

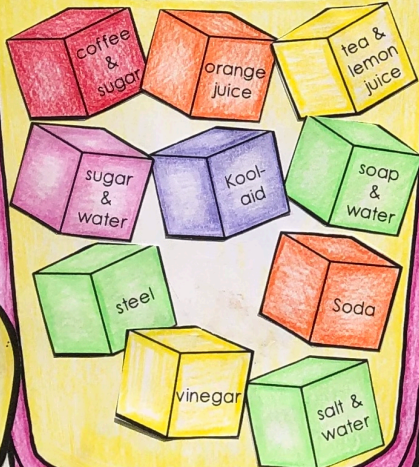
Craftivity Learning

MIXTURES & SOLUTIONS

IF YOU'RE NOT PART OF THE *solution*,

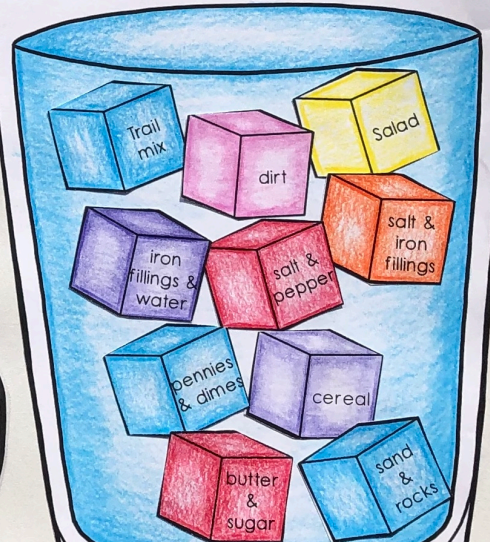
THEN YOU MUST BE PART OF THE *mixture*.

Solutions



A solution is a mixture where particles of one material dissolve completely into a different material.

Mixtures



A Mixture is a material that can be separated into two or more substances.



created by the owl teacher

Name _____

WHAT TECHNIQUE IS USED?

Below is a list of different mixtures. Predict which technique would be appropriate for separating the mixtures and justify your answers by describing the properties of the materials that allow it to be separated.

Techniques

Filtering
Floating

Evaporating
Settling Out

Using Magnets
Hand Sorting

1.) Lettuce and tomato salad

2.) Iron nails and sawdust

3.) Sand and rice

Name _____

Mixtures and Solutions

Read the choices below in the word bank. Then choose the correct mixture for each category.

- bananas and grapes
- drink mix and water
- liquid dish soap and water
- pebbles and soil

- air
- lemonade
- spaghetti and meatballs
- sand and water

Mixture

Solution

Name _____

WHAT IS A MIXTURE? WHAT IS A SOLUTION?

A mixture is a material that can be separated into two or more pure substances. These particles are not joined together chemically.

Some mixtures are combined in a way that is not even. It is clear it is a mixture such as trail mix. Other mixtures look the same throughout and are mixed evenly. These are still mixtures called solutions. An example of a solution would be salt mixed in with water, or a salt water solution.

Mixtures and solutions can both be separated. Some can be separated by hand, while others can use a magnet, a filter, or even evaporation. Sometimes substances will separate and settle near the bottom or float to the top.

Look at the examples below and think about how they are mixed. If they are evenly mixed where it is hard to tell the two substances apart, it is a solution. If it is easy to tell the two (or more) substances apart, it's a mixture. Write what you think it is on the line.

