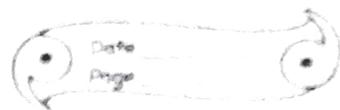


Home Work



How do the shoot and roots of a plant respond to the pull of the gravity?

Roots grow downwards, towards gravity while shoot usually grow upwards and away from earth. This occurs due to a phenomenon called geotropism.

2. Describe an activity to illustrate the phenomenon of phototropism and explain why does this occur?

→ Materials required: Conical flask, water, wire mesh, 2-3 freshly germinated bean seeds, cardboard box open from one side.

Procedure:

(i) Take a conical flask and fill it with water. Cover the neck of the flask with a wire mesh. Now, keep two or three freshly germinated seeds on the wire mesh. Keep this flask in the cardboard box in such a manner that the open side of the box faces light coming from the window. Observe the plant after few days.

(ii) Now, turn the flask so that the shoots are away from light and the roots towards light. Leave it undisturbed in this position for a few days and then observe the difference.

Observation :- When the flask is placed in the cardboard in a manner that the open side of box faces light coming from the window, the shoots of freshly germinated seeds have shown growth by bending towards light (positive phototropism) and root shown bending ~~towards~~ away from light (Negative phototropism).

Conclusion - This experiment show that the shoots of plants shown growth towards light and roots ~~towards~~ shown growth away from light.