

Second Grade Landforms/Sense of Place Project

Tami Morrison – Linderman Elementary School, Polson, MT

Unit Overview

The purpose of this unit is to help students learn the major landforms on Earth, to relate them to local culturally significant sites, and to develop a deeper sense of our local place, the Polson area and the Mission Valley on the Flathead Reservation in northwestern Montana.

Unit Objectives and Benchmarks and Standards Addressed

- 1) Students will build, identify and describe Earth's landforms.
(MT Science *Standard 4 Benchmark 1-2 Standard 2 Benchmark 1* MT Social Studies *Standard 3 Benchmark 1-2 Standard 4 Benchmark 1*)
- 2) Students will describe the cultural significance of local landmarks to the Salish, Kootenai and Pend d' Oreille people to develop a deeper sense of place.
(MT Science *Standard 1 Benchmark 5* MT Social Studies *Standard 3 Benchmark 1-5 Standard 4 Benchmark 1, 3, 7* Essential Understandings Regarding Montana Indians *Essential Understanding 1 Essential Understanding 3*)

Time/Scheduling

The Landforms/Sense of Place lessons will take about 6-7 hours to complete. This unit would ideally be completed over 2 to 3 weeks' time.

Materials

“Features of the Earth” Picture Cards, *Primary Earth*, 1996, AIMS Education Foundation, p.7-23
Research log – could be a notebook or paper stapled together
Giving Thanks: A Native American Good Morning Message by Chief Jake Swamp
Primary Earth, 1996, AIMS Education Foundation, The Earth's Features, p.7-9, 22
Handout – What does my Earth have?
Construction paper
Crayons, colored pencils or markers
Scissors
Stapler
Landforms Card Sort
Google Earth – a free download on the student computers
Google Earth Landforms Checklist
Sand tables and sand
Labels – paper and toothpicks
Tape and glue
Cooperative Group Self-Assessment
Landforms Odd One Out Handout
Riddles and Clues handout
Template for riddles on Power Point
Exacto Knife
Riddles Rubric

Lesson #1 - Features of Earth Picture Word Match

Summary of the lesson

Students are introduced to Earth's major landforms-plains, lakes, mountains, deserts, icecaps, oceans, rivers and valleys. They sort picture cards and match them with the corresponding words. Then they sort the cards into groups with similar attributes.

Grade level

2nd grade

Approximate time required

1 hour

Learning Objectives and Montana Science Standards addressed

- 1) Students will compare similarities and differences among landforms (MT Science *Standard 4 Benchmark 2*).
- 2) Students will identify the major landforms (MT Science *Standard 4 Benchmark 1, Standard 4 Benchmark 2, Standard 2 Benchmark 1*).

Resources/materials

"Features of the Earth" Picture Cards, *Primary Earth*, 1996, AIMS Education Foundation, p.7-23
Research log – could be a notebook or paper stapled together

Teacher Preparation

Copy the AIMS "Features of the Earth" Picture Cards for each pair of students. Laminate them on different colored card stock so each group has a different color.

Procedure

- 1) Pose the question to students "What are Earth's major landforms?" List student responses on the board and add major landforms as needed.
- 2) Distribute the "Features of Earth" Picture Cards to each pair of students and instruct them to sort the cards into groups by matching the word with the picture.
- 3) After landforms are matched, discuss and compare the landforms as a class. Ask student pairs to sort the cards into groups of landforms with similar characteristics.
- 4) Pose the question and discuss with students "What landforms do we have where we live?" List on the board.
- 5) Ask students to sketch and label the major landforms studied in their research logs.
- 6) As an extension, have student pairs play the Concentration card game with the cards.

Formative Assessment

Assess students' knowledge of landforms by listening to their pairs discussions and observing their ability to match the cards. Assess their drawings in their research logs.

Lesson #2 - Giving Thanks: A Native American Good Morning Message

Summary of the lesson

Students listen to the story *Giving Thanks: A Native American Good Morning Message* by Chief Jake Swamp and discuss the Indigenous perspective about the land presented in the book. They then create a flip book of Earth's landforms and incorporate their own perspective about Earth into their book.

