

Chemical Reactions: Determination of Vitamin C Concentration/Presence

OBJECTIVE

The objective of this lab is _____

HYPOTHESIS:

MATERIALS:

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PROCEDURE:

1. Using a pencil label your test tubes (6 in total)
2. Pour 10 ml of the iodine starch solution in each test tube.
3. Grind up the vitamin C tablet using a mortar and a pestle
4. Transfer the grindings to a 100 ml beaker. Use about 100 ml of water to wash the grindings out of the mortar and into the beaker. Stir the liquid in the beaker using a rod. Some of the grindings will not dissolve, but this is not a problem because the vitamin C will be dissolved.
5. Using a clean medicine dropper add a couple of drops of the vitamin C solution to the iodine starch solution. Shake the tube. Keep adding until you see a definite colour change (clear). This colour change indicates that the vitamin C solution has destroyed the iodine in the iodine starch solution. REMEMBER TO COUNT THE DROPS.
6. Now, gradually add drops of one fruit juice in the properly labelled tube (for example, add orange juice to the tube labelled OJ). REMEMBER TO COUNT THE DROPS.
7. Make sure you add the drops gradually allowing time for the chemical reaction to take place. To check that the colour has gone, write down the number of drops, then add 1-5 more. Shake the tube again. If the colour changes, add the extra drops to the number you wrote down. Repeat the process until there is no further change.

Science - Grade 8 - Chemical Reactions Lab - Name: _____

OBSERVATIONS:

Observe what happens as you add and combine the different

| Samples Tested | Predict the number of drops needed to react with the iodine | Actual number of drops needed to react with the iodine |
|----------------|---|--|
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CONCLUSION:

Guidelines:

1. State whether your hypothesis is correct, or not (if done)
2. What you observed regarding the theory in question (did the results match expectations of theory - attempt to explain using your data)
3. State what you learned
4. Potential sources of error
5. Ways to improve the method