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Phosphorus and Nitrogen Cycles

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| **Across**  **1.** What is the only biological enzyme that can break Nitrogens triple bond?  **4.** What process involves splitting nitrogen apart into a form that plants can utilize?  **7.** What percent of the atmosphere does Nitrogen make up?  **9.** Fertilizers can have a \_\_\_\_\_\_\_ impact on ecosystems when large amounts of nitrogen and phosphorus are introduced.  **11.** Unlike many elements contained in the air, where is phosphorus commonly found?  **12.** What type of bacteria uses the enzyme nitrate reductase to metabolize nitrogen oxides and transform them back into nitrogen gas? | **Down**  **2.** What type of bacteria takes ammonia and can convert it into nitrates and nitrites?  **3.** When water erodes phosphorus containing rocks, phosphates, are \_\_\_\_\_\_\_\_\_\_ into the water.  **5.** What man made invention requires phosphorus and nitrogen as part of its ingredients?  **6.** How long can a single atom of phosphorus be caught in a biological cycle for?  **8.** Are the dissolved phosphates in water able to be assimilated by plants?  **10.** What form of nitrogen is used by plants? |