

## REGULAR CHANGES IN NATURE

- **Tidal (4 times a day)** – Animals most affected by the varying or lack of oxygen are those in the intertidal zone between high tide and \_\_\_\_\_ tide (e.g. mangrove which ‘breathe’ through pneumatophore roots)
- **Daily** – Some organisms such as koalas are more active at night (\_\_\_\_). Other organisms such as \_\_\_\_\_ are more active during the day (diurnal).
- **Monthly** – The Lunar Cycle affects \_\_\_\_\_ of ocean water which, in turn, affect organisms in coastal areas.
- **Seasonal** – Plants are most affected by the change of seasons. They grow faster in summer than in \_\_\_\_\_.
- **Yearly** – Flowering plants are most affected as the time of flowering for many plants such as chrysanthemums (‘Mother’s Day plants’) is stimulated by the increasing number of hours of continuous darkness in a day. Deciduous plants lose their leaves in autumn. Hibernating animals (e.g. \_\_\_\_\_) and those with changing body temperatures (e.g. \_\_\_\_\_) become less active in the colder months.
- **Biennial or Perennial** – Many smaller plants that are herbaceous have a life cycle of 2 to 3 \_\_\_\_\_.

## IRREGULAR CHANGES IN NATURE

- **Sudden Changes (e.g. fire, flood, \_\_\_\_\_)**
- These catastrophes may occur without warning, causing damage to ecosystems.
- **Gradual Change (e.g. Succession)**
- After a catastrophe either natural or man-made, land is often laid bare with no vegetation. Over time, there is a gradual increase in biotic diversity beginning with plants that have a high tolerance to environmental extremes, and eventually building up to a complex ecosystem.
- The bare rock is first covered by lichens which \_\_\_\_\_ the rock into particles. Small vegetation begins to grow. When this plant growth dies, the soil becomes \_\_\_\_\_ in humus, and larger plants and small animals live there. Eventually, larger plants and \_\_\_\_\_ inhabit the area.
- **Gradual Change (e.g. Eutrophication)**
- If fertilisers or phosphate-rich detergents find their way into waterways, they encourage the growth of water \_\_\_\_\_. In the process of respiration, the plants take up much of the \_\_\_\_\_ dissolved in the water. Aquatic animals can die from suffocation. This problem is called \_\_\_\_\_.
- **Gradual Change (e.g. Greenhouse Effect and Global Warming)**
- The increase of carbon dioxide and \_\_\_\_\_ gas into the atmosphere causes higher temperatures. This is caused by \_\_\_\_\_. This will result in a change in the types of plants with the ability to \_\_\_\_ in the changed environment.