



2025–2026 ACADEMIC YEAR
GRADE 10 BIOLOGY PROJECT

NAME OF THE PROJECT: The Effect of Light Intensity on the Rate of Photosynthesis in Aquatic Plants (Elodea)

STUDENT'S NAME AND SURNAME:

CLASS:

Grade	Content	Acquisition	Duration	Assessment
10	The Effect of Light Intensity on the Rate of Photosynthesis in Aquatic Plants (Elodea Experiment)	Ability to conduct experiments on the substances used and produced in photosynthesis a) Designs an experiment related to the substances used and produced in photosynthesis. b) Analyzes the results obtained from the designed experiment and uses these results to explain photosynthesis.	Academic year	Research Report & experiment

Dear Students,

This project aims to investigate one of the most important processes for life on Earth: Photosynthesis. You should design a simple but effective experiment to test how light intensity affects the photosynthesis rate in aquatic plants. This project helped students to understand scientific research better and improve their experimental skills.

A. Research:

- What is photosynthesis?
- Importance of photosynthesis for living organisms.
- Factors affecting photosynthesis.
- Experimental design: How light intensity affects the rate of photosynthesis.
- How do you collect data?
- Search for the Elodea plant for the experimental setup.

Before starting your research report,

- Determine the subtitles.
- Determine the references. A minimum of 6 sources is required:



*Only 3 websites are allowed as sources

*You may use your text as a source

*You must have at least two outside sources (books, scientific journals, magazines, etc.)

Do not copy and paste information. Please summarize the information in your own words. If you quote someone, make sure you do it appropriately.

B. The research report should contain.

- A cover paper, research of the subtitles, preface, contents, quotation, footnote, etc.
- Explain why you have chosen this assignment in the preface.
- Information on the Effect of Light Intensity on the Rate of Photosynthesis in Aquatic Plants (Elodea Experiment)
- **The research report must include all recorded experimental data as well as photographs of the experiment, including the student performing the procedure.**
- A glossary.
- References.

Evaluation of your work and Conclusion:

* Add all the details about the difficulties you had throughout your research experience.

* Explain how you improved your research methods in this study. (What contributions did this assignment provide to you?)

* What would you change about this assignment if you were at the beginning of your study? Why? Criticize your work in a paragraph.

* Evaluate your work by responding to the questions below.

1. Were the scientific studies I conducted sufficient for my experimental work?
2. Can my experimental work be objectively replicated by another researcher?
3. Was I able to appropriately conclude my study?
4. Does my experiment report fully and accurately explain the experiment?

FIRST CHECK: (Planning)

Do your research and determine the references.

SECOND CHECK:

Complete your research report and booklet.

Important Warning

- Do not copy sentences directly from books, the internet, or AI tools (such as ChatGPT).
- Write in your own words.
- Always give the reference when you use another person's idea, picture, or sentence.
- When you complete the experiment, you must also submit a **video recording**. In the video, it must be clear that **you are doing the experiment yourself**.
- During poster or model-making assignments, the entire process of **your work must be**



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photographed or recorded as a time-lapse video.

- Assessment criteria are attached.



SCIENCE DEPT
RESEARCH EXPERIME

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