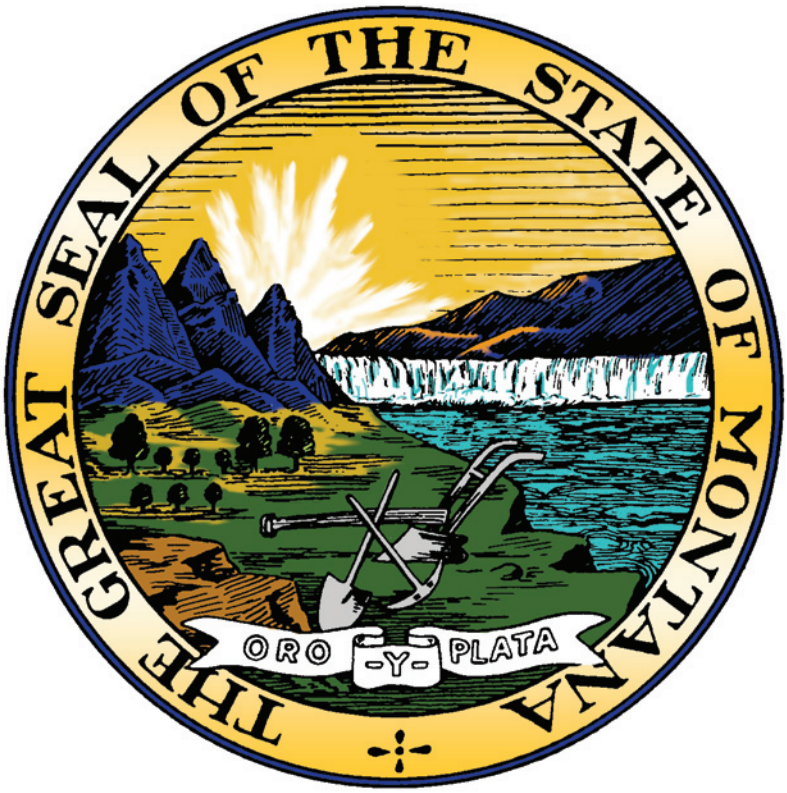
Montana State Symbols



Big Sky. Big Land. Big History.
Montana
Historical Society
montanahistoricalsociety.org

User Guide | Provided by the Montana Historical Society Education Office, 2018
(406) 444-4789 | www.montanahistoricalsociety.org

Table of Contents

I. Educator Information

Inventory 3
Footlocker Contents 5
Historical Narrative for Educators 8
State Symbols Adoption Time Line. 10
Outline for Classroom Presentation 11
Footlocker Evaluation Form 12

II. Lessons

Alignment to Montana Content and Common Core Standards 14
Lesson 1: I Have, Who Has...[1] 19
Lesson 2: Tribal Seals and Flags[1] 25
Lesson 3: State Seal and Flag[1] 26
Lesson 4: Montana's State Songs*[1] 32
Lesson 5: Montana's State Animal[1] 42
Lesson 6: Gift of the Bitterroot*[1] 50
Lesson 7: The Montana State Fossil[1] 54
Lesson 8: Learning about Montana Sapphires. 71
Lesson 9: Creating a Museum of Montana Symbols. 80

III. Student Narratives

Historical Narrative for Students 87
Amazing Montanan Biographies
a. Jack Horner 90
b. Dan Carney. 91
Vocabulary List 92

IV. Resources and Reference Materials

Additional Resources. 93
Hands-on History Footlockers 95
Other Resources from the Montana Historical Society 97

*Lessons using primary sources

[1]Lessons you can do without ordering the trunk

Inventory

Borrower: _____ Booking Period: _____

The borrower is responsible for the safe use of the footlocker and all its contents during the designated booking period. Replacement and/or repair for any lost items and/or damage (other than normal wear and tear) to the footlocker and its contents while in the borrower's care will be charged to the borrower's school. **Please have an adult complete the footlocker inventory checklist below, both when you receive the footlocker and when you repack it for shipping, to ensure that all of the contents are intact.** After you inventory the footlocker for shipping to the next location, please mail or fax this completed form to the Education Office.

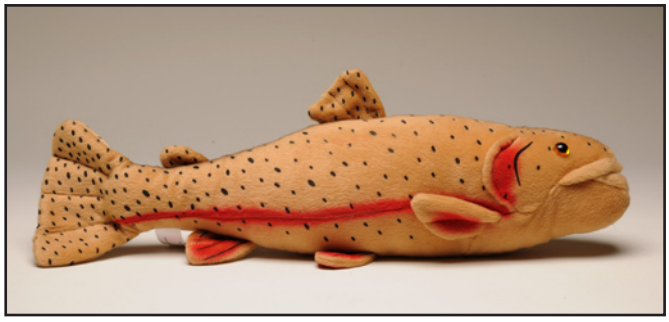
ITEM	BEFORE USE	AFTER USE	CONDITION OF ITEM	MHS USE
Nine flags				
I Have, You Have cards				
Cross-section of ponderosa pine and cone				
Stuffed cutthroat trout				
Model of Maiasaura and nest				
Grizzly bear fur				
Grizzly bear paw cast				
Agate				
Sapphire exhibit				
Bitterroot plant image				
Crossing Boundaries through Art Curriculum				

ITEM	BEFORE USE	AFTER USE	CONDITION OF ITEM	MHS USE
Staying Safe around Bears Coloring & Activity Book				
Maia: A Dinosaur Grows Up book				
Montana State Song sheet music				
Story of the Bitterroot DVD				
Gift of the Bitterroot book				
Dinosaur illustrations				
Dinosaur Trail passports				
Sample of state soil				
Stuffed meadowlark				
Mourning cloak butterfly				
"The Sapphires of Montana" article				
User Guide				
Flash drive with PowerPoints				
Two padlocks				
Envelope for user-created material				

