**Summary of Photosynthesis**

1. Complete the chart below to identify basic steps in photosynthesis.

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| **Photosynthesis** |
| **Energy** | **Reactions** | **Location** |
|  | Water splits, forms oxygen |  |
|  | Chemiosmosis |  |
| Energy from the light-dependent reactions is used |  |  |

1. Using the labels provided, label the structures of the chloroplast and indicate where the processes occur.



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| **Structures** | **Processes** |
| thylakoid | light-dependent reactions |
| stroma | chemiosmosis |
| inner and outer membranes | Calvin-Benson cycle |
| granum |  |

The following diagram depicts the transfer of an electron from compound A to compound B. Use this diagram to answer Question 1.

**Oxidation Reduction**

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| redox |

**1. a)** Is compound A undergoing oxidation or reduction? Why or why not?

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 **b)** Is compound B undergoing oxidation or reduction? Why or why not?

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**2.** Indicate whether each of the statements is true or false. If it is false, rewrite the statement to make it true.

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| TRUE/FALSE | **a)** An atom or molecule that loses an electron is said to be oxidized.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| TRUE/FALSE | **b)** A molecule that donates an electron to another molecule is called an oxidizing agent.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| TRUE/FALSE | **c)** Compounds contain more energy in their oxidized form.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| TRUE/FALSE | **d)** Oxidations and reductions occur independently of each other and are not linked in any way.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |