# **Mixtures and Solutions Comprehension Check**

For questions 1-6, match each vocabulary term to the correct definition:

|  |  |
| --- | --- |
| 1. Colloid | a. the condition when a solution contains more solute than it can hold |
| 2. Saturated | b. a solution capable of absorbing or dissolving more of a substance |
| 3. Solution | c. when no more of a substance will dissolve in a solvent at a particular temperature and pressure |
| 4. Supersaturated | d. a homogeneous mixture in which one substance dissolves into another |
| 5. Suspension | e. a material made of tiny particles of one substance that are distributed, but not dissolved, in another substance |
| 6. Unsaturated | f. a mixture in which the particles of a substance separate from a liquid or gas slowly |

1. Colloid –
2. Saturated –
3. Solution –
4. Supersaturated –
5. Suspension –
6. Unsaturated -
7. Use vocabulary terms to fill in the blanks to make the sentence true: In a solution, the substance being dissolved is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and the substance that dissolves the other is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. Describe what happens to the chemical bonds in solutes and solvents when dissolving substances.
9. Describe the process of filtration and how it is used to separate heterogeneous mixtures.
10. What is a mixture? Compare heterogeneous and homogeneous mixtures.

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1. Colloid – e
2. Saturated – c
3. Solution – d
4. Supersaturated – a
5. Suspension – f
6. Unsaturated - b
7. Use vocabulary terms to fill in the blanks to make the sentence true: In a solution, the substance being dissolved is the solute, and the substance that dissolves the other is the solvent.
8. Describe what happens to the chemical bonds in solutes and solvents when dissolving substances.
   1. In order to create a solution, solutes and solvents must be broken down and mixed together. The bonds that hold the solute together must be broken down so they can form new bonds with the solvent to create a fully dissolved solution.
9. Describe the process of filtration and how it is used to separate heterogeneous mixtures.
   1. Sometimes, scientists need to separate mixtures. In mixtures with large enough particles, they can do this by physically sorting out the components. However, some heterogeneous mixtures must be separated in other ways. Filtration is a separation process that involves using a screen or paper filter to catch the larger particles, letting the rest of the mixture pass through. For example, people use filters in their car engines to remove impurities from the air and fuel before they are turned into energy.
10. What is a mixture? Compare heterogeneous and homogeneous mixtures.
    1. A mixture consists of two substances that have been mixed together but remain chemically separate. A heterogeneous mixture is one in which particles of each substance are not evenly spread throughout, and a homogeneous mixture is one in which particles of one substance are spread evenly throughout the other.