Footlocker Contents

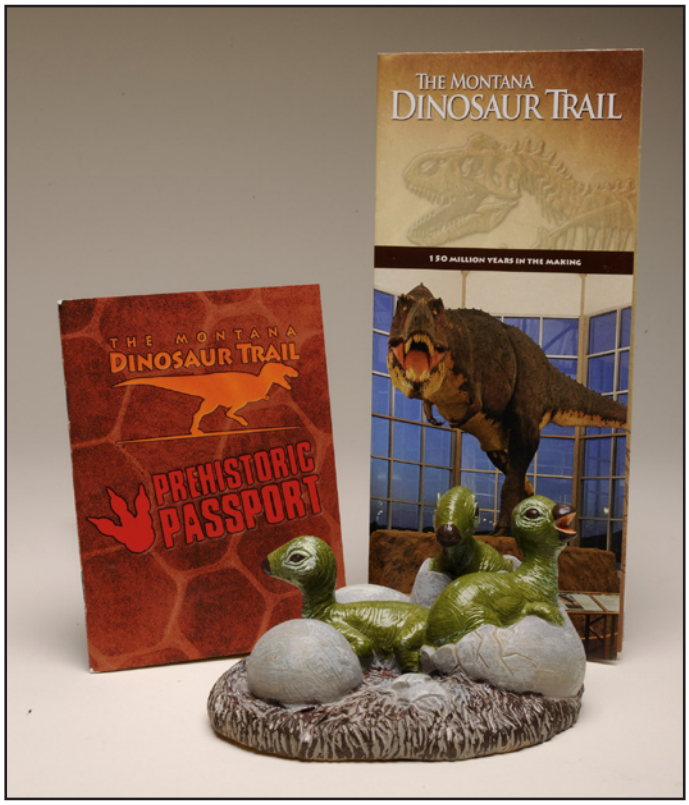
Montana state and tribal nations' flags

Cross-section of a ponderosa pine tree and cone



Stuffed cutthroat trout

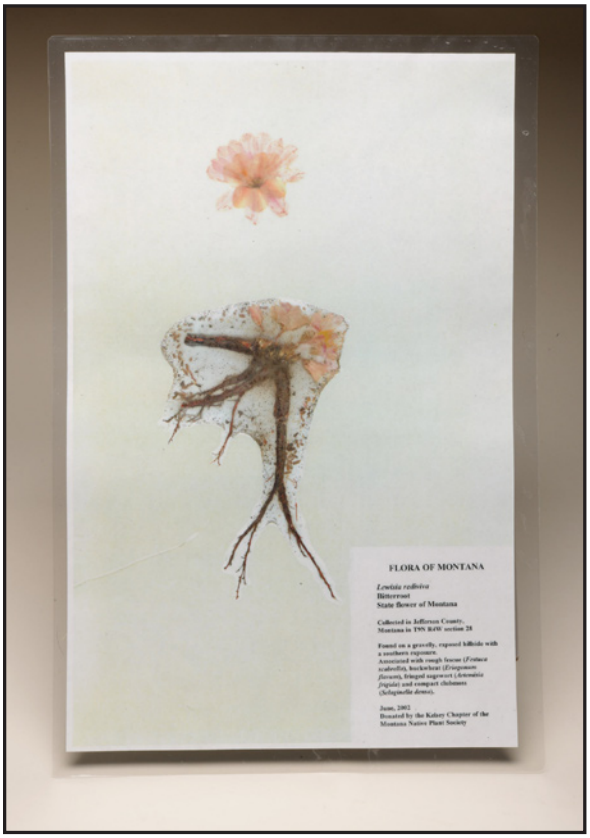
Grizzly bear fur and paw cast



Model of Maiasaura and nest, dinosaur images, and Dinosaur Trail passports

continued

Sapphire exhibit



Bitterroot plant image

Agate

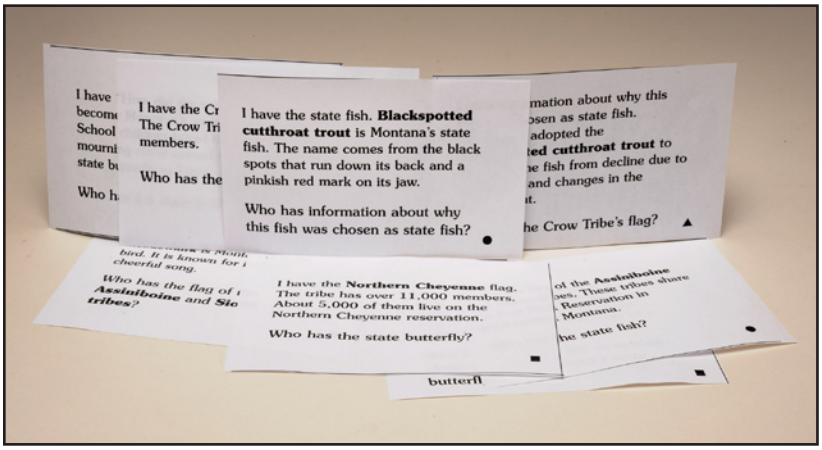
Books and DVDs: *Crossing Boundaries through Art Curriculum, Staying Safe around Bears Coloring & Activity Book, Maia: A Dinosaur Grows Up,* Montana State Song, *Story of the Bitterroot, Gift of the Bitterroot,* "The Sapphires of Montana"

State soil sample

continued

Stuffed meadowlark

Mourning cloak butterfly



I Have, You Have cards

Flash drive with PowerPoints. These PowerPoints have material for use with Lessons 3, 5, 6, 7, 8, and 9. PowerPoints can also be found online here:

- https://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson3.pptx
- https://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson5.pptx
- https://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson6.pptx
- https://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson7.pptx
- https://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson8.pptx
- https://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson9.pptx

Historical Narrative for Educators

Montana has fifteen official symbols. The first—the state seal—was adopted in 1893, four years after statehood. The last—the state soil—was adopted in 2015. In addition, each tribal government has its own seal and flag that reflect important aspects of their cultural identities. Why do we have so many symbols and what can we learn from them?

First, symbols tell us how we see ourselves, how we want the world to see us, and about the era in which they were adopted. Take, for example, the Montana state seal and flag. Created at the turn of the twentieth century, the flag and seal promise prosperity and growth. The pick and plow and the motto "Oro y Plata" reflect the state's great mineral wealth. The Great Falls of the Missouri offer the promise of power generation and abundant water, and the plow and verdant plains celebrate the role of farmers in building the state. The seal and flag emphasize the importance of extractive industries and resource development. So does the moniker "The Treasure State," which, according to historian Brian Shovers, "gained wide appeal" after appearing "on the cover of a promotional booklet published by the Montana Bureau of Agriculture, Labor and Industry" in 1895. In the 1960s, the state's tourism department started to use the phrase "Big Sky Country" to describe the state. Its predominance today reflects the rising importance of tourism to Montana's economy—and Montanans' own conceptions about where they live and what they value.

Montana's state symbols can reveal additional information about the state's geography and development. For example, the state flower, the bitterroot, is found only in western Montana. Given that residents of two-thirds of the state never have a chance to see these blooms close to home, why was the bitterroot chosen to represent Montana? The answer lies, in part, in the location of the state's population centers at the time of the bitterroot's selection. In 1890 Yellowstone County, home today of Montana's largest city, had only 2,065 people. Compare that to Missoula County's 1890 population of 14,427 and you'll see why the selection of the bitterroot made sense in 1895.

Geography played out in the selection of Montana's state gemstone as well. In fact, Montana has two state gemstones: sapphires, found in western Montana, and agates, found in eastern Montana. The selection, in 1969, of stones representing both regions of the state reveals something about Montana's political and geographical divides.

Historically, one motive for adopting state symbols has been to teach civics. Montana's Women's Christian Temperance Union president Mary Alderson initiated the state flower campaign in 1894. An ardent advocate of women's suffrage, she did so because she wanted women to learn how to organize politically and how to vote. Despite her efforts, it took another twenty years before women won the right to vote in Montana.

Montana Secretary of State Jim Waltermire initiated the state animal campaign in 1982 to give Montana schoolchildren a lesson in how government works by letting them choose the state's official animal. The state bird, fossil, soil, and butterfly are among the other animals that schoolchildren participated in choosing as part of a civics lesson.

In some cases, the selection process resulted in a symbol that had special meaning to Montana. The bitterroot has special significance to the Salish and Pend d'Oreille tribes, who relied on the plant for sustenance. Scobey soil is what makes the Golden Triangle in north-central Montana—between Havre, Conrad, and Great Falls—so fertile. The selection of the state

continued

fossil—Maiasaura—celebrates the scientifically revolutionary find at "Egg Mountain" near Choteau, Montana, which provided evidence that some dinosaurs cared for their young. And Montana is the only state in the Lower 48 to have a substantial population of grizzly bears, the state animal.

