



# 9. Bottle Tone opposition

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# The Problem

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Take an empty bottle and blow air across its mouth to produce a sound. Now fill the bottle with some water and **study how the sound changes.**



# Addressing the problem

Theoretical Model/Sound Predictions	
Valid Experimental Data	
Why The Sound Changes	
Relevant Variables Tested	



# Strengths

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## Theory

- Had starting to calculating frequency

## Practical

- Did a number of tests



# Weaknesses

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## Theory

- No theoretical mode
- Theory was irrelevant
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## Practical

- Invalid data
- Not enough variable tested or controlled
- Does not explain how to measure frequency
- No graphs
- No comparison of data



# Points for discussion

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- How can you measure the frequency of a sound
- How would you be able to predict the frequency for a bottle
- How can you be sure your method was fair
- Explain conclusions

