

Exploring Creation with Botany Spring 2017 Syllabus

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It is expected that you read the chapter prior to coming to class in order to facilitate in class activities and discussion. With each lesson, I will also give suggested questions to answer, in-class handouts, or possibly ask you to observe some experiments at home which will all be helpful to your understanding of the material.

Optional: We will also be completing a nature notebook throughout the semester. A suggested activity will be assigned with each lesson.

Chapter 13 in the book covers different methods to create a nature journal. It would be a good idea to read this chapter before beginning any of the nature journaling assignments.

Supplies: 1" 3-ring binder; *Exploring Creation with Botany* by Jeannie Fulbright from Apologia

Course Schedule

January 27th – Chapter 1: Botany

Print out notes from email and read pgs 1-16. Bring the note sheet to class with your notes on it. It will help with class discussion.

Nature Journaling Assignment: Find examples of the 4 types of plants: angiosperms, gymnosperms, seedless vascular, and nonvascular. Either sketch a drawing of each or cut/paste a picture of each into a notebook. Be sure to list several examples and characteristics of each type of plant. Due: February 3rd.

February 3rd – Chapter 2: Seeds

Print out notes from email and read pgs 21-33. Bring the note sheet to class with your notes on it.

Note: We will prepare in class the germination experiment on page 29 of the book. The students will then take them home and record their results to bring back to class on February 17th.

Nature Journaling Assignment: Find several pictures of both monocots and dicots. The picture can be of the plant, the leaf or the flower. Place them in your nature journal and label each. Be sure to include the characteristics that make each a monocot or a dicot. Due: February 17th

February 17th – Chapter 3: Flowers

Print out notes from email and read pgs 35-46. Bring the note sheet to class with your notes on it.

Nature Journaling Assignment: We will complete the flower dissection in class and they will include this in their nature journal.

March 3rd – Chapter 4: Pollinators

Print out notes from email and read pgs 49-70. Bring the note sheet to class with your notes on it.

Nature Journaling Assignment: Write down all the fascinating facts about pollinators. Illustrate each type: bees, moths, hummingbirds & bats. Due: March 17th

March 17th – Chapter 5: Fruits

Print out notes from email and read pgs 71-86. Bring the note sheet to class with your notes on it.

Nature Journaling Assignment: Discuss and draw examples of the 5 kinds of dispersal: “human”, “wind”, “water”, “mechanical” & “animal”. Due: March 31st

March 31st – Chapter 7: Roots & Chapter 8: Stems

Print out notes from email and read pgs 107-124. Bring the note sheet to class with your notes on it.

Nature Journaling Assignment: Write down at least three fascinating facts about roots that you have learned. In addition, draw a picture what a root tip looks like under the microscope (use page 109 as a guide). Also record and illustrate what you remember about xylem, phloem, and the vascular cambium. Explain what auxins are and how they cause phototropism. Also include any notes about your results from your root view container. Due: April 7th

April 7th – Chapter 9: Trees

Print out notes from email and read pgs 125-134. Bring the note sheet to class with your notes on it.

Nature Journaling Assignment: Draw an illustration of the five different layers in a tree's trunk. Be sure to label each layer and describe what it does for the tree. See page 132 in your book for a guide. Include at least one bark rubbing from a tree in your backyard. Due: April 21st

April 21st – Chapter 10: Gymnosperms

Print out notes from email and read pgs 135-144. Bring the note sheet to class with your notes on it.

Nature Journaling Assignment: Describe why gymnosperms are able to survive cold climates and how cones are formed. Document in your own words what happened in our in class experiment of opening and closing a pine cone. Due: April 28th

April 28th – Chapter 6: Leaves

Print out notes from email and read pgs 87-106. Bring the note sheet to class with your notes on it.

Nature Journaling Assignment: Draw a leaf in your notebook, labeling all of the parts of the anatomy. Be sure to include a drawing that illustrates the difference between a simple leaf and a compound leaf. Illustrate the process of photosynthesis including light, water, chlorophyll and carbon dioxide. Due: May 5th

May 5th – Chapter 11: Seedless Vascular Plants & Chapter 12: Nonvascular Plants

Print out notes from email and read pgs 145-158. Bring the note sheet to class with your notes on it.

Nature Journaling Assignment: Illustrate the life cycle of a fern. Also include illustrations of fern fronds. Illustrate the life cycle of moss. Due: May 5th