Other symbols are less unique. For example, Washington and Montana both chose bluebunch wheatgrass as their state grass, and many other states could have followed suit. You can find the grass east of the coastal mountains from Alaska through California and as far east as Michigan and Texas. There is no denying its significance for Montana's cattle industry, however, making it a worthy symbol. Equally, western meadowlarks live across the western United States and in parts of Canada and Mexico and are the state bird of six states: Kansas, Montana, Nebraska, North Dakota, Oregon, and Wyoming. But their cheerful song is a true sign of spring, making them beloved by ranch and farm families looking forward to the end of winter. Montanans' emotional connection to these songbirds earned them their place in Montana's pantheon.

Whether or not they are unique to Montana, the Treasure State's symbols celebrate some of what we love about living in Big Sky Country. You can discover more about the history of individual symbols in the Student Narratives section.

State Symbols Adoption Time Line

1893 Seal

1895 Flower, Bitterroot

1905 Flag

1931 Bird, Western Meadowlark

1945 Song, “Montana”

1949 Tree, Ponderosa Pine

1969 Gemstones, Sapphire and Agate

1973 Grass, Bluebunch Wheatgrass

1977 Fish, Blackspotted Cutthroat Trout

1982 Animal, Grizzly Bear

1983 Ballad, “Montana Melody”

1985 Fossil, Duck-billed Dinosaur (Maiasaura)

2001 Butterfly, Mourning Cloak

2007 Lullaby, “Montana Lullaby”

2015 Soil, Scobey Soil

Outline for Classroom Presentation

I. Symbols tell us how we see ourselves, how we want to world to see us, and about the era in which they were adopted.

   A. Seals/Flags/Nicknames (Lessons 2 and 3)

      1. The state seal and flag focus on what was important to Euro-American Montanans at the time of their adoptions: resource production (mining, agriculture, power). Tribal flags and seals reflect tribal histories and cultural values.

      2. Montana's nickname is "The Treasure State"—which reflects the same values as the flag. Montana is also commonly known as "Big Sky Country." (Talk about differences represented by these nicknames.)

   B. Geography

      1. Our state flower is found only in western Montana, which is where most people lived in 1895 when it was chosen. If it had been selected later, a different outcome is likely.

      2. The fact that we have two state gems, one found in western Montana and one found in eastern Montana tells something about political divides and tensions in the state.

II. Historically, one motive for adopting state symbols has been to teach civics.

   A. State flower campaign was led by Mary Alderson, who wanted to train women in how to organize politically and how to vote in preparation for a women's suffrage campaign.

   B. State animal campaign was organized by Montana Secretary of State Jim Waltermire, who wanted to give Montana schoolchildren a lesson in how government works by letting them choose the state's official animal. (Lesson 5: Montana's State Animal)

   C. Our state bird, fossil, soil, and butterfly are among the other symbols that schoolchildren participated in choosing as part of a civics lesson. (Lesson 7: The Montana State Fossil)

III. Montana's tribal people have the longest relationship to Montana's natural world—which has given them particular perspectives on many of the state's symbols. (Lesson 5: Montana's State Animal and Lesson 6: Gift of the Bitterroot)

   A. There is great diversity among the twelve tribal nations of Montana.

   B. Each tribe has its own different stories and relationships to the animals and plants that have been chosen as our state symbols. For example, the bitterroot is important to western Montana tribes. The grizzly is important to all tribes, but they have different stories about the bear, which reflect different attitudes.

IV. There are many things to love about Montana (Lesson 4: Montana's State Songs). Our state symbols celebrate some of these things. (Lesson 9: Creating a Museum of Montana Symbols)

   A. We have many state symbols. (Lesson 1: I Have, Who Has…)

   B. We can learn about some of the things that make Montana special by studying our state symbols. (Lesson 4: Montana's State Songs, Lesson 7: The Montana State Fossil, Lesson 8: Sapphires, and Lesson 9: Creating a Museum of Montana Symbols.)

Footlocker Evaluation Form

Evaluator's Name _____ Footlocker Name _____

School Name _____ Phone _____

Address _____ City _____ Zip Code _____

1. How did you use the material? (choose all that apply)

☐ School-wide exhibit ☐ Classroom exhibit ☐ "Hands-on" classroom discussion

☐ Supplement to curriculum ☐ Other_____

2. How would you describe the audience/viewer? (choose all that apply)

☐ Preschool students ☐ Grade school—Grade____ ☐ High school—Grade____

☐ College students ☐ Seniors ☐ Mixed groups ☐ Special interest

☐ Other_____

2a. How many people viewed/used the footlocker?_____

3. Which of the footlocker materials were most engaging?

☐ Artifacts ☐ Documents ☐ Photographs ☐ Lessons ☐ Video

☐ Audio Cassette ☐ Books ☐ Slides ☐ Other_____

4. Which of the User Guide materials were most useful?

☐ Narratives ☐ Lessons ☐ Resource Materials ☐ Biographies/Vocabulary
☐ Other_____

5. How many class periods did you devote to using the footlocker?

☐ 1-3 ☐ 4-6 ☐ More than 6 ☐ Other_____

6. What activities or materials would you like to see added to this footlocker?

_____

_____

7. Would you request this footlocker again? If not, why?

_____

_____

_____

_____

8. What subject areas do you think should be addressed in future footlockers?

_____

_____

_____

_____

_____

9. What were the least useful aspects of the footlocker/User Guide?

_____

_____

_____

_____

_____

10. Other comments.

_____

_____

_____

_____

_____

II. Lessons

Alignment to Montana Content and Common Core Standards

Lessons ➤	1	2	3	4	5	6	7	8	9
English Language Arts Standards » Reading: Literature » Grade 4									
CCSS.ELA-Literacy.RL.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.				X		X			
CCSS.ELA-Literacy.RL.4.2 Determine a theme of a story, drama, or poem from details in the text; summarize the text.				X		X			
CCSS.ELA-Literacy.RL.4.3 Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or cactions).						X			
CCSS.ELA-Literacy.RL.4.10 By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.				X					
English/Language Arts Standards » Reading Informational Text » Grade 4									
CCSS.ELA-Literacy.RI.4.1. Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.		X	X		X	X			
CCSS.ELA-Literacy.RI.4.2. Determine the main idea of a text and explain how it is supported by key details; summarize the text.			X		X	X			X
CCSS.ELA-Literacy.RI.4.3. Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. Include texts by and about American Indians.					X		X		
CCSS.ELA-Literacy.RI.4.4. Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a grade 4 topic or subject area.	X	X	X		X	X	X	X	X
CCSS.ELA-Literacy.RI.4.7. Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.		X					X	X	
CCSS.ELA-Literacy.RI.4.9. Integrate information from two texts on the same topic in order to write or speak about the subject knowledgably.					X	X	X		
CCSS.ELA-Literacy.RI.4.10. By the end of year, read and comprehend informational texts, including history/social studies, science, and technical texts, in the grades 4–5 text complexity band proficiently, with scaffolding as needed at the high end of the range.	X		X		X	X	X	X	X

