Pre-Activity Worksheet: Photosynthesis in Flux

General Description
In the activity you will do this week during your learning/discussion group, you will be examining photosynthesis with respect to three levels of biological organization. In order to be prepared for this activity, complete this worksheet.

Reading
Browse the “Photosynthesis” chapter in your text. Pay particular attention to figures 10.4, 10.16, and 10.17. Read the section on the Calvin Cycle beginning on pg. 189.

Definitions
Write a definition of the following words. Use your text, textbook glossary, and your previous knowledge to create the best definition possible. Remember to connect your definitions to photosynthesis.
1) carbon fixation
2) mesophyll and stomata
3) enzyme
4) photosystems
5) rubisco

Questions
Answer the following questions. You will explore your answers to these questions in-depth during learning/discussion group.
1) Of the general processes involved in photosynthesis, which do you think is the most important? Why?

2) Your textbook claims that rubisco is probably the most abundant protein on Earth. Defend that statement.

3) Which type of photosynthesis (C₃, C₄, or CAM) do you think is the most efficient? Provide your reasoning for this determination.