

A mixture is two or more substances that are mixed together but maintain their physical properties.

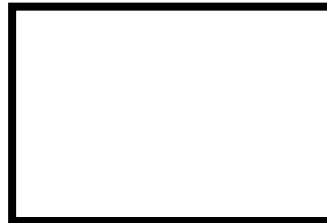
A solution is when one substance dissolves in water or a solvent.

Use the pictures from the mixtures and solutions memory game for this activity. Place the pictures in the correct boxes then read the sentence to your group or partner and explain your thinking.

I know that



is a

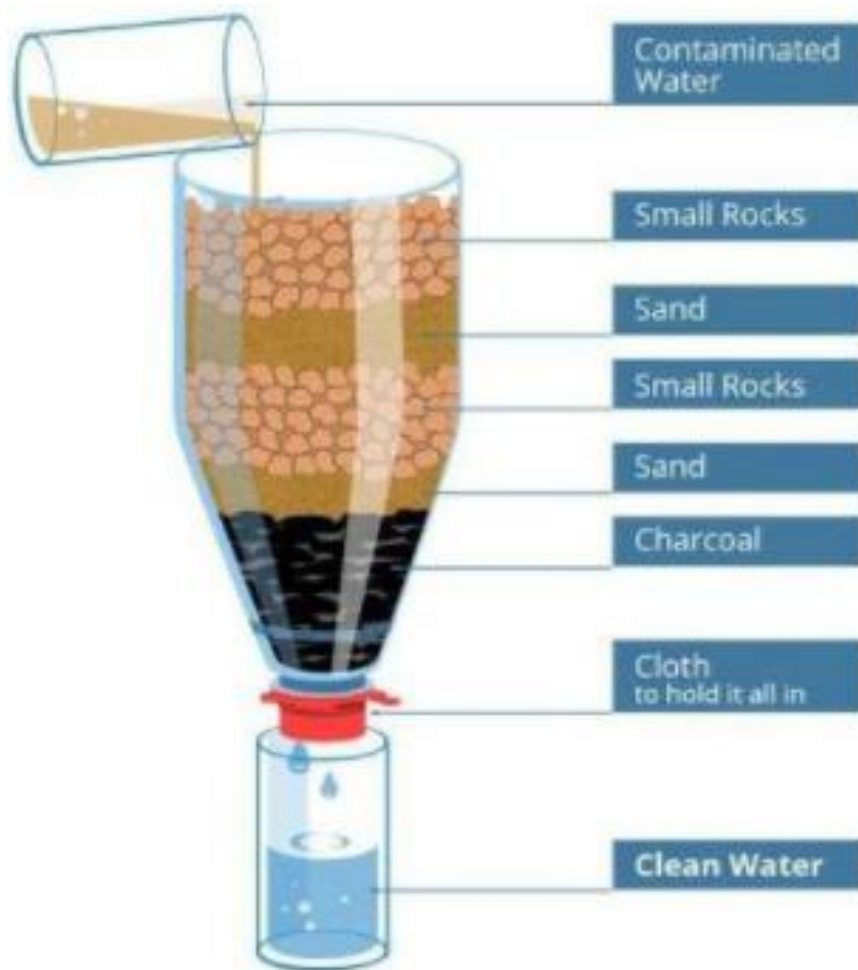


because

Mixture and Solution Memory

<p>lemonade</p> 	<p>soil and water</p> 	Mixture	Mixture	Solution
<p>nuts and berries</p> 	<p>water and rocks</p> 	Neither	Mixture	Solution
<p>salad</p> 	<p>water and rocks</p> 	Mixtures and Solutions Memory	Mixture	Solution
<p>fruits and vegetables</p> 	<p>sugar and water</p> 	salt and water	Mixture	Solution
<p>oil and water</p> 	<p>Kool aid and water</p> 	alka seltzer tablet and water	Solution	Solution

Is contaminated water a mixture or a solution?



Leroy went down to the lake and got a sample of contaminated lake water. He wanted to discover if the contaminated water was a mixture or a solution. The diagram to the left show the process Leroy took. Work with your group to answer the following questions below.

