

Bernina Paul  
BME 637  
Final Exam

Plan a lesson for students at your grade level using Herbert Benally's four stages of the internalization of Knowledge: 1. Nitsahaskees (thinking) 2. Nahat'a (planning) 3. lina (life) and 4. Siihasin (fulfillment and contentment).

The Navajo people always follow the philosophy of learning. There are four stages in the life process of maturation. The Navajo identify these four stages as for stages of internalization of knowledge. The internalization process how knowledge becomes one's life. There is no distinction between the internalization process and the formation of life. These life processes are: Nitsahakees-thinking, Nahat'a-planning, lina-life, and Siihasin-fulfillment and contentment (Benally 1994). Through the stages of knowledge the Navajo people are learning in a sacred way. They are learning what the holy people have created for them so they can carry the knowledge on to the next generation.

I have designed a lesson plan that incorporates the four stages of internalization of knowledge created by the Navajo people. The lesson is about Navajo Herbal Plants because our culture involves plants as a healing and nourishments. The student learned tremendously about the plants around them. The students were all engaged in the process and experiments. A positive learning experience was created.

**Dine Bee Na'nitin Hodoot'áligíí**  
**(Dine Unit Plan)**

Name of Unit: Navajo Herbal Plants

Time Frame of Unit: One Week

Author/School: Many Farms Community School

Grade: 4<sup>th</sup> Grade

Concept: Classifying Plants and defining characteristics of plants.

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**(1) Nit'sahakees:**

Student Focus/Driving Questions: What are the characteristics of plants? What types of plants are we studying?

Teacher's Essential Question: How do plants live? What is their ecosystem like?

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**(2) Nahat'a:**

Standard: S1C1PO4. Locate information (e.g., book, article, website) related to an investigation.

Subject: Science

Objective: The students will locate information about plants from books, website and presentations.

Standard: S1C2PO3. Conduct controlled investigations (e.g., related to erosion, plant life cycles, weather, magnetism) in life, physical, and Earth and space sciences.

Subject: Science

Objective: The students will investigate plant life cycles.

Standard: S1C3PO3. Determine that data collected is consistent with the formulated question. S1C3PO4. Determine whether the data supports the prediction for investigation.

Subject: Science

Objective: The students will collect data to formulate investigations.

Standard: S4C3PO1. Describe ways various resources (e.g., air, water, plants, animals, soil) are utilized to meet the needs of a population.

Subject: Science

Objective: The students will describe resources from plants are utilized to meet the needs for people.

Standard: S4C4PO1. Recognize that successful characteristics of populations are inherited traits that are favorable in a particular environment.

Subject: Science

Objective: The students will recognize the characteristic of plant traits in a particular environment.

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**(3) lina:**

Culminating Task:

Subject: Science

Activities: Students research, write down notes, draw pictures of Navajo herbal plants.

(a) Comparing plants (b) define the characteristics of plants (c) discover parts of the plants (d) Analyze plants.

Day 1.

1. Introduction of Navajo Herbal plants. Present photos of plants and show live plants.
2. Have students explore the Navajo herbal plants and then discuss what they analyze.
3. Write their response in their journal.

Day 2.

1. Presenter will talk about the herbal plants and how they are use among the Navajo people.
2. How the plants are made into herbs.
3. What the plants are used for.
4. View certain herbal plants
5. Write their response in their journal.

Day 3

1. Students developing poster boards to illustrate their learning.
2. Label parts of the plant.

Day 4

1. Student written an essay about their plant and what they learned.

Standard Numbers: S1C2PO3, S1C1PO4, S1C3PO1, S1C3PO3, S4C3PO1, S4C4PO1

**Siihasin**

(1)Rubrics: Writing Rubric

(2)Student Assessment: Classroom personal journal

(3)Teacher's Assessment: Classroom observation, written essays, personal journal, and illustrated poster

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Tsa ádoó le'é díí bídéít'í'ígíí díí naaltsoos bídíí'tl'óól (Also, attach any handouts, descriptions of activities, notes, etc.)

