

What's the Matter? Review

1. Match the following definitions with the terms from the word list to the right.

_____ Anything that occupies space.	(a) atom
_____ A pure substance that can be broken down by chemical changes.	(b) compound
_____ Two or more substances that are combined together and can be separated by physical methods.	(c) heterogeneous mixture
_____ A mixture that is the same throughout.	(d) matter
_____ A mixture with visible components.	(e) mixture
_____ A substance made from more than one type of atom.	(f) solution

2. Indicate if each of the following is a solution, heterogeneous mixture, compound, or element.

- (a) Oxygen _____
- (b) Water _____
- (c) Milk _____
- (d) Sugar _____
- (e) Nitrogen _____
- (f) Vinegar _____

3. Indicate the number of atoms of each element in each of the following compounds.

(a)	H_2SO_4
	_____ H (hydrogen) _____ S (sulfur) _____ O (oxygen)
(b)	NH_3NO_3
	_____ N (nitrogen) _____ H (hydrogen) _____ O (oxygen)
(c)	CuSO_4
	_____ Cu (copper) _____ S (sulfur) _____ O (oxygen)
(d)	$\text{Mg}(\text{OH})_2$
	_____ Mg (magnesium) _____ O (oxygen) _____ H (hydrogen)

4. Explain what is meant by a physical property. Provide two examples.

5. Explain the difference between a heterogeneous mixture and a solution.

6. What is meant by dissolving?

7. Differentiate between physical and chemical changes.

8. Indicate if each of the following is a physical or chemical change.

(a) a hot dog is cooked _____

(b) water is boiled _____

(c) meat spoils in the refrigerator _____

(d) paper is burned _____

(e) sanding a piece of wood _____

(f) melting butter _____

(g) blowing up a balloon _____

(h) salt mixed with water _____

(i) colors fading in the sunshine _____