

How  
10/7/21

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

Ans The roots of a plant grows downwards in response to gravity. This is known as geotropism. The Roots displays positive geotropism, while the shoots displays negative geotropism. ~~The roots grow~~

- The roots move down for uptake of water and essential minerals for growth.
- The shoots need sunlight and grow in the direction of light.

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

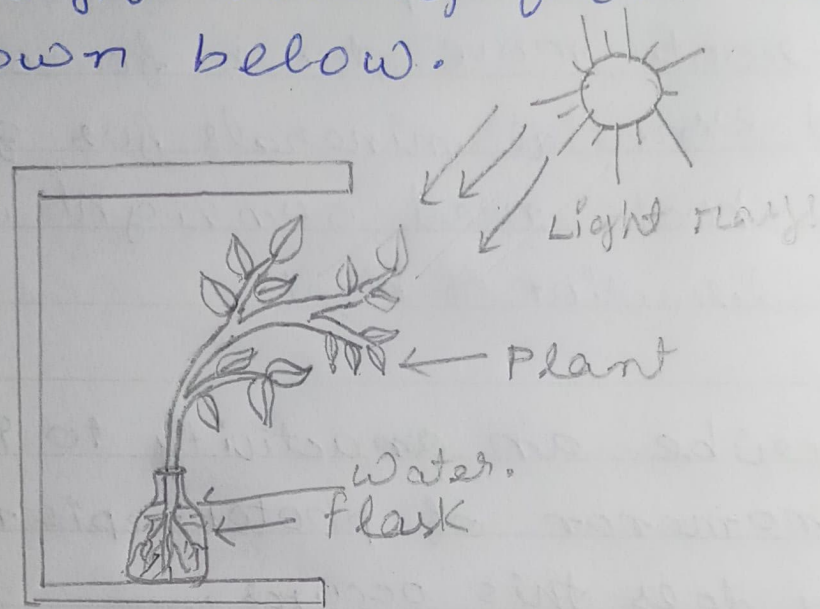
Ans Phototropism is defined as the growth movement of plants in response to light stimulus. You will note that in plants.

Activity to show the response of a plant to light

- 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 as shown below.



### Response of the plant to the direction of light

Then leave the setup for ~~some~~ <sup>2-3</sup> days.

- You will observe that "shoots bend towards light, but roots bend away from light". This type of growth movement in response to light stimulus is termed as "phototropism".