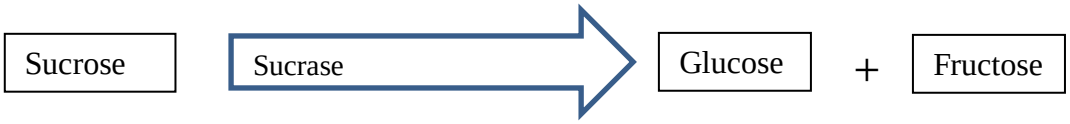
Keywords and Tables WS

Sucrose can be digested to give glucose and fructose. The reaction is speeded up by the enzyme sucrase.



A student carried out an investigation into the effect of increasing the concentration of the enzyme sucrase on the rate of this reaction.

She kept the concentration of the sucrose constant. She used six different concentrations of the enzyme sucrase and for each of these she measured the time taken for the sucrose to be completely digested. She carried out all the experiments at 40□C.

The results are shown in the table below.

Time taken to digest sucrose	Enzyme Sucrose concentration (%)
950	0.1
600	0.25
470	0.5
290	1
225	1.5
300	2

a) Write a conclusion for this experiment

_____

_____

_____ [2]

b) What was the independent variable in this experiment?

_____ [1]

c) What was the dependent variable in this experiment? [1]

_____ [1]

d) Identify **two** control variables?

_____ [2]

e) What are the mistakes in the table?

_____

_____

_____ [2]

f) What could have been a suitable hypothesis for this investigation?

_____

_____ [2]

g) What could have been a suitable prediction for this investigation?

_____

_____ [2]

h) Are there any anomalies in the data? If so identify any and state why they are considered anomalous.

_____

_____

_____ [3]

i) How need to be dealt with any random error?

_____

_____ [2]

j) What else would you change in this experiment?

_____

_____ [1]

Total [18]