Dine Lesson Plan

**Name of Unit:** Plants Grade: 4th  
**Unit of Concept:** Navajo Herbal Plants

**Date:** May 5-8, 2014  
**Title of lesson Plan:** Navajo Plant Herbs

Steps	Activities	Strategies	Materials
<p><b>(1)Nitsahaskees (Think)</b>            Student: What Do I Know? What Do I Want to Know?            Teacher: How Will I Get Kids Interested? What should the Kids Know?</p>	<p>Navajo KWL Chart</p>	<p>Students will list answers and questions about Navajo herbal plants.</p>	<p>-Markers            -White board            -White flip chart for notes</p>
<p><b>(2)Nahata (Plan)</b>            List the standards and/or numbers for this lesson plan in the Activity's column.</p>	<p>S1C2PO3            S1C1PO4            S1C3PO1            S1C3PO3            S4C3PO1            S4C4PO1</p>		<p>Arizona State Standards and</p>
<p><b>(3)lina (Do)</b>            Student: What Do I Do to Address my Questions and Issues? How Do I Want to Learn this Lesson?            Teacher: What Should the Kids Learn this Lesson?</p>	<p>Students research, write down notes, draw pictures of Navajo herbal plants.            (a) comparing plants            (b)define the characteristics of plants            (c) discover parts of the plants            (d) Analyze plants</p>	<p>Gather information from the picture provided about Navajo plants. Gather more information from the presenter and on-line sources. Look at live Navajo herbal plants to visualize the plants for detailed information. Write in a personal journal about your learning. Illustrate parts of the plants and information.</p>	<p>-Pictures of Navajo plants            -Worksheets about plants            -Live plants            -Pencils            -notebook for journal            -Writing papers            -Poster board            -Markers            -Magazines            -internet            -crayons            -Guest speaker/Navajo medicine person</p>
<p><b>(4)Siihasin (Evaluate)</b>            Student: What Did I Learn? What More Can I Learn?            Teacher: What Did I</p>	<p>Illustrate a Navajo herbal plant write and write about the life of a plant and usage. Complete</p>	<p>Notes will be evaluate from the personal journal for understanding and note taking. Journal</p>	<p>-Completion of drawing on poster board.            -Written essay about Navajo herbal plants.</p>

Observe and Measure of the Student's Accomplishment/s?	assigned work sheets and submit for grade.	needs to be neat, and informative.	-Worksheets
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### Writing Rubric

	Organization	Content	Argument	Readability	Degree of Difficulty
5	Provides a strong thesis statement, a clear introduction & conclusion as well as fully-developed body paragraphs with topic sentences that support the thesis	Content provides pertinent information on the topic assigned & provides multiple (more than 3) & accurate examples of support	Student makes a clear, meaningful argument responding to the prompt. Has both a premise and a conclusion	Project has few grammar, usage, spelling, punctuation, or capitalization issues (less than 5)	Provides more than just the basic requirements of the project. Demonstrates a high level of creativity.
4	Provides a thesis statement, a clear introduction & conclusion as well as fully-developed body paragraphs with topic sentences that generally support the thesis	Content provides information on the topic assigned & provides at least 3 accurate examples of support	Student makes a clear argument responding to the prompt. Has both a premise and a conclusion	Project has some grammar, usage, spelling, punctuation, or capitalization issues (less than 10)	Provides more than just the basic requirements of the project.
3	Provides a thesis statement, an introduction & conclusion as well as developed body paragraphs with topic sentences that attempt to support the thesis	Content provides some information on the topic assigned & provides at least 3 examples of support; accuracy of information may be weak	Student attempts an argument responding to the prompt. May lack a premise and a conclusion	Project has several grammar, usage, spelling, punctuation, or capitalization issues (more than 10)	Provides the basic requirements of the project
2	Weak thesis statement, missing either introduction or conclusion; body paragraphs may not be complete or supporting of the thesis	Content provides information on the topic assigned & provides less than 3 accurate examples of support	Student summarizes or repeats from text without making an argument or offering a personal perspective	Project has too many errors to be readable (more than 20)	May be missing one (1) basic requirement of the project
1	Little or no organization; may be one extended paragraph	Inaccurate or limited information; few or no examples	Little or no attempt to provide any personal perspective	Project is unreadable for a variety of reasons	Missing more than one (1) of the basic requirements of the project.

