

Name _____

Date _____

Lesson 2 - What Are Mixtures?

1. Inquiry Skill Practice–Infer

Read the combinations in the box. Sort the mixtures into two groups and explain the differences between them.

Sand and shells at a beach
Nuts and bolts in a jar
Pancake mix stirred into milk
Fruit juice and blueberries blended in a smoothie

2. Use Vocabulary

Complete each sentence with the correct term from the box.

In a common _____, herbs and spices float in a bottle of Italian dressing.

A feeder filled with a _____ of sugar and water attracts hummingbirds.

solution
suspension

3. Reading Skill Practice–Compare and Contrast

Read the selection. Use another sheet of paper to compare and contrast sand and clay.

Gardeners seek a balanced mixture of sand and clay in soil. Clay soil is dense and heavy. Sandy soil is soft and crumbly. Clay soils retain water and are rich with nutrients. Sandy soils do not hold nutrients, but they drain well. Some plants grow better in a mixture with more clay. Others grow better with more sand.

Name _____

4.  **Compare and Contrast**

Use this space to complete the graphic organizer shown.

Mixtures	Description
Solution →	A _____ _____
Suspension →	B _____ _____
Colloid →	C _____ _____

5. **Critical Thinking and Problem Solving**

Suppose you have salt, sand, iron filings, and gravel in a cup of water. Design and write a plan to separate the substances.

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Group 1: sand and shells; nuts and bolts. Group 2:
pancake mix and milk; blended fruit juice and blueberries.
The mixtures in Group 1 can be separated. The mixtures in
Group 2 can't be separated.

2. Use Vocabulary

Complete each sentence with the correct term from the box.

In a common **suspension**, herbs and spices float in a bottle of Italian dressing.

A feeder filled with a **solution** of sugar and water attracts hummingbirds.

solution
suspension

3. Reading Skill Practice–Compare and Contrast

Read the selection. Use another sheet of paper to compare and contrast sand and clay.

Gardeners seek a balanced mixture of sand and clay in soil. Clay soil is dense and heavy. Sandy soil is soft and crumbly. Clay soils retain water and are rich with nutrients. Sandy soils do not hold nutrients, but they drain well. Some plants grow better in a mixture with more clay. Others grow better with more sand.

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4.  **Compare and Contrast**

Use this space to complete the graphic organizer shown.

Mixtures	Description
Solution	A any mixture of gas and solid, gas and liquid, or solid and liquid
Suspension	B solid/liquid
Colloid	C liquid/liquid

5. **Critical Thinking and Problem Solving**

Suppose you have salt, sand, iron filings, and gravel in a cup of water. Design and write a plan to separate the substances.

Possible answer: Use a filter to separate the salt and water solution from the other substances. Boil the solution to leave the salt. Use a sieve to remove the gravel, and then use a magnet to remove the iron filings, leaving the sand.