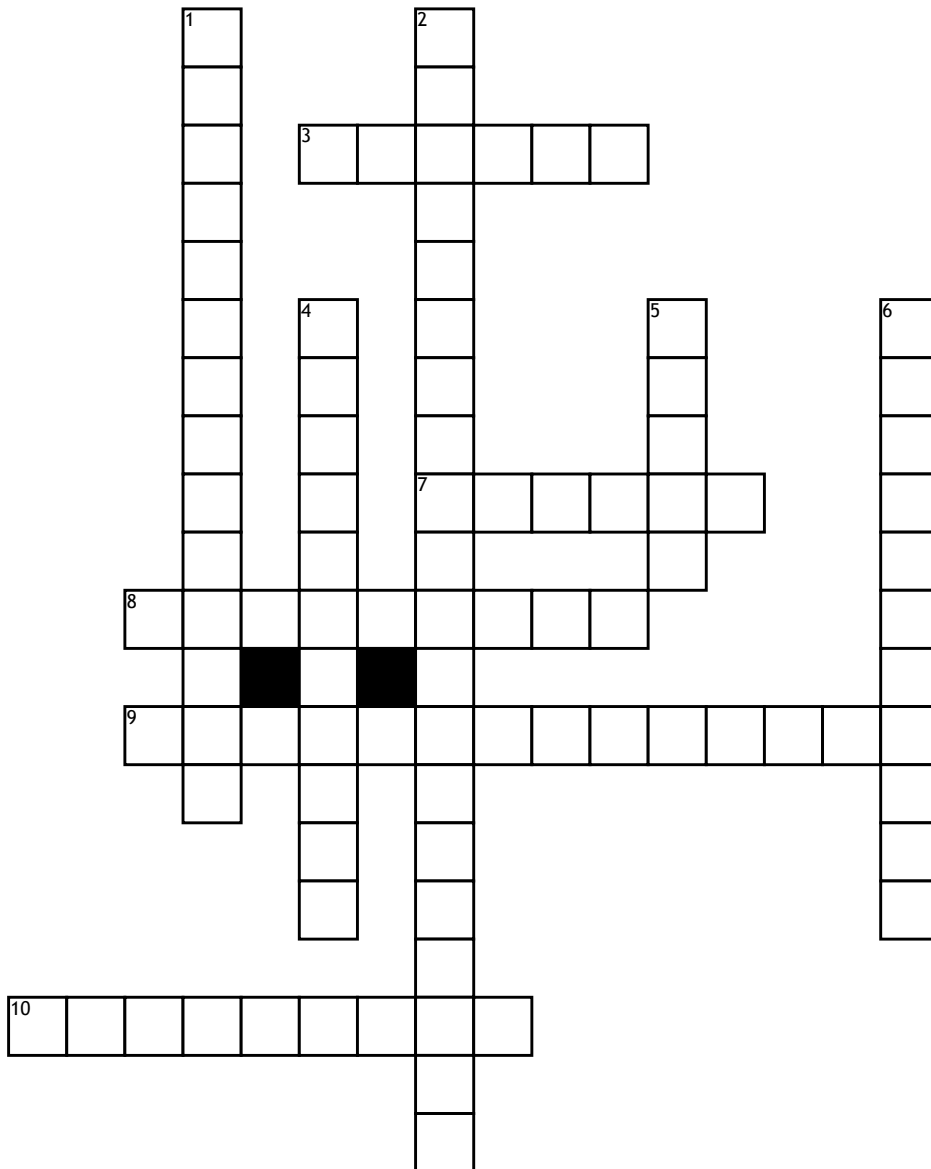


# Chap 7 Terminology



## Across

3. A fixed quantity of light energy. The shorter the wavelength of light, the greater the energy of a photon.
7. The dense fluid within the chloroplast that surrounds the thylakoid membrane and is involved in the synthesis of organic molecules from carbon dioxide and water. Sugars are made in the stroma by the enzymes of the Calvin cycle.
8. Leaf cells specialized for photosynthesis; a leaf's ground tissue system.
9. The first of two stages in photosynthesis; the steps in which solar energy is absorbed and converted to the chemical energy of ATP and NADPH, releasing oxygen in the process.
10. A flattened membranous sac inside a chloroplast. Thylakoid membranes contain chlorophyll and the molecular complexes of the light reactions of photosynthesis. A stack of thylakoids is called a granum.

## Down

1. The process by which plants, algae, and some protists and prokaryotes convert light energy to chemical energy that is stored in sugars made from carbon dioxide and water.
2. The production of ATP by chemiosmosis during the light reactions of photosynthesis.
4. A green pigment located within the chloroplasts of plants and algae and in the membranes of certain prokaryotes. Chlorophyll a participates directly in the light reactions, which convert solar energy to chemical energy.
5. A microscopic pore surrounded by guard cells in the epidermis of a leaf. When stomata are open, CO<sub>2</sub> enters a leaf, and H<sub>2</sub>O and O<sub>2</sub> exit. A plant conserves water when its stomata are closed.
6. A light-capturing unit of a chloroplast's thylakoid membrane, consisting of a reaction-center complex surrounded by numerous light-harvesting complexes.