Overview of Photosynthesis Review Worksheet

KEY CONCEPT: The overall process of photosynthesis produces sugars that store chemical energy.

MAIN IDEA: Photosynthesis in plants occurs in chloroplasts.

1. What is chlorophyll?
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2. In what two parts of a chloroplast does photosynthesis take place?
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3. Write the chemical equation for the overall process of photosynthesis. Then explain what the equation means and identify the reactants, products, and the meaning of the several arrows.

4. The prefix photo- means “light,” and synthesis means “to put together.” How do those meanings tell you what happens during photosynthesis?
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5. The prefix chloro- means “green,” and the suffix -phyll means “leaf.” How are these meanings related to chlorophyll?
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**KEY CONCEPT:** Photosynthesis requires a series of chemical reactions.

**MAIN IDEA:** The first stage of photosynthesis captures and transfers energy. The second stage of photosynthesis uses energy from the first stage to make sugars.

1. What are the differences between the light-dependent reactions (light reactions) and the light-independent reactions (dark reactions)?

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Look at the graph below. It shows the amount of carbon dioxide in the air during different times of the day in Biosphere 2, an enclosed research and education center in Arizona.

4. Interpret What is the relationship between the time of day and the amount of carbon dioxide in the research facility?

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5. Infer Using your knowledge of the process of photosynthesis, draw a conclusion about the pattern of the data.

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