continued

Alignment to Montana Content and Common Core Standards *(continued)*

Lessons ➤	1	2	3	4	5	6	7	8	9
English/Language Arts Standards » Foundation Skills » Grade 4									
CCSS.ELA.RF.4.3 Know and apply grade-level phonics and word analysis skills in decoding words	X	X	X		X		X	X	X
CCSS.ELA.Literacy.RF.4.4 Read with sufficient accuracy and fluency to support comprehension.	X	X	X		X		X	X	X
English Language Arts Standards » Writing » Grade 4									
CCSS.ELA-Literacy.W.4.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.			X		X		X		
CCSS.ELA-Literacy.W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.		X	X						X
CCSS.ELA-Literacy.W.4.4 Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3 above.)		X	X	X			X		X
CCSS.ELA-Literacy.W.4.5 With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 4 here.)			X						X
CCSS.ELA-Literacy.W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.							X		X
CCSS.ELA-Literacy.W.4.8 Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.							X		X
CCSS.ELA-Literacy.W.4.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.			X	X	X		X		X
CCSS.ELA-Literacy.W.4.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.			X	X	X		X		X
English Language Arts Standards » Speaking & Listening » Grade 4									
CCSS.ELA-Literacy.SL.4.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.		X	X	X	X		X	X	X
CCSS.ELA-Literacy.SL.4.2 Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.		X		X	X	X			
CCSS.ELA-Literacy.SL.4.3 Identify the reasons and evidence a speaker provides to support particular points.			X						

continued

Alignment to Montana Content and Common Core Standards *(continued)*

Lessons ➤	1	2	3	4	5	6	7	8	9
CCSS.ELA-Literacy.SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.		X			X		X		
CCSS.ELA-Literacy.SL.4.5 Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.		X					X		
CCSS.ELA-Literacy.SL.4.6 Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards 1 here for specific expectations.)							X		
Montana State Standards for Social Studies									
Content Standard 1—Students access, synthesize, and evaluate information to communicate and apply social studies knowledge to real world situations.									
1.1. Apply the steps of an inquiry process ...						X			
1.3. Interpret and apply information to support conclusions and use group decision making strategies to solve problems in real world situations ...			X						
Content Standard 2—Students analyze how people create and change structures of power, authority, and governance to understand the operation of government and to demonstrate civic responsibility.									
2.2. Identify and describe basic features of the political system in the United States and identify representative leaders from various levels							X		
2.5. Identify and explain the basic principles of democracy						X	X		
Content Standard 3—Students apply geographic knowledge and skills									
3.1. Analyze and use various representations of the Earth ... to gather and compare information about a place.						X	X		
3.2. Locate on a map or globe physical features ... natural features ... and human features ... and explain their relationships within the ecosystem.		X							
3.3. Analyze diverse land use and explain the historical and contemporary effects of this use on the environment, with an emphasis on Montana.		X							
3.5. Use appropriate geographic resources to interpret and generate information explaining the interaction of physical and human systems		X							

continued

Alignment to Montana Content and Common Core Standards *(continued)*

Lessons ➤	1	2	3	4	5	6	7	8	9
Content Standard 4—Students demonstrate an understanding of the effects of time, continuity, and change on historical and future perspectives and relationships.									
4.1. Identify and use various sources of information (e.g., artifacts, diaries, photographs, charts, biographies, paintings, architecture, songs) to develop an understanding of the past.		X	X		X	X	X		
4.3. Examine biographies, stories, narratives, and folk tales to understand the lives of ordinary people and extraordinary people, place them in time and context, and explain their relationship to important historical events.		X				X			
4.4. Identify significant events and people and important democratic values … in the major eras/civilizations of Montana, American Indian, United States, and world history.		X							
4.7. Explain the history, culture, and current status of the American Indian tribes in Montana and the United States.		X				X			
Content Standard 6—Students demonstrate an understanding of the impact of human interaction and cultural diversity on societies.									
6.1. Compare and illustrate the ways various groups … meet human needs and concerns … and contribute to personal identity.		X				X			
6.2. Explain and give examples of how human expression … contributes to the development and transmission of culture.		X	X	X		X			
6.3. Identify and differentiate ways regional, ethnic, and national cultures influence individual's daily lives and personal choices.						X			
6.4. Compare and illustrate the unique characteristics of American Indian tribes and other cultural groups in Montana.		X			X	X			
6.5. Explain the cultural contributions of, and tensions between, racial and ethnic groups in Montana, the United States, and the world.		X							
Essential Understanding 1 There is great diversity among the 12 tribal nations of Montana in their languages, cultures, histories, and governments. Each nation has a distinct and unique cultural heritage that contributes to modern Montana.		X		X	X				
Essential Understanding 3 The ideologies of Native traditional beliefs and spirituality persist into modern daily life, as tribal cultures, traditions and languages are still practiced by many American Indian people and are incorporated into how tribes govern and manage their affairs. Additionally, each tribe has its own oral histories, which are as valid as written histories. These histories pre-date the "discovery" of North America.		X				X			
Essential Understanding 4 Reservations are lands that have been reserved by the tribes for their own use through treaties, statutes, and executive orders and were not "given" to them …		X							

continued

Alignment to Montana Content and Common Core Standards *(continued)*

Lessons ➤	1	2	3	4	5	6	7	8	9
Mathematical Practices Standards » Grades 3-5									
3-5.MP.6. Attend to precision.			X						
Montana Standards for the Arts									
Content Standard 1: Students create, perform/exhibit, and respond in the Arts.									
4.1.1: Students will identify their own ideas and images based on themes, symbols, events, and personal experiences.		X	X	X					
4.1.3: Students will present their own work and works of others.		X	X				X		
4.1.4: Students will collaborate with others in the creative process.		X		X					
Content Standard 5: Students understand the role of the Arts in society, diverse cultures, and historical periods.									
4.5.2: Students will identify and describe specific works of art belonging to particular cultures, times, and places.		X	X	X					
4.5.3: Students will recognize various reasons for creating works of art.		X	X	X					
4.5.4: Students will recognize common emotions, experiences, and expressions in art.		X		X					
4.5.6: Students will explore their own culture as reflected through the Arts.		X	X	X					
Content Standard 6: Students make connections among the Arts, other subject areas, life, and work.									
4.6.4: Students will identify how works of art reflect life.		X	X	X					

Lesson 1: I Have, Who Has...

Essential Understanding

Montana has many state symbols.

Activity Description

Students will gain a quick introduction to Montana's state symbols by playing "I Have, Who Has."

Objectives

At the conclusion of the lesson students will have:

- Practiced reading out loud.
- Learned about Montana's state symbols and Montana's eight tribal flags.

Time

30 minutes

Materials

Footlocker/User Guide Materials:

- I Have, Who Has Cards

Pre-Lesson Preparation

Preview the cards. Note that they are divided into three reading levels so you can differentiate with your students. The easiest ones to read are marked with a square. Average difficulty cards are marked with a circle. The hardest to read are marked with a triangle.

If your students don't know how to pronounce tribal names or if you think they will struggle with other vocabulary or concepts, preview with students as necessary.

Note: The cards included in the footlocker have pictures of the symbols on the back. You can print out cards without pictures below.

