

Chapter 6 Pre-test Practice Sheet Student

Name:

Date:

1. What is the difference between a pure substance and a mixture? Give two examples of each?
2. What is the difference between an element and a compound? Give 2 examples of each.
3. Identify each of the following as a mechanical mixture(MM), a suspension(Sus), or a solution(Sol). Also, explain why made made your decision.

		MM, Sus or Sol	Explain your reasoning for your decision.
a	Granola		
b	Orange Juice		
c	Tap Water		
d	A Toonie		
e	Farm-fresh Milk		
f	Homogenized Milk		
g	Concrete		
h	Clear apple juice		
i	Hand lotion		
j	Cereal and Milk		

4. Describe how you would separate the parts of each mixture. What property of matter makes the separation method work? Explain.
- a) Separating sand and salt.
 - b) Separating dust in a fluffy blanket
 - c) Separating sawdust and sand
 - d) Separating pebbles and sand
 - e) Separating flour and water
5. Read the following statements. Rewrite any statements that are incorrect to make them correct.
- a. If a solution is saturated at 20°C, it will also be saturated at 25°C.
 - b. When some solvent evaporates, a solution becomes more saturated.
 - c. When a saturated solution is cooled, some crystals begin to appear in the solution. The solution is now unsaturated.
 - d. A solvent is a liquid that dissolves sugar.
 - e. A solute is always a solid.
 - f. Oil is insoluble.



6. Five solutions have pH values of 3,5,7,9, and 11. List which solution(s) that are:
- Acidic---solutions that are pH:
 - Most acidic---solutions that are pH:
 - Neutral---solutions that are pH:
 - Basic---solutions that are pH:
 - Sour tasting---solutions that are pH:
 - Most helpful in breaking down oils and fats---solutions that are pH:
7. Mixtures and compounds both contain two or more elements. How do mixtures differ from compounds?
8. Screens and filters work in the same way. The screens on your windows and doors separate insects(such as flies and mosquitoes) from the air. In the following table, identify what is let through the following filters and what is held back.(One has been done for you)

Screen or filter	What gets through this filter?	What is held back?
Window screen		
Coffee filter in coffee machine	Water with dissolved coffee	Coffee grounds
Furnace filter		
Dryer lint screen		

9. Imagine that you have spilled a whole bottle of expensive perfumed oil into a bath. What steps could you take to recover as much of the oil as possible?
10. How could you use a flashlight to distinguish between a solution and a suspension?

11. Fill in the following table correctly filling in table two if the liquid is a solution or not. In table 3 state what is the solute and what is the solvent.

Liquids in Home	Is it a Solution?(yes or no)	Solvent and Solute.
Fruit juice such as 5 Alive		
Bottled water		
Kool-Aid		
Vinegar		
Tea		
Bathroom spray cleaner		
Salad dressing		
Milk		

12. The label on a large bottle of liquid laundry detergent states that the bottle contains enough detergent to wash 100 loads of laundry. The label on a different brand, in a smaller bottle, also states that the bottle contains enough detergent to wash 100 loads of laundry. Both claims are true. Explain how this is possible...explain scientifically.

13. Using what you know about solutions, predict three ways that you could shorten the time a sugar cube takes to dissolve in a drink. Explain your predictions.

14. Oil spills that occur near shorelines are often cleaned up with the help of powerful detergents. What properties of oil and a detergent solution make this work?

15. Is ocean water a saturated or unsaturated saltwater solution?

16. "A chemical that can dissolve in water is more dangerous than a chemical that cannot." Do you agree with this statement? Explain.