

Name: _____

Student ID: _____

CHEM 161 PAL Fall 2026

Worksheet #27: Photosynthesis Overview

1. In the space below draw a diagram of the chloroplast. Label the following structures on the diagram: outer membrane, inner membrane, intermembrane space, thylakoid, stroma, grana, lumen.

2. Briefly explain the importance of photosynthesis to animals. In your explanation discuss the reactants and products of photosynthesis.

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3. For each of the reactions below indicate their location within the chloroplast:

a. Light-dependent reactions: _____

b. Light-independent reactions: _____

4. How are the products of the light-dependent reactions used by the plant cell to generate triose-phosphates?

5. What major cellular metabolites can plant cells produce from triose-phosphates made through the Calvin cycle?

6. Define the following terms:

a. Photorespiration:

b. Photophosphorylation:

c. Carbon assimilation: