Answer Key

*Complete your practice quiz then check your answers.

Grade 7 Particle Theory and Mixtures Practice Quiz Date: _____

Quiz on Thursday, Oct. 9th

Name: _____

These are examples of the type of questions that could be on your quiz. Other questions may be asked but will cover the same knowledge and understanding as the questions on this practice quiz.

Part A Use the following words to complete the blanks.

spaces	gas	solute	liquid
moving	mixture	matter	solvent
solid	particles	pure substance	

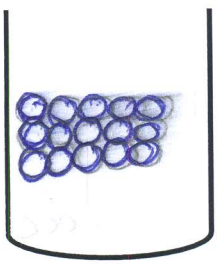
1	Matter is anything that has mass and takes up space.
2	The three common forms of matter are solid, liquid, and gas.
3	All matter is made up of particles.
4	A pure substance is made up of only one kind of particle throughout.
5	In a solution, the solute is dissolved.
6	The particles of any substance are always moving,
7	There are spaces between the particles of all substances.
8	In a solution, the solvent does the dissolving.
9	A mixture is made up of two or more pure substances.

See Next Page

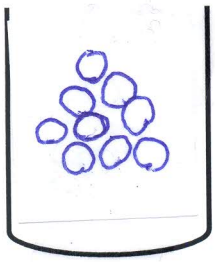
Part B Identify the following mixtures as homogeneous or heterogeneous.

1	relish	heterogeneous
2	Raison Bran cereal in milk	heterogeneous
3	black coffee	homogeneous
4	Kool-aid	homogeneous
5	soil	heterogeneous
6	sugar water	homogeneous
7	vegetable juice	homogeneous
8	flat pop	homogeneous

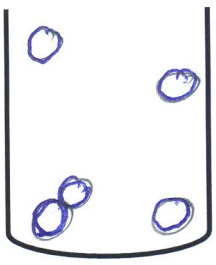
Part C Sketch the particles in the following states of matter.



Solid



Liquid



Gas

See Next Page

Part D Short Answer. There is a word bank after this section which may help with your answers. You do not have to use the words in the bank but some of the words may be useful.

Answer in full sentences.

1	Using particle theory, explain what happens to the particles of a gas as it cools. (Hint: Refer to the energy level, the spacing, and the movement of the particles.) As a gas cools, the energy level decreases, the particles move slower and move closer together. If cooled enough, a gas may become a liquid.
2	Which state(s) of matter can be poured? The states of matter that can be poured are liquid and gas.
3	Describe an example of a mixture that could be separated into its component substances using mechanical separation? A mixture of bingo chips and pennies can be separated by mechanical separation.

4	Salt is dissolved in water. Identify the solute and the solvent. Salt is the solute. Water is the solvent.
5	Which state(s) of matter take the shape of the container? Liquids and gases take the shape of the container.
6	Using particle theory, explain how a gas can take the volume of its container but a solid cannot. (Hint: Refer to the energy level, the spacing, and the movement of the particles.) The particles of a solid are locked in place. They do not have enough energy to move away from eachother. The particles of a gas have a high energy level and can move away from each other to fill the container.
7	Using particle theory, explain what happened to the salt when it dissolved during our separating mixtures activity. (Hint: Refer to the spacing~~, and the movement of the particles~~.) The salt broke down into very small particles that fit into the spaces between the water particles.

8	Which state(s) of matter are made up of particles? All states of matter are made up of particles.
9	Using particle theory, explain what happens when a solid is heated? (Hint: Refer to the energy level, the spacing, and the movement of the particles.) When a solid is heated, the particles increase in energy level, move faster, and move farther apart. If the solid is heated enough it can change into a liquid.

solute	evaporation	
solvent	condensation	condense
solution	filtration	evaporate
homogeneous	heterogeneous	faster
farther apart	moving	slower
closer	spaces