

Chemistry

Section 2

Name _____

Date ____ / ____ / ____

HOMOGENEOUS AND HETEROGENEOUS

In the table below, classify the following substances or mixtures as homogeneous or heterogeneous by placing an **X** in the appropriate box.

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

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SEPARATING MIXTURES INTO THEIR COMPONENTS

Often we wish to separate mixtures into their individual components (e.g., if one is more valuable or useful on its own) We can do this by using the differences in the physical and chemical properties of the components. For the mixtures below, describe a method that would allow us to separate them into their components?

1. Sand and water _____

2. Sugar and water _____

3. Oil and water _____

4. Sand and gravel _____

5. A mixture of water and alcohol (ethanol) _____

6. A mixture of iodine solid and sodium chloride (Hint: Iodine is not soluble in water.)

7. A mixture of lead and aluminum pellets _____

8. A mixture of salt and iron fillings _____

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SOLUTIONS, COLLOIDS AND SUSPENSIONS

Label the following liquid mixtures as a solution, colloid or suspension and provide an example of each type of mixture.

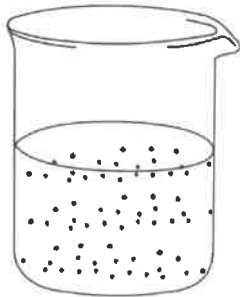
1. This has very small particles that do not settle to the bottom, even if it sits for a while.



Kind of mixture: _____

Example: _____

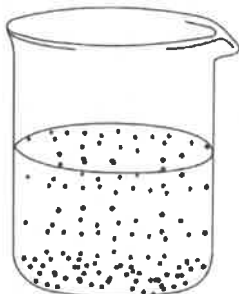
2. This has medium sized particles that settle to the bottom if it sits for a while. This also tends to scatter light



Kind of mixture: _____

Example: _____

3. This has large particles that settle to the bottom if it sits for a while.



Kind of mixture: _____

Example: _____

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Electron Configuration Practice Sheet 1

Identify the element that corresponds to each of the following electron configurations?

	<u>Electron Configuration</u>	<u>Element Name</u>	<u>Element Symbol</u>
1.	$1s^2 2s^2 2p^6 3s^2 3p^3$		
2.	$1s^2 2s^1$		
3.	$1s^2 2s^2 2p^6 3s^2 3p^6$		
4.	$1s^2$		
5.	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^1$		
6.	$1s^2 2s^2 2p^5$		
7.	$1s^2 2s^2$		
8.	$1s^2 2s^2 2p^3$		
9.	$1s^2 2s^2 2p^6$		
10.	$1s^2 2s^2 2p^6 3s^2$		
11.	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$		
12.	$1s^2 2s^2 2p^6 3s^2 3p^1$		
13.	$1s^2 2s^2 2p^6 3s^2 3p^4$		

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QUESTIONS ABOUT LIGHT PROPERTIES

Provide the letter of the definition or description in column II that matches the scientific terms in column I.

I	II
1. angle of incidence _____	a) a continuous band of colors arranged according to frequency or wavelength
2. angle of reflection _____	b) an imaginary line drawn at a right angle to the surface of a material
3. crest _____	c) the bending of light rays as they pass through another substance
4. frequency _____	d) the distance between corresponding points on two waves
5. hertz _____	e) this is frequency times wavelength
6. index of refraction _____	f) the highest point of a wave
7. light _____	g) the lowest part of a wave
8. normal _____	h) the number of waves that pass a given point in one second
9. photon _____	i) a single particle of light
10. prism _____	j) describes how much a ray of light will bend as it travels through a specific material
11. reflection _____	k) the angle at which a ray "bounces off" a surface
12. refraction _____	l) the angle at which a ray of light strikes a surface
13. trough _____	m) the bouncing of a wave off another object
14. visible light spectrum _____	n) a clear or translucent material that separates white light into component colors
15. wave velocity _____	o) a type of electromagnetic radiation
16. wavelength _____	p) the unit for frequency