

Service-Learning Curriculum Unit Plan

Unit/Topic: Natural Resources of Michigan	Grade Level: Third
Service Idea: Students will purchase a farm animal through the “Heifer International” organization to be donated to a family in need in the world. The gift will provide food and a source of income to the family and in return that family will gift another family, eventually allowing financial security to an entire community.	
1. Content Standards/Grade Level Content Expectations: G.5.01, G.5.02, G1.0.1, E.ES.03.51, E.ES.03.52, S.DS.03.03, D.RE.03.01, D.RE.03.03	
2. Students will understand that.... Some resources are renewable, some are non-renewable. The natural resources available in an area influenced the type of agricultural industry developed in that location. People use natural resources to make products. Michigan has abundant natural resources compared to the rest of the world.	3. Essential Questions to Guide Learning & Inquiry: What are the connections between our natural resources, ourselves, and food and products we use? What natural resources are available in Michigan?
4a. Students will know.... Vocabulary/definitions: natural resources, climate, soil Cardinal directions	4b. Students will be able to do.... Trace a product back to its natural resources; Identify positive and negative effects people have had on the land; read and interpret bar graphs; draw and label a simple map of Michigan showing the location of various natural resources

Assessment Evidence

5a. Performance Task:

Students will trace a food or product back to its natural resource(s) and showing where, in Michigan, those natural resources could be found.

5b. Other Assessment Evidence:

Students will demonstrate the use of cardinal directions by following directions to decorate a Michigan shaped cookie.
 Students will use a paper map and natural resource stickers to show the location of various natural resources of Michigan.
 Student groups will make a trifold/poster/etc. comparing the products derived from each animal researched. Each group will display their information.
 Social Studies chapter tests

5a. Performance Criteria:

Accurate information

5b. Other Assessments Criteria:

Correct location of items on maps
 Pertinent information on tri-fold
 Answers to chapter tests

Learning Plan:

(Develop a series of lessons/learning activities.)
 (Give enough detail for another teacher to follow.)
 (Consider the 5 Components of Service-Learning: **Investigation, Planning & Preparation, Action, Reflection, Demonstration of Results & Celebration.**)

A. Steps for Students:

- Lead Activity (Introduce desired results, ask essential question, connect with student experience, begin **investigation & pre-reflection**)
- Student-centered learning steps (Detailed sequencing of lesson; specify formative assessment during practice and summative assessment in conclusion. Include **planning & preparation, action,& reflection**)
- Closure (Revisit enduring understanding/essential question. Include **reflection & demonstration of results & celebration**)

B. Notes for Teacher:

(What do you need to remember to do?)

C. Materials Needed:

Paper cut-outs of Michigan, natural resource stickers, Michigan shaped cookies, 4 small edible cookie decorations, access to dairy farm, butter churn, cream, large scale map of Michigan painted on playground, foods and products from cows, sheep, goats, chickens

D. Approximate Time for Unit: 3-5 months

E. Resources: Speakers (chicken farmer, goat farmer, sheep farmer, wool spinner), internet access, Heifer International resources, Meet Michigan textbooks (Hillsdale), Michigan trade books, Battle Creek Science Kits, Great Lakes Rhythm & Rhyme, The LBC Guide to Michigan History Through Literature, Life in an Anishinabe Camp, Bunyan and Banjoes Michigan Songs & Stories,

Lesson 1 of 7**Lesson Essential****Question(s):**

How has Michigan's geography affected how people live?
How do cardinal directions help people understand maps?

Lesson Knowledge:

North, East, South, West
Shape of Michigan – upper and lower peninsulas

Lesson Skill(s)

Use cardinal directions to locate places on a map.
Compare climate and natural resources of Michigan's regions

1. Lesson Opener:

Take students out to the map of Michigan painted on the playground. Ask questions related to the map. Have students physically go to the various places on the map. Cover cardinal directions, water use, and area with most trees.

2. Transition:**3. Activity:**

*Read textbook chapter 1, "Meet Michigan."

*Use Michigan maps to practice cardinal direction.

*Use Michigan natural resource map to identify why loggers/shippers/blueberry farmers/etc. located in certain areas.

*Play a game in the gym. You name a direction and individuals run to that side of the room. The last child to the correct spot sits out. Continue.

*Trace own hands to represent the upper and lower peninsulas. Color land green and water blue. Teach the poem, "HOMES" from Great Lakes,

4. Lesson Wrap-Up:

Give each child 2 cookies, one shaped like the upper peninsula and one like the lower peninsula. Provide icing, mini chocolate chips, mini M & Ms, sprinkles, and mini-marshmallows. Give each child a laminated card with directions for placing the foods on the cookies. (e.g. chocolate chips are in the eastern upper peninsula)

Chapter 1 test.

5. Additional Lesson Notes:

*Note the state symbols are all one of Michigan's natural resources.

Lesson 2 of 7**Lesson Essential Question(s):**

Do all places in the world have the same natural resources?

Lesson Knowledge:**Lesson Skill(s)****1. Lesson Opener:**

Take a field trip to a dairy farm.

