PHASES OF MATTER

Name _____
Per _____ Page _____

OBJECTIVE: _____

RESEARCH:

phases of matter: _____

STATE	VOLUME	SHAPE	MOVEMENT OF PARTICLES
SOLID			
LIQUID			
GAS			

phase changes: _____

PHASE CHANGE	ARE PARTICLES GAINING OR LOSING ENERGY?	WHAT CHANGE OF STATE TAKES PLACE?	ARE PARTICLES SPEEDING UP OR SLOWING DOWN?
MELTING			
FREEZING			
EVAPORATING			
BOILING			
CONDENSING			

EXPERIMENT:

PART ONE:

1. Place 30 ml of water into each beaker A and B
2. Find the mass of A and then B and record under "initial mass" in the data table.
3. Place beaker A aside for 5 minutes, and place beaker B over the burner.
4. After 3 minutes, (LET LIQUID COOL FOR TWO MINUTES) then, reweigh, and record mass of beaker B. (SAVE HOT WATER FOR PART B).
5. Reweigh beaker A and record mass.

SUBSTANCE	INITIAL MASS (g)		FINAL MASS (g)	
water	A		A	
	B		B	

Phases of Matter, continued.

PART TWO:

1. Use the hot water from part ONE, and get two ice cubes.
2. Place an ice cube in the water.
3. Cover the beaker with a watch glass.
4. Place an ice cube on the watch glass.
5. Record your observations.

PLACE	CHANGE IN STATE	NAME OF PHASE CHANGE
At the surface of the water in the beaker.	_____ to _____	
Underside of watch glass.	_____ to _____	
In the ice cubes.	_____ to _____	

CONCLUSIONS:

1. The mass of the beaker and water sitting at room temperature changed a little / none / a lot.
2. The mass of the beaker and water after heating changed a little / none / a lot.
3. What can you conclude about the effects of heat on evaporation? _____
   _____
4. When you breathe on a mirror it clouds up. Explain what causes the mirror to cloud in terms of a phase change.
   _____
   _____