

Name: _____

Lab #10: Cellular Respiration Lab

Rate of Respiration - Virtual Lab

<http://amrita.olabs.edu.in/?sub=79&brch=17&sim=204&cnt=4>

This simulation allows you to change three different variables: type of seeds, number of seeds, and temperature. When you start the experiment, you can alter the variables and it will run for two hours. The water level (starting at 2ml) will rise to reflect the amount of CO₂ produced by the seeds in the flask.



Question 1: How does the number of seeds in the chamber affect the rate of respiration?

CLAIM:

The seeds will affect it by taking up O₂

EVIDENCE:

Number of Seeds	10	20	30	40	50
CO ₂ Level	0.9	1.6	2.4	3.0	3.5

REASONING: (Summarize trends in the data and provide an explanation for those trends).

I have to appelted my claim becuase the more seed the lower the O₂ and higher the CO₂.

Question 2: How does the temperature of the chamber affect the rate of respiration?

CLAIM:

Th temp will affect the seed

EVIDENCE:

Temperature	5	15	25	35	
CO ₂ Level	0.4	0.9	1.5	2.1	

REASONING: (Summarize trends in the data and provide an explanation for those trends).

I support my claim because the CO_2 level went up when the temperature level went up.

Question 3: Does the type of seed affect the rate of respiration?

For this section you must make a claim, create a data table, and then explain your data.

Claim:

Yes the type of seed should affect the rate

Evidence (Data Table):

Seeds	Wheat	groundnut	Mustard	gram	Bean
CO_2	0.9	0.5	0.5	0.5	0.5

Reasoning (Conclusion):

Yes my claim was correct because the type of seed affects the CO_2 level