Name: _____ Date: _____ Period: _____

Ch 15/Unit 3 Physical Science Study Guide

1. Name the two types of pure substances: _____

2. State the law of conservation of mass: _____
_____

3. _____ can be separated by physical means.

4. _____ uses physical changes to separate materials.

5. Another name for a homogeneous mixture is a _____.

6. A heterogeneous mixture whose particles are so small that they do not settle out is a _____.

7. A heterogeneous mixture whose particles settle out when it's not moving is a _____.

8. Elements, compounds, and solutions can all be described as _____.

9. The scattering of light by colloids is called the _____.

10. When substances combine to form a new substance, a _____ change occurs.

11. When substances combine but keep their own identities, a _____ change occurs.

12. Identify the following as physical or chemical properties:

a. color _____ b. flammability _____ c. freezing point _____
d. density _____ e. fragrance _____ f. ability to form a new substance _____

13. Identify the following as homogeneous (hom) or heterogeneous (het) mixtures.

a. rocky road ice cream _____ b. milk _____ c. soup _____ d. salad _____

e. tea _____ f. kool-aid _____ g. smoke _____ h. air _____

i. concrete _____ j. mayonnaise _____ k. fog _____ l. paint _____

m. brass _____ n. Coke _____

14. Identify the following as physical or chemical changes.

a. burning _____ b. melting _____

c. freezing _____ d. cutting _____

e. bending _____ f. sanding _____

g. heating _____ h. conducting electricity _____

i. forming a new compound _____

**********KNOW YOUR VOCABULARY!!!!**********

Study Guide Answer Key

Ch 15/Unit 3 Physical Science Study Guide

1. Name the two types of pure substances: *elements and compounds*

2. State the law of conservation of mass: *the mass of all substances present before a chemical change equals the mass of all the substances remaining after the change.*

3. *Mixtures* can be separated by physical means.

4. *Distillation* uses physical changes to separate materials.

5. Another name for a homogeneous mixture is a *solution*.

6. A heterogeneous mixture whose particles are so small that they do not settle out is a *colloid.*

7. A heterogeneous mixture whose particles settle out when it's not moving is a *suspension*.

8. Elements, compounds, and solutions can all be described as *homogeneous*.

9. The scattering of light by colloids is called the *Tyndall effect*.

10. When substances combine to form a new substance, a *chemical* change occurs.

11. When substances combine but keep their own identities, a *physical* change occurs.

12. Identify the following as physical or chemical properties:

a. color *physical* b. flammability *chemical*

c. freezing point *physical* d. density *physical*

e. fragrance *physical* f. ability to form a new substance *chemical*

13. Identify the following as homogeneous or heterogeneous mixtures.

a. rocky road ice cream *heterogeneous* b. milk *heterogeneous*

c. soup *heterogeneous* d. salad *heterogeneous*

e. tea *homogeneous* f. kool-aid *homogeneous*

g. smoke *heterogeneous* h. air *homogeneous*

i. concrete *heterogeneous* j. mayonnaise *heterogeneous*

k. fog *heterogeneous* l. paint *heterogeneous*

m. brass *homogeneous* n. Coke *homogeneous*

14. Identify the following as physical or chemical changes.

a. burning *chemical* b. melting *physical*

c. freezing *physical* d. cutting *physical*

e. bending *physical* f. sanding *physical*

g. heating *physical* h. conducting electricity *physical*

i. forming a new compound *chemical*