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(Q) How do the shoot and root of the plant respond to the pull of earth gravity?

(A) The shoot part of the plant shows negative geotropism by growing in opposite direction of gravity.

The root part of the plant shows positive geotropism by growing in the same direction of the gravity. In this way the shoot and roots of a plant respond to the pull of earth's gravity.

Describe an activity to illustrate the phenomena of phototropism and explain why does this occurs

(i) fill a conical flask with water

(ii) cover the neck of the flask with a wire mesh

(iii) Keep two or three freshly germinated bean seeds on the wire mesh

(iv) Take a cardboard box which is open from one side

(vi) Keep the flask in the box in such a manner that the open side of the box faces light coming from a window

After two on three days you will notice that the shoots bends towards light and roots away from light

Now turn the flask so that the shoots are away from light and the roots towards the light

Leave it undisturbed in the condition for few days.

~ folding up of the leaves of mimosa plant is one example of nastic movement on seismonasty.