Grade level

2nd grade

Approximate time required

1 hour 30 minutes

Learning Objectives and Montana Content Standards Addressed

- 1) Students will identify the major landforms (MT Science - *Standard 4 Benchmark 1, Standard 4 Benchmark 2, Standard 2 Benchmark 1*).
- 2) Students will identify an important attribute for each landform (MT Science *Standard 2 Benchmark 1*).
- 3) Students will explore arts, crafts, stories, and songs from American Indian tribes (MT Social Studies *Standard 4 Benchmark 7a*).

Resources/materials needed

Giving Thanks: A Native American Good Morning Message by Chief Jake Swamp
Primary Earth, 1996, AIMS Education Foundation, *The Earth's Features*, p.7-9, 22
Handout – What does my Earth have?

Construction paper

- dark blue 3x12 in.
- light brown 4x12 in.
- tan 5 1/2x12 in.
- green 6 1/2x12 in.
- dark brown 9 1/2x12 in.
- white 11x12 in.
- sky blue 12x12 in.

Crayons, colored pencils or markers

Scissors

Stapler

Landforms Card Sort

Teacher Preparation

- 1) See the AIMS lesson for specifics on precut construction paper.
- 2) Additional supplies are recommended in the AIMS lesson that could be used if desired.

- 3) Invite a tribal elder or other knowledgeable tribal community member to come in and talk with students about their cultural perspective toward Earth and about specific landmarks that have cultural significance to the Salish, Kootenai, or Pend d' Oreille people.

Background Information

The book *Giving Thanks: A Native American Good Morning Message* is written by Chief Jake Swamp. This story is written from the perspective of the Iroquois or Six Nations Tribes. While reading and discussing the book, incorporate a comparison of these tribes' viewpoints with the Salish, Pend d' Oreille and Kootenai Tribes of the Flathead Reservation. Invite a tribal elder or other tribal community member to participate in this discussion.

Procedure

- 1) Read *Giving Thanks* by Chief Jake Swamp.
- 2) Discuss Earth's landforms and features that students are thankful for and why. Compare student responses to those in the book. Ask the tribal community guest instructor to discuss their cultural perspective toward Earth. Continue the discussion, if desired, with the guest talking about the cultural significance of specific landforms for the Salish, Kootenai and Pend d' Oreille people – e.g., Black Lake and Chief Cliff, Dancing Boy, Sheep's Head, the Camas Pit in Niarada, the Big Draw, Polson Moraine, etc.
- 3) Distribute the handout "What does my Earth have?" and the dark blue construction paper. Model for students how to cut the top of the dark blue paper like waves. Discuss that the dark blue paper represents the oceans. Ask students: "What plants and animals would we find in the ocean to be thankful for?". Draw pictures on the blue paper that illustrates what one would find in the ocean and color them. Label the ocean section of the handout for what student's are thankful for. Cut out and glue the section of handout to the bottom of the dark blue construction paper.
- 4) Continue the same process with each color of construction paper. See page 22 of the AIMS resource for more details. Light brown paper represents the plains. Tan represents the deserts. Green represents the valleys. Cut a fringe at the top of the green paper to represent grass in the valleys. Dark brown represents the mountains, rivers, and lakes. Cut out a blue construction paper lake with a river attached to it out. Also cut jagged points to represent the mountains peaks. White represents the ice caps. Cut the top of the paper in a jagged line to look like an icecap. Sky blue represents the student and how they are a part of Earth. Students draw themselves on the last page. Label each section of the handout with what students are thankful for and glue to the bottom of the corresponding pages.
- 5) Staple the booklet together at the side to become a flipbook.

Formative Assessment

Students will be assessed by using a landforms card sort assessment. Students will cut apart the cards and sort them into two groups: *landforms* and *not landforms*.

Landforms	Not Landforms
mountains	cactus
flowers	deserts
plains	sand
grass	valleys
animals	fish
icecaps	oceans
houses	trees
birds	lakes

Lesson #3 – Looking at Landforms of the Mission Valley

Summary of the lesson

Students use Google Earth to explore the different landforms in the Mission Valley and surrounding areas.

