Plant Diversity

If you look around at all the different types of plants growing on land, they can be put into one of four groups. These groups are **bryophytes**, **pteridophytes** or seedless plants, **gymnosperms** and **angiosperms**. The most complex of these groups is the angiosperms or flowering plants.

Bryophytes are also called **nonvascular** plants because they do not have vascular tissue. The other three groups have true vascular tissue made up of tubes that they use to transport water, minerals, and sugars from one place inside the plant to another. Examples of bryophytes are **mosses**, **hornworts**, and **liverworts**. This category of plant cannot grow very big because it uses mainly simple **diffusion** to get transport water and other materials.

The next group of plants is the pteridophytes or **seedless** plants. These plants do have vascular tissue, but they do not have seeds as any part of their life cycle. Examples of pteridophytes are **ferns** and **horsetails**. Pteridophytes require water for reproduction, so they are only found living in damp places.

The first type of plants with seeds is the gymnosperms. A **seed** consists of a baby plant and its food supply surrounded by a protective covering. The most familiar types of gymnosperms are the **conifers** like **pines**, **fir**, and **spruce**.

The last and most complex group of plants is the **angiosperms**. Angiosperms also have seeds, but the seeds are contained within **flowers**. The angiosperms are also called flowering plants. The flower is an angiosperm structure that is used for reproduction. Angiosperms also have **fruits**, which help to disperse seeds. Fruits protect seeds and help to spread them until they are ready to grow into new plants.
Plant Diversity Questions

1. True or False. The most complex group of plants is the pteridophytes.

2. Which type of plants does not have vascular tissue?
   a. angiosperms
   b. bryophytes
   c. gymnosperms
   d. pteridophytes

3. Give an example of a bryophyte.

4. Pteridophytes do not have ____________ as any part of their life cycle.

5. A seed consists of a baby plant, _____________, and protective ____________.

6. What two groups of plants have seeds?

7. Give an example of a gymnosperm.

8. What two structures are only found in angiosperms?
   a. seeds and fruit
   b. vascular tissue and seeds
   c. flower and fruit
   d. flower and seeds

9. The flower is a structure used for _____________.

10. Fruits help to protect and spread _____________.

Plant Diversity Answers

1. True or False. The most complex group of plants is the pteridophytes.

2. Which type of plants does not have vascular tissue?
   a. angiosperms
   b. bryophytes
   c. gymnosperms
   d. pteridophytes

3. Give an example of a bryophyte. Mosses, hornworts, and liverworts.

4. Pteridophytes do not have seeds as any part of their life cycle.

5. A seed consists of a baby plant, food supply, and protective coat.

6. What two groups of plants have seeds? Gymnosperms and angiosperms

7. Give an example of a gymnosperm. Any conifer i.e. pine, fir, spruce also junipers, ginkgo, etc.

8. What two structures are only found in angiosperms?
   a. seeds and fruit
   b. vascular tissue and seeds
   c. flower and fruit
   d. flower and seeds

9. The flower is a structure used for reproduction.

10. Fruits help to protect and spread seeds.