Candidate evidence

5 Analysis

Example 1

Concentration of Hydrogen Peroxide (%)	Volume of froth (cm^3)				Average volume of froth (cm^3)
	Attempt 1	Attempt 2	Attempt 3	Attempt 4	
1	12	15	6	3	9
2	16	16	12	9	13
3	22	21	29	18	23
4	40	24	27	25	29
5	55	43	48	52	50

The Averages, have been rounded up to the nearest whole number

Percentage of Hydrogen peroxide	Average volume of gas collected (cm^3) after...(secs)											
	5	10	15	20	25	30	35	40	45	50	55	60
100	48.3	68.7	78.3	82.0	85.0	86.7	87.0	87.3	87.7	88.3	88.3	88.3
90	37.3	55.0	63.7	68.3	71.0	72.3	73.0	73.3	73.3	73.3	73.3	73.3
80	32.3	47.3	54.0	59.0	61.3	63.0	63.3	63.7	63.7	63.7	63.7	63.7
70	26.3	40.0	45.7	48.3	49.0	49.3	49.3	49.3	49.3	49.3	49.3	49.3
60	20.7	31.7	36.7	40.0	42.7	44.0	44.7	44.7	44.7	44.7	44.7	44.7
50	16.3	27.0	31.0	33.3	35.3	36.3	37.0	37.0	37.0	37.0	37.0	37.0

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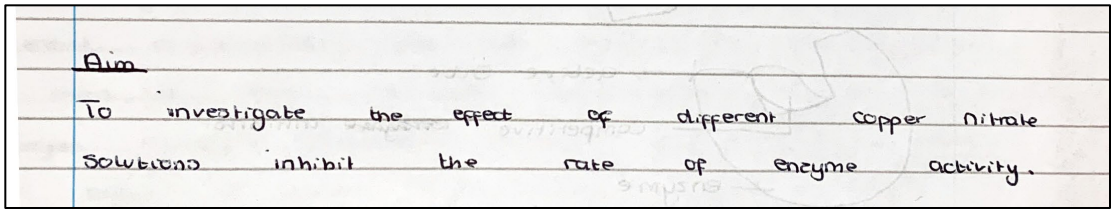
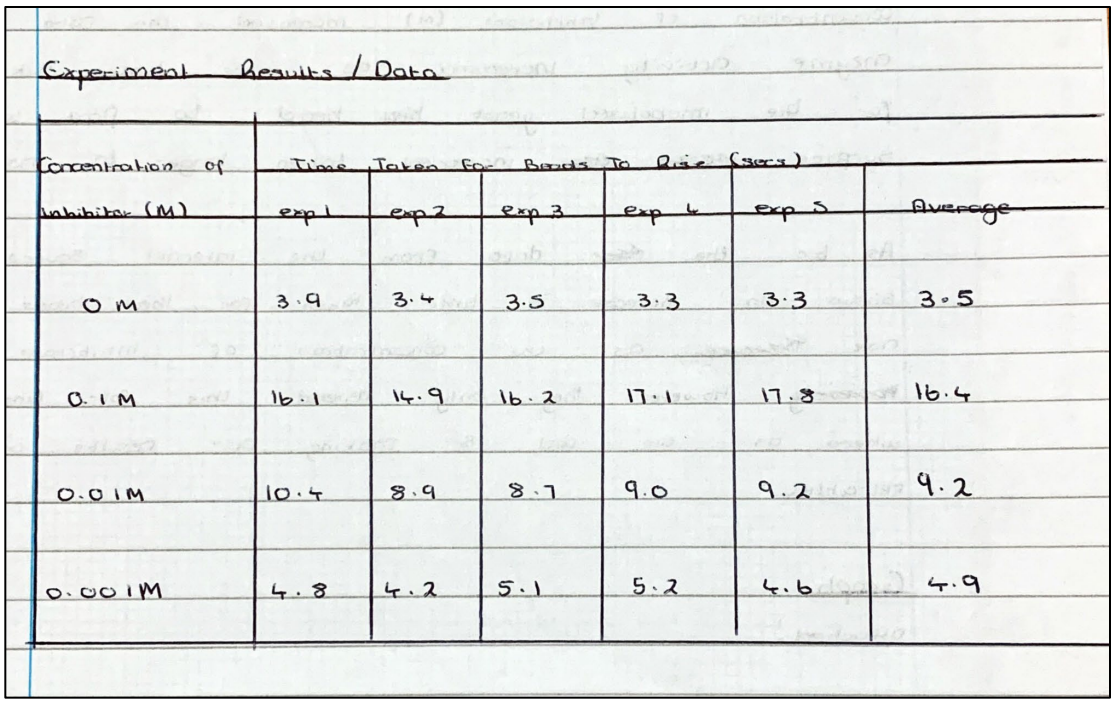
In my table, the hydrogen peroxide concentration increased from 1% to 5%, the average volume of froth increased from 9cm^3 to 50cm^3. An increase in volume of froth means an increase in enzyme activity. In the data, the results are similar but a different range of hydrogen peroxide is used going from 50% to 100%. When collected for 30 seconds, in this case was an increase in average volume of oxygen gas, which means in this experiment an increase in enzyme activity.

Example 2



Aim

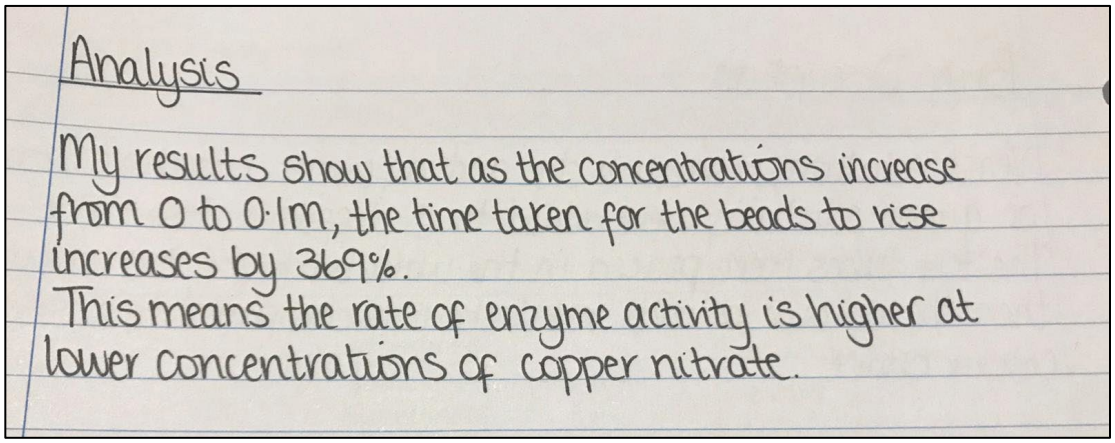
To investigate the effect of different copper Nitrate solutions inhibit the rate of enzyme activity.



Experimental Results / Data

Concentration of Inhibitor (M)	Time Taken For Beads To Rise (secs)					
	exp 1	exp 2	exp 3	exp 4	exp 5	Average
0 M	3.9	3.4	3.5	3.3	3.3	3.5
0.1 M	16.1	14.9	16.2	17.1	17.3	16.4
0.01M	10.4	8.9	8.7	9.0	9.2	9.2
0.001M	4.8	4.2	5.1	5.2	4.6	4.9

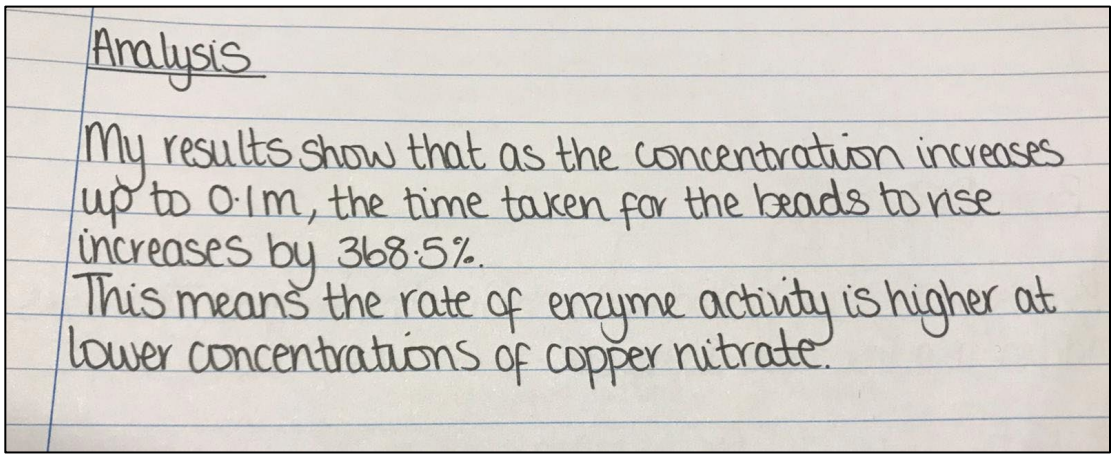
Example 2 – analysis (a)



Analysis

My results show that as the concentrations increase from 0 to 0·1m, the time taken for the beads to rise increases by 369%.
This means the rate of enzyme activity is higher at lower concentrations of copper nitrate.

Example 2 – Analysis (b)



Example 2 – Analysis (c)