

Name: _____

Block: _____

Chemistry 11

Classification of Matter

Worksheet

Directions: Answer in the space provided. Be sure to read the question carefully.

1. Define matter
2. What is difference between a mixture and a pure substance? Give an example of each.
3. How can you tell an element apart from a compound?
4. What is an ion?
5. Complete the following sentences by filling in the appropriate word from the list below.

gas
liquid
solid

plasma
matter
energy

physical
chemical
Simms

1. _____ is anything that has mass and volume.
2. The two states of matter that occupy a definite volume are _____ and _____.
3. _____ changes alter the identity of a substance, whereas _____ changes do not.
4. Mr. _____ is amazing. The hair on his head is ridiculously thick and luscious.

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6. Identify whether each of the following change is a physical change or a chemical change. Write "P" for physical and "C" for chemical

- | | | | |
|-------|------------------------|-------|---------------------|
| _____ | water boiling | _____ | iron rusting |
| _____ | butter melting | _____ | alcohol evaporating |
| _____ | wood rotting | _____ | baking a cake |
| _____ | leaves changing colour | _____ | glass breaking |
| _____ | Milk sours | _____ | mowing the lawn |
| _____ | Evaporation | _____ | Food is digested |

7. What is the relationship between the kinetic energy (KE) of molecules and their physical state?

8. How can you determine whether a change in matter is physical or chemical?

9. Classify each of the following as an element (e), a compound (c) or a mixture (m).

- | | | | |
|-------|--------------------|-------|----------------|
| _____ | Gold | _____ | Air |
| _____ | Water | _____ | Carbon Dioxide |
| _____ | Seawater | _____ | Silver |
| _____ | Sugar | _____ | Ice |
| _____ | A chocolate sundae | _____ | A cheeseburger |

10. Classify each of the following as an intensive (I) or extensive (E) property

- | | | | |
|-------|---------------|-------|--------|
| _____ | Mass | _____ | Colour |
| _____ | Density | _____ | Volume |
| _____ | Melting Point | _____ | Length |