

Section 8.1 Review and Reinforce

1. All plants produce their own food and are made up of many cells
2. They need to get water and other materials from their surroundings, retain water, transport materials throughout the plant, support their bodies, and reproduce successfully.
3. Tissue
4. Vascular tissue
5. Gametophyte
6. Fertilization
7. Cuticle
8. Sporophyte
9. Gamete
10. zygote

Section 8.2 Review and Reinforce

1. Liverworts
2. No
3. Low-growing
4. Small
5. Places high in moisture
6. Moist soil
7. Grow flat
8. B
9. D
10. D
11. B

8.3 Review and Reinforce

1. Structures where spores are produced
2. Stem
3. Frond
4. Roots
5. Sporophyte
6. Gametophyte
7. They have vascular tissue and use spores to reproduce
8. Vascular plants
9. Club mosses and horsetails

9.1 Review and Reinforce

1. They all have vascular tissue, produce seeds, have leaves, stems and roots.
2. Embryo, stored food, seed coat
3. Captures the sun's energy, carries out photosynthesis
4. A layer of cells that divide to produce new phloem and xylem
5. Root
6. Contains a young plant inside a protective covering
7. Xylem

8. Phloem
9. Protects the growing tip of the root from injury
10. Stomata
11. Carries substance between the roots and leaves, provides support for the plant, holds up leaves so they are exposed to the sun
12. A seed leaf where food can be stored

9.2 Review and Reinforce

1. Needlelike
2. Conifer
3. Cones
4. Pollen
5. Egg cells
6. Answers may vary: SAMPLE: first pollen falls from a male cone onto a female cone. This is called pollination. In time, a sperm cell and an egg cell join together in an ovule on the female cone. After fertilization occurs, the zygote develops into the embryo part of the seed.

9.3 Review and Reinforce

1. They produce flowers and fruits
2. Pollen
3. Eggs
4. Pollen falls on the stigma. The sperm cell and egg cell join in the ovule. The zygote develops into an embryo.
5. Monocots are angiosperms that have only one seed leaf. Dicots produce seeds with two seed leaves.
6. Stamen
7. Pistil
8. Ovary
9. Petal
10. sepals

9.4 Review and Reinforce

1. Gravity and light
2. Tropism
3. Positive (to gravity)
4. Positive (to light)
5. B
6. C
7. a

Reader Station:

- A. Vascular plants have vascular tissue or tubes found in their roots, stems, and leaves that help transport water (xylem) and food (phloem). They reproduce asexually through spores and propagation and sexually. Non-vascular plants do not have tubes and instead have root-like structures called rhizoids that help them adhere to the ground.

They obtain water by osmosis. They reproduce sexually using spores and asexually through vegetative propagation.

- B. The male parts of the flower are called the stamen and include the anther which contains pollen grains, and filament which supports the anther on a stalk. The female parts are called the pistil and include the stigma which receives pollen, style, a long tube through which the pollen tube grows, and the ovary which is connected to the style and contains ovules which then develop into seeds once fertilized and the ovary becomes a fruit.
- C. They are both vascular plants, but gymnosperms do not have fruits that enclose seeds instead the seeds are naked and found on cones. Their leaves are needle-like and stay green year round. Examples: ginkgo, and pine trees
- D. Organisms in Kingdom Plantae are autotrophic producers that make their own food using energy from the sun in a process known as photosynthesis. They have chloroplasts that take in sunlight energy and convert carbon dioxide and water into oxygen and glucose sugar. Plantae is divided into four groups: non-vascular plants, vascular ferns, vascular gymnosperms, and vascular angiosperms.