Photosynthesis





**See** [**https://www.learningctronline.com/courses**](https://www.learningctronline.com/courses) **for Materials and Resources.**

**Topics:**

1. Photosynthesis

**Objectives:**

* Explain the importance of photosynthesis to living organisms.
* Write the chemical equation for photosynthesis.
* Summarize the process of photosynthesis (stages, components, chemicals, energy), including the two photo systems and the electron transport chain.
* Identify and explain the components and process within the Calvin cycle.

TAKE NOTE

1. Notes/Study Guide (1 week)
2. Homework from Text (1 week)
3. Study of the Cell – Elodea
4. Honors 🡪 Lab Pigments Used in Photosynthesis
5. Chapters 6 – 7 Test … Metabolism & Photosynthesis
6. Week 8 Devotional (<https://www.learningctronline.com/devotional>)

**Text**: Chapter 7: Photosynthesis pp. 114-133

Read the assigned pages in the text.

**Class Notes: PowerPoint or PDF**

**Notes/Study Guide:** Fill in the Chapter 7 Study Guide worksheet to understand the class notes.

**Homework**: (1 week)

* Study Questions (at the end of the chapter in the text) #2, 4, 7-16 explain true/false
* Use a Word document format as follows:
	+ Start on a new page of your document
	+ Heading: Your name, Chapter in Text, Study Questions
	+ Number the appropriate questions you are to answer
	+ Write the answer in a complete sentence use the question as the template (do not copy the question, but reword it into a statement that answers the question).
* Use the same document each week by starting a new “Study Question” for a different chapter on the next page.
* Assignments will be “spot checked” during class or submitted via email.

**Lab**: Study of the Cell – Elodea

* Complete the "Study of the Cell – Elodea Lab" using the lab worksheet provided.
* After completing the Lab worksheet, email it to learningctronline@gmail.com for grading.
* Save document into your LAB folder in the Biology folder on your desktop.

**Lab**: Pigments Used in Photosynthesis (HONORS ONLY)

* Complete the "Pigments Used in Photosynthesis Lab" using the lab worksheet provided.
* After completing the Lab worksheet, email it to learningctronline@gmail.com for grading.
* Save document into your LAB folder in the Biology folder on your desktop.

**TEST:** Metabolism & Photosynthesis

1) the academic integrity policy

* Tests must be completed **WITHOUT** referring to books, notes, the internet, people, or any outside resources.
* A guardian should be proctoring the test as per Learning CTR Online policy: <https://www.learningctronline.com/test-proctor-policy>

2) This test is composed of 29 multiple choice and 3 essay questions.

* The **test must be taken "in one sitting"**, meaning that once you start the test, you must complete it without interruption.
* Take a short break (5 minutes) during the test.

3) There is a **50-minute time limit** on this test. Please have the proctor write the time taken at the top of your answer sheet with their signature or initials.

4) Honors students – no additional questions or essays.

5) Proctors should NOT be reading the test or engaging students during the test.

5) Do NOT use RED font. Black font is best.

Supplemental Resources (Optional)

1. Photosynthesis Vocabulary Crossword

<https://screencast-o-matic.com/watch/c3eZF4VqcVW> (2:04) **Pigments Used in Photosynthesis**

<http://somup.com/c3eOI4TPqi> (4:08) The **Light Reactions of Photosynthesis** Animation

<http://somup.com/c3eOIgTPql> (3:06) **Calvin Cycle** Animation

<https://youtu.be/CMiPYHNNg28> The Amoeba Sisters Channel – **Photosynthesis** (7:58)