Name _____ Date _____ Period _____ Page _____

# Air, It's Really There - Notes

Question to Investigate: _____

_____

## Key Concepts:

In a gas, the particles have _____.

They are able to move_____ with

_____ between them.

The particles of a gas are _____

and move _____ while compared

to the particles of liquids and solids.

Whether a substance is a solid, liquid or gas at a certain temperature depends on _____

_____ of the particles at that

temperature and _____ their attractions

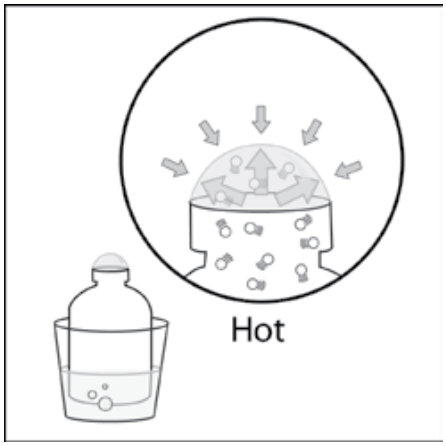
are for one another.

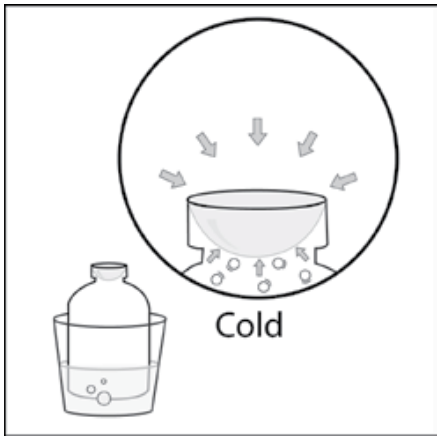
Heating a gas _____ the speed of its atoms or molecules.

Cooling a gas _____ the speed of its atoms or molecules.

## Air, It's Really There

ANIMATION OF A BUBBLE AS ITS HEATED AND COOLED. As you watch the animation, use the picture below to help you answer the following questions.




What caused the bubble to form when you placed the bottle in hot water?
(Be sure to write about the speed of the molecules inside the bubble and the force on the bubble from the outside air.)

Why did the bubble get smaller when you placed the bottle in cold water?
(Be sure to write about the speed of the molecules inside the bubble and the force on the bubble from the outside air.)

***Draw circles to represent the molecules*** in a solid, liquid, and gas. Because all three different substances are all at the same temperature, draw the same number of motion lines near the circles for each substance. ***Under each box, write about the arrangement and motion of the molecules and the attractions the molecules have for one another.***

| Solid | Liquid | Gas |
| --- | --- | --- |
| | | |