Procedure

1. Tell students they are going to play a game about Montana's state symbols.
2. Hand out the cards, differentiating by giving struggling readers cards that are easier to read. (If there are more cards than students, give strong readers multiple cards.) Have students practice reading their card to a partner. Help them with words they don't know how to pronounce.
3. Start the game by asking, "Who has the first card?" The student with the first card reads his or her card. (It says "This is the first card. Who has the state soil?") The student who has the state soil chimes in quickly by reading his or her card. Students should try to avoid pauses between turns. The game ends with the last card, which reads "This is the end of the game."
4. Host a discussion: Do students have questions about any of the vocabulary words or concepts on their cards? (For example, do they know where the phrase "amber waves of grain" comes from and what it means?)

Extension Activities

Have students use the cards from the footlocker to play concentration by laying them picture side up. Students try to name the symbol or tribe by looking at the picture, turning over the cards to see if they are correct. (This will only work with the cards in the footlocker.)

Have students create a Montana state symbols collage. Victor art teacher Jennifer Ogden has her students make their collages on half of a Montana highway map. (You can order classroom sets of Montana highway maps by

continued

calling 406-841-2870 or 800-847-4868 press 2). Ogden first has students "quiet the map information down with a 'fog' of white paint sponged on—important landmarks on the map are still faintly visible." They then add "blue to the white paint for pale sky, and yellow to the blue for green land, explaining it's a pale landscape." Next, students "add blue torn tissue paper and polymer medium for water such as rivers and lakes. They can add scrap paper fish or birds." Atop this "canvas," students make their collages, which are inspired by the work of Salish artist Juane Quick to See Smith and French artist Henri Matisse. Ogden details the rest of her process in a lesson plan she created for the Missoula Art Museum: http://www.missoulaartmuseum.org/files/documents/Grades%204-5%20Cut%20Outs.pdf.

This is the first card.

Who has the state soil?

■

I have the state nicknames. The state nicknames are “The Treasure State” and “Big Sky Country.”

Who has more about the nickname “The Treasure State”?

■

I have the state soil. The state soil is Scobey soil. You can find Scobey soil on more than 700,000 acres in an area in north-central Montana known as the “Golden Triangle.”

Who has “Why is it called the ‘Golden Triangle’?”

▲

I have more about the nickname “The Treasure State.” “The Treasure State” became Montana’s nickname because of the state’s valuable minerals, gems, and precious metals.

Who has “When did Montana get the nickname ‘Big Sky Country’?”

●

I have “Why is it called the ‘Golden Triangle’.” It is called the Golden Triangle because of its “amber waves of grain.” Scobey soil is one reason the area’s wheat farms are so successful.

Who has the flag of the Gros Ventre and Assiniboine Tribes?

▲

I have “When did Montana get the nickname ‘Big Sky Country’?” In the 1960s Montanans also adopted the nickname “Big Sky Country,” after a novel called *The Big Sky*, by Montana author A. B. Guthrie Jr.

Who has the state grass?

▲

I have the flag of the Gros Ventre and Assiniboine Tribes. These two tribes share the Fort Belknap Indian Reservation.

Who has the state nicknames?

●

I have the state grass. Bluebunch wheatgrass is the state grass. It is found throughout the West. It grows mostly in flat areas and lower mountain slopes and is good grazing grass for cattle and sheep.

Who has the Northern Cheyenne flag?

●

I have the Northern Cheyenne flag. The tribe has over 11,000 members. About 5,000 of them live on the Northern Cheyenne Indian Reservation.

Who has the state butterfly?

■

I have the flag of the Assiniboine and Sioux tribes. These tribes share the Fort Peck Indian Reservation in northeastern Montana.

Who has the state fish?

●

I have the state butterfly. It is the mourning cloak butterfly. Its wings are dark brown. They have bright blue spots along the inner edge of a yellow or beige border.

Who has "How did the mourning cloak become Montana's state butterfly?"

■

I have the state fish. Blackspotted cutthroat trout is Montana's state fish. The name comes from the black spots that run down its back and a pinkish red mark on its jaw.

Who has information about why this fish was chosen as state fish?

●

I have "How did the mourning cloak become Montana's state butterfly." Schoolchildren asked to have the mourning cloak named the official state butterfly in 2001.

Who has the state bird?

▲

I have information about why this fish was chosen as state fish. Montanans adopted the blackspotted cutthroat trout to help save the fish from decline due to overfishing and changes in the environment.

Who has the Crow Tribe's flag?

▲

I have the state bird. The western meadowlark is Montana's state bird. It is known for its loud, cheerful song.

Who has the flag of the Assiniboine and Sioux tribes?

■

I have the Crow Tribe's flag. The Crow Tribe has over 13,000 members.

Who has the state fossil?

■

I have the state fossil. Maiasaura was named state fossil after an important discovery at Egg Mountain, near Choteau.

Who has more about Egg Mountain?

●

I have more about Egg Mountain. The Maiasaura nests at Egg Mountain were the first proof that some dinosaurs took care of their babies the way birds do.

Who has the flag of the Confederated Salish and Kootenai Tribes?

●

I have the flag of the Confederated Salish and Kootenai Tribes. These tribes share the Flathead Indian Reservation in western Montana.

Who has the state animal?

●

I have the state animal. The grizzly bear is Montana's state animal. Adult grizzlies can grow to eight feet long and weigh 1,500 pounds.
Their back feet leave paw prints as big as magazines.

Who has the state tree?

■

I have the state tree. The ponderosa pine is Montana's state tree. It is also the most common tree in Montana.

Who has more about ponderosa pines?

■

I have more about ponderosa pines. A ponderosa pine can grow 300 feet tall and 8 feet around.

Who has the flag of the Little Shell Chippewa Tribe?

■

I have the flag of the Little Shell Chippewa Tribe. The Little Shell do not have a reservation. Their headquarters is in Great Falls.

Who has the state flower?

■

I have the state flower. The bitterroot is Montana's state flower. You can find bitterroot growing in dry sunny areas in western Montana's mountains during the late spring and summer.

Who has more about the bitterroot?

●

I have more about the bitterroot. Western Montana Indians used the dried roots of the bitterroot for food and trade.

Who has the flag of the Blackfeet Tribe?

■

I have the flag of the Blackfeet Tribe. The Blackfeet live on the Blackfeet Indian Reservation. The tribe's capital is Browning.

Who has the state gemstones?

■

I have the state gemstones. Agates and sapphires are Montana's state gemstones.

Who has the flag of the Chippewa Cree Tribe?

●

I have the flag of the Chippewa Cree tribe. These tribes live on Rocky Boy's Indian Reservation.

This is the end of the game.

■

Lesson 2: Tribal Seals and Flags

Essential Understanding

Symbols (like seals and flags) reflect their creators' history, geography, and culture.

Activity Description

Students will learn about the importance of symbols by examining Montana's different Native American tribes and their symbols and by creating their own personal flag or seal.

Objectives

At the conclusion of the lesson students will have:

- Named and located the tribes and reservations in Montana.
- Defined "symbol" (image, metaphor) and distinguished between abstract, geometric, and realistic symbols.
- Recognized and articulated the connections between art, identity, and perspective for both others and themselves.
- Communicated information about themselves through visual art.

