

MEET A PLANT: GRASS

Did you know that grass has flowers? The grass family is one of the largest families of flowering plants. The scientific name for the grass family is the *Poaceae* family. There are more than 10,000 named species of grass in the world.

Grasses are **herbaceous** (er-bay-shus) plants. Herbaceous means that they have tender green stems, rather than woody stems like those of trees and shrubs.

WHERE DO GRASSES LIVE?

Grass grows on every continent—including Antarctica—and there about 1,000 different grasses in North America. Grasses grow in many habitats, and different grass family members are the main plant in ecosystems like grasslands, salt-marshes, swamps, prairies and steppes.



DID YOU KNOW?

Some species of grass are grown for their beauty, some are grown as turf for lawns and recreational areas, and some are used for erosion control.

Grasses provide food for grazing animals and shelter for wildlife. Some grasses grow parts you might eat. A cereal is any grass grown for the edible parts of its grain. Cereal grains are the seeds that come from grasses such as wheat, millet, rice, barley, oats, rye, sorghum, and corn. Sugarcane is also in the grass family.

You might know the tallest grass in the world, which is bamboo!

WHAT DO YOU THINK?

Do you have a grass lawn near your home or somewhere nearby?

Have you seen different kinds of grass? How can you tell?

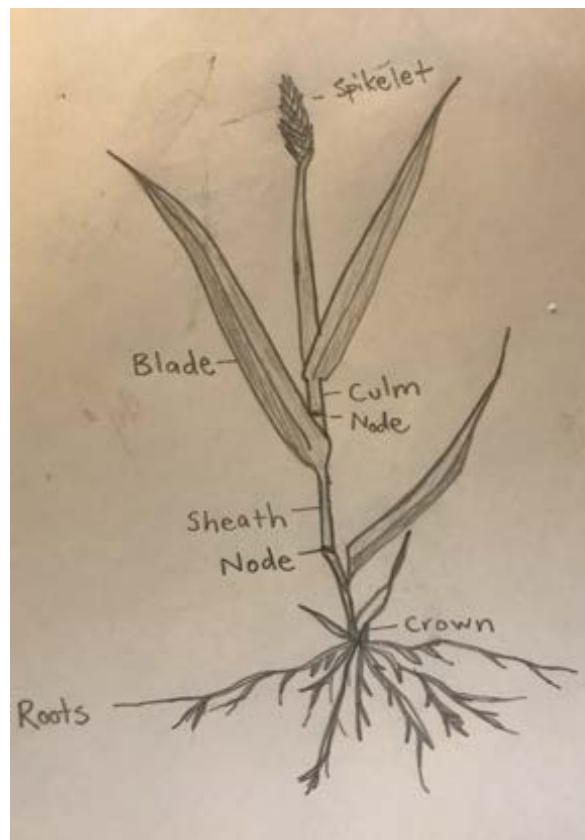
Have you seen grass growing any places other than in lawns?

WHAT MAKES A GRASS A GRASS?

The stem of a grass plant is called a culm. In many grasses, the culms are round and hollow, but they are blocked at places called nodes.

Plants in the grass family have narrow leaves with parallel veins. Grass leaves are called blades and they attach at the nodes. The leaves wrap around the culm before they start to stick out. The part that wraps around the culm is called the sheath and the part that sticks out is called the blade.

Grasses have flowers that grow in a structure called a spikelet. The flowers are pollinated by the wind. Once the flowers are pollinated, the seeds form. The seeds are dispersed by the wind, rain, and sometimes by passing animals.



Look for a grass plant growing outside. Can you find the hollow culm?

Can you pull a blade of grass away from the culm to see where the sheath attaches to the node?

Can you find grass flowers or seeds?

HOW DO GRASSES GROW?

Grass blades grow from the base of the blade (at the node) and not from the tips. This low growth point allows grasses to be grazed or mowed regularly without hurting the plant. Many plants would not do well if they were cut regularly, but grass grows back from each node when it's cut or mowed.

Most grasses spread through runners, which are underground stems. From joints in the runners, new roots grow downward and new stems grow upward. This creates a network of roots and stems that reaches in all directions. This helps to hold soil in place and prevents it from blowing or washing away. It slows the evaporation of moisture and the runoff of water and soil during and after a rain (erosion).

GRASS PICTURES AND INTERESTING FACTS



Fossil *Zizania* sp.

Wild Rice Fossil

Grass-covered lawns, prairies and hillsides help prevent erosion **by keeping soil in place with their root systems.**

Fossil findings of grass pollen indicate that grasses evolved around **66 million years ago.**

Grasses make up about **26% of the plant life on earth.**



Pampas Grass



Bermuda Grass

Grass lawns, trees and shrubs around a house can **reduce the air temperature** surrounding the home by up to 14°F.



Blue Grass



Fescue



Giant Bamboo

Giant bamboo is the tallest grass. It can grow up to 25-35 meters (82-115 feet) tall.



Sugar Cane

Cereal grains probably provide more food energy worldwide than any other type of crop.



Wheat



Barley



Rice Paddy



Corn Field



Oat Field

WHAT DO YOU THINK?

After reading about grass, can you think of different kinds of grass you have seen?

Have you seen animals eating grass?

Have you seen grass control erosion?

Have you eaten any food from the grass family today? This week?



AFTERNOON ON A HILL

I will be the gladdest thing
Under the sun!
I will touch a hundred flowers
And not pick one.

I will look at cliffs and clouds
With quiet eyes,
Watch the wind bow down the grass,
And the grass rise.

And when lights begin to show
Up from the town,
I will mark which must be mine,
And then start down!

Edna St. Vincent Millay - 1892-1950

POETRY

Poems are a way of expressing
how you feel.

WRITE your own poem inspired by grass.

You might write about how it feels to

- Walk in the grass with your shoes on
- Walk in the grass with your shoes off
- Roll in the grass
- Mow the grass
- Stare at the grass
- Picnic on the grass
- Daydream on the grass
- Walk through wet grass
- Walk through a cornfield
- Skip through a wheat field

You might *draw a picture* poem about grass.



TRY THIS!

Find 3 different kinds of grass in your neighborhood. Draw them.

If you can carefully pull up a small amount of grass without hurting the larger area, look at it carefully.

- Did the roots come up with it?
- Can you see runners attached to the roots?
- Draw a diagram of the grass you pulled up.



Try whistling with grass. You'll find instructions on the Duke Garden website at:

<https://gardens.duke.edu/sites/default/files/Duke%20Gardens%20-%20Whistle%20with%20Grass.pdf>

Braid grass to make a string bracelet.



Do a crayon rubbing of a blade of grass. Can you see the parallel veins?



What kind of grains do you have in your home that are in the grass family?

- Collect small quantities of at least 3-4 kinds of grain
- Make a "grains" picture by drawing different shapes and gluing grains onto the shapes.

