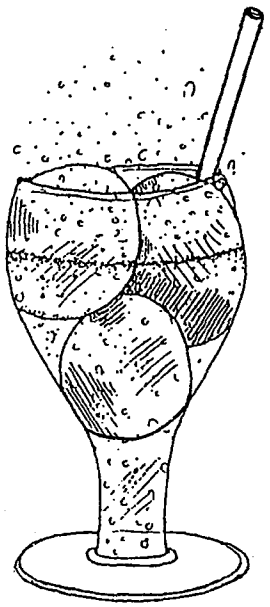
More About Mixtures



Mixtures contain more than one kind of substance. The properties of a mixture are a blend of the properties of the materials that are combined in the mixture. A mixture's properties vary depending on the amount of each substance present in the sample.

Mixtures can be made by combining liquids, solids, or gases together in various ways. The substances in a mixture can be separated by physical means.

There are two kinds of mixtures: heterogeneous mixtures and homogeneous mixtures. In a **heterogeneous mixture**, the parts of the mixture are not evenly distributed. Oil and vinegar salad dressing is an example of a heterogeneous mixture. The oil and the vinegar do not mix together evenly. The parts of a **homogeneous mixture** are evenly distributed. The mixture is the same throughout. Sugar and water combine to form a homogeneous mixture.

Solutions are homogeneous mixtures that form when one substance is dissolved in another substance.

Six ways to physically separate mixtures are listed below. Correctly match them to the mixture that they would best separate.

1. ____ letting something settle	a. blood
2. ____ distillation	b. alcohol and water
3. ____ evaporation	c. sugar and water
4. ____ using a magnet	d. wood chips and iron filings
5. ____ physically separating with your hands	e. peas and beans
6. ____ using a centrifuge	f. sand and water

The four ways to make a mixture are listed at the top of this page. An ice cream float is an example of a mixture made from a solid, a liquid, and a gas. The ice cream is solid, the soda pop is liquid, and the carbonation is a gas. Write the letter of the combination that describes each mixture below.

7. ____ nuts and bolts	A. liquid and liquid
8. ____ salt and water	B. solid and solid
9. ____ polluted air	C. gas and gas
10. ____ oil and water	D. liquid and solid
11. ____ air in a scuba tank	E. solid, liquid, and gas
12. ____ wet, sudsy clothes in a washing machine	F. solid and gas

SOLUTIONS, COLLOIDS AND SUSPENSIONS

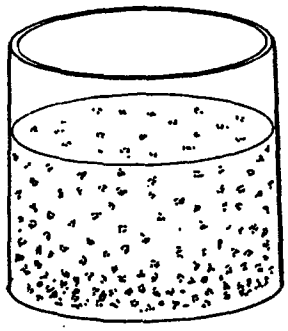
Name _____

Label the following mixtures as a solution, colloid or suspension. Give an example of each.

1. large particles,
   settles out on standing

Kind of mixture: _____

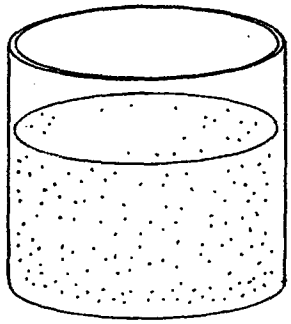
Example: _____



2. medium size particles,
   settles out on standing
   scatters light

Kind of mixture: _____

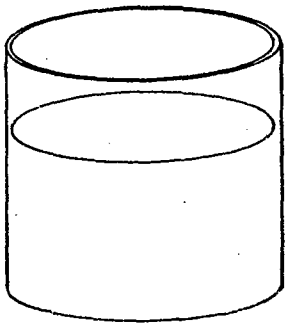
Example: _____



3. very small particles
   does not settle out on standing

Kind of mixture: _____

Example: _____



HOMOGENEOUS VS. HETEROGENEOUS MATTER

Name _____

Classify the following substances and mixtures as either homogeneous or heterogeneous. Place a √ in the correct column.

	HOMOGENEOUS	HETEROGENEOUS
1. flat soda pop		
2. cherry vanilla ice cream		
3. salad dressing		
4. sugar		
5. soil		
6. aluminum foil		
7. black coffee		
8. sugar water		
9. city air		
10. paint		
11. alcohol		
12. iron		
13. beach sand		
14. pure air		
15. spaghetti sauce		