Time

Four 50-minute class periods

Materials

Footlocker/User Guide Materials:

- Tribal flags
- *Crossing Boundaries Through Art: Seals of Montana Tribal Nations* booklet (in footlocker and also available online: http://montanateach.org/resources/crossing-boundaries-through-art-seals-of-montana-tribal-nations-model-lesson-for-grades-3-5/)

Teaching Note: The Montana Office of Public Instruction has also created versions of *Crossing Boundaries Through Art* for grades 6-8 and 9-12. If you teach upper grades, you can download those from the Indian Education Office's Curriculum Resources website: http://opi.mt.gov/Educators/Teaching-Learning/Indian-Education/Art.

Teacher Provided Materials:

- Materials as stipulated in each lesson of *Crossing Boundaries Through Art.*

Pre-Lesson Preparation

Read over the first ten pages of *Crossing Boundaries Through Art* for background information for the lesson.

Review parts 1-4 of *Crossing Boundaries Through Art's* instructional plan.

Gather materials needed for each part of the lesson as described in *Crossing Boundaries Through Art*. (Note that many of these materials are contained in the lesson's appendices, which begin on page 31 of *Crossing Boundaries Through Art.*)

Display tribal flags around the classroom.

Procedure

1. Follow the procedures for Parts 1-4 of *Crossing Boundaries Through Art's* instructional plan. One 50-minute class period should be set aside for each part of the instructional plan.

Lesson 3: State Seal and Flag

Essential Understanding

Symbols (like seals and flags) reflect their creators' history, geography, and culture. People care about symbols for different reasons.

Activity Description

Students will learn about Montana's state seal and flag by reading an article. They will learn about principles of flag design. They will think about how they would symbolize the essence of Montana by designing their own versions of the flag and writing about their process.

Objectives

At the conclusion of the lesson students will have:

- Understood the importance attached to symbols.
- Read about disagreements over the design of the Montana state flag.
- Created their own redesign of Montana's state flag and written an explanation about the symbols they used to represent Montana.

Time

Two to three 50-minute class periods

Materials

Footlocker/User Guide Materials:

- Montana state flag
- Excerpts from Phil Drake, "Montana's Flag Takes Hits in Poll, but Still Beloved." *Great Falls Tribune,* June 10, 2015 (reprinted below).
- Lesson 3 PowerPoint: "Montana's State Flag," available on the flash drive or at http://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson3.pptx.

Teacher or Student Provided Materials:

- Blank paper
- Colored pencils/crayons/markers

Pre-Lesson Preparation

Review the lesson plan.

Print copies of reading: "Montana's Flag Takes Hits in Poll, but Still Beloved."

Familiarize yourself with Visual Thinking Strategies (VTS). Developed first as a way to engage students in analyzing fine art, this technique uses "open-ended questioning and student-centered facilitation techniques, including strategies for listening and paraphrasing, to create student-driven and engaging group discussion environments." It also engages "students in discourse … with an emphasis on providing evidence while considering and building off the contributions and perspectives of their peers." (http://teachers.mam.org/collection/teaching-with-art/visual-thinking-strategies-vts/). You can find more information, including videos that show VTS in action at the Visual Thinking Strategies website: http://www.vtshome.org/.

Arrange to project "Montana's State Flag" PowerPoint.

Procedure

Part 1

1. Analyze the Montana State Flag using VTS (Visual Thinking Strategies) (10 minutes).

   Start by sharing a picture of the flag on a large screen (or print out multiple copies for students to view at their desks). Give the students time to observe it individually and

continued

silently (1-2 minutes). Then ask the simple question: "What is going on here?" It is important to ask this question exactly as you see it written. Once a student volunteers to share what he or she sees, paraphrase his or her answer: "I hear you saying…"

You can also have a student expand on what they see by saying: "What do you see that makes you say that?" Again, paraphrase the best you can the student's answer before moving on to the next student.

If things start to become quiet, ask the question: "What more can you find?" This is important to ask in this exact way, since the question implies that the observation is not only with the eyes (as in "what more can you see"), but also with the emotions and other senses. Again, paraphrase student answers before asking (if relevant): "What do you see that makes you say that?" Plan on spending about 10 minutes discussing the image, and understand that there will be some silence as students think of what else they can find.

2. Discuss the meaning of symbols (like flags and seals) with the class. (If you already completed Lesson 1: Tribal Seals and Flags, you can foreshorten or omit this discussion.) Define the word "symbol" (something that represents an idea). Ask students to offer examples from their immediate surroundings (the American flag, clock, numbers, stop signs handicapped parking signs, and other road signs, bathroom signs, etc.).

   Analyze what these symbols mean, and if there is one common meaning for each—or if they might mean different things to different people. Ask the students what Montana's flag and seal represent.

3. Have students work in pairs to read the article, "Montana's Flag Takes Hits in Poll, but Still Beloved." The two-person student teams should alternate reading aloud to one another, switching each time there is a new paragraph. Or they can read aloud each section at the same time.

   Have them answer the following questions with their partner:

   - Who does not like the flag design? Why don't they like it?
   - Who does like the flag design? Why do they like it?
   - Underline at least one unfamiliar word. Looking at it in context, what do you think it means?

   Discuss student findings as a class. List on the board: Who liked the flag (and why)? Who didn't like the flag (and why)?

4. Write the word vexillology on the board. What do students think it means? Look at the context clues. Talk about the suffix "ology." Do students know any other words that end in "ology"?

   Let students know that it comes from the Greek word *logia*, which means "study."

   - Bio (life)-ology
   - Geo (earth)-ology
   - Zoo (animals)-ology

   The first half of the word "vexillology" comes from the Latin word *vexillum* ("flag").

   So "vexillology" is the study of flags.

5. Ask students to share their opinions about the flag.

   Tell them: It was created in the 1890s. Ask: Does it still represent Montana? Does it reflect what you love about the state?

Part 2

1. Remind students of what the people in the *Great Falls Tribune* article liked about Montana's flag (it reflects our state's geography, highlights important parts of

continued

our history, and is familiar) and what they did not like (it has too many colors, it is too similar to other state flags, it has words).

2. Tell students that today you are going to examine the question: If the state wanted to replace the flag, what should a new flag look like? Tell them that they will be creating possible designs for a new state flag, but first they are going to learn a little about flag design.

3. Vexillologists (people who study flags) have developed five principles for flag design. These are things they think make a good flag. Show PowerPoint, discussing each design principle in relation to the Montana flag and then in relation to proposed replacement flags. (When viewing replacement flags, give students an opportunity to comment on other aspects of the flags—expressing why they do or don't like them.)

4. Write Your Way In (5 minutes)

   Provide students with the following prompt: If you were going to design a new flag for the state, what symbols would you include and why? What other things would you consider in your design?

   Let them know that they will be thinking hard and writing for five minutes nonstop, as soon as you say, "Go!" You will be using a timer and they must keep on going, not lifting their pencils until the five minutes are up. If they are stuck for what to write next, encourage them to write, "I am thinking!" until they think of more to say. Remind them they can use their imaginations! Create a sense of urgency! For this exercise, they should not be concerned with their spelling, etc. They should just think and pour out their thoughts on paper. When the timer goes off at the end of five minutes, everyone must stop.

5. Give the students time to create their own state flags. After they have drawn their flag, have them write a few sentences explaining their symbolism and the other choices they made. (Let them know that these sentences will be displayed, along with their drawings, so they should write neatly, work to spell all the words correctly, and properly punctuate their sentences.)

