- Bacteria convert environmental sulfurous compounds into useful substrates
- The out gassed sulfur is converted to rock and little sulfur is left in the atmosphere _
- The largest reservoir of sulfur is found in form of Pyrite (FeS_2) -
- Sulfur exists in many oxidation states within organic and inorganic compounds
- Microbes are able to remove sulfur from organic compounds -
- Under aerobic conditions, the removal of sulfur results in the formation of sulfates _
- Under anaerobic conditions, H₂S is produced from organic compounds
- In organic rich soils, most of the H₂S is generated from decomposition of organic sulfur compounds
- The global impact of the sulfur cycle is important for the formation of acid rain, acid mine drainage, and corrosion of concrete and metal

Various Steps of Sulfur Cycles

- Primary soluble form of inorganic sulfur found in soil is sulfate. CO. UK
 Plants and most microbes incorporate reduced sulfur (Sulfate CO. UK) 2. Plants and most microbes incorporate reduced sulfus (subor into amino acids or other molecules
- 3. They take up sulfur in the oxidized form and then reduce it internally... It is called "assimilatory sulfate reluction
- 4. The release of the in organic form call sulfur mineralization". It occurs both in anaerobic co

Sulfur Oxidation

- It is an important process in sulfur cycle
- In the presence of oxygen (O₂), reduced sulfur compounds can support the growth of chemoautotrophs bacteria under aerobic conditions

Examples of bacteria

- Thiomicrospira
- Beggiatoa
- Thermatrix _
 - These bacteria are commonly found in hot springs, mining surfaces and soils

Photoautotrophic Bacteria:

- Chlorobium
- Thiopedia