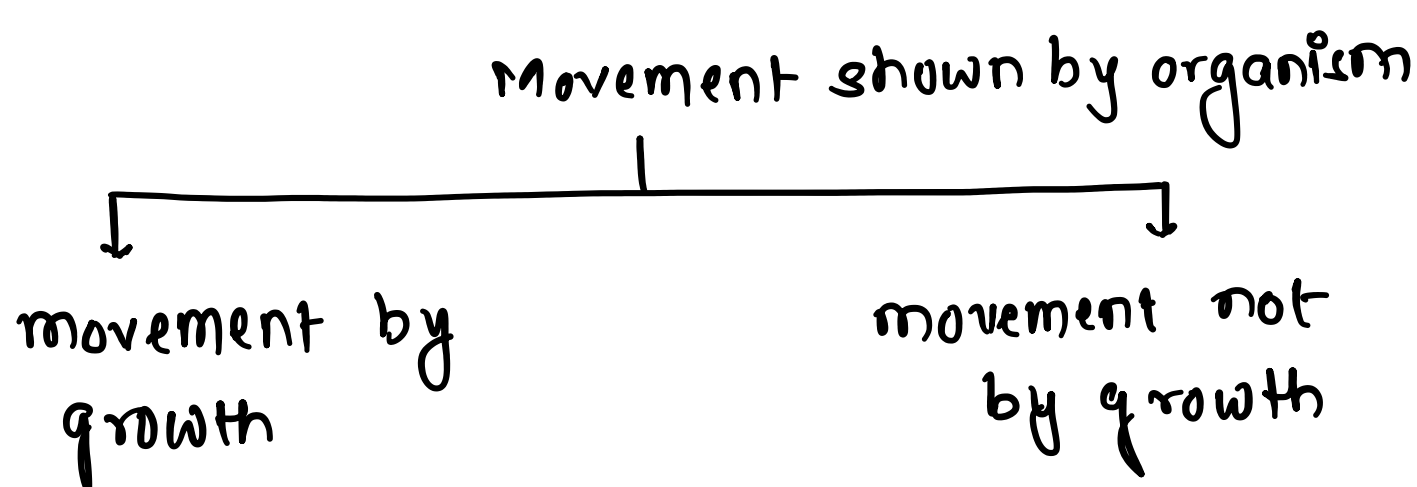


Control and Coordination

Coordination:- It is the process through which two or more organs interact and complement the function of each other.

Integration :- It is a process which makes two or more organs to work as a functional unit in harmony.

In higher animals, the neural system and the endocrine system jointly co-ordinate and integrate all the activities of the organs so that they function in a synchronised fashion.



- eg → In plant seed germinates and grows, seedling moves over the course of few days, it pushes soil aside & comes out.
- eg → some movements in animals and some movements in plants like
- Cat running
 - children playing of swings
 - Buffaloes chewing cud.

MR* Visible movements are associated with organism because these movements occur as a response to a change in the environment of the organism. Like

→ Cat may be running because it has seen a mouse

* Movement also occur as an attempt by living organisms to use changes in their environment to their advantage. Like

→ Plant grow out into the sunshine

→ children try to get pleasure and fun out of swinging

→ Buffaloes chew cud to help break up tough food so as to be able to digest it better.

→ when bright light is focussed on our eyes or when we touch hot object, we detect the change & respond to it with movement in order to protect ourselves.

* All these above movements are carefully controlled. and living organisms must use systems providing control and co-ordination.

* In multicellular organisms, specialised tissues are used to provide these control and co-ordinated activities.