

Chemistry Homework Chapter 1 Assignments

Name _____

1.1-->1.2

1. Define chemistry.

2. Distinguish between a theory, hypothesis and law.

3. What is the purpose of an experiment as part of the scientific method?

4. List the five major divisions of chemistry.

1-3-->1-4

1. Use table 1.2 to answer the following questions:

a. What property do neon, ethanol and oxygen have in common?

b. Why doesn't sucrose have a boiling point listed?

c. Make a general statement comparing the densities of gaseous substances with the

2. List 4 properties of an iron nail.

3. In which state of matter do the following exist at room temperature and atmospheric pressure.

- a. diamond _____ b. oxygen _____ c. cooking oil _____ d. mercury _____
e. clay _____ f. neon _____

4. Match each state of matter with the term on the right. Record on the line provided. More than 1 state can match each term.

- | | | |
|---------------------|-------|-----------|
| a. incompressible | _____ | 1. gas |
| b. indefinite shape | _____ | 2. liquid |
| c. definite volume | _____ | 3. solid |
| d. flows | | |

5. List 3 substances that you have experienced in at least 2 physical states.

1.5-->1.10

1. Name 2 physical properties that could be used to distinguish between these substances.

- a. water and rubbing alcohol _____
b. gold and aluminum _____
c. helium and oxygen gas _____

2. Identify each of the following samples of matter as homogeneous or heterogeneous.

- a. spaghetti sauce _____
b. glass _____
c. table sugar _____
d. river water _____
e. cough syrup _____
f. nitrogen _____

3. Classify each of the samples of matter in problem #2 as an element, compound or mixture.

- a. _____

- b. _____
- c. _____
- d. _____
- e. _____
- f. _____

4. Classify each of the following as a physical or chemical change:

- a. bending a piece of wire _____
- b. burning coal _____
- c. cooking _____
- d. cutting grass _____

5. State the law of conservation of mass:
