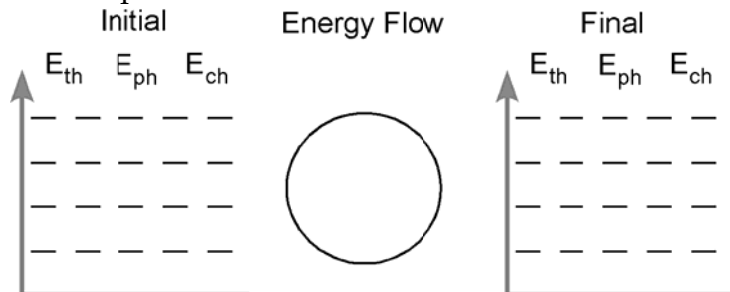


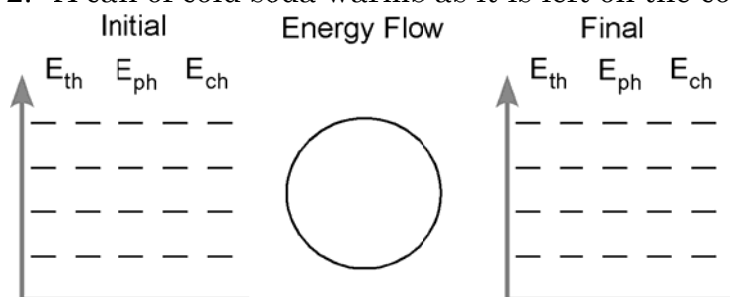
Unit 3 - Worksheet 1 Energy Bar Charts

For each of the situations described below, use an energy bar chart to represent the ways that energy is stored in the system and flows into or out of the system. Next to each diagram describe how the arrangement and motion of the molecules change from the initial to the final state.

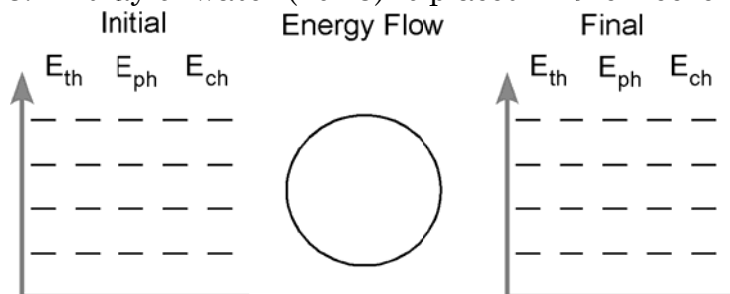
1. A cup of hot coffee cools as it sits on the table.



2. A can of cold soda warms as it is left on the counter.

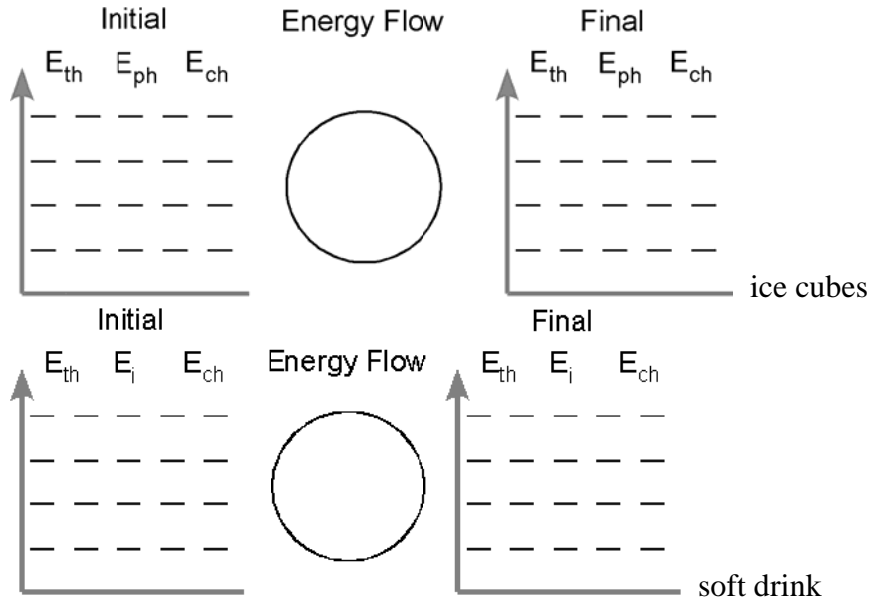


3. A tray of water (20 °C) is placed in the freezer and turns into ice cubes (- 8 °C)

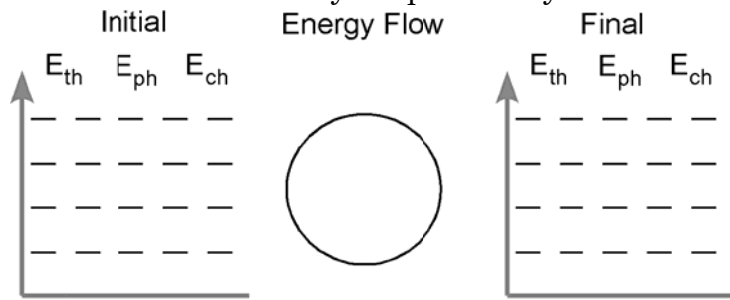


4. Where does the energy that leaves the system in #3 go? How does this energy transfer affect the room temperature in the kitchen? Do you have any experience that supports your answer?

5. A few ice cubes described in #3 are placed in a glass of room temperature (25 °C) soft drink. Do separate bar charts for the ice cube and the soft drink. Next to each diagram, Describe how the arrangement and the motion of the molecules in each system change from the initial to the final state.



6. Some of the water you spilled on your shirt evaporates.



7. Water vapor in the room condenses on a cold surface

