

Unit 5 Review

Summary

- A moss is a type of plant that does not have structures to carry water or other materials throughout the plant. As a result, mosses are small and usually live in damp areas.
- Ferns are plants that have a vascular system. A vascular system consists of tubes that carry water and nutrients throughout a plant.
- Ferns and mosses reproduce with special cells called spores.
- Higher plants have three main parts: roots, stems, and leaves.
- Xylem carries water and nutrients up from the roots to other parts of a plant. Phloem carries food from the leaves to other parts of a plant.
- Roots anchor a plant in soil and take in other materials needed by the plant. Stems connect roots to leaves. Leaves make food by photosynthesis.
- Stomata are pores in leaves. Stomata open and close, allowing water to escape or to be held in the plant.
- Sperm and egg cells come together in a flower to form seeds.
- Seed plants are the most common types of plants and are the best adapted for reproduction.
- A seed contains a young plant and its food and provides a protective outer covering.
- Gymnosperms are said to have “naked seeds” because their seeds are not protected by a fruit. Most gymnosperms living today are conifers.
- Angiosperms are the most common types of seed plants. In angiosperms, seeds develop in a flower and are later protected by a fruit.



For Your Portfolio

1. Go to a grocery store with some of your classmates. Find examples of at least 20 foods that are made from different types of plants. Write a list of the foods. What type of plant is each food? How many foods are flowering plants? What examples can you find of foods that are other types of plants?
2. Go to the library and look up different cultures that depend on grains as their main source of food. Grains, such as wheat, are certain types of flowering plants that are grown primarily for food. Look up Egyptian, Greek, Mexican, and Chinese civilizations. Report your findings to your class.
3. With a few of your classmates, conduct an experiment with house plants. Get several small inexpensive plants, such as African violets. Place each one in the same environment, but change one factor. For example, place one plant in a bright, cool spot and give it a moderate amount of water. Keep another plant in the same area but give it very little water. Give a third plant extra water. Continue the experiment for at least three weeks. Which plant grows the most? How would you explain your results?
4. Watch seeds sprout. You'll need these supplies: radish, bean, pea, or other fast germinating seeds; paper towel; a small self-sealing plastic bag; water. Fold the paper towel so that it is just slightly smaller than the plastic bag. Wet the towel and squeeze out the excess water. The towel should be damp, but not dripping wet. Place the towel in the bag. Place the seeds in a row on top of the towel so that you can see them through the bag. Seal the bag. Place the bag in a dark area such as inside a drawer. Observe the seeds each day for two weeks. Keep notes on the seedlings. Record when they start to sprout. Measure them as they grow.
5. Go to the library to find out about peat moss. What is it made of? How is it used for gardening? Explain how it helps other plants. How has peat been used as a fuel? Where has it been used this way? Report your findings to your class.

Unit 5 PRACTICE TEST

In the space provided, write the letter of the correct term for each definition.

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|-------|--|--------------------|
| _____ | 1. system of tubes that carries water and nutrients throughout a plant | a. phloem |
| _____ | 2. process by which plants make food | b. xylem |
| _____ | 3. pores in leaves through which excess water is released | c. photosynthesis |
| _____ | 4. vascular tissue that carries food made in the leaves to all other parts of the plant | d. respiration |
| _____ | 5. special cells with which some living things such as mosses and ferns reproduce | e. stomata |
| _____ | 6. vascular tissue that carries water up from the roots through the stem to the leaves | f. moss |
| _____ | 7. type of plant that does not have vascular tissue | g. fern |
| _____ | 8. process in which living things break down food and release energy | h. vascular system |
| _____ | 9. cone-bearing plant with needle-shaped leaves | i. spores |
| _____ | 10. type of plant that has a vascular system and reproduces by spores | j. angiosperms |
| _____ | 11. most common types of seed plants whose seeds form in a flower and are protected by a fruit | k. gymnosperm |
| _____ | 12. type of seed plant whose seeds are usually found inside a cone | l. conifer |

Give a brief answer for each of the following.

13. What trait do ferns have that mosses do not have? What trait do mosses and ferns share?

14. What is an important difference between angiosperms and gymnosperms?

Answer one of the following questions.

15. Write an essay to explain why angiosperms are better adapted to reproduce than gymnosperms?
16. Compare the processes of photosynthesis and respiration. Make a chart or write an essay to describe the differences between the two processes.