



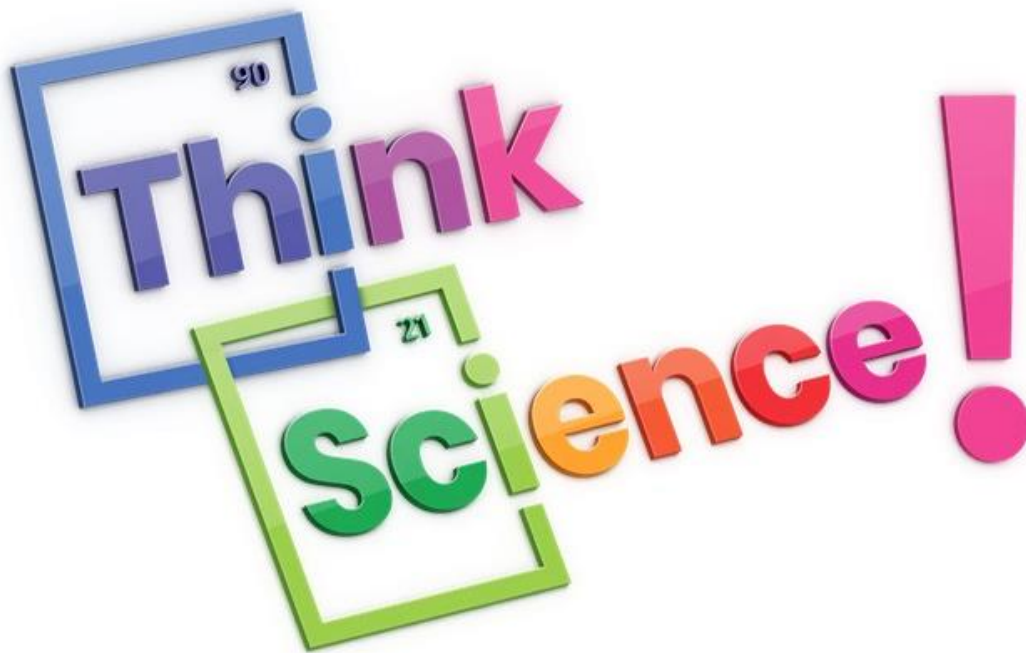
Team members:

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# Logbook



### Aim:

Write an aim for your investigation. The aim states the purpose of your investigation, what you are setting out to investigate.

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### Hypothesis:

Based on what you know and what you found out from your background research, write a hypothesis. Your hypothesis is a **testable statement**. It is your prediction of what you expect to find from carrying out the investigation.

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## Planning and Conducting

What variable are you going to change (independent variable), and what variable are you going to measure (dependent variable)? How are you going to change and measure these variables?

How can you make your investigation a fair test? Think about the variables you will need to keep the same, and how you will do this.

independent variable (what is changed)	dependent variable (what is measured)	controlled variables (what needs to be kept the same)

Does your experiment need a **control** that you can use to compare with your test results? If yes, describe what you will use as your control.

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## Equipment:

List all the materials and equipment you will need for your investigation.

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## Risk Assessment:

Identify any dangers to yourself or others associated with your investigation, and state how you are going to minimise each of these. Consider any ethical issues if your research involves animals or humans.

Risk or danger	Ways to manage and minimise the risk or danger

## Method:

Describe a step-by-step procedure that tells us what you are doing, how you are going to do it and the equipment that you are using to do it. Don't forget to include a sufficient number of replicate trials to ensure the validity of your data.

It is also good practice to show the set up of your equipment with a photo or diagram, so your audience can visualise what you are doing.

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## Processing, Modelling and Analysing

### Results:

Record what you observe and measure during your investigation (your raw data) in an appropriate way, such as a table.

It is also good to present your results in other formats such as appropriate graphs, photographs, diagrams.

What do your results suggest? Describe any trends, patterns, relationship and anomalies you see in your results data.

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## Evaluating

### Discussion:

Referring to your previous background research and your knowledge, explain how your results agree or disagree with the scientific theory and concepts related to your investigation. What do your investigation results mean for people's everyday lives?

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Thinking about the equipment you used and your method, what difficulties or sources of error did you encounter in carrying out your investigation? Was it a fair test? Why or why not? How could these difficulties have affected your results?

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What improvements would you make to your method to improve the fairness and quality of your data?

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Suggest any further research or actions that you think need to be carried out to extend this investigation and further our understanding of this aspect.

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## Conclusion:

Write a conclusion for your experiment. A conclusion is like an answer to your aim, and gives a brief summary of your findings. Does your conclusion support or disagree with your hypothesis?

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## Communicating

Create a **story board** to show how you will communicate your investigation information in your video. Your story board should indicate each scene (what you will show to the audience) and what you will say for each scene. Remember to include each member of your team.

Have fun telling us about your investigation! We can't wait to see it.