

## Home assignment

Q1) 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 opposite direction of gravity.
- The root part of the plant grows in a positive direction of gravity.

Q2) Describe an activity to illustrate the phenomenon of Phototropism and explain why does this occur.

• Aim of the activity: To illustrate the phenomenon of Phototropism.

- Materials required: • Flask with water
- Bean seeds
- Cardboard box

• Procedure: • Fill a conical flask with water

- Cover the neck of the flask with a wire mesh.

- Keep two or three freshly germinated bean seeds on the wire mesh, take a cardboard box which is open from one side

- 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 or three days, you will notice that the shoots bend towards light and roots away from light.

• Observation: The shoot of the plants which need sunlight get attracted towards light and don't obey the Earth's gravity whereas the root in search of water obey the Earth's gravity and goes downwards.

• Conclusion: The plants are naturally made in such a way in which ~~they~~ the shoot of the plant goes in the negative direction of gravity for sunlight, which is needed for photosynthesis and the root are made in such a way it travel deeply in the soil in search of ground water for photosynthesis.