

Seeds - Structure and Germination

Chapter 6: Seeds - Structure and Germination · Topic 1

Key Concept

A seed has a seed coat (protective outer layer), an embryo (young plant), and stored food (like cotyledons) to nourish early growth.

Germination requires specific conditions - adequate water, oxygen, and suitable temperature - to activate the embryo's growth.

During germination, the seed absorbs water, the seed coat breaks, and the embryo's root (radicle) and shoot (plumule) begin to grow.

Understanding seed structure and germination helps us grow plants successfully and appreciate how new plants begin their life cycle.

Quick Revision Notes

- A seed has a seed coat, embryo, stored food.
- Cotyledons store food for early growth.
- Germination needs water, oxygen, suitable temperature.
- These activate the embryo's growth.
- The seed absorbs water; seed coat breaks.
- The radicle (root) grows first.
- The plumule (shoot) also begins growing.
- Understanding this helps successful plant growth.

Practice Questions

- 1 Draw and label the parts of a seed.
- 2 Discuss the conditions needed for germination.
- 3 Explain what happens during germination step by step.
- 4 Germinate a seed at home and observe changes.
- 5 Discuss the role of cotyledons.
- 6 Explain the difference between radicle and plumule.