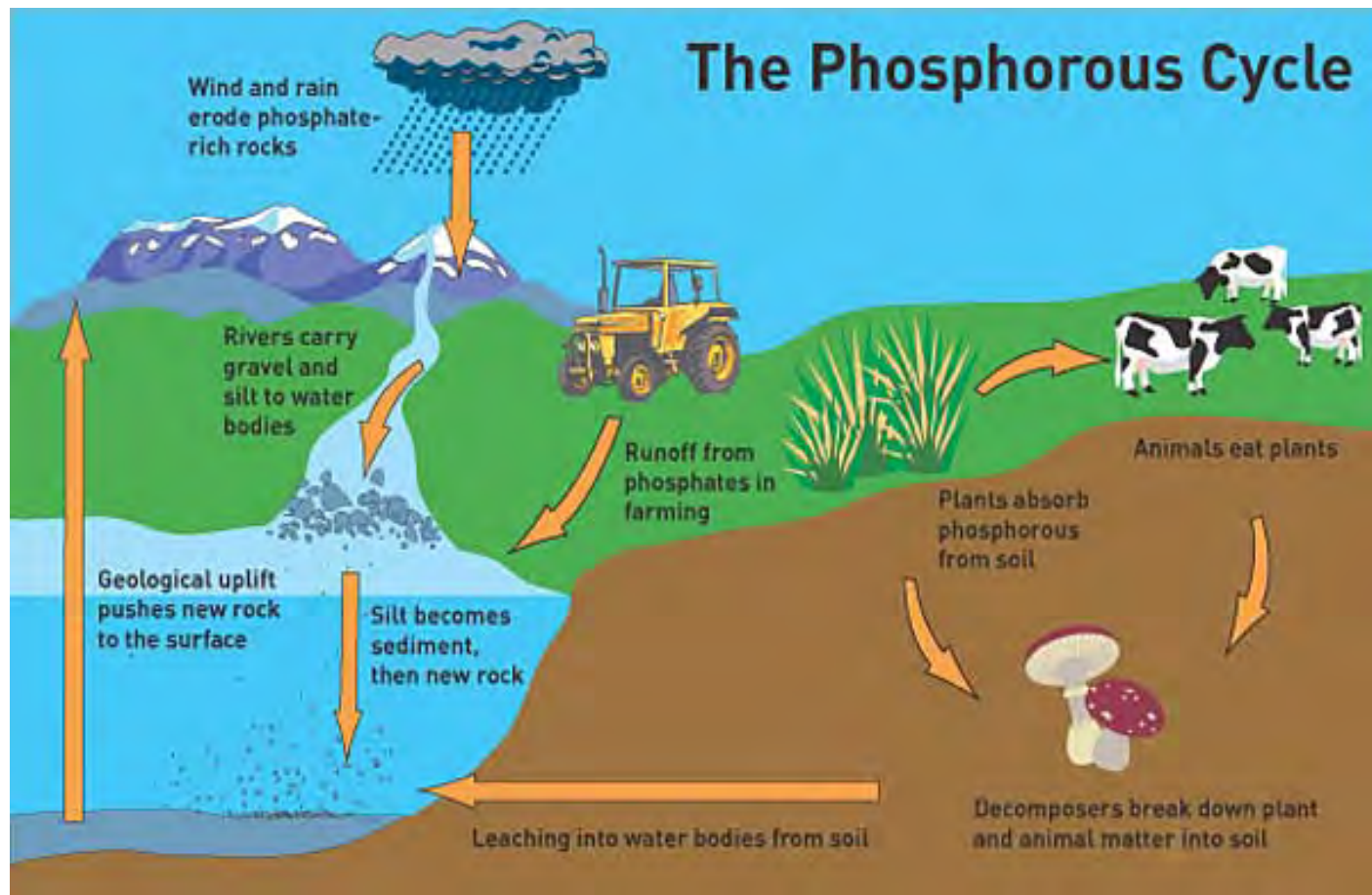


Phosphorous

Phosphorous is a common nutrient found in fertilizers, manure, and other organic wastes. It is essential to plant growth and animal nourishment, although too much of it may cause damaging health effects. Phosphorous and nitrogen surpluses speed up the eutrophication of water bodies in which nutrients overtake oxygen levels to the point of toxicity. Agricultural runoff and residential use of fertilizers are major sources of phosphorous.



Interference in the phosphorous cycle (Socratic, 2016)

Problems

Phosphorous typically attaches to soil particles and migrates with runoff into surface water. US Geologic Survey has found that phosphorous is also able to migrate via sediment in groundwater (Morganwalp, 2019). Phosphorous that enters water bodies reduces levels of available oxygen for aquatic life and causes algal blooms. The influx of nutrients comes from wastewater treatment facilities, lawn and agricultural fertilizers, domestic and farm animal waste, and even detergents that drain into sewage systems.

Solutions

Soil is prone to erosion in high concentrated runoff areas, typically around impervious land developments. Management practices to collect, slow, and redirect runoff are one way of keeping contaminated water from our fresh supply. Septic systems and waste facilities are not perfect and can leak into surface and ground water. Being aware of what runs down the drain or off the lawn can help prevent excess contamination.