## Journal Writing Rubric

Task Component	5 points each	4 points each	3 points each	2 points each	1 point each
<b>Purpose</b>	Your writing is focused on a personal feeling or response clearly related to the topic & fully developed.	Your writing is focused on a personal feeling or response related to the topic & generally well developed.	Your writing is on a personal feeling or response related to the topic & has some development.	Your writing mentions a personal feeling or response, but the relation to the topic or the development is unclear.	Your writing is simply a "retelling" of an event, experience or observation with no personal response.
<b>Element Selection</b>	Selects all accurate elements of the literature that supports or opposes the personal feeling or response. Shows deeper insight than usual.	Selects all accurate elements of the literature that supports or opposes the personal feeling or response.	Selects appropriate elements of the literature that supports or opposes the personal feeling or response.	Selects some appropriate & some inappropriate elements of the literature that supports or opposes the personal feeling or response.	Selects no elements at all or inappropriate elements from the literature to support or oppose a personal feeling or response.
<b>Support</b>	Provides well developed & accurate examples, reasons and/or details to support the personal feeling or response.	Provides clear & accurate examples, reasons and/or details to support the personal feeling or response.	Provides accurate examples, reasons and/or details to show how the elements support the personal feeling or response.	Provides some accurate examples, reasons and/or details but may have some inaccurate or incomplete examples, reasons or details.	Provides few if any accurate examples or details to show how the elements support the personal feeling or response.
<b>Conclusion</b>	Concludes with a statement that creatively & clearly summarizes the effect of the selection on a personal feeling, value or attitude.	Concludes with a statement that clearly summarizes the effect of the selection on a personal feeling, value or attitude.	Concludes with a statement that summarizes the effect of the selection on a personal feeling, value or attitude.	Concludes with a statement that does not clearly summarize the effect of the selection on a personal feeling or response.	Contains NO concluding statement, or the statement does not accurately summarize the personal feeling or response.
<b>Mechanics &amp; Usage</b>	Shows a consistent grasp of Standard American English & a thorough understanding of format, capitalization, spelling & punctuation.	Shows a good grasp of Standard American English & an understanding of format, capitalization, spelling & punctuation.	Shows a grasp of Standard American English & a sufficient understanding of format, capitalization, spelling & punctuation.	Shows a mixture of correct & incorrect use of Standard American English, format, capitalization, spelling & punctuation.	Using Standard American English and correcting your format, capitalization, spelling & punctuation will make your writing more effective.

## Comment Symbols



I agree!



Great thinking!



Nicely said.

**LOL**

I laughed out loud



I don't understand ...



Let's try that again



Expand the details

**I**

Incomplete entry

## Life cycles

Name.....

