



## **Exploring Plants and Fungi Using Experience – Based Activities** Teaching Elementary Science Using Concrete Materials To Explore Abstract Concepts

### **EDUO 9519 1-3 Semester Credit(s)/Unit(s)**

Instructors: Ron Kremer and Anthony Flores

[rkremer@dominicancaonline.com](mailto:rkremer@dominicancaonline.com)

**You must be currently teaching students to successfully complete this course.**

***Note: This is a Public syllabus of the course. For a full detailed syllabus please email the instructor.***

### **Public Syllabus**

#### **Course Overview**

This course emphasizes student interaction with concrete materials, encouraging hands-on exploration of concepts, constructing meaning and understanding. The students will be behaving as scientists: Exploring, comparing, measuring, observing, recording data, etc. Students will be engaged in experiments, model building, and art projects that reinforce the concepts.

#### **Course Objectives:**

The teacher will:

1. Collect materials needed for interactive activities (experiments, model building, and art projects)
2. Provide opportunities for students to engage in concrete, hands-on explorations
3. Guide students in the use of “scientific method” (observing, collecting data, looking for patterns, forming hypotheses etc.)

#### **Course Relation to CCS or other Professional Standards**

This course aligns to the standards for: *Next Generation Science Standards for California Public Schools, Kindergarten through Grade Twelve:*

##### **Grade One**

LS1.A: Structure and Function: Plants have different parts (roots, stems, leaves, flowers, fruits) that help them survive.

##### **Grade Two**

LS2.A: Interdependent Relationships in Ecosystems: Plants depend on water and light to grow.

##### **Grade Three**

LS2.C: Ecosystem Dynamics, Functioning, and Resilience: For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all.

##### **Grade Four**

LS1.A: Structure and Function: Plants... have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.

##### **Grade Five**

LS2.A: Interdependent Relationships in Ecosystems: Some organisms, such as fungi and bacteria, break down dead organisms (both plant or plant parts and animals) and therefore operate as “decomposers.” Decomposition eventually restores (recycles) some materials back to the soil.

## Course Assignments

### B1 Staff Training Component: Discovery Learning

B1a *Experience-based Teaching/Learning*: Read the description of an exploratory, open-ended classroom environment and identify the steps in guiding students through an open-ended exploration.

B1b *Levels of Task Complexity*: Cut out the science verbs and paste them in the correct spaces on the chart, “Scientists at Work.”

B1c *Discovery Learning*: Read the four illustrated pages on Discovery Learning and answer questions about the content.

### B2 Prerequisite Student Activities:

B2a Brainstorm words that describe the behaviors of scientists and post them on a bulletin board.

B2b Sort and post pictures of plants and fungi in the correct category sections on a bulletin board.

(Write a reflection for each of the two bulletin board activities on how well each activity went.)

### B3 Student Explorations with Extensions:

There are nine major activities and seventeen extensions for teaching concepts related to botany. There are more activities provided than are needed to meet the requirements for this course. You will need to choose those activities that are appropriate for you and your students.

The requirements listed below define what is necessary for earning one, two, or three credits/units.

Credits/Units	One	Two	Three
Major activities	2	4	6
Extensions	2	4	6

Write a paragraph for each *major activity* reflecting on your experience in teaching the lesson.

## Course Assessment Rubric

**Excellent:** Meets or exceeds course requirements

**Acceptable:** Majority of work meets course requirements

**Not Acceptable:** Needs considerable improvement

### A to A-

Staff training sections B1a, B1b, and B1c completed with relevant answers based on the content.

Prerequisite bulletin boards completed with an abundance of posted data as evidenced by photo-documentation.

All student activities completed with photo-documentation showing student participation and examples of their work.

Complete heading at the top of each completed assignment.

All completed assignments organized following the order of the checklist, with the completed checklist at the top of the submission.

Clear, relevant, detailed, and thoughtful reflections.

Submission is free of spelling and grammatical errors.

### B+ to B-

Staff training sections B1a, B1b, and B1c completed. Some answers are generalities not based on the content.

Prerequisite bulletin boards completed with a minimal amount of posted data as evidenced by photo-documentation.

All student activities completed. Partial photo-documentation of student work.

Incomplete or incorrect headings at the top of several assignments.

Poor organization of completed assignments. Checklist not placed at the top of the submission.

Relevant reflections, but lacking in detail and insight.

Submission has several spelling and/or grammatical errors.

### Unacceptable/Resubmit

Staff training sections B1a, B1b, B1c incomplete or missing.

Prerequisite bulletin boards are incomplete and/or with inaccurate data posted.

Student activities missing. No photo-documentation of student work.

Missing headings at the top of assignments.

Unorganized submission-did not follow directions. No checklist included.

Missing reflections, or reflections are irrelevant.

Submission has numerous spelling and grammatical errors.

- You are allowed 9 months to complete the course.
- For questions involving your registration please contact us at [support@dominicanCAonline.com](mailto:support@dominicanCAonline.com) or call (800) 626-5080. To change your address, link to your Dominican Store account at [https://www.dominicanaonlinestore.com/store/index.php?main\\_page=login](https://www.dominicanaonlinestore.com/store/index.php?main_page=login)
- For Dominican Self-Guided course information, link to <http://dominicancaonline.com/Dominican-CA-Online-FAQ>