

WILD HEALTH FOOD STORE

Michigan Lesson Plan

Objectives:

1. To learn that some plants are poisonous while others are edible and can help people to survive in the wild.
2. To learn that we are dependent on our environment for our food.
3. To learn ways in which Native American Indians and early European settlers in America found food in the wild.

Key Vocabulary:

1. **Forage** = To browse or graze.
2. **Edible** = Suitable for use as food.

Materials: wild food samples, pictures or identification books to refer to.

Pre-Class Procedure

1. Familiarize yourself with the edible plants found along the trail to be hiked.
2. Prepare food sample.
3. Make handouts of “Edible Plants at Friedenswald” & “Foraging Rules”.

Procedures:

1. Where our foods come from (10min)

- Ask a student to name their favorite food. Break that food down in terms of its ingredients and have students tell you where each ingredient comes from and from which plant.
- How have people been involved with seed dispersal? Which seed do we eat as food? For example:

Apple Pie:

Apples (apple tree) (Washington)

Flour (wheat) (Kansas)

Sugar (sugar cane, sugar beets) (South America)

Cinnamon (bark from cinnamon tree) (Orient)

Salt (mined from the ground)

Shortening (oil from plants) (Canada)

- People have helped plants spread around the world.
“What are some beneficial plants that have traveled here from other places?”
-Potatoes from South America, sugar cane from New Guinea, wheat from Iraq, oranges from Asia, broccoli from Italy, watermelon from Africa, coffee from Ethiopia and Yemen, and tea from China.

2. Prepare the students for the hike (10min)

- Emphasize to students that all the food we eat comes from animals and plants (and occasionally minerals). Tell them that many of the wild plants that grow in the woods can also be used for food. During this time show them any wild samples you have or pictures of some of the more common edible plants they might see.
- Tell them that they will be going on a short hike to look for edible plants. Have students guess how many kinds of edible plants they will see during this hike. Write

- down their “bets”.
- Go over the foraging rules. (See attached sheet.)

3. **Hiking the trails (25min)**

- Point out edible plants as they are encountered. Include information on how these things are cooked and any other interesting or relevant information, including whether and how each plant may have been used by Native American Indians, and early European settlers. (See the attached sheet.)
- Have students keep track of all the edible plants they have seen.
- At the end of the hike, check which students came closest with their guesses to the actual number of edible plants seen.

4. **Taste testing (15min)**

- Show students a sample of prepared wild edibles and let them try some. Describe how they were prepared. Depending on the time of year, you may wish to choose a different wild food to try. If time allows, you may also wish to involve students in the actual preparation. (See attached recipes).

Standards

Indiana-History

4th Grade

- 4.1.1 Identify and compare the major early cultures that existed in the region that became Indiana prior to contact with Europeans.
- 4.4.8 Know and explain that artifacts and preserved remains provide some evidence of the physical characteristics and possible behavior of human beings who lived a very long time ago.

5th Grade

- 5.1.1 Give examples of early cultures and settlements that existed in North America prior to contact with Europeans.
- 5.1.3 Identify and compare historic Indian groups of the West, Southwest, Northwest, Arctic and sub-Arctic, Great Plains, and Eastern Woodlands regions at the beginning of European exploration in the late fifteenth and sixteenth centuries. Example: Compare their styles of housing, settlement patterns, sources of food and clothing, customs and oral traditions, political and economic organization, and types and uses of technology.

Indiana-Science

4th Grade

- 4.4.3 Observe and describe that organisms interact with one another in various ways, such as providing food, pollination, and seed dispersal.
- 4.4.5 Observe and explain that most plants produce far more seeds than those that actually grow into new plants.

6th Grade

- 6.4.1 Explain that one of the most general distinctions among organisms is between green plants, which use sunlight to make their own food, and animals, which consume energy-rich foods.
- 6.4.6 Distinguish the main differences between plant and animal cells, such as the presence of chlorophyll and cell walls in plant cells and their absence in animal cells.
- 6.4.10 Describe how life on Earth depends on energy from the sun.

Michigan-Science

Wild Edible Worksheet

1. What are the basic foraging rules?(Spell these out) _____

2. Where are some places that wild edibles should not be taken from? _____

3. Why should plants be gathered far away from roads or human habitation? _____

4. What is the rule about how much of a plant should be taken? _____

5. How sure of a plant's identity should you be before eating it? _____
6. Name a plant that the following is edible:
 - a. Berry-
 - b. Leaf-
 - c. Root-
 - d. Bark –
 - e. Flower –
7. Name a plant used by the Native American & a plant used by the Pioneers.

8. Name two plants that are used for medicinal purposes. _____

9. (T / F) If one part of a plant is edible then that means that the rest of the plant is also okay to eat.

Wild Edible Plants at Camp Friedenswald

Dandelions
Garlic Mustard
Redbud Blossoms and green pods
Dryads saddle mushroom
Pine needles
Daylilies

Periwinkle leaves
Wild chives
Roses
raspberries
violets
ground mint (gill-over-the-ground)

Recipes

Fried Dandelion Blossoms-gather and wash dandelions-rinse thoroughly-drain-beat an egg-another dish will have a breading such as cracker crumbs, corn meal, flower or bread crumbs- fry in a skillet with butter or oil until golden brown

Dryad Saddle Mushrooms-gather with a knowledgeable mushroom hunter from live or dead trees-gently clean the mushroom- cut off any tough parts- slice into pieces – sauté in butter or margarine until golden brown and completely done

Water Cress Soup- Saute' onions, celery, potatoes, mushrooms, water cress, add chicken broth, cook until tender, add flour and milk and stir until thickened

Edible teas-use pine needles or wild mint-rose blossoms-raspberry leaves-strawberry leaves-rose hips-wash plant parts-steep in hot water-crush or bruise items to extract juices inside the plant-drink hot or drink cold-add sugar or honey if desired

Enjoy !!! Don't forget to get your parents permission !!

