



Intro/Background Research

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Oranges contain a lot of vitamin C. The normal acidity for an orange is 3.0 and depends on the brand of orange juice that you use in your experiment. It also depends on f there is any added sugars to the juice that adds another sweetness to it to increase the tartness. Orange Juice is slightly more acidic lemon juice, with a pH value of 2, and just above the less acidic tomato juice, with a pH value of 4. Normally when atoms are warm they tend to spread apart which makes more sense because when atoms are cold they are more paced. When they are warmer then they can spread throughout the juice to keep that tangy flavor rather than it being cold and having it taste watered down in the different temperatures.

Research Problem

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Does storing your orange juice at different temperatures affect its acidity?





Hypothesis

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If the orange juice in placed in the oven (warmer), then the acidity will be higher than the room temperature and the colder tests.



Variables

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Independent Variable: The temperature that the orange juice is entered in.

Dependent Variable: The Orange Juice



Control

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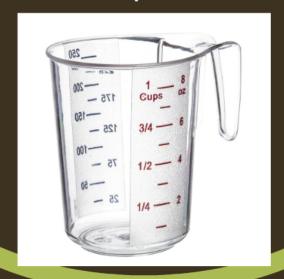
The acidity in the cold, warm, and room temperature orange juices.



Constants

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The amount of Orange juice will not be changed in this experiment.

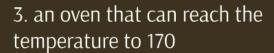


Materials

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1. 3 labeled(cold, warm, room temp.) glass cups filled with one cup of orange juice each

2. a cold vicinity (preferably 20 degrees or below)



4. a room that is 75 degrees or below (72 degrees is recommended)

5. pH paper strips

6. a timer (optional)

7. something to record your data



