



Learn about the most tasty solution: Lemonade

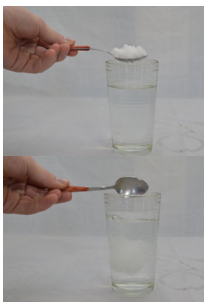
Material:



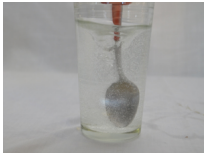
- a glass
- water
- one teaspoon of sugar
- a lemon or orange

Instruction:

Fill your glass with water and add one tea spoon of sugar.



Watch the sugar dissolving in the glass of water. Stir the water in order to accelerate the process.



When the sugar is dissolved, you created a solution. The sugar is not in shape of solid grains anymore it is completely dissolved.



Finally add some squeeze a lemon or an orange and add the juice to the solution. Stir everything and enjoy your self made lemonade.

Explanation:

The thousand of grains, our sugar consists of, are small crystals. Sometime you can find rock candy for tea and coffee, which looks exactly like the fine-grained white sugar, but bigger. By having this example in mind, we can trace back to our solution. The small sugar-grains can be divided into smaller crystals and this is exactly, what happens by adding sugar to water. The water-molecules connect with the sugar-crystals and take out very small crystals(sugar-molecules). This process needs some time and water-molecules which are connected to sugar-crystals cannot connect again to other crystals. Therefore we stir the water

and accelerate the process. After stirring the water the sugar-crystals are surrounded by more unconnected water-molecules than before. When sugar-molecules ("smallest grain of sugar") are connected with water-molecules the solution is finished. The sugar-crystals are so small that you cannot see them anymore. But they are everywhere in your glass of water. Therefore the water tastes sweet everywhere and not only in particular places, like at the bottom of the glass. Now you can also add some squeezed fruits in order to give your lemonade a fruity taste. Your self made lemonade is done. By being thrifty using sugar, your lemonade is even more healthy than the lemonade you can find in shops or supermarkets, because you are not using any artificial coloring and no flavor enhancer. Cheers!