

Title of Lesson Plan	Flower Dissection
Prepared By	Katie Fox Hanson
City and State	Tacoma, Washington
Grade Level(s)	7-10
Keywords (subjects covered)	Plant reproduction, anatomy
Brief Description	The students will get an overview of flower anatomy and then will “dissect” three different flowers and compare and contrast them.
Total Time Required	2-3 class periods
Setting	Classroom/lab
Lesson Objectives/Goals	The student will be able to identify major features of the flowers including petals, sepals, stamen, and pistil
Materials Needed	Overhead, example pictures, a variety of flowers, worksheet
Procedure	<ol style="list-style-type: none"> 1. Begin with an overview of flower anatomy, identify the major parts of a generic flower and describe their purpose. 2. Use different flowers as examples to some of the major ways this anatomy can differ in different flowers and describe some of the reasons why. 3. Have students pick three different flowers to dissect and compare. The students should examine the flowers whole first, then cut them apart using scissors and magnifying glasses to observe different structures. 4. The students should sketch and label each flower. They should also write observations and justify their labeling if needed.
Assessment	Students will submit their lab sketches and answers to the analysis questions.
Literature Cited/References	<u>Biology, Exploring Life</u> . Pearson-Prentice Hall.
Forestry Tour Attended	Pacific Northwest 2008

Flower Dissection- Plant Reproductive System

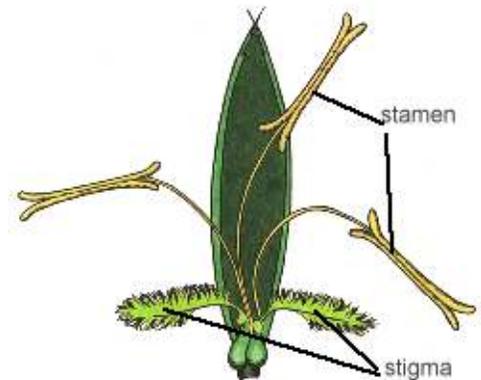
Goal: The goal of this lab is to correctly identify the anatomy of 3 different flowers and also to use this information to hypothesize whether the flowers use insects or wind for pollination

Method:

1. In your groups take 3 different types of flowers.
2. Examine each flower, in particular look at overall size, smell, and other unusual features you notice. Look at the flower from all angles.
3. Carefully cut the first flower in half for a closer examination. Cut the flower vertically so that hopefully you are also cutting the ovary in half and can examine the inside of the flower.
4. Draw a sketch and label each part carefully. Write any important observations and/or uncertainties next to the sketch. Write down your justifications for labeling (WHY did you label certain things, how did you know what each thing was?)
5. Repeat steps with the other 2 flowers.

Analysis Questions:

1. Make a table to compare the basic structures of the 3 different flowers you examined. Include smell, flower color, number of stamen, shape of carpel, petal arrangement, and at least 3 other things.
2. Does the arrangement of each flower lead you to believe that it is pollinated by insects or wind?
Explain.



3. Look at the picture to the right.
 - (a) Say whether this flower is insect or wind pollinated.
 - (b) Name a structure which is absent or not labeled on this flower which would be significant in flowers which use the other method of fertilization.
 - (c) Choose one feature of the stamen, and one feature of the stigma which are shown on the diagram and explain how each feature helps with the plant's method of pollination.

Plant Sketch # 1	Observations and justifications
Plant Sketch #2	Observations and justifications
Plant Sketch #3	Observations and justifications