

Dissolving sugar Cubes

M1-10 CHEMISTRY

Question

- The problem of my project was what liquid would dissolve a sugar cube the fastest

Abstract

- The problem of my project was what liquid would dissolve a sugar cube the fastest. The purpose of my experiment was to find which liquid dissolved a sugar cube the fastest. My hypothesis was that coke would dissolve the sugar cube the fastest because it has the most sugar in it. My procedures were that I would set up the timer fill the cups with the liquid and then drop the sugar cubes in the cups and start the timer at the same time. I would then check the cups to see if the cubes had dissolved and would lap the timer to see the time that sugar cube dissolved. The results of my experiment was that the water worked the best to dissolve the sugar cubes.

hypothesis

- If a sugar cube is put in coke then it will dissolve the fastest because the coke has the closest molecular structure to the sugar cube.

Procedure

- Set up the materials
- Pour liquid (the independent variable) into the cups up to the first line
- Drop the sugar cubes into the cups and start the timer at the same time
- Record the time a sugar cube dissolves until all sugar cubes are dissolved

Materials

- 10 Glass cups
- Ipad (for use as Timer)
- 100 Sugar cubes
- 1 gallon of lemonade
- 1 gallon of coke
- 1 gallon of sprite
- 1 gallon of orange juice
- 1 gallon of water
- 1 red solo cup

Results

OJ	Lemonade	Water	Coke	Sprite
8 min 10s	6min 15s	4min 44s	6min 8s	4min 22s
8 min 2s	6min 3s	4min 41s	5min 57s	4min 29s
7min 36s	5min 51s	4min 30s	5min 53s	4min 34s
7 min 22s	5min 41s	4min 2s	5min 45s	4min 43s
7min 35s	4min 41s	3min 23s	5min 33s	5min 22s
6min 44s	3min 15s	3min 7s	5min 29s	5min 39s
5min 30s	8min 50s	2min 46s	5min 17s	7min 40s
4min 16s	3min 24s	2min 39s	5min 10s	7min 57s
3min 57s	4min 17s	2min 30s	3min 30s	8min 14s
3min 42s	7min3s	2min 16s	3min 12s	8min 23s
5min 56s	9min23s	6min 15s	4min 12s	6min 56s
12min 11s	4min 36s	5min 11s	4min 21s	5min 55s
6min 17s	4min 46s	5min 10s	4min 33s	5min 51s
6min 35s	5min 15s	5min 8s	4min 43s	4min 34s
7min 18s	6min 30s	4min 57s	4min 50s	4min 30s
7min 56s	6min 42s	4min 53s	5min 6s	4min 25s
8min 18s	7min49s	4min 50s	5min 24s	4min 22s
8min 36s	7min 59s	4min 41s	6min	4min 19s
8min 44s	8min 18s	4min 38s	6min 9s	3min 32s
11min 31s	8min 45s	5min 11s	4min 25s	5min 22s

Conclusion

- In my experiment water worked the best. My hypothesis was not supported because the sugar cube dissolved faster in water than in coke. I found out that water dissolves sugar at a faster rate than orange juice, lemonade, coke, and sprite.

Work Cited

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