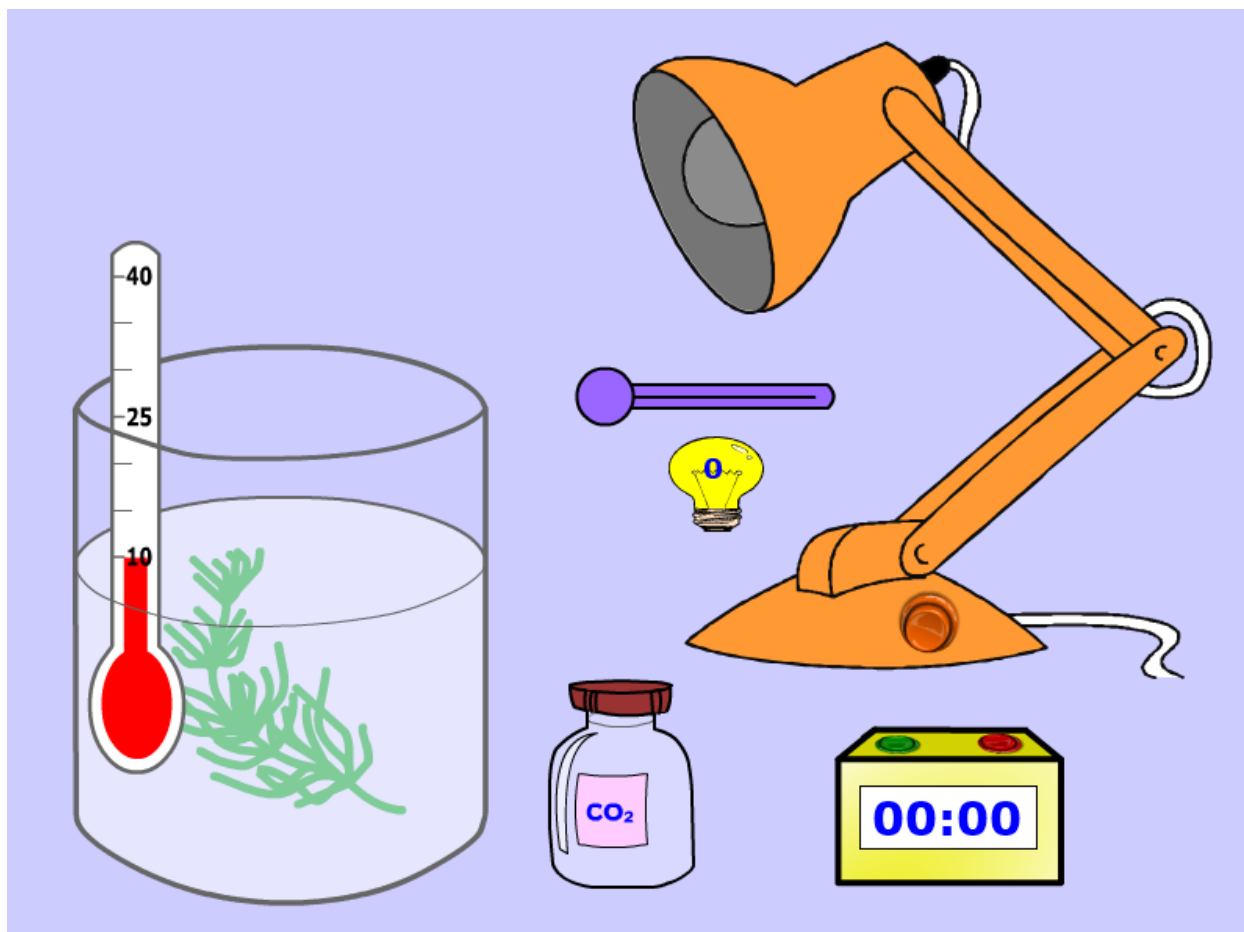


The simulation

Use the simulation to investigate the effect of your chosen variable on the rate of photosynthesis.

<https://myscience.com/myp9/htm/photolab.htm>



Investigate the simulation to see what happens as you change the different parts of the apparatus.

- The light bulb can be set to different intensities using the purple slider – the number on the bulb shows the intensity of the lamp.
- The orange button on the lamp can be used to set the bulb to different colours using filters
- The water can have different amounts of dissolved carbon dioxide
- The timer can be started and stopped using the green button and reset to zero using the red button.
- The thermometer can be set to three different temperatures by clicking on it.
- The pond weed in the water releases bubbles of oxygen as it photosynthesises.

Investigation

You must choose one variable to change (the independent variable) and a variable to measure as an outcome (dependent variable).

Research question

Write out a research question that reflects the variables that you have chosen.

Variables

Explain which variables you are going to investigate and how you are going to control (set/know the values of) the variables.

- Dependent variable
- Independent variable
- Control variables

Hypothesis (prediction)

- What do you think will happen in the experiment?
- Why do you think this?

Method

Say what you did in the experiment. This should be written so that someone else could do exactly the same experiment.

Results

Record all of your data.

- Think how it is best present your raw data.
- Choose the best way to analyse your raw data.

Conclusion

This should say what the effect of your chosen independent variable has on your chosen dependent variable. Do your finding support your hypothesis (prediction)

The conclusion should also try to explain your findings.

Evaluation

You should highlight the strengths and weaknesses of your experiment. You should discuss the validity (fairness) of the method you chose.