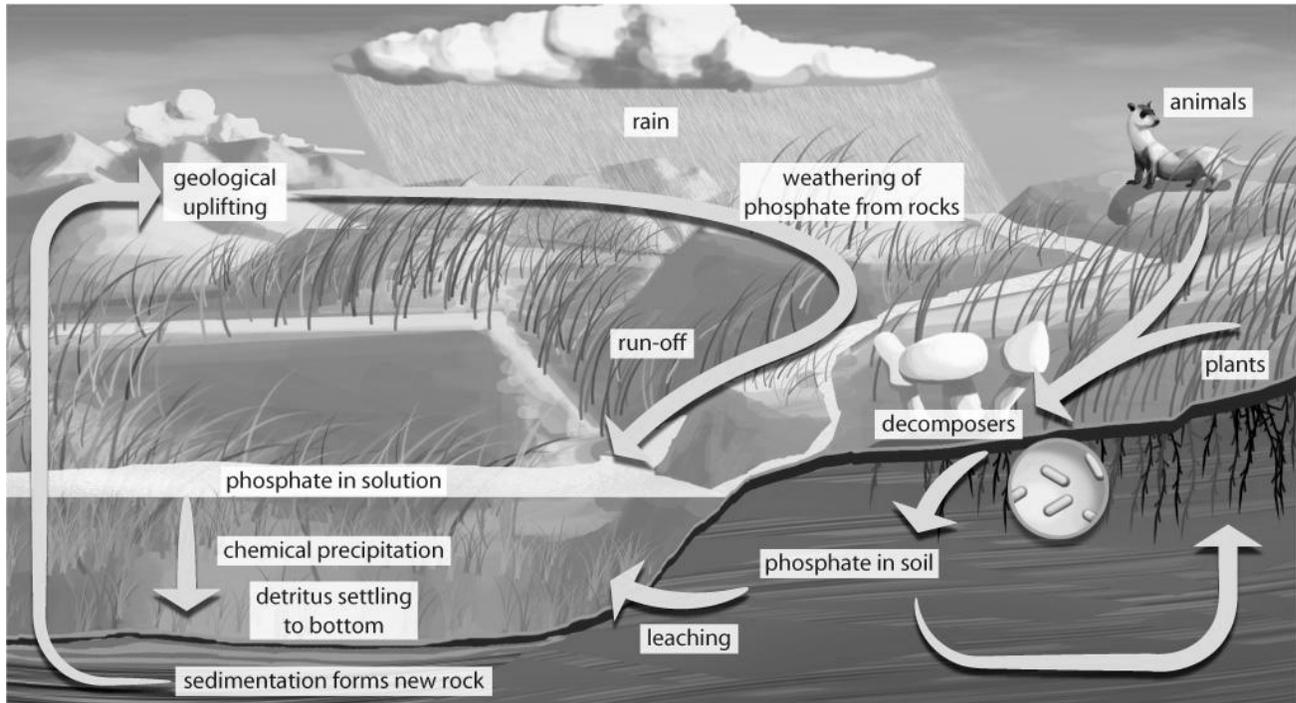


# The Phosphorus Cycle Activity Answer Key

1.

2. Phosphate ( $\text{PO}_4^{3-}$ )

3. Air or the atmosphere

4. The growth of algae in aquatic ecosystems is limited by the amount of available nutrients. Because phosphorus is scarce in the environment, excess phosphorus in aquatic ecosystems can result in algal overgrowth, known as an algal bloom. Excess phosphorus may run off from fertilized fields or may enter water via detergents with phosphates (now banned in Canada). If an algal bloom occurs in an aquatic ecosystem, algal overgrowth can block sunlight so that plants below the surface can no longer photosynthesize. When these plants die, the decomposer population grows quickly, depleting oxygen levels in the water so organisms requiring oxygen can no longer survive.