

WS 7.7 Solutions, Colloids & Suspensions

1. How does the size of the dispersed particles compare for solutions, colloids and suspensions.

Use diagrams: (hint: look back at your colloid lab, post-lab notes)

2. Colloids form when one state of matter of large particle size is dispersed in another. Complete the table below, from examples given in class:

minor component		major component	is called a...	(example)
<i>solid</i>	dispersed in...	<i>gas</i>		
<i>solid</i>		<i>liquid</i>		
<i>solid</i>		<i>solid</i>		
<i>liquid</i>		<i>gas</i>		
<i>liquid</i>		<i>liquid</i>		
<i>liquid</i>		<i>solid</i>		
<i>gas</i>		<i>liquid</i>		
<i>gas</i>		<i>solid</i>		

3. Check (✓) all the boxes that apply for the following descriptions (the first is done for you):

	solution	colloid	suspension
a) particles do not settle	✓	✓	
b) small, invisible particles			
c) particles can be separated by filters			
d) Tyndall effect occurs			
e) transparent			
f) opaque (not transparent)			
g) stays cloudy			
h) particles are too big to remain evenly distributed			
i) can involve a solid in a liquid			
j) a medicine that says shake before using			
k) maintains a homogenous (even) distribution of particles			
l) passes through a filter unchanged			

4. Categorize the following as an **element**, a **compound**, a **solution**, a **colloid**, a **suspension**, or **???**:

- a) salt _____
- b) salt water _____
- c) water _____
- d) Peptobismol _____
- e) sand & water _____
- f) air _____
- g) helium _____
- h) smoky air _____
- i) fire _____

(bottle says 'shake well before using')

answer bank, in random order:

element, compound, compound, solution, solution, ???, colloid, suspension, suspension