3. **Experiment** Half fill a dishpan with water and add ice cubes. Place balloon $A$ in the ice water. Gently push the balloon into the water with a ruler.

4. **Record Data** Hold the balloon under the ice water for 3 minutes. Then remove it and quickly measure the distance around the balloon as you did in step 2. Record your measurement.

5. **Use Variables** Dump out the ice water and warm the dishpan with warm tap water. Half fill the dishpan with warm tap water.

6. **Compare** Repeat step 4 using warm water and balloon $B$. 

Copyright © Houghton Mifflin Company. All rights reserved. Use with page 377
Conclusion

1. **Analyze Data**  How did the balloon change when it was cold? When it was heated?

   ____________________________
   ____________________________
   ____________________________

2. **Infer**  Propose a reason why the balloons changed size.

   ____________________________
   ____________________________
   ____________________________

**Ask Questions**

What would happen if you put balloon A in a freezer? What would happen if balloon B was put in very hot water? With your teacher's permission, ask questions like these and test them. **Analyze data** from your results.

   ____________________________
   ____________________________
   ____________________________
   ____________________________
   ____________________________
   ____________________________