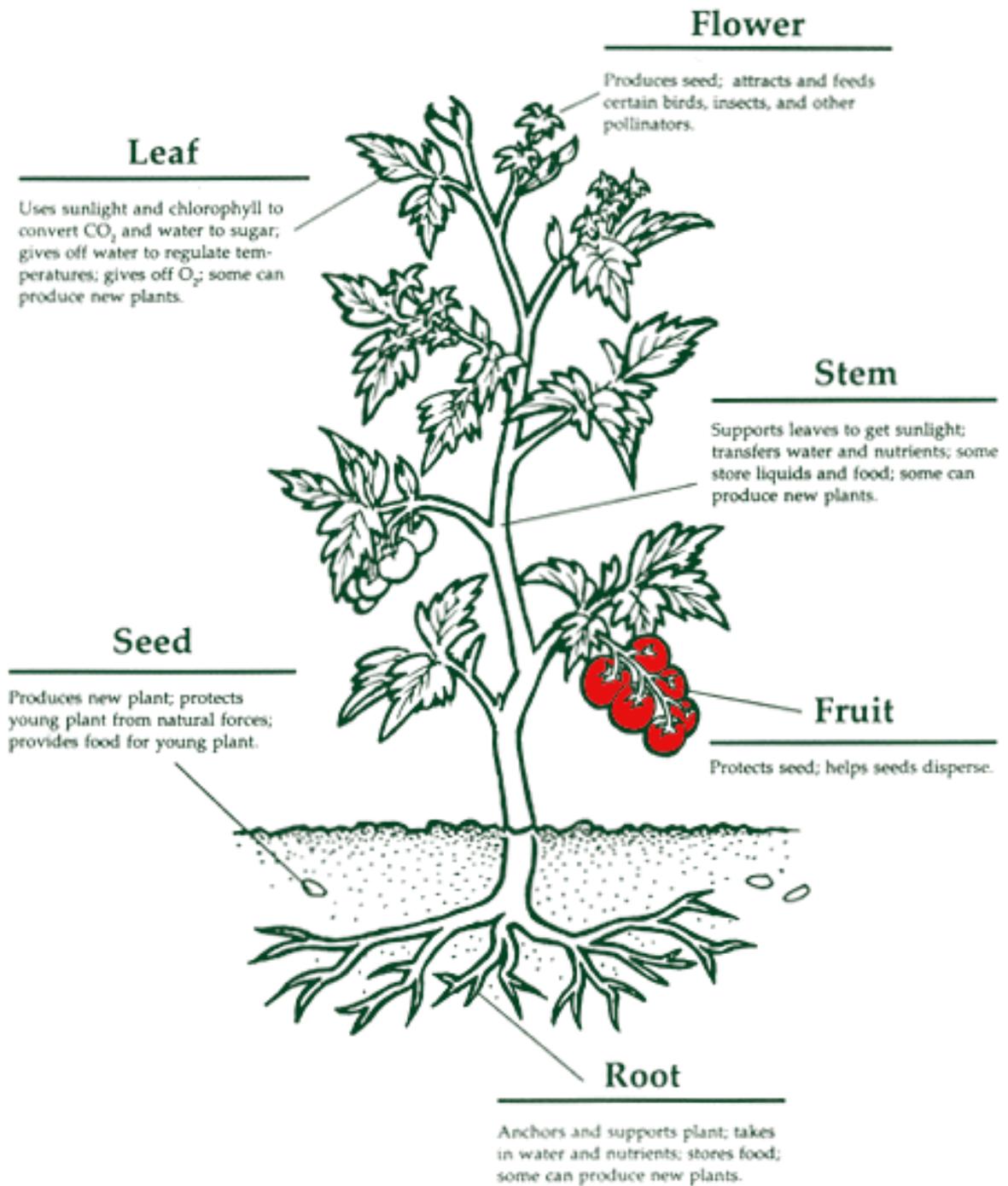
Match the right name and description to each part of this flower.

Name:

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Description:

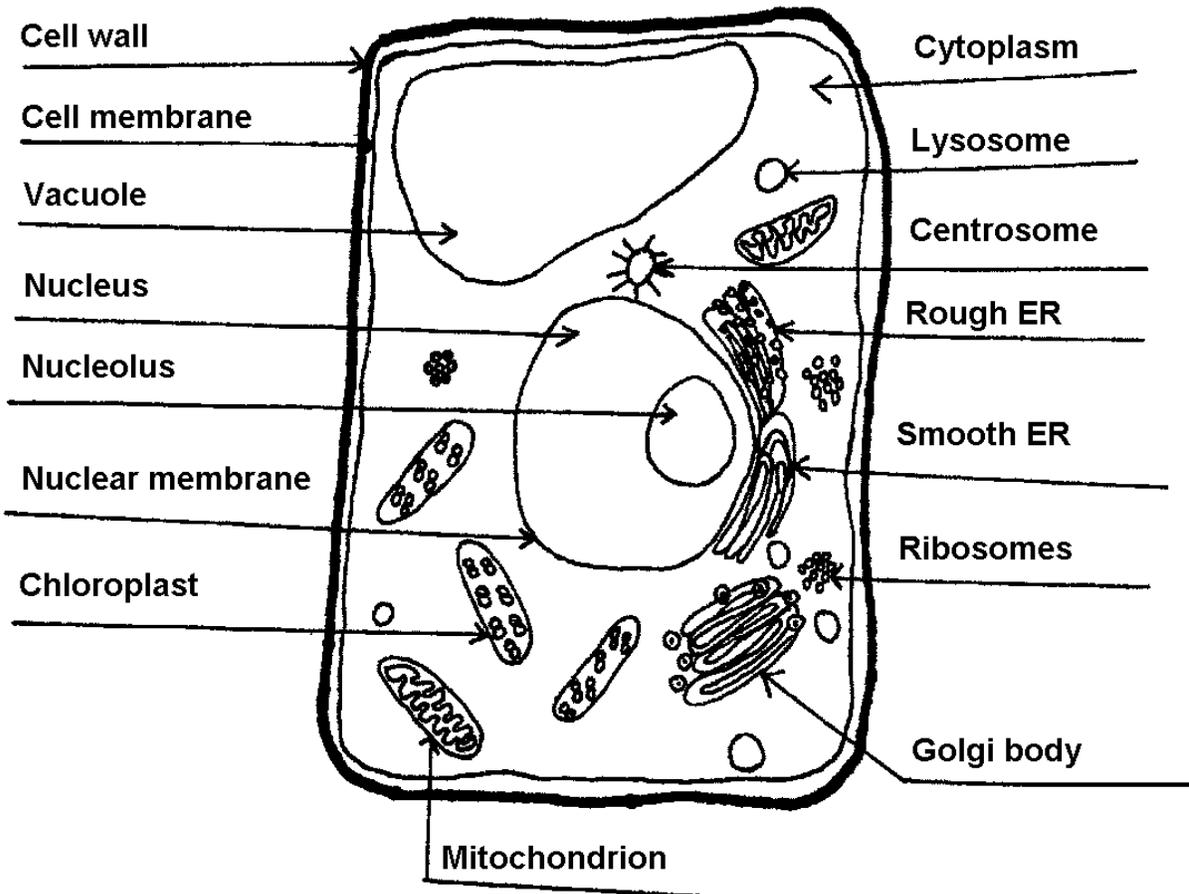
Names	Stamen	Petal	Ovary	Sepal	Stigma
Descriptions	Attracts insects for pollination		Produces pollen		
	Catches grains of pollen with its sticky surface				
	Produces egg cells		Protects the flower while it's a bud		



