
PINEAPPLE PROTEINS

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Introduction

Have you ever heard that adding fresh pineapple to Jell-O or other gelatine will prevent it from gelling? Do you think this is true? In this experiment, you will test if this statement is true and you will discuss the reason behind your findings.

Risk analysis

Discuss with your group and teacher the risks of this experiment.

- As you will be using hot water, care must be taken not to burn yourself.
- Make sure you are not allergic to any of the food materials used.
- Always wear gloves and safety goggles while using chemicals or food materials.
- If you are going to use any chemicals, read the safety data sheet (SDS) of each chemical and take precautions to avoid harm.
- If you are going to cut the pineapple or open a can yourself, take care not to cut yourself.
- Instantly report any glass breakage to your teacher.

Questions

Does pineapple prevent gelatine or Jell-O from gelling?

Is there a difference between adding fresh pineapple and canned pineapple to gelatine?

What happens if you add other types of fresh and canned fruits such as apple, banana or any other fruit of your choice?

To have a fair test, what is your independent, dependent and control variables?

Select one or more of the above questions and write an aim below.

What do you think will happen, and why? Write your own hypothesis below.

Plan

Form groups of three and follow the instructions of the Jell-O pack.

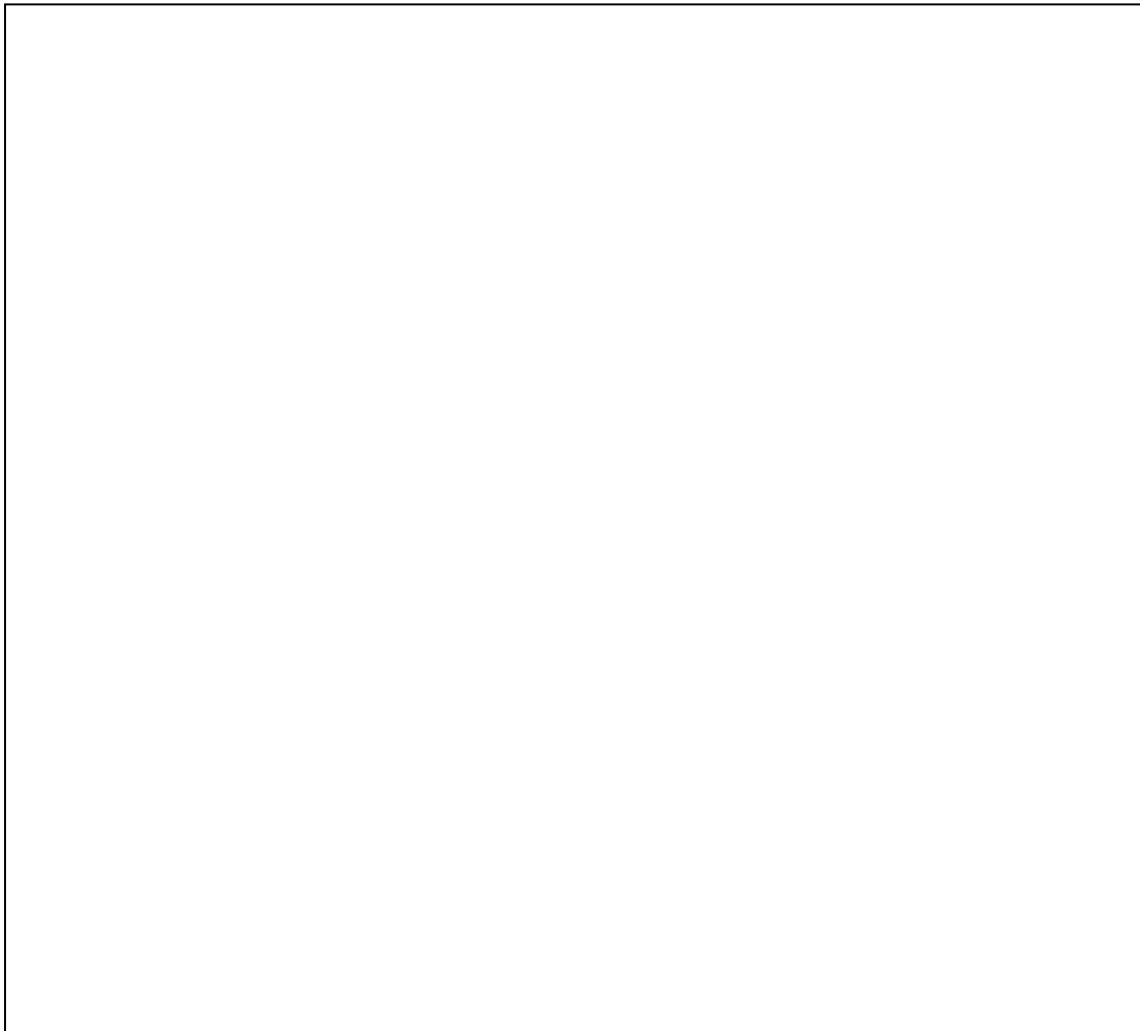
Decide how you are going to conduct your experiment to test if pineapple really stops gelatine from gelling. In doing so, you have to think about your dependent, independent and control variables.

