2.9.16, 2.10.16 & 2.11.16

Monocots

germination

produces ag

long and narrow, look like the

leaves are long and thin

veins are parallel

roots are unbranched and fleshy

do not grow thicker each year; fibrous

bulbs

stems grown longer not wider; leaves are wrapped around the stem

flowers parts are in threes

sepals (protective structure for the flower); usually same color as the flower

flower has the same number of stamens and petals

seeds – pods usually have three parts, often large and fleshy

world’s largest and smallest seeds are monocots

largest seed – coco-de-mer

smallest seed - orchid

Dicot

germination – 2 seed leaves

donut look like; adult leaves contains the food

are not green

leaves – many shapes and sizes

veination is varied

roots – single, long and varied

stems grow wider not longer

flower usually have flower parts in four’s or five’s

calyx – ring is sepals under the corolla is usually green

seeds – usually have fruits, variable in size and shape and texture; usually have more seeds than monocots

There Once Was A Time video

In the 1940’s you could not see from the South Side to Oakland.

“Hell with the lid taken off” was a description of Pittsburgh.

The smoke problem came from the use of coal.

Pittsburgh was a 2 shirt city.

The first effort to clean up the city was by a women’s group.

The smoke problem in Pittsburgh was not the worst in the country.

In order for Pittsburgh to be smoke free, railroads and industry had to get on board and become smoke free.

WWII got in the way of the clean-up of Pittsburgh.

Street lights were on 24 hours a day.

Pneumonia and Respiratory disease killed more people in Pittsburgh than anywhere else in the US.

Richard King Mellon became aware of the smoke problem after WWII. He couldn’t see his office building from the William Penn Hotel, only a half block away. A major Republican ally of Lawrence.

David Lawrence was the mayor of Pittsburgh that was instrumental in cleaning up the smoke problem in PGH.

Ed Leach was a proponent of smoke control. He was the editor of the Pittsburgh Press.

By 1950, visibility could be measured in miles and not in feet.

In 1753, George Washington nearly died in the Allegheny River.

Pittsburgh was the gateway of travel and trade to the west.

The rivers were the source of food, drinking water, and recreation.

Nearly every downtown street ended in a beach.

1811, first steel mill opened in Pgh.

Henry J. Heinz headed the first flood commission.

Steam boats could not use river water in their boilers because acid corroded boilers.

Industrial dumping often brought the temp of the Monongahela to 130 degrees.

Reforestation was done to one million acres of land in the Monongahela, Allegheny, and Ohio watersheds, to prevent flooding.

Allegheny County is home to the second largest number of pleasure boats in the US>

Fort Duquesne was built by the French.

In 1776, fewer than 400 people lived in Pgh.

By 1876, 150,000 people lived in Pgh.

At this time, 1 in 6 worked in steel mills.

Howard Heinz and Richard Beatty Mellon headed the Great Pittsburgh Parks association that began in October of 1931.

In 1945, the Greater Pittsburgh Parks Association purchased its first park. McConnells Mill.

In 1952, The Greater Pittsburgh Parks Association became known as Western Pennsylvania Conservancy.

Sometimes the best use of land is not using it at all.

To date the Western Pennsylvania Conservancy has acquired more than 200,000 acres of land.

These lands are to be used for recreational use and enjoyment.

2.11.16

Germination – seeds are a packaged plant and they need to germinate. They need a period of time to rest after they develop. Will germinate only when conditions are right. The first thing to appear is the root which pushes downward. When it gets to the soil it begins taking in water and nutrients. The leaves begin to grow. Sunlight is required for the production of chlorophyll. Outer coat (testa) is often left behind in the soil as the cotyledons push through. upward growth is caused by the terminal bud. Meristematic tissue – the only tissue where cellular division occurs. Found at tips of stems, tips of roots, and in cambium layer.

Tree parts:

only the tips of the roots, the leaves, the buds, a thin layer surrounding the entire tree and the seeds are living. Living parts of the tree make up only 1% of the entire tree.

Trees have roots – absorb water and nutrients from the soil; roots cannot manufacture their own food

Parts of root – root cap, meristematic region, region of maturation, region of elongation, and region of absorption

Cambium layer – one cell thick and completely surrounds the tree from the tip of the root to the tip of the stem