

Warm up:

Study Notes/Questions

Pollutants are substances introduced into air, water, soil, or food in concentrations that threaten the health or survival of organisms

May be from natural sources (such as volcanic eruptions) or as a result of human technology (smoke from factories)

Human populations are producing more pollution than can be broken down in the biosphere

Pollutants can be grouped according to the part of the environment they affect (e.g. air, water, or land).

Air Pollution

Natural pollutants include pollen, volcanic ash, mould spores

Human activities produce air pollutants such as nitrogen monoxide from burning fossil fuels and volatile organic compounds (VOC's) like gasoline and propane

Acid Precipitation (acid rain) is caused by sulfur dioxide or nitrogen monoxide react with water to form acid molecules that return to Earth as rain, hail or even fog

Acid rain harms aquatic ecosystems the most, but also damages terrestrial plants and soils

Water Pollution

Besides acid precipitation, other pollutants can be carried into water systems

Solid organic waste from sewage or food waste promote growth of aquatic plants, but then these plants die and decompose, the amount of dissolved oxygen in the water is reduced

5.2 Pollutants in Ecosystems

Study Notes/Questions

Heavy Metals from mining and industrial wastes are toxic and become concentrated in the food chain

Thermal energy from industry and hydro generating stations reduces the solubility of oxygen

Land Pollution

Much of the materials produced by humans ends up in landfills (household wastes, commercial and industrial wastes)

Chemicals from medical procedures and nuclear power plants leave radioactive waste.

Hazardous wastes also come from pesticides, fire retardants and mining

Must make conscious effort to Reduce, Reuse, Recycle

Summary: (two to three sentences summarizing this section)

Self-Reflection Questions:

1. Describe one thing that you knew about this topic before today.

2. Describe one thing you learned about this topic today.