1. What process did Leroy take to try to analyze the contaminated water?
2. Was the contaminated water a mixture or a solution? Explain why or why not.

Use the sentence stem to complete the activity.

I would use _____ tool to separate _____, because _____.

Which tool (or tools) would you use to separate the following mixtures?

1. Sand and Rocks

2. Iron Filings and Salt

3. Salt and Sand
(multiple tools)



Magnet



Strainer



Hot Plate



Coffee Filter



Bowl of Water

Use the sentence stem to complete the activity.

I would use _____ tool to separate _____, because _____.

Which tool (or tools) would you use to separate the following mixtures?

1. Paperclips and Rocks

2. Wood chips and Marbles

3. Salt and Water



Magnet



Strainer



Hot Plate



Coffee Filter



Bowl of Water

Tools



Magnet



Strainer



Hot Plate



Coffee Filter



Bowl of Water



Magnet



Strainer



Hot Plate



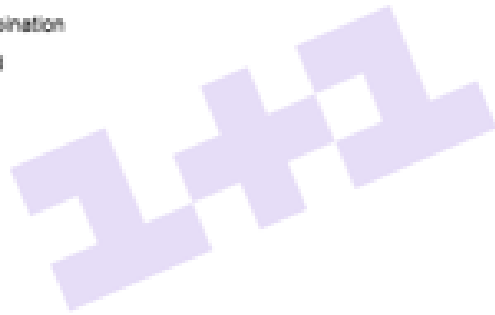
Coffee Filter



Bowl of Water

Anytime you combine two different things, you make a...

- Solution
- Mixture
- Combination
- Salad



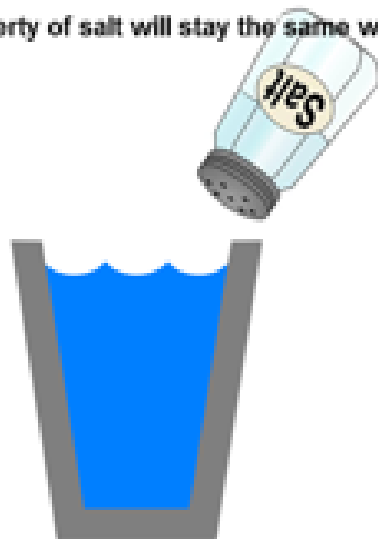
The iced tea is an example of a...

- Solution
- Mixture
- Combination
- Salad



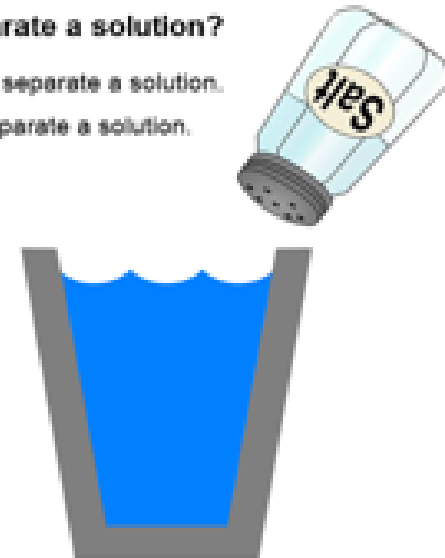
Which physical property of salt will stay the same when dissolved in water?

- Size
- Texture
- Color
- Taste



Is it possible to separate a solution?

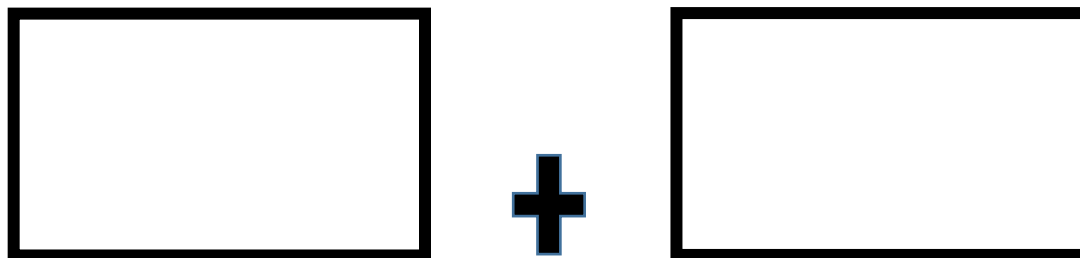
- No it is not possible to separate a solution.
- Yes it is possible to separate a solution.



