

## WHAT TEMPERATURE DOES AN ASPIRIN TABLET DISSOLVE THE FASTEST

Aim: To see what is the best temperature to dissolve an aspirin tablet the fastest, in cold water, tap water or hot water.

Hypothesis: The hot water would be the fastest to dissolve the aspirin tablet and cold water would be the slowest.

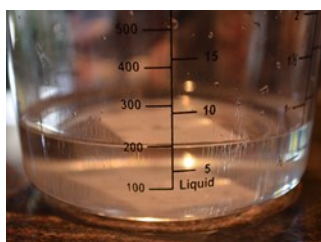
Apparatus: kettle (kenwood), fridge, plastic party cup, 200ml hot water, tap water, cold water, aspirin (aspro clear), stopwatch.

### Method:

Get cold water from the fridge and pour 200ml into a cup.

Place 1 aspirin tablet in the cold water and time the aspirin using a stopwatch as soon as the aspirin is in the water and then stop the timer when it completely dissolve.

Repeat steps 1 and 2 but instead of using cold water use tap water and hot water. Observe and record results into a table.



### Risk assessment:

Dangers	How to avoid them
1. Slipping on water that has been spilt	1. Don't rush or rum with water. Behave with the water and if spilled clean up as soon as possible.
2. Getting burns from hot water or kettle.	2. Be careful with hot water and don't rush. Have gloves on when handling hot water.
3. Swallowing an aspirin and choking or overdose may cause morbidity or even death	3. Avoid swallowing an aspirin pill.

In an investigation such as this it is better to formulate a clear statement describing the purpose addressed by the investigation, rather than an aim.

Reliability of these results would be improved by repeating the procedure several times. A line graph of averaged measurements would demonstrate the trends in the data.

Results: The cold water took the longest to dissolve the aspirin, tap water is not to cold nor warm to tap water was not the longest or the slowest to dissolve the aspirin because its in the middle. Hot water was very fast faster that the other two.

Temperature	time
Cold	01:33:02
Tap water (normal)	01:13:04
Hot	00:26:08

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Discussion: The hot water was the fastest and the cold water was slowest of the all.

Conclusions: After two test on each temperature of water, the cold and tap water (normal) where close but the hot water had a big difference.



This statement is the conclusion that reflects the purpose of the investigation, based on the evidence collected.

### Grade Commentary

Reese's report demonstrates a basic understanding of planning and conducting a scientific investigation. Reese is able to formulate a basic conclusion based on the limited data collected. An analysis of the results using information from secondary sources would help to frame the hypothesis and explain these results. This work sample demonstrates characteristics of work typically produced by a student performing at grade D standard.