

Zedua Experiments

Title: Dissolving Sugar at Different Heats

What is temperature?

The degree or intensity of heat present in a substance or object, especially as expressed according to a comparative scale and shown by a thermometer or perceived by touch.

In this experiment, we can teach the kids how to make solutions at different temperatures.

Materials Required:

1. Sugar cubes
2. Cold water in a clear glass
3. Hot water in a clear glass (be careful with the hot water)
4. Spoon for stirring

Procedure:

1. Make sure the glasses have an equal amount of water.
2. Put a sugar cube into the cold water and stir with the spoon until the sugar disappears.
3. Repeat this process (remembering to count the amount of sugar cubes you put into the water) until the sugar stops dissolving, you are at this point when sugar starts to gather on the bottom of the glass rather than dissolving.

Note: Write down how many sugar cubes you could dissolve in the cold water.

4. Repeat the same process for the hot water, compare the number of sugar cubes dissolved in each liquid, which dissolved more?

What's happening?

Hot water dissolves more sugar than cold water. Another name for the liquids inside the cups is a 'solution', when this solution can no longer dissolve sugar it becomes a 'saturated solution', this means that sugar starts to collect on the bottom of the cup.

In hot water the molecules moves faster and these molecules are spread further apart than the cold water. Sugar molecules fit in between the bigger gaps of the molecules in the hot water.



Source: pintrest