**Cell Energy-Photosynthesis and Cell Respiration- CH 4 Sections 1 & 2**

**State Standard**

**Standard**:

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| --- | --- | --- | --- | --- | --- |
| Learning Target | \*\*Mastery | \*Advanced | \*Meets | Approaching | Beginning |
| **I CAN** explain how photosynthesis helps cycle matter and energy into and out of organisms.  **I CAN** develop a model to explain how cellular respiration helps cycle matter and energy into and out of organisms | Thoroughly explain  Thoroughly explain | Mostly explain how  Mostly explain | Somewhat explain how  Somewhat explain | Struggling to explain how  Struggling to explain | Wasn’t able to or didn’t make an attempt to .  Wasn’t able to or didn’t make an attempt to |

The following statements are how to achieve \***Advanced** or \***Meets** for these Learning Targets:

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**** Know the chemical formula for Carbon Dioxide, water, glucose sugar, and oxygen.

**** Be able to write the chemical equation for Cell Respiration and Photosynthesis.

**** Identify what happens to the sun’s energy during photosynthesis.

**** Explain why your body needs plants for energy.

**** Determine and explain the results of the carbon dioxide/photosynthesis cycle when given an experiment model.

To achieve \*\***MASTERY** for these Learning Targets you need to correctly answer 18 of the 20 summative assessment questions on the above checkboxes **AND** be able to correctly and thoroughly complete TWO of the checkboxes below.

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**** Determine and explain the results of photosynthesis when given an experiment model.****

**** Explain how the increase/decrease of energy affects cellular respiration-(with the use of Bromothymol Blue.)

**** Explain how organisms would survive in a model of a closed ecosystem and support your answers with what we

have learned about photosynthesis and cellular respiration.

**Photosynthesis takes place in the \_\_\_\_ of the plant.**

**Cellular respiration takes place in the \_\_\_\_\_\_\_\_\_\_ of the cell.**

**The reactants and products of photosynthesis are \_\_\_\_\_\_\_\_\_\_\_.**

**The reactants and products of cellular respiration are\_\_\_\_\_\_\_\_\_\_.**