Photosynthesis and Respiration Notes

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| **How are Photosynthesis and Cellular Respiration are connected?** | * The products of one process are the \_\_\_\_\_\_\_\_\_\_\_ of the other.
* The equation for cellular respiration is the direct \_\_\_\_\_\_\_\_\_\_\_\_\_\_ of photosynthesis:
* Cellular Respiration:

C6H12O6 + 6O2 → 6CO2 + 6H2O * Photosynthesis:

 6CO2 + 6H2O → C6H12O6+ 6O2 |
| **How are Photosynthesis and Cellular Respiration are connected?** | * Photosynthesis makes the **\_\_\_\_\_\_\_\_\_\_\_\_** that is used in cellular respiration
* The glucose is then turned back into **\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_,** which is used in **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* While \_\_\_\_\_\_\_\_\_\_ is broken down to form oxygen during photosynthesis, in cellular respiration oxygen is combined with hydrogen to form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
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| How do cells get the ingredients for Photosynthesis and Respiration? | * CO2 goes into plant through the **\_\_\_\_\_\_\_\_\_\_\_\_\_** on underside of leaves. They are pores. The excess O2 also goes out this way.
* Water comes into the plant via the **\_\_\_\_\_\_\_\_\_\_\_\_**. Capillary action is the upward force that delivers it to the chloroplasts.
* The \_\_\_\_\_\_\_\_\_\_\_\_ or gills bring in the O2 which is then delivered via the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** to the cells. The glucose is delivered by the blood as well after digestion.
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| How can cells undergo Respiration without Oxygen? | * We breathe in that oxygen, which is carried through our **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** to all our cells. In our cells, **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** allows cellular respiration to proceed. **Cellular respiration works best in the presence of oxygen.**
* Without oxygen, much less ATP would be produced.
* This is called **anaerobic** (without oxygen) **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.**
* There are 2 types: alcoholic AND lactic acid
* Produces ethyl alcohol (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ fermentation)
* Produces lactic acid (\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ fermentation)
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| Why are they important? | * Cellular respiration and photosynthesis are important parts of the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** cycle.
* The carbon cycle is the pathways through which carbon is **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** in the biosphere.
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