Item sheets

<p data-bbox="247 305 432 363">Sugar cubes</p> 	<p data-bbox="789 305 974 363">Wood Chips</p> 	<p data-bbox="1352 305 1520 363">Iron filings</p> 
<p data-bbox="247 727 453 786">Glass Marbles</p> 	<p data-bbox="789 727 911 786">Water</p> 	<p data-bbox="1352 727 1457 786">Rocks</p> 
<p data-bbox="247 1036 415 1094">Paperclips</p> 	<p data-bbox="789 1036 869 1094">Salt</p> 	<p data-bbox="1352 1036 1436 1094">Sand</p> 

Pick two items from the item sheet and mix them together in the bowl below. Explain the steps you would use to separate this mixture and what tools you would use to assist you.



- Step 1 _____
- Step 2 _____
- Step 3 _____
- Step 4 _____

Pick three items from the item sheet and mix them together in the bowl below. Explain the steps you would use to separate this mixture and what tools you would use to assist you.



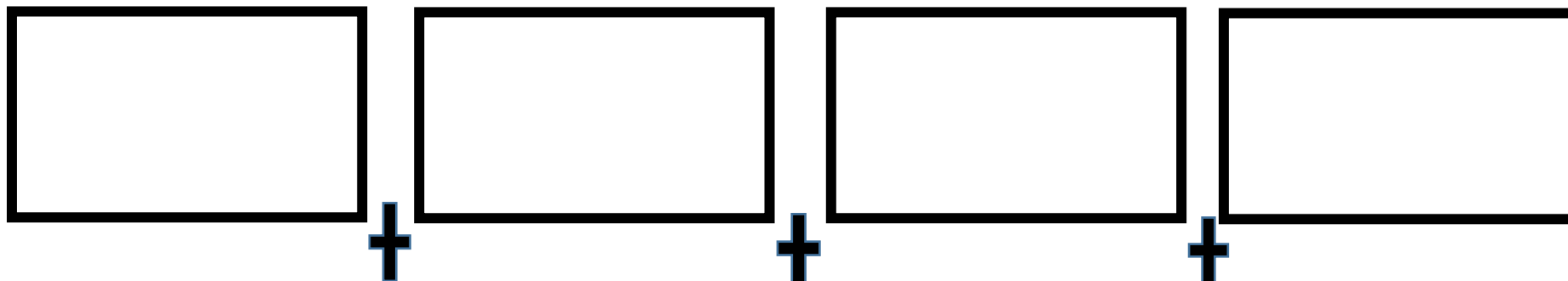
Step 1 _____

Step 2 _____

Step 3 _____

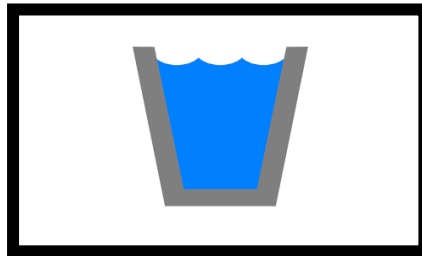
Step 4 _____

Pick four items from the item sheet and mix them together in the bowl below. Explain the steps you would use to separate this mixture and what tools you would use to assist you.



- Step 1 _____
- Step 2 _____
- Step 3 _____
- Step 4 _____

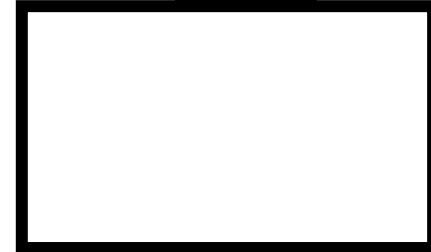
We added sugar, water, and sand to the bowl below. Use pictures to explain the steps you would use to separate this mixture and what tools you would use to assist you.



Step 1



Step 5



Step 2



Step 3



Step 4

