



Pre-Trip Vocabulary Prairie Ecosystem Study

To maximize the effectiveness of your Prairie Ecosystem Study program at The Morton Arboretum, please familiarize your students with the following vocabulary words and concepts. This will be most effective just before the program.

Adaptation- the slow process of change in the physical or behavioural traits of a plant or animal due to some environmental pressure

Biotic- an environmental factor related to or produced by a living organism

Abiotic- a nonliving element in an environment (e.i light, water, heat/sun, rock, air)

Photosynthesis- the process by which green plants manufacture simple sugars in the presence of sunlight, carbon dioxide, water and chlorophyll

Tap Root- a type of root system with one main root stem extending deep into the earth.

Ecosystem- a community of living (biotic) organisms and nonliving (abiotic) environmental factors working together as a unit

4th-5th Grade Only:

Consumers- an animal or plant that eats other living things to survive

Producers- a plant that produces its own food, some of which will be passed through the food web when the plant is eaten or decomposes

Food Web- all of the interactions between predators and prey, in which plants and animals obtain food, within a community or ecosystem

6th-8th Grade Only:

Biodiversity- the total of all varied and diverse plants and animals interacting in an ecosystem

Herbaceous- having little or no woody tissue and growing usually for a single growing season. A herbaceous plant is a plant that has leaves and stems that die down at the end of the growing season, sometimes to the soil level

Forb- a broad-leaved herbaceous (non-woody) plant

Grass- a large family of plants with jointed stems and narrow leaves

Seed Dispersal- a natural process where plant seeds are spread to other areas



Pre-Trip Vocabulary Prairie Lab

Blade- flat fleshy portion of the leaf that takes up the most amount of surface area; this is where photosynthesis occurs

Vein- thin tube-like structure which transports water and nutrients to the leaf and transports glucose (sugar) from the leaf to other parts of the plant; usually runs down the middle of the leaf blade and connects to the petiole

Petiole- thin stem that attaches the leaf to the branch/stem of the plant

Stamen- the reproductive part of the flower that produces pollen; the stamen is composed of both a filament and anther

Pistil- the female reproductive part of the flower that contains both the stigma and ovule; the pistil is most commonly centrally located in the center of the flower and transports pollen from the stigma to the ovule

Stigma- the female reproductive part of the flower that contains a sticky bulb used to collect pollen; the stigma is attached to the pistil

Ovule- the reproductive part of the flower that contains the embryo sac; the ovule is responsible for seed production; located at the base of the pistil near the flower's stem

Composite Flowers- flowers that are composed of 2 smaller flower types; composite flowers contain both disc flowers and ray flowers; ray flowers are sterile and only used to attract pollinators to the disc flowers; disc flowers are compactly organized to allow for pollination from flying insects

Carnivore- a consumer that eats meat or other animals

Herbivore- a consumer that eats plant material (roots, stems, leaves and flowers)