1.) A pitcher of Kool-Aid



2.) Cereal and milk



3.) Marbles, nails, screws



4.) A salad



5.) Chocolate Milk



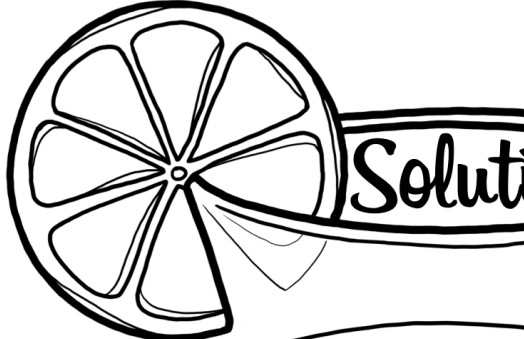
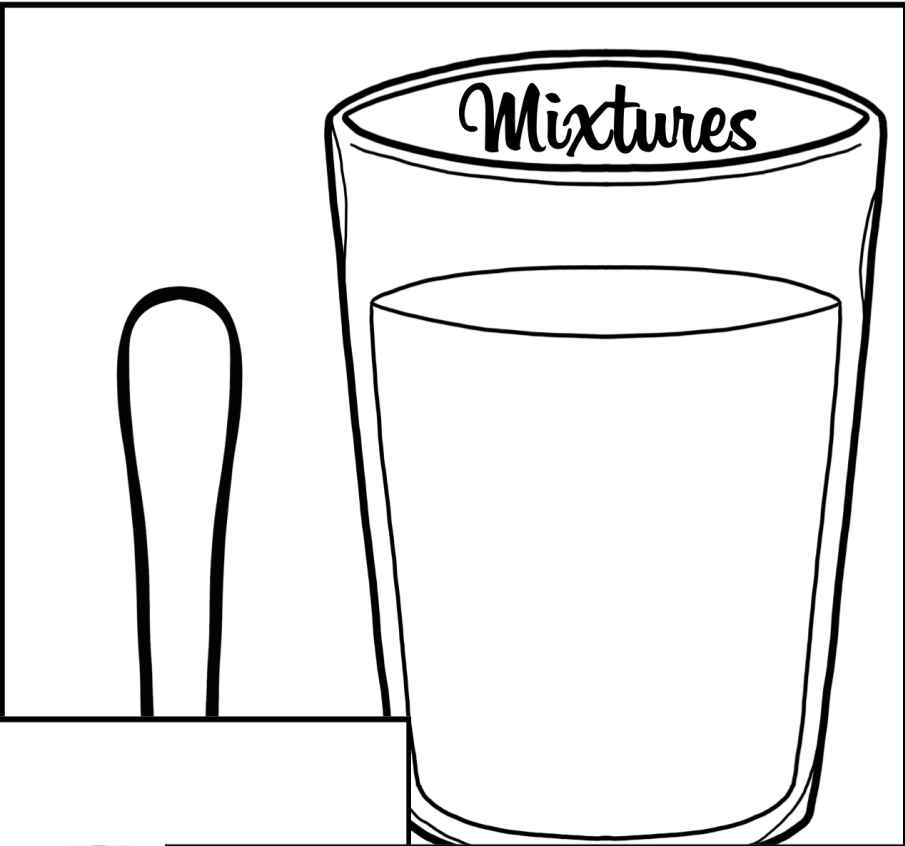
6.) Bottle of soda



re or solution) and explain why one of the mixtures you there.

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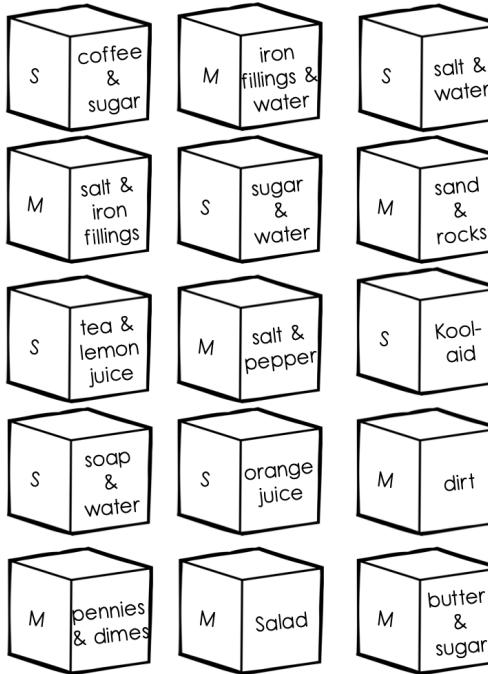


pennies & dimes	coffee & sugar	iron filings & water	salt & water	Soda
Salad	salt & iron filings	sugar & water	sand & rocks	vinegar
butter & sugar	tea & lemon juice	salt & pepper	Kool-aid	steel
cereal	soap & water	orange juice	dirt	Trail mix