Grade level

2nd grade

Approximate time required

1 hour

Learning Objectives

- 1) Students will use Google Earth to locate sites in the Mission Valley (MT Science *Standard 5 Benchmark 4a*).
- 2) Students will identify major landforms as sites in the Mission Valley (MT Social Studies *Standard 3 Benchmark 2* MT Science - *Standard 4 Benchmark 1, Standard 4 Benchmark 2, Standard 2 Benchmark 1*).
- 3) Students will describe the cultural significance of local sites. (MT Social Studies *Standard 3 Benchmark 2*).

Resources/materials needed

Google Earth – a free download on the student computers

Research logs

Google Earth Landforms Checklist

Transportation for optional fieldtrip

Permission slips for optional fieldtrip

Digital camera for the optional fieldtrip

Mission Valley Geology web site -

www.polson.k12.mt.us/cherry/missionvalleytale/missionvalleytale/cover.html

Teacher Preparation

- 1) Be sure that Google Earth is downloaded on each student computer.
- 2) Invite a tribal elder or other knowledgeable tribal community member to come to your classroom or go on a fieldtrip with your class to visit local cultural sites and tell stories about specific landmarks that have cultural significance to the Salish, Kootenai, or Pend d' Oreille people.
- 3) Reserve the computer lab, if necessary.

Background Information

This activity is easily adapted to fit any local community's landforms. Be sure to brainstorm your area's landforms and place names. To develop some prior understanding and interest in your area, use place-based stories from Native tribes about local landforms to introduce students to the area, such as those found at the Mission Valley Geology web pages at

www.polson.k12.mt.us/cherry/missionvalleytale/missionvalleytale/cover.html.

If customizing this lesson for your own area, develop a Google Earth Landforms Checklist that fits your local area.

Procedure

- 1) Ask the tribal elder or tribal community member to come to your classroom, of even better, go on a fieldtrip to local sites of cultural significance, and ask your guest to tell stories about and share tribal place names for the sites.
- 2) Instruct students to create placemarks on the Google Earth image that include the name of each landform in the Mission Valley area and a brief description.
- 3) Ask students to share their placemarks with another class. Students should discuss with their partners the landforms, its name and location in the Mission Valley area and the cultural significance of the site.
- 4) Ask students to draw, label and describe their favorite landform in their research log and to write their reflections on the significance of the landform in response to the following prompt: "This landform is important because..."

Formative Assessment

Use the Landforms Assessment Checklist to assess students' developing proficiency in the following areas:

- 1) Assess students' ability to use Google Earth to find and placemark the landforms.
- 2) Assess students' knowledge of the landforms and their characteristics by examining the descriptions they provide in their placemarks and the drawing they make in the research log.
- 3) Assess students' understanding of the significance of cultural sites by the reflection they write in their research log.
- 4) Assess students' ability to observe and record data based on their research log sketch.

Name _____

Google Earth Landforms Checklist

- | | |
|--|--|
| <input type="checkbox"/> Mission Mountains | <input type="checkbox"/> Flathead Lake |
| <input type="checkbox"/> Flathead River | <input type="checkbox"/> Mission Valley |
| <input type="checkbox"/> Camas Prairie | <input type="checkbox"/> Kerr Dam |
| <input type="checkbox"/> Chief Cliff | <input type="checkbox"/> Glacier National Park |
- Each place is accurately placemarked on the Google Earth image.
- Favorite landform is accurately drawn with labels and described in student's research log.
- The cultural significance of a local site is accurately described in the student's research log.

Additional comments:

Lesson #4 - Sand Tables Landform Model

Summary of the lesson

Students will use sand tables or a sandbox to build a model of and label the landforms in the Mission Valley – mountains, lakes, buttes, cliffs, etc.

Grade level

2nd grade

Approximate time required

1 hour

Learning Objectives and Montana Content Standards addressed

- 1) Students will connect the major landforms with places in the Mission Valley (MT Social Studies *Standard 3 Benchmark 2* MT Science *Standard 4 Benchmark 1, Standard 4 Benchmark 2, Standard 2 Benchmark 1*).
- 2) Students will build a model of the Mission Valley landforms (MT Science *Standard 1 Benchmark 5*, MT Social Studies *Standard 3 Benchmark 1*).
- 3) Students will work in cooperative groups (MT Science *Standard 5 Benchmark 2a*).
- 4) Students will describe the cultural significance of local sites. (MT Social Studies *Standard 3 Benchmark 2*).

