Edgenuity

Warm-Up | Mixtures

Lesson Question

Lesson Goals

Understand the composition and properties of _____.

Distinguish between _____ and mixtures.

Identify the _____ of a mixture.

Compare and contrast _____ of mixtures.

Words to Know

Fill in this table as you work through the lesson. You may also use the glossary to help you.

_____	pure substance	A. a combination of two or more pure substances
_____	homogeneous	B. a substance whose characteristics and chemical composition do not change from sample to sample
_____	mixture	C. a substance that has the same appearance and properties throughout

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Words to Know

Write the letter of the definition next to the matching word as you work through the lesson. You may use the glossary to help you.

_____	solution	A. the substance in a solution that surrounds and breaks down the solute
_____	solvent	B. the substance in a solution that gets broken down
_____	solute	C. a homogeneous mixture in which the molecules of one substance break down and completely surround the molecules of another substance

States of Matter

- Solids:
  - have a definite _____ even without a container.
- Liquids:
  - have a definite _____, but shape will _____ depending on the container.
- Gases:
  - have a definite _____, but both shape and volume will change to fit a _____.

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Characteristics of Pure Substances: Part 1

A [ ] has a chemical composition and set of characteristics that do [ ] change.

- Table [ ] (NaCl)
  - Tastes and looks the [ ] throughout [ ] or [ ] can fit this description.
- Silver (Ag)
  - Soft and malleable; [ ] with oxygen

Characteristics of Pure Substances: Part 2

- Pure substances can be [ ], [ ], or [ ].
  - Water (H_2O)
  - Steam (H_2O)
- Pure substances [ ] be separated by [ ] methods.
  - Freezing
  - [ ]
  - Filtering

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Characteristics of Mixtures

A [ ]:

- is made up of two or more [ ] substances mixed together.
- has [ ] that can [ ] from sample to sample.
  - Ocean water
- can be [ ] by physical methods.

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Properties of Homogeneous Mixtures

[ ] mixtures:

- are [ ], or mixtures in which one substance [ ] and [ ] the molecules of the other substance.
  - [ ] —a substance that gets broken down
  - [ ] —a substance that does the breaking down

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Kinds of Solutions

- Solute and solvent can be any [ ] of matter, which leads to different results.
- Gases only dissolve [ ].
  - Air
- [ ] can dissolve gases, other liquids, or solids.
  - Vinegar, salt water, [ ]
- Solids can [ ] dissolved gases, liquids, or solids.
  - Alloys

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Words to Know

Fill in this table as you work through the lesson. You may also use the glossary to help you.

dispersed	Spread [ ] throughout another material
colloid	A [ ] mixture in which small [ ] of one substance are dispersed evenly throughout another substance
dispersion medium	the substance in a [ ] in which the particles of the other substance are [ ]
heterogeneous	a substance in which the [ ] substances are [ ] from each other
suspension	a heterogeneous [ ] in which solid dispersed particles are larger and will eventually [ ]

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Heterogeneous Mixtures

[ ] mixtures

- Samples are [ ] the [ ] throughout.
- Two [ ] substances are [ ] together without dissolving.
- Different samples might have different [ ].

Most [ ] we encounter is part of a heterogeneous mixture.

Special Types of Heterogeneous Mixtures

- [ ]
  - Particles of one substance are [ ], or spread [ ] throughout another material.
- [ ]
  - The dispersed particles are [ ] and can [ ] over time.

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Kinds of Colloids

- The characteristics of a [ ] can vary greatly, depending on the states of matter of the mixed substances.
  - The substance that is being spread out is called the [ ] substance.
  - The substance that the dispersed substance is spread into is called the [ ].

		State of Dispersed Substance		
State of Dispersion Medium		**Solid**	**Liquid**	
		Colored glass		Polystyrene packing foam
	Liquid		Salad dressing	Whipped cream
	Gas		Fog/mist	

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Summary | Mixtures

Lesson Question

What is a mixture?

Answer

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Review: Key Concepts

- Substances vs. mixtures
  - [ ] substances: same properties from sample to sample
  - [ ]: two or more substances mixed together; different
  - [ ] depending on the sample

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Review: Key Concepts

- Heterogeneous vs. homogeneous
  - _____ mixtures: _____ that have the _____ properties throughout
    - Solute vs. solvent
  - _____ mixtures: larger particles
    - Properties _____ within a single mixture.

Use this space to write any questions or thoughts about this lesson.

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