

Chemistry

Name:

Introduction to Solutions

Answer these questions in full sentences

Solvents and Solutes

1. What, in addition to H_2O , are some substances in your tap water (water that comes out of a faucet)?
2. What is an **aqueous solution**?
3. What is the difference between the **solvent** and the **solute**?
4. What is a **homogeneous solution**? What is a **heterogeneous solution**?
5. What two kinds of substances dissolve most easily in water? Give two examples.
6. What kinds of substances do not dissolve in water? Give three examples.

Electrolytes and Nonelectrolytes

7. What is an **electrolyte**?

8. Explain why ionic compounds are electrolytes.

9. What are **nonelectrolytes**?

10. Explain why many carbon compounds are nonelectrolytes.

11. What is a **strong electrolyte**? Give one example.

12. What is a **weak electrolyte**? Give one example.

Hydrates

13. What is a **hydrate**?

14. What is the chemical formula for borax? What are some of its uses?

Heterogeneous Aqueous Solutions

Suspensions

15. What is a **suspension**?

16. How does a suspension differ from a solution?

17. How can the substances in a suspension be separated?

Colloids

18. What is a **colloid**?

19. Complete the table about colloids:

System	Type	Example
Gas in Liquid		
Gas in Solid		
Liquid in Liquid		
Liquid in Gas		
Solid in Liquid		
Solid in Gas		
Solid in Solid		

20. What is **Brownian motion**? What causes it? Give an example.

Enrichment 1. What is the **Tyndall effect**? What causes it. Give an example.

Enrichment 2. What is an **emulsion**? Give five examples of foods that are emulsions.