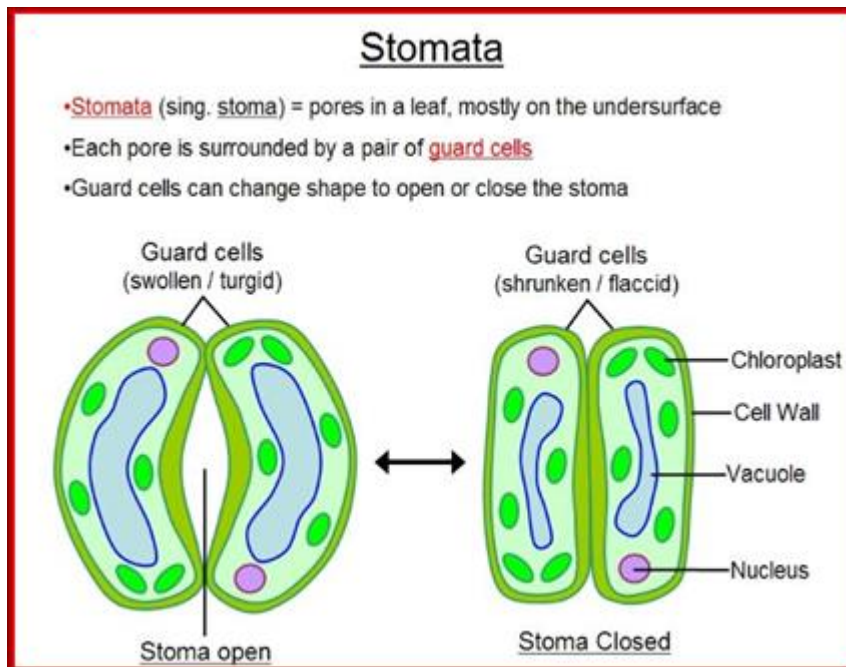


Homeostasis in Plants and Animals



Guard Cells in Plant Leaves:

- Cells that control the opening and closing of the stoma (stomata)
- Regulate gas and water exchange
- Close when it is arid (dry) or when it is too hot

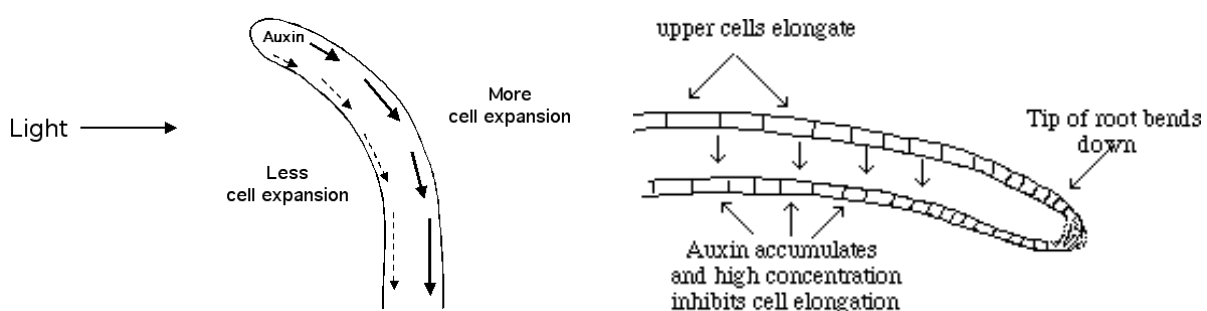
Plant hormones are chemical substances that control a plant's patterns of growth and development, and the plant's responses to environmental conditions.

Auxin:

- Stimulates cell elongation (plants get taller)
- Plants grow towards a light source (phototropism). Auxin is uniformly produced by growing shoot tips but is transported to an unlit side of a shoot, causing cells on the unlighted side to elongate more than cells on the lighted side, which results in the growth of the shoot towards the light source.
- Responsible for both phototropism and gravitropism (growth with gravity- roots always grow down— opposite effect than in the stem).

A coleoptile tip growing toward the light

Root tips grow downward



Animal Metamorphosis

Living things have life cycles with definite stages which are under hormonal control.

