



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

Sub: Life Science

Class: X

Date: 05.05.2020

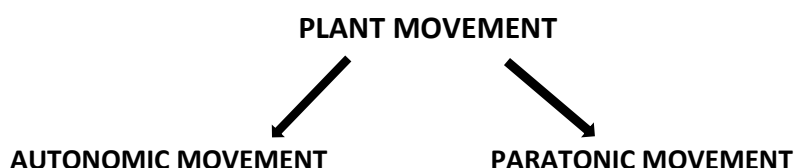
CHAPTER: 1-CONTROL AND COORDINATION IN LIVING ORGANISMS

TOPIC: MOVEMENT IN PLANTS

STUDY MATERIAL 2

TYPES OF MOVEMENTS IN PLANTS

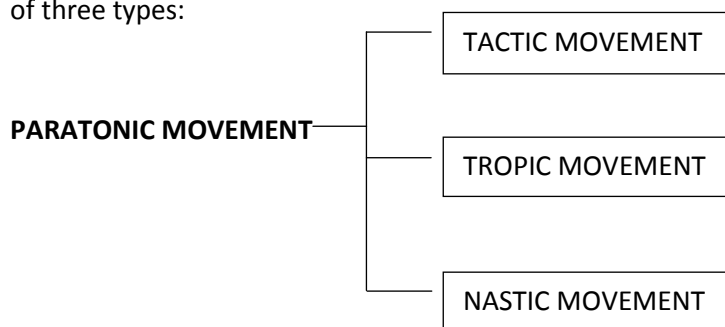
Plant movements can be broadly classified into two types. They are:



AUTONOMIC MOVEMENT: The type of movement seen in plants in response to internal stimulus is called Autonomic movement.

Example: Cyclosisor streaming movement of cytoplasm & its organelles inside a cell

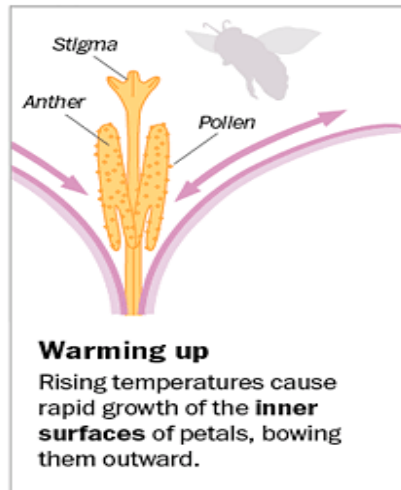
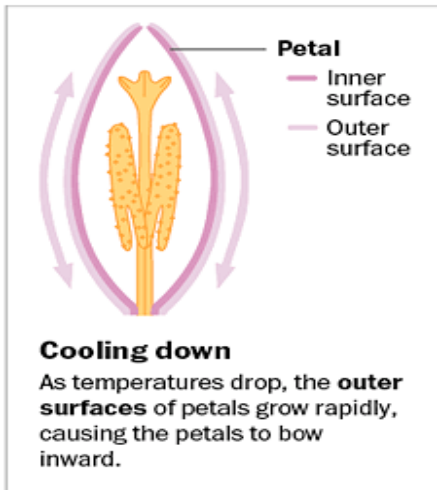
PARATONIC MOVEMENT: The type of movement shown by plant or its parts in response to external stimulus is called Paratonic movement. This is also known as induced movement. They are basically of three types:



REASON BEHIND SEVERAL TYPES OF MOVEMENT IN PLANTS:

- **CHEMOTACTIC MOVEMENT:** Male gametes (antherozoids) of bryophyte move towards female gamete (archegonia) under the influence of **sugars** produced by special cells of the latter, & pteridophyta male gametes move towards archegonia due to **malic acid** produced by the latter.

- **THERMONASTY IN SAFFRON (Crocus) & TULIP:** A closed flower of saffron will protect the precious pollen within itself from snow & rain during which less pollinators are attracted towards them, conserving it until warmer weather brings out more bees & other pollinators.



- **CHEMONASTIC MOVEMENT IN SUNDEW LEAVES(Drosera):**Sticky secretions from the hairy surface of sundew leaves attract & entrap small insects & other preys. The tentacles engulf and digest the insect’s body with enzymes to get proper nitrogen supply as usually less nitrogen is available in the soil of boggy areas where they grow.
- **PHOTOTROPISM:**This is type of growth dependent curvature movement seen in plant parts when the stem shows curvature towards & root shows curvature away from a unidirectional light source.

