

**Biogeochemical Cycles Jigsaw Research Activity**

**Water Cycle**

Evaporation - \_\_\_\_\_  
\_\_\_\_\_

Transpiration - \_\_\_\_\_  
\_\_\_\_\_

Evapotranspiration - \_\_\_\_\_  
\_\_\_\_\_

Condensation - \_\_\_\_\_  
\_\_\_\_\_

Precipitation - \_\_\_\_\_  
\_\_\_\_\_

Infiltration/Recharge - \_\_\_\_\_  
\_\_\_\_\_

Percolation - \_\_\_\_\_  
\_\_\_\_\_

Ground water - \_\_\_\_\_  
\_\_\_\_\_

1. What is the name of your cycle? \_\_\_\_\_  
\_\_\_\_\_

2. Is your cycle known by any other names? \_\_\_\_\_  
\_\_\_\_\_

3. Why is the element or compound in your cycle important to living things? (be specific) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Where is the largest reservoir of your element? \_\_\_\_\_

5. List and explain the key steps of your cycle. \_\_\_\_\_  
\_\_\_\_\_

a. Use the key vocabulary to ensure you talk about the main parts of your cycle.

6. What are some human impacts on your cycle? (at least 2) \_\_\_\_\_  
\_\_\_\_\_

7. How can these impacts be prevented? \_\_\_\_\_  
\_\_\_\_\_

**Carbon Cycle**

Photosynthesis - \_\_\_\_\_  
\_\_\_\_\_

Respiration - \_\_\_\_\_  
\_\_\_\_\_

Fossil Fuels - \_\_\_\_\_  
\_\_\_\_\_

Decay/Decomposition - \_\_\_\_\_  
\_\_\_\_\_

Plants - \_\_\_\_\_  
\_\_\_\_\_

Animals - \_\_\_\_\_  
\_\_\_\_\_

Greenhouse Gases - \_\_\_\_\_  
\_\_\_\_\_

Carbonate - \_\_\_\_\_  
\_\_\_\_\_

Combustion - \_\_\_\_\_  
\_\_\_\_\_

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\_\_\_\_\_

**Nitrogen Cycle**

Free Nitrogen/Nitrogen gas N<sub>2</sub> - \_\_\_\_\_  
\_\_\_\_\_

Nitrogen Fixation - \_\_\_\_\_  
\_\_\_\_\_

Lightning - \_\_\_\_\_  
\_\_\_\_\_

Nitrifying Bacteria - \_\_\_\_\_  
\_\_\_\_\_

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\_\_\_\_\_

**Phosphorus Cycle**

Long Term Phosphorus Cycle - \_\_\_\_\_  
\_\_\_\_\_

Short Term Phosphorus Cycle - \_\_\_\_\_  
\_\_\_\_\_

Phosphate Ion - \_\_\_\_\_  
\_\_\_\_\_

Plants - \_\_\_\_\_

Animals - \_\_\_\_\_

Birds - \_\_\_\_\_

Decay/Decomposition - \_\_\_\_\_  
\_\_\_\_\_

Limestone - \_\_\_\_\_  
\_\_\_\_\_

Erosion - \_\_\_\_\_  
\_\_\_\_\_

Eutrophication - \_\_\_\_\_  
\_\_\_\_\_

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