DARFIELD HIGH SCHOOL SCIENCE DEPARTMENT

SCIENCE – NCEA Level 3

Key Words for the Unit: Ocean Acidification

***Highlight keywords as you encounter them during your lessons and/or research.***

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| **Key Word** | **Definition** |
| acclimate | To become accustomed to a new environment or situation |
| algae | A group of simple organisms that contain chlorophyll (and can therefore photosynthesise) and live in aquatic habitats or moist habitats on land |
| anthropogenic | Caused by human activity |
| aragonite | A mineral form of crystalline calcium carbonate (calcite is another form) |
| atmosphere | The layer of gases surrounding the Earth |
| biosphere | All living organisms and their environment |
| calcification | The formation of calcium carbonate from carbon dioxide |
| calcite | A common crystalline form of calcium carbonate, CaCO3, that is the basic constituent of limestone, marble and chalk |
| carbonate | A compound containing carbonate (CO32-) ions |
| carbonic acid | A very weak acid formed when CO2 dissolves in water; formula H2CO3. |
| chemical equilibrium | When the forward and reverse reaction occur at the same rate, shown using |
| concentration | The quantity of dissolved substance per unit quantity of solvent in a solution, expressed in mol L-1, %, ppm, etc. |
| coral | A colony of polyps (a group of single-celled marine organisms) within a protective skeleton (often made of calcium carbonate) they secrete |
| coral bleaching | Occurs where coral polyps eject their algal symbiotic partners and leave their protective skeletons, which turn white as a result |
| cyanobacteria | A phylum of photosynthetic bacteria that used to be called blue-green algae |
| inorganic | Involving neither organic life or the products of organic life |
| ion | An atom (or group of atoms) that has gained or lost electrons |
| logarithmic | A scale where every step is a multiplication of the step before it; e.g. on the pH scale, each change represents a ten-fold increase (or decrease) in the concentration of H+ ions |
| mollusc | A phylum soft-bodied animals characterised by an un-segmented body with a head, muscular foot, and a mantle that often secretes a hard shell of calcium carbonate |
| ocean acidification | The process by which carbon dioxide dissolves in seawater, causing a decrease in pH, along with other changes in ocean carbonate chemistry |
| organic | The chemical building blocks of living things, or their products |
| pH | Measure of acidity (pH = -log[H+]) |
| photosynthesis | The process of using sunlight as an energy source to convert water and carbon dioxide into carbohydrates (e.g., glucose) - oxygen is usually released as a by-product |
| phytoplankton | Microscopic free-floating aquatic plants (algae, protozoans and cyanobacteria) |
| polymorph | A specific crystalline form of a compound that can crystallise in different forms |
| protozoan | A group of unicellular, microscopic organisms, now classified within various phyla within the kingdom Protoctista; only some species are photosynthetic. |
| sink | Where an element or compound occurs in large quantities in nature; e.g., the atmosphere, or oceans. |
| solubility | The degree to which a solute will dissolve in a solvent, expressed in mol L-1, %, ppm, etc. |