

1.3

Stimuli and Responses in Plants



Like humans and animals, plants can also **detect stimuli** and **respond** to them. The stimuli that can be detected by plants include light, water, gravity and touch. The responses of plants can be divided into two as shown in Figure 1.24.

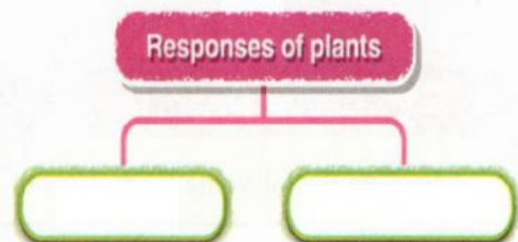


Figure 1.24 Responses of plants to stimuli

Tropism

Tropism is a directional **response of plants** to stimuli such as light, water, gravity and touch coming from a certain direction. A certain part of a plant will grow towards or move away from the detected stimulus. The part of a plant which grows towards a stimulus is known as **positive tropism** whereas the part of a plant which grows away from a stimulus is known as **negative tropism**. The directional response of plants normally occurs slowly and less significantly. Let us carry out Experiment 1.1 to determine the direction of response of plants to light, water, gravity and touch.