**Name:** _____ **Date:** _____

# How Much Heat Will It Hold? Worksheet

1. **Prediction:** We predict that _____ material will hold heat the longest (= best thermal energy storage).
2. Our team is measuring _____ material.
3. The starting temperature of our material is _____.
4. The starting temperature of the water is _____.
5. Complete the chart below with your temperature measurements:

| HOT WATER | | |
|---|---|---|
| Minute | Temperature of material | Temperature of water |
| 0 (start) | | |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

| COLD WATER | | |
|---|---|---|
| Minute | Temperature of Material | Temperature of water |
| 0 (start) | | |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |
| 8 | | |
| 9 | | |
| 10 | | |

6. Compare your results with the class.
   Our material has: (circle one) HIGH heat capacity LOW heat capacity
7. Was your prediction (#1) correct? _____ Why or why not? _____

   _____

**8.** Draw a graph of your results for your material in HOT water. Graph your time vs. temperature on the graph below.

**How much heat did our material hold?**