

Name: _____

Period: _____

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Chemistry

Homework: More modeling behavior of matter

Directions: For each scenario below, draw a model to illustrate what is happening with the particles and energy (if applicable).

1. A stove top heats an uncovered pot that then heats water that is inside the pot. Show all possible directions energy may go.

KEY

2. Two different substances, water and Kool-aid, are being mixed. The particles are moving at the same speed in random directions. One is more concentrated (more particles) than the other. Show the particle model with both macroscopic and microscopic zooms and energy arrows.

KEY

3. A warm liquid heats the air particles above it. Show how the particles are moving differently in both the liquid and air before (left box) and during heating (right box). Show the particle model with microscopic zooms and energy arrows.

BEFORE

AFTER

KEY

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4. A stove top heats a pot that then heats water that is inside the pot. Show how the energy flows from the stove to the water and how the particles are moving differently before heating (left box) and during heating (right box). Show the particle model with microscopic zooms and energy arrows.

BEFORE	AFTER	KEY

5. Ice cube melting in a glass of liquid. Show how the particles are moving differently in both the ice and the liquid before you put the ice into the liquid (left box; show the ice and liquid separately) and during melting (right box). Show the particle model with microscopic zooms and energy arrows.

BEFORE	AFTER	KEY

6. Room temperature water is heated to the point of evaporation. Show how the particles are moving differently before heating (left box) and during heating/evaporating (right box). Use particle models to show the different states with microscopic zooms and energy arrows.

BEFORE	AFTER	KEY