

Observing the Effects of Thermal Energy

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-What will happen to molecules within a glow stick as they are exposed to different temperatures? How can this be observed?

-Hypothesis: _____

-Materials: 3 glow sticks, 3 beakers, hot water, room temperature water, cold water, a dark area to observe changes or a box to block out light

-Procedure:

1. Fill the first beaker with cold water, the second with room temperature water, and the third with hot water

2. Crack three glow sticks until they light up

-How will you be able to observe molecular interactions within the glow sticks? Why?

3. Submerge a glow stick into each of the three beakers

4. Your teacher will either need to turn out the lights or you may place a box over your beakers to block out the light. If you use the box method, you must make a viewing slot through which to observe the glow sticks.

5. Record your observations below

	Observation	Explanation
Cold Water		
Room Temp Water		
Hot Water		

-Which beaker caused the glow stick to glow brightest? _____

-Which beaker caused the glow stick to have the fastest moving particles? Why?

-Was your hypothesis correct? Explain: _____