Resources/materials needed

Sand tables and sand
Labels – paper and toothpicks
Tape
Cooperative Group Self-Assessment
Landforms Odd One Out handout

Teacher Preparation

- 1) Collect sand tables or sandbox and sand.
- 2) Be prepared for the mess of working with sand. Cover tables as needed. Have towels, broom etc., on hand for cleaning up sand.

Background Information

This activity is easily adapted to fit any local community's landforms. Be sure to brainstorm your area's landforms and place names. In addition, the Landforms Odd One Out handout would need to be changed to match your local area's landforms and place names.

Procedure

- 1) Instruct students that they will be working together in teams of 2 or 3 to create a model of the landforms in the Mission Valley and surrounding areas.

- 2) Students will use the sand tables or sandboxes and wet sand to create the various landforms in their local area.
- 3) Students will use toothpicks, paper and tape to create labels or flags of the landforms and the specific names of the places.
- 4) The teams of students will share with the class what landforms they made and the cultural significance of each site they modeled from the local area.

Formative Assessment

Students will self-assess their individual groups on how they worked as a team cooperatively. They will also be assessed using Landforms Odd One Out handout. From a list of words students will decide which word doesn't belong and tell why. Then they will make their own landforms odd one out.

Name _____

Landforms Odd One Out

Directions: In each group, circle the **Odd One Out** and describe why it does not belong with the other. Then create your own **Landforms Odd One Out**.

Which is the Odd One Out?	Why is it the Odd One Out?
Mission Mountains Rocky Mountains Polson Hill	
Flathead Lake Valley Plains River	

Lesson #5 - Guess My Landform

Summary of the lesson

Students choose different landforms and write clues for other students to use in guessing their landform. Students then use PowerPoint and create a flip booklet with the different clues.

Grade level

2nd grade

Approximate time required

1-2 hours

Learning Objectives

- 1) Students will identify major landforms and their attributes. (MT Science - *Standard 4 Benchmark 1, Standard 4 Benchmark 2, Standard 2 Benchmark 1*)
- 2) Students will identify major landforms with sites in the Mission Valley. (MT Science - *Standard 4 Benchmark 1, Standard 4 Benchmark 2, Standard 2 Benchmark 1*)
- 3) Students will describe the cultural significance of local sites. (MT Social Studies *Standard 3 Benchmark 2*)
- 4) Students will write an original landform riddle and create a PowerPoint presentation of it. (MT Science *Standard 2 Benchmark 1; MT Science Standard 5 Benchmark 4a*)

Resources/materials needed

Riddles and Clues handout
Riddles Template on PowerPoint
Exacto Knife
Glue
Riddles Rubric

Teacher Preparation

Make hardcopies of the Riddles Template from the PowerPoint slide.

Background Information

This activity is easily adapted to fit any local community's landforms. Be sure to brainstorm your area's landforms and place names.

Procedure

- 1) Ask students to choose and record five landforms on the Riddle and Clues handout.
- 2) Ask students to write clues that describe the different landforms. Tell them that at least one clue has to be place based. Provide examples of riddle clues by creating some with the class and writing them on the board.
- 3) Use the Power Point template to create the riddle clue pages for the flip books.

- 4) Print out the riddle clues for each student then use an Exacto knife to cut them into flip book pages. Have students create a decorative cover for the book. Glue the book together.
- 5) Ask students to share their books with the class and challenge the class to figure out the landforms that each describes.

Summative Assessment

Assess students using the Riddles Rubric. Assess them on their ability to make a connection to place in the Mission Valley, their ability to accurately describe landforms, and their use of technology to create a finished product.

Name _____

Writing Landforms Riddles

Write riddles for five landforms in the boxes below. Be creative. Make at least one of your clues place based.

Riddle Answer	Riddle Clues
#1	
#2	
#3	
#4	
#5	

Riddles Rubric

Name _____

	Needs Practice 1 Point	Good 2 Points	Excellent 3 Points
Writing/Science	Clues did not accurately describe landforms	Clues did accurately describe landforms	Had more than one accurate clue per landform
	No accurate place based clue was used	A single accurate place based clue was used	Multiple accurate place based clues were used
Technology use and presentation	Clues and answers were not completely typed	Clues and answers were completely typed	Clues and answers were typed and pictures were also included
Total score			

Comments: