Name: _____ Block: _____ Due Date: _____

# Prairie Sunflower Dissection

**Introduction**
Grasses are the dominant plant living in a prairie.  Their flowers are generally small and inconspicuous since they rely only on the wind for transport.  Wildflowers, on the other hand, have conspicuous flowers.  Unlike, the common simple flowers represented by lily plants, the two most common prairie plants (sunflowers and legumes) have distinctly different flowers.  In the following lab exercise, you will use your observation skills to determine the structural similarities and differences between a simple flower and a sunflower and understand why they are the dominant wildflower family on the prairie.

**Materials**
- Sunflower Plants
- Scalpels
- Dissecting Microscope

**Assignment**
1. Visit the following website on simple flowers and their anatomy and physiology:
   http://www.shaneeubanks.com/images/016_flower.jpg
2. Sketch and label the major anatomical features of the simple flower below.

3. Describe the function of the main flower parts.  (Refer to any website of your choosing to answer this.)

- Stamen –

- Pistil –

- Petal –

- Sepal –

- Stem –

4. Acquire and draw a single *Helianthus* flower (sunflower).

5. Observe the sunflower carefully and dissect it to determine the location(s) of flower parts listed above. Then, draw the distinct visual stages that a sunflower appears to progress through as it matures. Also describe this progression in writing.

6. Compare and contrast the structure of the *Helianthus* flower with the simple flower represented on the website used in question #1-2.  Knowing that the sunflower family is the second most abundant on prairie, suggest a reason why this is the case.

7. Find an internet image of a flower from a legume (one of the other dominant non-grass plants of the prairie), draw the flower below, and label the following anatomical parts:

- Standard petal
- Winged petals
- Keeled petals
- Stamen
- Pistil (including the ovules)