Glenthorne High School science

Definitions in bold are for higher tier only

C10 Key Word Glossary *** = Triple Only**

***Alloy**: A metal compound made by combining two or more metals together. This process is carried out to give greater strength or resistance to corrosion.

Bioleaching: Bioleaching uses bacteria to produce leachate solutions that contain metal compounds.

***Borosilicate glass:** Glass made from sand and boron trioxide. It melts at higher temperatures than soda-lime glass.

***Composite:** Most composites are made of two materials, a matrix or binder surrounding and binding together fibres or fragments of the other material, which is called the reinforcement.

***Corrosion:** Corrosion is the destruction of materials by chemical reactions with substances in the environment, e.g. rusting.

Desalination: The process of removing salt from seawater.

Displacement: A chemical reaction in which a more reactive element displaces a less reactive element from its compound.

Electrolysis: The splitting up of an ionic compound using electricity. The electric current is passed through a substance causing chemical reactions at the electrodes and the decomposition of the materials.

***Electroplating:** Electroplating is the process of coating a metal with a thin layer of another metal by electrolysis to improve the metal's corrosion resistance.

Finite resources: A non-renewable resource that cannot be readily replaced by natural means at a quick enough pace to keep up with consumption.

***Galvanise:** A process used to protect against corrosion by coating the metal with a protective layer of zinc.

Ground water: Water held underground in the soil and crevices in rock.

Life cycle assessment (LCA): Life cycle assessments are carried out to assess the environmental impact of products in each of these stages: extracting and processing raw materials, manufacturing and packaging, use and operation during its lifetime, disposal at the end of its useful life.

***NPK fertilisers:** Fertilisers which contain compounds of nitrogen, phosphorus and potassium. The fertilisers improve agricultural productivity.

Ore: A rock from which metal can be extracted.

Phytomining: Phytomining uses plants to absorb metal compounds from the soil. The plants are harvested and then burned to produce ash that contains the metal compounds.

Potable water: Water that is safe to drink.

Raw materials: The basic material from which a product is made.

Renewable resources: A natural resource which can be used repeatedly and will not run out due to being naturally replenished.

***Sacrificial protection:** The protection of iron or steel against corrosion by using a more reactive metal. Zinc is often used as a sacrificial metal.

***Soda-lime glass:** Glass made by heating a mixture of sand, sodium carbonate and limestone.

Sterilisation: The process used to remove bacteria or living microorganisms from something. Used during the treatment of water.

Sustainable development: Development that meets the needs of current generations without compromising the ability of future generations to meet their own needs.

***The Haber process:** The process used to manufacture ammonia from hydrogen and nitrogen gas.

Thermosetting polymers: Polymers which do not melt when heated.

Thermosoftening polymers: Polymers which melt when heated and can be remoulded into different shapes.