Write a detailed method. Mention the exact amounts of materials used and the order of steps.

In your procedure, include your dependent and independent variables as well as the control variables.

Materials

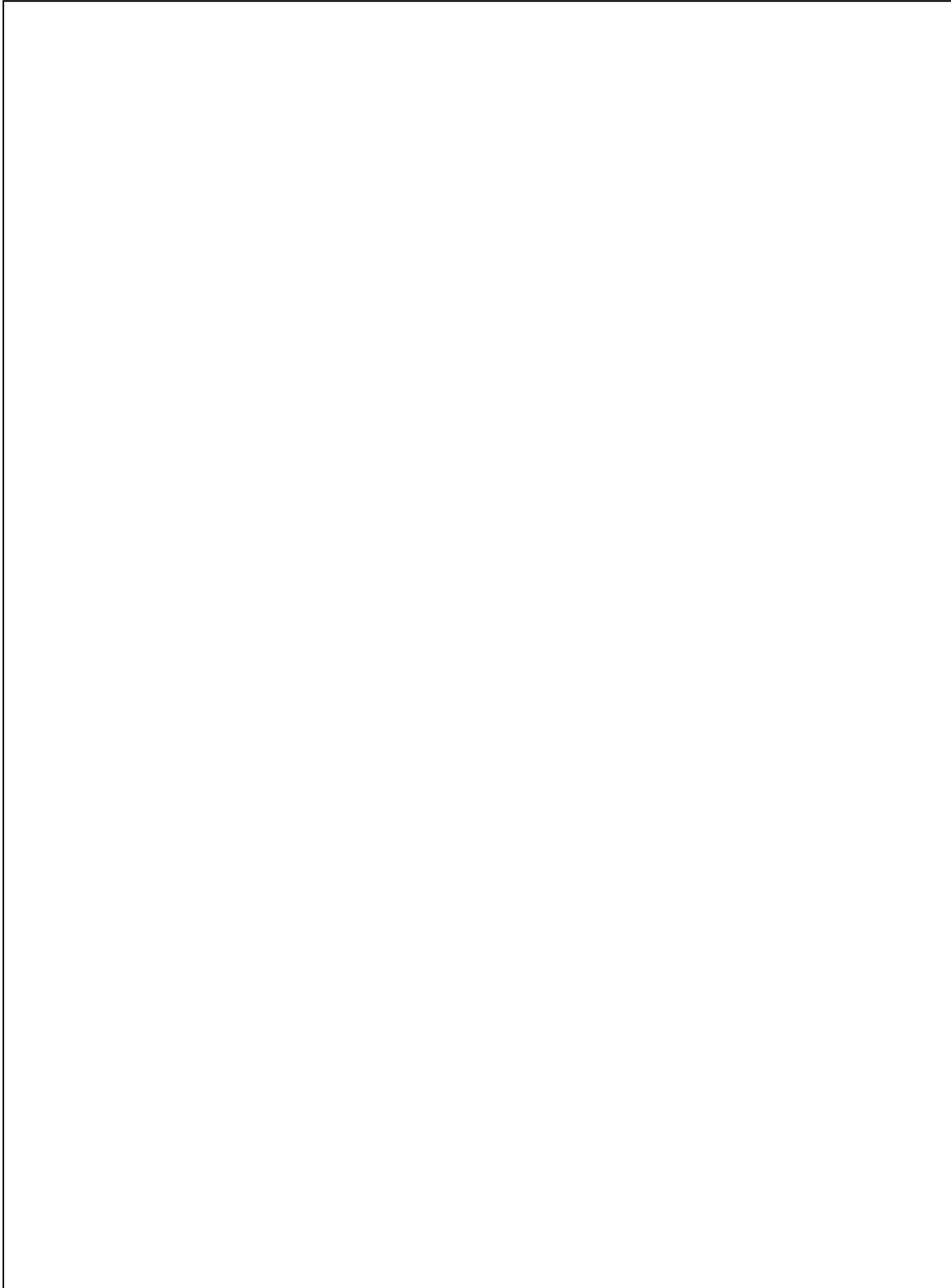
- A fresh pineapple
- Canned pineapple
- Gelatine powder
- Warm water
- Ice bath
- Other types of fruit of your choice
- Write a list of other materials that you believe you need for your experiment after you discuss them with your teacher.



Conduct


Carry out your plan and record your observations.

You can also take photos of the steps to include in your final report.



Analysis

Write down your observations. Tabulate or graph your results in a way to make it easier to read and compare.

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Problem solves

Discussion

State whether your findings agree with the statement that pineapple prevents gelatine from gelling.

Do your results agree with your hypothesis?

Do your results agree with the results of other groups in the class?

What is the scientific explanation of your findings?

Did all the fruits tested act the same way? What does this tell you about the composition of different fruits?

Suggest ideas for future experiments that will strengthen your findings.

Discuss anything that might have not worked as planned.

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Conclusion

Write a concise summary of your findings; address the questions you chose in your aim. Mention whether you were able to find an answer to the question you tested or not.

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