Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Number: \_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Celery*** discussion:

Use p. 37, figure 2.6 – textbook; fill in the blanks.

Organism, \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_and Biosphere.

 ***Temperate Woodland and Shrubland\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

Use p. 69, and p.66 to help you complete this table (go back-and-forth between the two pages…)

|  |  |  |  |
| --- | --- | --- | --- |
| **Celery – location origin** | **Range of precipitation** | **Range in temperature** | **Give other locations for Temperate Woodland and Shrubland** |
|  **Greece** | * **cm**
 | * degrees **C**
 |  |

*Temperate Woodland and Shrubland in California is called Chaparral!*

**Celery** – *common name*

Binomial Nomenclature name – *Apium graveolens* var. *dulce* The first name in the binomial nomenclature system is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ (which is capitalized, and the second name is the \_\_\_\_\_\_\_\_\_\_\_\_\_ name (which is lower-case). var. stands for a variety; what does dulce mean? (think and guess!) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

It’s ***Binomial Classification*** as given to us by the great scientist (taxonomist) named ***Linnaeus*** in full form from broadest (most inclusive – largest) to narrowest (least inclusive – smallest):

Domain - (do the cells have nuclei?), then it is: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Kingdom - (is it multicellular?, does it make its own food?): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phylum: \_\_\_\_\_ Eudicot or dicot \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class: \_\_\_\_Asterids\_\_\_\_\_\_\_\_\_\_\_\_

Order: \_\_Apiales\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Family: \_\_\_Apiaceae\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Genus: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

species – (remember, ***species******is written in lower case***): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_; variety \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Celery is a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (perennial or annual?) because it is grown and harvested in a one year period. The part of the plant used in the USA is the stem. Therefore, we call it a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (fruit or vegetable?). Look carefully at the end of freshly cut piece of celery. You will see holes. These holes are actually the openings of the veins (xylem – *water* up, and phloem – *sap* or *sugar* down). I am going to put a stalk of celery in water containing food coloring. Come in tomorrow, and examine the leaf tips of the celery. Tell me what you see!

Notice that the leaves and stems of celery are green. Therefore, there are chloroplasts in the cells of both. So, the stems and leaves of celery conduct photosynthesis. Celery is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (herbaceous or woody?) plant.

Turn to p. 222 in your textbook. Write the equation for photosynthesis. Give the equation using chemical symbols (as given in the textbook). Then, underneath give the names of each of the compounds.

Chemical equation:

Names of compounds:

Now, use the information found on p. 222, and sketch a chloroplast:

Celery is used for flavoring (and sweetens when cooked!). Sometimes the seeds of the plant are harvested for an oil that is used as a seasoning agent (celery salt – dried celery mixed with sodium chloride; NaCl – table salt) in food. However, for some people, celery like peanuts, can cause a severe allergic reaction known as anaphylactic shock.

Not all plants produce flowers. For example moss and ferns are plants, but they lack many of the features found in upper plants – such as true leaves, and flowers. From simplest to most complex plants the order is – moss, ferns, gymnosperms (cone-bearing plants), and angiosperms (angiosperms are divided into monocots – monocotyledons, and dicots – dicotyledons). Angiosperms are known for the “fruits” they produce. Some of these fruits we eat – apples, cherries, tomatoes, peppers, etc. The fruit is the ovary of the plant, and seeds are the embryos of the plant. Let’s sketch and label the four basic parts of a flowering plant below, and give the function of each part.