2. Transition:**3. Activity:**

Through literature including some from Heifer International Project, compare our abundant natural resources to less fortunate areas of the world.

Introduce them to the idea of donating an animal to a family. Show the Heifer website choice page. Get them thinking about possibilities.

Spaced throughout the project timeframe...Bring in speakers: goat farmer, chicken farmer, sheep farmer, wool spinner

4. Lesson Wrap-Up:

Student groups will make a tri-fold comparing and contrasting the products derived from each animal researched.

5. Additional Lesson Notes:

Lesson 3 of 7**Lesson Essential Question(s):**

How did Michigan's Native Americans use natural resources?
How did Michigan's natural resources influence how the Native Americans lived?

Lesson Knowledge:
Definition of natural resources**Lesson Skill(s)****Lesson Opener:**

Take students to the nature trail in Saranac. Have students list natural resources they observed that they could use for survival.

Activities:

Read Chapter 2 of Michigan textbook.

Teacher Read Aloud, Life in an Anishinabe Camp

Make a model of a wigwam using grade vines, bark, animal hide and foam square base.

Taste Indian recipes from Bunyan and Banjoes Michigan songs & Stories. Trace each food to its natural resources.

Lesson Wrap-Up:

Do a foldable with three sections. Label the sections "Shelter," "Food," and "Clothing."

Write and draw or paste objects to show the natural resources used by Native Americans.

Take Chapter 2 test

Additional Lesson Notes:

Note the difference in the (trees/wildlife) at that time and now

Note that the Native Americans used but did not change the natural resources the way we do now.

Consider Grand Rapids Public Museum.

Check with sawmill for bark.

Lesson 4 of 7**Lesson Essential
Question(s):****How did the fur traders use
Michigan's natural
resources?****Lesson Knowledge:****Lesson Skill(s)****Lesson Opener:****Prepare a typical voyageur meal. (The LBC Guide to Michigan History Through Literature)
Compare this to food we eat today. List the natural resources used to produce it.****Activity:****Teacher read-aloud, Traders In Time****Begin classroom timeline of Michigan history****Read chapter 3, "Visitors From Far Away"****Make a canoe as a family project and take them to the stream to float. (provide a lunchtime
alternate)****Teach them the "A Beaver Hat" and "Furs to Trade" poems from Great Lakes Rhythm &
Rhyme.****Lesson Wrap-Up:****Social Studies Test Chapter 3****Additional Lesson Notes:****Canoeing****Project Lakewell**

Lesson 5 of 7**Lesson Essential****Question(s):**

How did Michigan's natural resources pull settlers to our state?

How did the settlers modify the land to meet their needs?

How did settlers use natural resources to come to Michigan?

Lesson Knowledge:**Lesson Skill(s)****Lesson Opener:**

Designate a small area of the classroom to be the colonies. Put more and more of the students in the area making it very crowded. Relate this to the desire for more land.

Activity:

Teach poem, "Carrying Capacity ('Nough Said)

Read chapter 4 of textbook.

Compare and contrast the way Tribes and Settlers used the land.

Grind wheat/corn.

Make vegetable soup – have children bring in vegetables

Churn butter

Teach Erie Canal poem

Lesson Wrap-Up:

Chapter 4 test

Foldable/skit/paragraph comparing Tribe and Settler use of land

Additional Lesson Notes:

Check on Charleton Park

Continue to figure out the natural resources used in each food/project/item used.

Continue adding to timeline

Lesson 6 of 7**Lesson Essential****Question(s):**

How did the soil help Michigan grow?

What did Michigan gain and lose from the way it used its trees?

How did resources like copper, iron and limestone help our state?

Why do Michigan farmers specialize in some crops?

Lesson Knowledge:**Lesson Skill(s)****Lesson Opener:**

Build log cabins using pretzels and frosting. Relate to actual natural resources used.

Activity:

Read Chapter 5 of textbook

Read Chapter 6 lesson 4 of textbook

Teach Mining, Lumberjack poems from Great Lakes

Use the map outside if possible to show the location of various natural resources of Michigan. Do inside with smaller maps if necessary.

Taste a lumberjack meal and trace to its natural resources (Bunyan & Banjoes or Traders in Time teacher guide)

Taste pasties (miners) (Bunyan and Banjoes)

Interpret teacher made graph of Michigan's products

Lesson Wrap-Up:

Chapter 5 test

Students will use a paper map and natural resource pictures to show the location of various natural resources of Michigan

Additional Lesson Notes:

Check on log rolling demo.

Lesson 7 of 7**Lesson Essential Question(s):****Which animal should our class donate?****Lesson Knowledge:****Products derived from each animal
Opportunity cost****Lesson Skill(s)****Taking a position**

Students will be asked to decide which animal will be donated through the Heifer project.

Students will be given an opportunity to discuss their thoughts with family members or another adult.

Each child will go into the hallway with a volunteer and take a position on video regarding which animal he/she would choose and why.

The class will watch the video and then vote.