**Phosphorus Cycle Questions**

1) What is phosphorus?

* A. Phosphorus is a metallic element
* B. Phosphorus is a metalloid
* C. Phosphorus is a non-metal

2) Phosphorus is found everywhere except \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

3) Where does the Phosphorus Cycle start?

* A. Rocks
* B. Water
* C. Atmosphere

4) How does the Phosphorus enter plants in the soil?

* A. Photosynthesis
* B. Water in the soil

5) How do humans impact the Phosphorus Cycle?

* A. Pollution
* B. We do not have any impact
* C. Killing plants
* D. Overuse of fertilizers

6) Phosphorus is difficult for plants and animals to access in nature because

* + it reacts quickly with other elements, like oxygen.
	+ most phosphorus in the environment is bound to carbon, nitrogen, and hydrogen.
	+ it is typically found as a phosphate.
	+ most phosphorus in the environment is stored in reservoirs.

7) A team of researchers in the Great Lakes Area noticed a significant growth in algae when they added fertilizer heavy in \_\_\_\_\_\_\_\_\_ to the water.

* + phosphorus
	+ carbon
	+ nitrogen
	+ calcium

8) Without phosphorus, living beings cannot grow, reproduce, or move. This is because phosphorus:

* + forms part of the structure of DNA and RNA.
	+ provides structure to cell membranes.
	+ is needed for energy transport in cells.
	+ all of the choices

9) Phosphorus does NOT travel through which of the following spheres?

* + lithosphere
	+ atmosphere
	+ biosphere
	+ hydrophere

10) Review the diagram below. Which statement BEST reflects what is shown?

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* + The phosphorus cycle moves in one direction – from soil to plant to animal.
	+ Fungi, plants, and animals are the main converters of elemental phosphorus to phosphates.
	+ The phosphorus cycle is made up of many, smaller cycles.
	+ Phosphates in solution can only move into soil.

11) The Great Lakes Area was an important contribution to environmental science because:

* + it showed how dangerous algae can be to an aquatic ecosystem.
	+ it made clear connections between phosphate fertilizers and eutrophication in lakes.
	+ it was the first instance of extreme science.
	+ it resulted in recorded data on depth, visibility, and conductivity in 463 lakes.