

Chapter 15: Sensitivity in Plants

Plants have no sense organs like animals have, but their growth responds to light and gravity.

The stem of the plant grows towards a source of light whereas the root grows with gravity.

Definition: A Tropism is the growth of a plant in response to a stimulus.

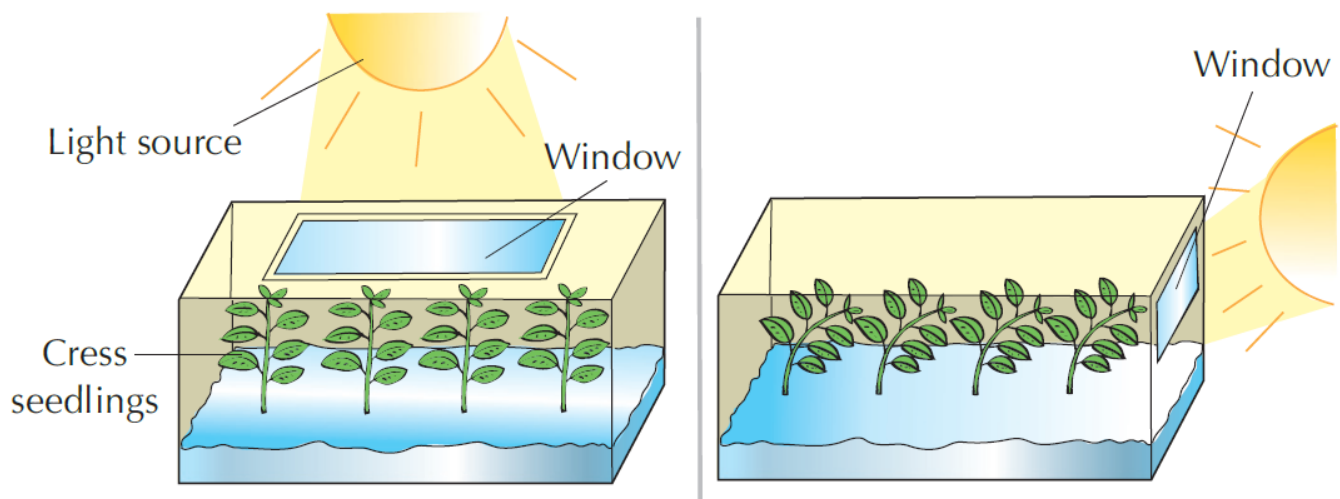
Phototropism is the growth of plants to light. Plants will grow to the light so photosynthesis can take place.

Geotropism is the growth of the plants root towards gravity. This makes sure the root will grow down and the plant will get plenty of water and minerals.

To investigate phototropism

Procedure

- Place some germinating seeds onto a petri dish of moist cotton wool.
- Place the petri dish into a covered shoe-box which has a hole at one end and leave it beside a window for a week.
- Take the cover off of the shoe-box and note that the plant has started to grow towards the hole in the box.



To investigate geotropism

Procedure

- Soak some broad bean seeds in water for a day or two to begin germination.
- Insert the seeds just inside the glass of a beaker of soil, making sure to turn the seeds in lots of different directions.
- After a few days the plants will start to grow, but in each case the shoots will grow upwards and the roots will grow downwards.

