

When hydrochloric acid is added to sodium thiosulphate, the clear solution turns cloudy. In this experiment the sodium thiosulphate solution is heated up to different temperatures. Will the temperature affect the rate of the reaction? Below given is the data for the experiment.

Temperature of the sodium thiosulfate solution (° C).	Time taken for the marked cross to disappear (seconds)			
	Trial 1	Trial 2	Trial 3	Average
10	23.68	22.8	23.35	23.3
20	16.65	15.41	15.78	15.9
30	12.98	13.3	12.06	12.8
40	10.6	9.02	9.52	9.7
50	6.4	6.01	6.27	6.2

Write down the following

1. Aim
2. Variables
3. Construct a graph for the above data.
4. From the graph calculate the reaction time if the temperature was 35 celsius.
5. Analyse the graph
6. Write a discussion for the above experiments. Your discussion should include the following points
 - a. Factors that could affect the experiment.
 - b. Mention the scientific point behind this experiment.

c. How would you ensure that the outcome of the experiment is reliable.