   Attach their explanations to the bottom of their flags and display the flags around the classroom or in the hall for others to see.

Extension Activities

Have students evaluate the Northern Cheyenne flag against the principles of flag design. (Call up an image using an internet search.)

Background information: "The diamond shape [on the Northern Cheyenne flag] represents the Morning Star, which was also another tribal name of Chief Dull Knife. His descendants are called "The Morning Star People." … The Morning Star on the flag has a simple design but its message is the past and present survival of the people. The Morning Star will rise each day and bring light to the Cheyenne people now and to those yet to be born. The Northern Cheyenne identify themselves as the people of Chief Morning Star and Little Wolf, who led their people on a heartbreaking journey back from their forced placement in Oklahoma to their homelands in the great Northern Plains." (From *Crossing Boundaries Through Art: Seals of Montana Tribal Nations* (Helena, MT: Indian Education, Montana Office of Public Instruction, 2015), 49.)

Teaching note: You can find background information on other tribal seals and flags in *Crossing Boundaries Through Art* as well. However, if you choose to have students evaluate other tribal flags, note that they do not, for the most part, follow the principles of flag design as determined by the vexillologists.

continued

Emphasize that this does not mean they are bad flags—just as our Montana state flag is not a bad flag. Be aware of students' feelings and make sure that no one feels their tribal nation or identity is under attack.

Design a simple survey to collect quantitative data about the flag's design. **Note:** Questions should be "closed (yes/no) questions." For example: Do you like the Montana state flag? Do you think it should be changed? Have students survey family members and as a class, compile and analyze the data. You may wish to have students gather qualitative data as well by interviewing family members about how they feel about the flag. **Note:** These interview questions should be "open questions" that can't be answered by a simple yes or no.

Additional Resources

"The Commission's Report on the Guiding Principles on Flag Design" has more good information on flag design ("Vexillographic Best Practice") and includes a glossary of terms. http://nava.org/navanews/Commission-Report-Final-US.pdf

"Montana's Flag Takes Hits in Poll, but Still Beloved,"

by Phil Drake

Originally published in the *Great Falls Tribune,* June 10, 2015, excerpted and modified with permission of the author

It's 1898 and Col. Harry Clay Kessler is molding a group of volunteers into the 1st Montana Infantry to fight in the war against Spain.

The recruits at Fort William Henry Harrison are given a 45-star U.S. flag to carry as their regimental colors.

But that, however, is not good enough for Kessler, according to the montanakids.com website. He wants something special to distinguish Montana troops from the others and decides to carry a unique Montana silk flag, 60 inches by 44 inches embroidered with the state seal.

"Col. Kessler's Flag" left for the Philippines in 1898 and received a grand welcome upon its return in 1899 from the Spanish-American War.

By that time, members of the media (known then as "newspapers") tout the banner as the unofficial state flag. Kessler gives the flag to the governor, who displays it around Montana. Today, that flag is at the Montana Historical Society. According to the Montana Secretary of State's website, it became the official state flag in 1905.

When the design for Montana's state flag was adopted in 1905, it consisted of the State Seal on a blue background. In 1981 Rep. Mel Williams of Laurel sponsored legislation to add the word "Montana" above the State Seal. This was done to help identify Montana's flag when it was flying near other, similar flags.

According to the Secretary of State's website, the flag represents the state's history of mining and farming as it features a pick, shovel and plow. A sun rises over mountains, forests, and the Great Falls of the Missouri River. A ribbon contains the state motto "Gold and Silver" in Spanish.

This banner served as the model for Montana's state flag. Col. Kessler's original banner is now in the collection of the Montana Historical Society Museum, Catalog number X1942.02.01.

It's likely that Kessler would roll in his grave (which is in Pennsylvania) if he were to learn his beloved flag ranked 49th out of 50 in a recent online poll sponsored by a group that knows a thing or two about flag design. . . .

continued

The survey was sponsored by Ted Kaye, compiler of "Good Flag, Bad Flag," and the North American Vexillological Association, a group dedicated to the study of flags …

[What's wrong with the flag?] As it stands now, Montana's flag … gets lost in the pack, Kaye said.

"It's important to understand that half of the U.S. flags have a seal on a blue background," he said. "That means they are virtually indistinguishable from one another from a distance."

He said some states try to cure the problem by branding it.

"Instead of improving the design, they put their name on a flag," he said. "Can you imagine a country putting its name on a flag? Like France?"

"The important point is that a flag is a graphic symbol. That means if you have to put words on your flag, your symbolism has failed."

Ahem, that was one of the tweaks Montana made to its flag. In 1981, the Legislature passed a bill to put the word "Montana," or as Kaye likes to call it: "anatnoM" if it's flapping in the breeze, on its flag. That year, then-Secretary of State Jim Waltermire specified the colors. …

Then in 1985, lawmakers ruled the lettering be in Helvetica, to eliminate a variety of letter styles used on the flag.

Kaye described Montana's allegiance to its flag akin to wearing rose-colored glasses or pure, blind love.

"It's sort of like the mother of an ugly baby," he said. "She loves the baby because it's her own, and she is used to it."

He said a proprietary relationship and familiarity leads people to defend bad designs. …

His advice to Montana? What would he do if he were to design this state's flag?

"The most compelling imagery I think Montana could put on its flag is mountains, because that is your name, or something representing the big sky."

Only simple flags are effective, Kaye said, adding that he recommends trying to come up with a design by drawing in a 1-inch by 1½ inch box.

He said state seals were designed to be viewed on a piece of paper, close up, not moving. Flags are seen at a distance, on fabric, flapping on both sides. …

The rankings have left some people, well, rankled.

"I don't know who voted on this; obviously they weren't Montanans or we would have ranked higher than 49th," said Pat Verzani, the co-owner of Montana Flag and Pole in Helena.

She said the design of Montana's flag "makes sense," noting it has representations of agriculture, mining and even the Great Falls of Great Falls.

"If I was going to change the flag, I don't know how I would change it." …

If she were to do the rankings, Verzani said she would put Montana in the top 20.

"I think it's one of the prettier flags," she said.

For Tom Cook, public information officer with the Montanan Historical Society, it's not just about looks.

"I can't speak for the ranking, but the history of our state flag is a patriotic and important one," he said in an email. "A flag stands for something more than a beauty contest." …

"It's more than an image, it's part of Montana," he said. "When you are fighting under a flag and celebrating a flag, you look up at it and see more than the colors; you see your state."…

Lesson 4: Montana's State Song

Essential Understanding

Songs express emotions.

Activity Description

Students will learn to sing the state song, listen to the state lullaby and state ballad and then write their own song celebrating Montana.

Objectives

At the conclusion of the lesson students will have:

- Heard music about Montana.
- Described Montana in relation to the five senses.
- Translated their experiences and emotions about Montana into a simple song.
- Expressed themselves through lyrics.

Time

Two 50-minute class periods

Materials

Footlocker/User Guide Materials:

- Sheet Music
- Five Senses Chart, below
- "The Writing of 'Montana'," by Ellen Baumler, below

Teacher provided materials

- Computer with internet access and speakers.

Pre-Lesson Preparation

Read "The Writing of 'Montana'," by Ellen Baumler.