IF YOU'RE NOT PART OF THE *solution*,

THEN YOU MUST BE PART OF THE *mixture*.

ANSWER KEY



Name Key - Answers May Vary. Look for reasonableness

WHAT TECHNIQUE IS USED?

Below is a list of different mixtures. Predict which technique would be appropriate for separating the mixtures and justify your answers by describing the properties of the materials that allow it to be separated.

Techniques

Filtering
Floating

Evaporating
Settling Out

Using Magnets
Hand Sorting

1.) Lettuce and tomato salad

Hand sorting. The tomatoes are large enough to pick up by hand.

2.) Iron nails and sawdust

Using Magnets. The iron nails are magnetic.

3.) Sand and Rice

Settling Out/Floating. (Add water) The rice will float to the top while the sand will settle to the bottom. Then just scoop the rice out.

Name Key

WHAT IS A MIXTURE? WHAT IS A SOLUTION?

A mixture is a material that can be separated into two or more parts. The particles are not joined together chemically.

Some mixtures are combined in a way that is not even. It is clear you can see the different parts. Other mixtures look the same throughout and are mixed evenly. These are called solutions. An example of a solution would be salt mixed in water.

Mixtures and solutions can both be separated. Some can be separated by using a magnet, a filter, or even evaporation. Sometimes substances settle to the bottom or float to the top.

Look at the examples below and think about how they are mixed. If you can tell the two substances apart, it is a mixture. If it is easy to tell the two substances apart, it's a mixture. Write what you think it is on the line.

1.) A pitcher of Kool-Aid



Solution

2.) Cereal and milk



Mixture

4.) A salad



Mixture

5.) Chocolate Milk



Solution

Name Key

Mixtures and Solutions

Read the choices below in the word bank. Then choose the correct mixture for each category.

5.)

- bananas and grapes
- drink mix and water
- liquid dish soap and water
- pebbles and soil

- air
- lemonade
- spaghetti and meatballs
- sand and water

Mixture

Solution

1. bananas and grapes

1. drink mix and water

2. pebbles and soil

2. liquid dish soap and water

3. spaghetti and meatballs

3. air

4. sand and water

4. lemonade

Select a category above (mixture or solution) and explain why one of the mixtures you placed in that category belongs there.

Answers may vary. Look for justification

DIRECTIONS PAGE

- 1.) Complete the worksheets provided.
- 2.) Color the banner provided. Then cut it out and glue the two ends together to make one long rectangle banner.
- 3.) On the lemon of the lemon and lemon wedge write the definition of what a solution is. Then color it and cut it out. Color lightly so you can read the writing on it.
- 4.) On the spoon, write the definition of what a mixture is. Then color it lightly and cut it out.
- 5.) Color both the solutions cup and the mixtures cup. Then cut them out.
- 6.) Get a large (12" x 18") piece of construction paper.
- 7.) Near the top glue down your banner.
- 8.) On the left, glue down your solutions cup. Then glue down the lemon wedge piece next to the cup.
- 9.) On the right, glue down your mixtures cup. Then glue down the spoon piece next to the mixtures cup.
- 10.) Color the cubes lightly (so you can still read the writing). Place an S on the cube if it is a solution and a M if it is a mixture. Then cut them out.
- 11.) Glue the cubes in their appropriate cups.
- 12.) Write your name on the back and turn it in.

AN EXAMPLE