Name: \_\_\_\_\_

# PLANT CELL

Directions: Use your book or any other resource to correctly label the following plant cell structures.



cell membrane, centrosome, cytoplasm, Golgi body, lysosome, mitochondrion, nuclear membrane, nucleolus, nucleus, ribosome, rough endoplasmic reticulum (rough ER), smooth endoplasmic reticulum (smooth ER), vacuole, chloroplast, cell wall

## Some Navajo Medicinal Plants



### Alder

**Navajo Name:** K'ish

**Uses:** was used to make spears, and dyes for wool, leather, and basketry. Red, tan, and brown dyes are made from alder bark. The red, all vegetable, wool dye is made from juniper, mountain mahogany, alter, and an unidentified moss.



### Brown Eyed Susan (cutleaf cornflower)

**Navajo Name:** K'aasdá beeyigā nitsaaígíí

**Uses:** used for heartburn, indigestion, relief from colds, and chest congestion.



### Evening Primrose

**Navajo Name:** Tléé ígahiis'óóz (white at night)

**Uses:** made into a lotion for boils, mixed with flax and nodding eriogonum to treat kidney disease. The whole plant is used as a poultice on spider bites, and the ground plant is used as a dusting powder on sores.



### Four O'Clock

**Navajo name:** Tsédédééh (falling-on-rick)

**Uses:** ease sores in the mouth including canker sores, swollen gums, or decayed teeth, as well as for rheumatism and swellings. It is also used to treat broken bones in humans and animals.



### Sagebrush

**Navajo Name:** Ts'ah (the sagebrush)

**Use:** a life medicine, this plant mixed with another type of sagebrush is said to cure headaches by odor alone. Boiled, the plant is said to be good for childbirth, indigestion, and constipation; a tea of the stems and leaves is said to cure colds and fevers. A tea drunk before long hikes or athletic events is said to purify the body. A poultice from pounded leaves is said to be good for colds, swellings, tuberculosis or as a liniment for corns. This medicine can also be used on animals.



## **Yarrow**

**Navajo Name:** Hazéiyiltsee'í (chipmunk-like tail)

**Uses:** a primary "medicine twig," or Navajo life medicine. The yarrow does not need to be fresh to be effective. Therefore, it can be stored and carried for emergencies. Yarrow is used alone for fever and headaches. Smoke from yarrow stalks added to a fire is used to relieve a headache caused by sore eyes. Yarrow can also heal sores on people and animals, especially saddle sores on horses.

## Book about Navajo Herbal Plants

