Classification of Matter

- Homistry -

MATTER

Anything that takes up space and has mass

PURE SUBSTANCE

A substance that contains only one type of particle (an atom substance has constant or molecule). A pure properties.

> substances). Eg. metal ores, pop, jewellery, cereal & milk.

Mixtures contain at least 2 kinds of particles (or pure

MIXTURE

Pure substances that Elements cannot be simpler substances. consist of only one chemical symbols. broken down into Elements can be dentified with type of atom.

MIXTURE (SOLUTION)

MIXTURE (MECHANICAL

MIXTURE)

HETEROGENEOUS

HOMOGENEOUS

completely that the

components that can

be clearly seen with

the naked eye.

Eg. sand and water

granola

dod

Are made up of 2 or

more different

more substances Occur when 2 or

mix together so

mixture looks and

feels like one substance. Eg. steel (composed

of iron and carbon)

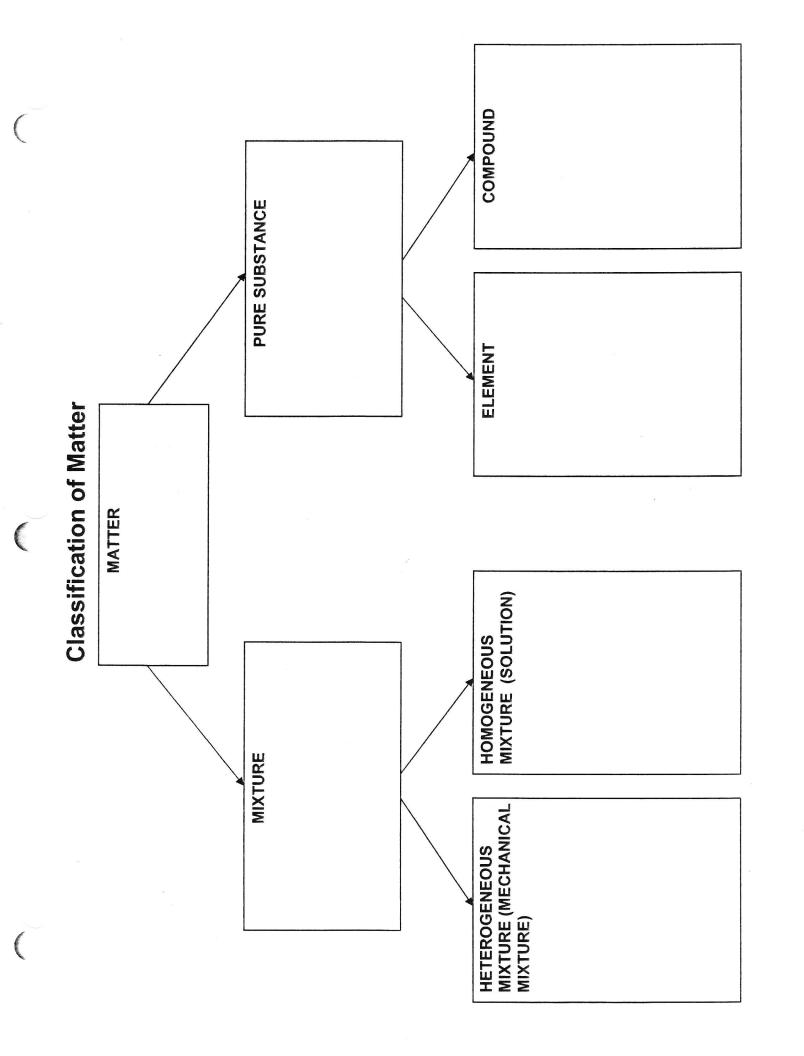
ELEMENT

Eg. C, O₂

COMPOUND

different elements in a Pure substances that Compounds can be consist of only one chemical formulas contain 2 or more These molecules ype of molecule. iixed proportion. dentified with

Eg. H,O or CO,



Elements, Compounds, and Mixtures

Classify each of the pictures below by placing the correct label in the blanks below:

A= Element

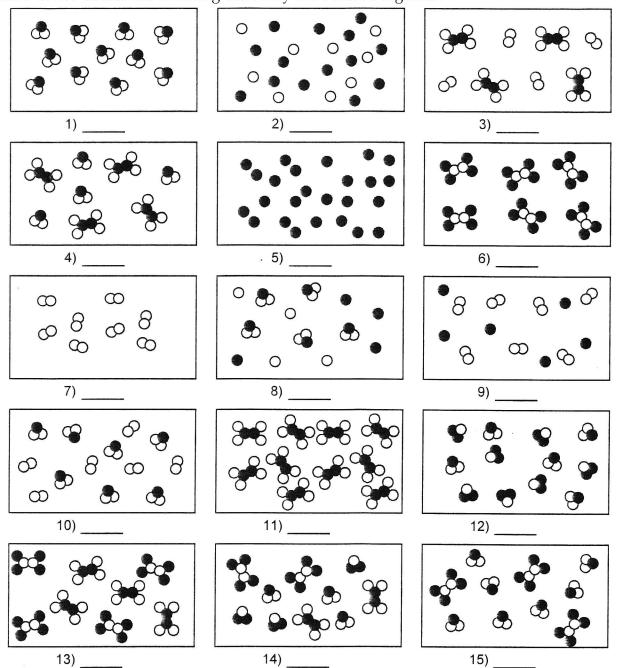
D= Mixture of compounds

B= Compound

E= Mixture of elements and compounds

C= Mixture of elements

Each circle represents an atom and each different color represents a different kind of atom. If two atoms are touching then they are bonded together.



13. Classify the following as pure substances or as mixtures:

air

gasoline

grain alcohol

water

sugar

gold

mercury

oxygen

salt water

14. Classify the following as heterogeneous or as homogeneous:

sand & salt mixture

hydrogen

iron

salt water

unfiltered air

iron with rust

pure water

an apple

nitric acid

tossed salad

granite

wood

15. Classify the following as an element, a compound, a solution, or a heterogeneous mixture:

aluminum

raisin bread

carbon dioxide

water

sugar and water

sulfur

sulfuric acid

mercury

an orange

water & instant coffee

a pencil

carbon particles & sugar

nitrogen

air

gasoline

grain alcohol