

WORKSHEET

Read the following information on the classification of matter

1. Fill in the blanks where necessary.

Elements:

- An element is a pure substance made of only one type of _____.
- An element has the same composition throughout, which is called _____.
- An element _____ be separated into simpler materials by physical means.
- Over 100 existing elements are listed and classified on the _____.

Compounds:

- Compounds are pure substances made of more than one type of _____ and are _____.
- A compound has the same composition throughout, which is called _____.
- Compounds _____ be separated into simpler materials by physical means.

Separating a compound requires a chemical reaction.

- The properties of a compound are usually _____ than the properties of the elements it contains.

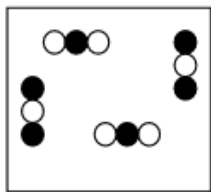
2. Classify each of the following as elements (E), compounds (C) or Mixtures (M). Write the letter X if the example is not matter

___Diamond (C)
___Air
___Krypton (K)
___Water (H₂O)
___Ammonia (NH₃)
___Wood
___Dry Ice (CO₂)
___Iron (Fe)
___Electricity

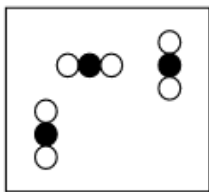
___Sugar (C₆H₁₂O₆)
___Sulfuric Acid (H₂SO₄)
___Bismuth (Bi)
___Alcohol (CH₃OH)
___Salt (NaCl)
___Bronze
___Baking Soda (NaHCO₃)
___Popcorn

___Milk
___Gasoline
___Uranium (U)
___Pail of Garbage
___Energy
___Ink
___Titanium (Ti)
___Gold (Au)
___Concrete

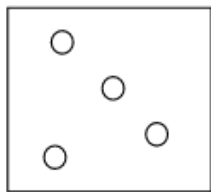
Match each diagram with its correct description. Diagram choices will be used only once.



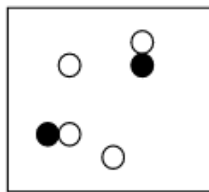
A



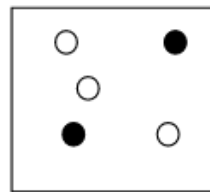
B



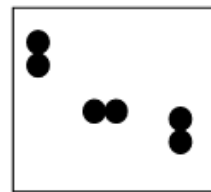
C



D



E



F

- ___ 1. **Pure element** - only one type of atom present.
- ___ 2. **Mixture of two elements** - two types of uncombined atoms present.
- ___ 3. **Pure compound** - only one type of compound present.
- ___ 4. **Mixture of two compounds** - two types of compounds present.
- ___ 5. **Mixture of a compound and an element**.
- ___ 6. **Diatomic molecule** - a pure substance of two of the same atom bonded together

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Column A lists a substance. In Column B, list whether the substance is an element, a compound, a heterogeneous mixture, or a solution

(Remember a solution is a homogeneous mixture.) In Column C, list one physical properties of the substance.

Column A	Column B	Column C
1. Summer Sausage		
2. Steam		
3. Salt Water		
4. Pencil lead (Pb)		
5. Dirt		
6. Silver (Ag)		
7. Toothpaste (Na_2HPO_4)		
8. Italian Dressing		
9. Lemonade		

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