

Photosynthesis and Cell Respiration Coloring Book

Due Date Friday, October 23, 2009

Name \_\_\_\_\_

You will design a coloring book on photosynthesis and cell respiration. Create diagrams and complete each page according to the following rubric. This is a project grade. You will work on this in the media center using your textbook, media resources, and the internet.

Page#		Points Scored	Points Possible
Page 1	<b>Table of Contents:</b> This sheet must be inserted but not attached to your booklet		5 points
Page 2	<b>Nutrition:</b> producer/autotroph and consumer/heterotroph- Draw a picture to include an example of an autotroph, and example of a heterotroph, the definitions of each, and arrows showing the direction of energy flow (start with the sun and end with the heterotroph). Pg.113		10 points
Page 3	<b>Chloroplast and Mitochondrion-</b> diagram and label each organelle including internal structures (stroma, thylakoid, granum, cristae) Be sure to define each term. Pg. 114 & 137		10 points
Page 4	<b>Equations-</b> Write the chemical formulas for photosynthesis and cellular respiration. Circle the reactants for each and underline the products. Be sure to include energy, sun light, and chlorophyll in the correct equation. Pg. 123 & 132		10 points
Page 5	<b>ATP formation-</b> diagram the cycle from ADP to ATP be sure to include energy and labels. You can also choose to draw the molecular structure of ADP and ATP along with a corresponding battery. Both of these are in your notes, and this a review from Ch. 3, pg. 54		10 points
Page 6	<b>Overall process of photosynthesis-</b> light dependent and light independent reaction (Calvin Cycle). Be sure to note where/how the energy is stored at the end of photosynthesis. Pg. 123		10 points
Page 7	<b>Overall process of cell respiration-</b> Be sure to show how many ATPs are formed from each process of aerobic cellular respiration. Pg. 142		10 points
Page 8	<b>Compare/contrast photosynthesis and aerobic cellular respiration-</b> Rewrite the equations for each and circle the molecules using the following colors: glucose/sugar- green; oxygen- orange; carbon dioxide- red; water- blue. Make sure you include energy; sun light; chlorophyll in the correct equation. Include a color key.		10 points
Page 9	<b>Fermentation-</b> (alcoholic, lactic acid fermentation) draw an organism that undergoes each type and why each type of fermentation is important to life. Pg. 134-135		10 points
Front Cover	<b>Diagram a plant and animal-</b> show the cycle of CO <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> O, and sugars (Do last)		10 points
	<b>Neatness</b>		5 points
TOTAL			

Photosynthesis and Cell Respiration Coloring Book

Due Date Friday, October 23, 2009

Name \_\_\_\_\_

You will design a coloring book on photosynthesis and cell respiration. Create diagrams and complete each page according to the following rubric. This is a project grade. You will work on this in the media center using your textbook, media resources, and the internet.

Page#		Points Scored	Points Possible
Page 1	<b>Table of Contents:</b> This sheet must be inserted but not attached to your booklet		5 points
Page 2	<b>Nutrition:</b> producer/autotroph and consumer/heterotroph- Draw a picture to include an example of an autotroph, and example of a heterotroph, the definitions of each, and arrows showing the direction of energy flow (start with the sun and end with the heterotroph). Pg.113		10 points
Page 3	<b>Chloroplast and Mitochondrion-</b> diagram and label each organelle including internal structures (stroma, thylakoid, granum, cristae) Be sure to define each term. Pg. 114 & 137		10 points
Page 4	<b>Equations-</b> Write the chemical formulas for photosynthesis and cellular respiration. Circle the reactants for each and underline the products. Be sure to include energy, sun light, and chlorophyll in the correct equation. Pg. 123 & 132		10 points
Page 5	<b>ATP formation-</b> diagram the cycle from ADP to ATP be sure to include energy and labels. You can also choose to draw the molecular structure of ADP and ATP along with a corresponding battery. Both of these are in your notes, and this a review from Ch. 3, pg. 54		10 points
Page 6	<b>Overall process of photosynthesis-</b> light dependent and light independent reaction (Calvin Cycle). Be sure to note where/how the energy is stored at the end of photosynthesis. Pg. 123		10 points
Page 7	<b>Overall process of cell respiration-</b> Be sure to show how many ATPs are formed from each process of aerobic cellular respiration. Pg. 142		10 points
Page 8	<b>Compare/contrast photosynthesis and aerobic cellular respiration-</b> Rewrite the equations for each and circle the molecules using the following colors: glucose/sugar- green; oxygen- orange; carbon dioxide- red; water- blue. Make sure you include energy; sun light; chlorophyll in the correct equation. Include a color key.		10 points
Page 9	<b>Fermentation-</b> (alcoholic, lactic acid fermentation) draw an organism that undergoes each type and why each type of fermentation is important to life. Pg. 134-135		10 points
Front Cover	<b>Diagram a plant and animal-</b> show the cycle of CO <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> O, and sugars (Do last)		10 points
	<b>Neatness</b>		5 points
TOTAL			