Seedless Plant Reproduction

What You'll Learn:

Examine the life cycles of a moss and a fern.

Explain why spores are important to seedless plants.

Identify some special structures used by ferns for reproduction.

- •Seedless plants include all nonvascular plants and some vascular plants.
- •Nonvascular plants do not have structures that transport water and substances throughout the plant.
- ·Water and substances simply move from cell to cell.
- Vascular plants have tubelike cells that transport water and substances throughout the plant.

The Moss Life Cycle

- *Spores land on the ground and grow into leafy gametophytes, which produce sex cells.
- *Sperm swim through water and fertilize the egg, forming a zygote.
- *Zygote grows into a spore producing sporophyte.
- *Only the gametophyte stage undergoes photosynthesis

Nonvascular Plants and Asexual Reproduction

*Any part of the plant under the right conditions can regrow.







The Importance of Spores

*All nonvascular and some vascular plants reproduce using spores.









Nonvascular Seedless Plants

*Sporophyte stage of nonvascular plants is so small it is often overlooked.





Vascular Seedless Plants

- *Fern Life Cycle- spore grows into a very small heart-shape gametophyte.
- *The gametophyte produces sex cells that combine to form a zygote.
- *The zygote grows into the spore producing sporophyte.
- *Both the gametophyte and sporophyte stages undergo photosynthesis.