

Movement and Response to Stimuli

Chapter 10: Living Creatures: Exploring their Characteristics · Topic 3

Key Concept

Plants show responses called tropisms — phototropism is growth towards light, while geotropism (or gravitropism) is growth in response to gravity, with roots growing downward and shoots growing upward. Animals show much faster responses through their nervous system — for example, quickly pulling a hand away from something hot is a reflex action, an automatic and very fast response that does not require conscious thought, helping protect the body from harm.

Quick Revision Notes

- Animals show locomotion (whole-body movement); plants show slower, partial movement (like tropisms).
- Phototropism: plant growth towards light. Geotropism: plant growth in response to gravity.
- Reflex actions are fast, automatic responses to stimuli, like pulling a hand from a hot surface.
- Response to stimuli helps organisms survive and avoid harm.

Practice Questions

- 1 Give one example of an animal's response to a stimulus.
- 2 Explain the difference between phototropism and geotropism in plants.
- 3 Why is a reflex action useful for protecting the body?