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Foraging Rules

1. Consume nothing unless you are **100% sure** of its identity.
2. **Gather plants as far away from roads** and human habitation as possible, to avoid pollutants and contaminants that can be absorbed by plants.
3. Whenever possible, carefully **take only the edible part** of the plant without killing the rest of it. Even if the whole plant is edible, try taking only a few leaves from each one.
4. **Never gather all the plants from one clump or area**, leave enough behind to re-establish their population level.
5. In most greens, the **newest growth of young leaves is the most tender** and tasty part (tiny, tender and tasty).
6. When trying out a wild plant for the first time, **go easy on the amount you eat**. Too much of any food you are not used to wild or domestic, can produce stomach upset. Remember that no plant, wild or domestic, can be eaten by every human with equal impunity. Many people have reactions to plants that most of us do not eat all the time, so go slow and establish your tolerance for each new wild food you try. As an example of this, as little as one single garden pea can make some people violently ill.

EDIBLE PLANTS AT FRIEDENSWALD

& THEIR EDIBLE PARTS. (Short List)

WORD OF CAUTION: An unidentified plant should be considered poisonous. There is no such thing as a safe test to determine if a plant is edible. Eat only what can be positively identified as edible for humans.

Bedstraw/Cleavers Stems, leaves, and flowers can be used to make a minty tea.

Dryad's Saddle: All of the mushroom can be eaten.

Black Raspberry: Berries, leaves can be used for a tea.

Cattails: Shoots and flower heads; pollen; seeds from brown heads, rootstalk .

Clover: Flowers, leaves, roots and seeds. High in protein.

Dandelion Leaves, roots, and flower (vitamin A, B, C, and E.)

Day Lilies: Flowers and root stalk

Walnuts: Can eat the nuts can use the shells to make dyes and ink.

Maple: Seeds and sap; Maple sugar contains B vitamins, calcium, and phosphorus.

Mayapples: Lemon—yellow fruits,

Autumn Olive Berries can be eaten.

Mulberries: Berries can be eaten.

Garlic Mustard: Can eat leaves, seeds, & root

Plantain: Leaves(leaves can also be rubbed on skin to help relieve itching)

Rose: Hips eat raw, or can be used for tea. Very rich in Vitamin C.

Sassafras: Leaves, roots, and bark can be used for a tea.

Sorrel(Shamrocks): Leaves(they can also be made into a tea)

Staghorn Sumac: Berries can be used for a tea.

Redbud: Can eat the buds, flowers, and young seed pods.

White Pine: Needles are an excellent source of vitamin C

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WORD OF CAUTION: An unidentified plant should be considered poisonous. There is no such thing as a safe test to determine if a plant is edible. Eat only what can be positively identified as edible for humans. **USING WAYSIDE PLANTS.** Books in the library, have many suggestions. There are also ways and suggestions in books on how to prepare the different edible plants.

APPLE TREE: Fruits.

BEDSTRAW Stems, leaves, and flowers can be used to make a minty tea.

DRYAD SADDLE: All of the mushroom can be eaten.

BLACK RASPBERRY: Berries, leaves can be used for a tea.

BURDOCK: Young, flowering stems; pith of the root.

CATTAILS: Young shoots and flower heads in spring; pollen in early summer; seeds from brown heads in late summer, tootstalk throughout the winter.

CHIVES: Stems.

CLOVER: Flowers, leaves, toots and seeds. High in protein.

CURLY DOCK: Leaves, High in vitamins A and C.

DANDELION Leaves and roots. Large amounts of vitamin A; also B, C, and E.

DAY LILIES: Flower before they open.

ELDEBERRY Berries and flowers;~ berries must be soaked before using.

WALNUTS: Can eat the nuts can use the shells to make dyes and ink.

MAPLE: Seeds and sap; Maple sugar contains B vitamins, calcium, and phosphorus.

MAYAPPLES: Lemon—yellow fruits, **CAUTION:** All the rest of the plant is poisonous if eaten. Green Mayapples can give you a stomach.

AUTUMN OLIVE: The berries can be eaten.

MULBERRIES: Berries.

GARLIC MUSTARD: Can eat leaves.

OAK: Nut (Acorn). Boiled in several changed of water to remove the tannic acid.

PIGWEEED (LAMB'S QUATERS) Leaves and seeds. Excellent source of Vitamin A &C.

PLANTAIN: leaves.

ROSE: Hips, where the seeds are contained, can be used for tea. Very rich in Vitamin C.

SASSAFRAS: Leaves, roots, and bark can be used for a tea.

STAGHORN SUMAC: Berries can be used for a tea.

THISTLES: Roots, stems, and seeds.

REDBUD: Can eat the pink flowering part and seed pods.

WATERCRESS: Leaves, but only the portions above the water. Rich in vitamins A, C, and E, amount of iron and calcium.

WILD GRAPES: Fruit, tender shoots, and leaves.

WILD ONION: Entire plant. **CAUTION:** Death cameo, a poisonous plant is similar in appearance but is different in that it lack the onion odor.

WILD STRABERRIES: Berries; leaves, which can be used for a tea.

WHITE PINE: Needles are an excellent source of vitamin C.