

Q) How do the shoot and roots of a plant respond to the pull of earth's gravity?

The shoot part of the plant shows negative geotropism by growing in the opposite direction of the 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.

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

Growth movement of the shoot in plants in response to a light stimulus is called phototropism. This movement is caused due to more growth of cells towards the shaded side of the shoot as compared to the side of shoot towards the light.

Aim of the activity
To show the phenomenon of phototropism

Materials required

A potted plant

Procedure

A plant was taken and kept in a dark room near a window for few days.

Observation

We observe that the plant tip is towards the window and the plant is growing by bending itself towards the light coming from window.

Conclusion

It proves that light is responsible for the bending of the branch/stem.

