Name: Date: 2nd period

Biogeochemical Cycle Notes

**Carbon Cycle**

Where does a tree get 95% of its mass that makes it grow into a tree?

**Photosynthesis**: process that uses \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the sun to convert \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ into \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cellular respiration**: process that breaks down \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CO2 into the air

**Decomposition**: process by which \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ organisms (living things) are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ex) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Decomposition

**Combustion**: process of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that releases \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ into the atmosphere



1. **Atmospheric Carbon** (C), from CO2 is available for plants
2. **Photosynthesis** – plant cells take in CO2 during photosynthesis to make carbohydrates (sugar), C is now part of the tree and grass
3. **Eating** – animals consume plants (carbohydrates), C is now in cow
4. **Cellular Respiration** – cow cells breaks down carbohydrates for energy and cow exhales CO2
5. **Decomposition** – dead plants and animals are broken down and in millions of years become fuel
6. **Combustion** – humans burn fossil fuel (oil, gas, coal) for energy and CO2 goes back into atmosphere

**Oxygen Cycle**

**Photosynthesis**: plants give off \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ after they break down water to make carbohydrates

**Cellular respiration**: process that requires \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ down \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Ozone (O3):** some oxygen moves to the upper atmosphere to protect us from the sun’s radiation

**Metal Oxides**: most of the earth’s oxygen is stored as metal oxides in the earth’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_





1. By which process do producers release oxygen into the atmosphere?

2. By which process do organisms exhale carbon dioxide into the atmosphere?

3. If the producers (plants) on earth became extinct, what would happen to the consumers (animals)?