Make copies of the Five Senses Chart (one per student)

Make copies of the words to the Montana State Song, State Lullaby, and State Ballad

Locate YouTube videos of the official Montana State Song, State Lullaby, and State Ballad to share with your students.

Procedure

1. Show students the sheet music for "Montana" and share the words. Play a recording of the song and, as a class, sing along.
2. Tell them a little about how the song was created, using information provided in Ellen Baumler's essay, and/or read her essay together as a class.
3. Tell students that this is the official state song, but that Montana has lots of songs. It also has an official ballad (adopted in 1983) and an official lullaby (adopted in 2007).
4. Define "ballad" (a slow, romantic song). Then share the lyrics to "Montana Melody," by LeGrande Harvey and Carleen Harvey, and play the song.
5. Define "lullaby" (a song to put a baby to sleep). Then share the lyrics to "Montana Lullaby," by Ken Overcast, and play the song.
6. Draw a Five Senses Chart on the board. Listen to "Montana Melody" again (and/or read the lyrics)—but this time, have students underline on their lyrics sheet what the songwriters saw, heard, smelled, felt, or tasted that symbolized Montana to them. As a group, categorize these things on the board. (If the songs don't mention particular smells or tastes, ask students about the smells and tastes they evoke.)

continued

7. Repeat the exercise with "Montana Lullaby."
8. Distribute the Five Senses Chart. Tell students they are going to write their own song. Have them complete the chart. When they think of Montana, what do they see, hear, smell, feel, or taste?
9. Choose a melody and have students write lyrics, using this procedure detailed by performing and teaching artist David Ruch in "How to Write Songs with Your Students." https://daveruch.com/how-to-write-songs-with-your-students-for-the-non-musical/ (accessed December 21, 2017):
    - Brainstorm with your class to come up with a short list of common songs that everyone knows ... The songs will need to be familiar to you as well, since you'll be guiding the writing.
    - Jot down four or five of those song titles on the board, and then take a vote. Students get one vote each (with heads down—no peeking!); the song with the most votes wins.
    - Write the first verse of the song on the board and analyze the rhyming scheme (where do they occur?) and the approximate number of syllables in each line.
    - Use that as a template to start creating new lyrics around your topic.
10. Ask if anyone wants to share their song with the class.

Five Senses Chart

"Montana"

Composed in 1910

Lyrics by
Charles C. Cohan

and melody by
Joseph E. Howard

Verse 1

Tell me of that Treasure State

Story always new,

Tell of its beauties grand

And its hearts so true.

Mountains of sunset fire

The land I love the best

Let me grasp the hand of one

From out the golden West

Chorus

Montana, Montana, Glory of the West

Of all the states from coast to coast, You're easily the best

Montana, Montana, where skies are always blue

M-O-N-T-A-N-A, Montana I love you.

Verse 2

Each country has its flow'r;

Each one plays a part,

Each bloom brings a longing hope

To some lonely heart.

Bitterroot to me is dear

Growing in my land

Sing then that glorious air

The one I understand.

"Montana Melody"

Composed in 1983

Written by LeGrande and Carleen Harvey

Composed by LeGrande Harvey

Verse 1

I long to be in the places that I see
in the pictures of my dreams
Where there's mountains full of trees,
meadows carpeted in green
Silent snowfall, clear running streams.

Verse 2

Where the bear-grass blooms
In the spring-time of the year,
And the larch turn gold in the Fall
Where there's deer, elk and antelope
Beaver, bears and birds and the yippin'
coyotes serenade them all.

Chorus

Yes, there's no place like Montana,
the Big Sky country, my home.
A place to set my spirit free,
a Rocky Mountain melody,
These things are a part of me,
Montana, Montana, my home.

continued

Verse 3

Charlie Russell clouds paint sunsets in the West,
in colors of red, blue and gold.
Snow-capped peaks reach endless to the sky,
and the grain-fields with gentle breezes flow.

Verse 4

There's high mountain lakes, Missouri river breaks
and the open plains, where the buffalo used to roam.
It's a cowboy song, it's where Indians belong
God's country, my home sweet home.

Verse 5

I had a dream, of how Heaven's s'posed to be,
and when I die, that's where I want to go.
Cause there's mountains full of trees, meadows
carpeted in green, silent snowfall, clear running streams.

Chorus

Montana Lullaby

© 2000-2006 Bear Valley Music, reprinted with permission

Lyrics by Ken Overcast

Music by Ken Overcast and Wylie Gustafson

Interspersed yodel written by Wylie Gustafson

Verse 1

The sun's sinkin' low in the west and I know

Another day on the range has gone by

We'll bed down the strays, we've been gatherin' all day

With a Montana Lullaby

(interspersed with yodels throughout)

Chorus 1

In my blankets at night, with the moon shinin' bright

Dreams of my Jenny drift by

Breakin' of dawn, brings the Meadowlark's song

A Montana Lullaby

Verse 2

From the wide rollin' plains, cross the Rockies blue range

Wherever the proud eagle flies

A lone coyote croons to a full lover's moon

A Montana Lullaby

Chorus 2

Jenny's at home, waitin' alone

As the long roundup evenin's drag by

The wind in the pines, whispers she's mine

With a Montana Lullaby

"The Writing of 'Montana'"

by Ellen Baumler

"MONTANA"

Lyrics by Charles C. Cohan

Melody by Joseph E. Howard

Refrain:

Montana, Montana, Glory of the West

Of all the states from coast to coast,

You're easily the best

Montana, Montana, Where skies are always blue

MONTANA, Montana, I love you.

Although this story takes place partly in Helena, most of the credit must ultimately go to Butte. It was late September, 1910, and local theatergoers in the Mining City looked forward to a stellar performance of the hit musical comedy "The Goddess of Liberty" at the Broadway Theater. The Mort H. Singer production, on national tour after a phenomenal year-long run at Chicago's Princess Theater, featured "superb scenic and electrical effects," a chorus of 75, and leading musical comedy star and composer Joseph E. Howard. Rave reviews and great anticipation by ticketholders preceded the musical company as it made its way west. No one could have predicted that in its wake in Butte, an unlikely event would lead to the creation of one of the Treasure State's all-time favorite symbols.

Butte offered two performances of "The Goddess of Liberty" on September 26 and 27. The company then was to move on to Helena for performances on the 29th and 30th. The first performance in Butte would prove to be special because composer and star Joe Howard paid Butte a very high compliment. Charmed by the "whole-souled and spontaneous manner" in which he was received, Howard debuted his latest composition, "Just a Little Smile," for the Butte audience. After the performance, Howard made a curtain speech explaining that his manager had dared him to write something that could attain the popularity of a song in a rival musical, "Madame Sherry." The manager promised Howard a $5,000 bonus. So Howard took up the challenge and composed the song on the road. He wired it to his manager who sent back a message that there had been a mistake. No such sum would be paid for the song. Howard told the Butte audience he didn't care because the song was of more personal than monetary value. "If Butte likes it," declared Howard, "I know it will go."

Butte took Howard in with its own special and unique enthusiasm. So charmed was he by his Butte welcome that Howard told a reporter, "The reception given me tonight I never will forget. It really will be an inspiration to me all my life." In fact, Howard was at the time grief-stricken over the very recent death of his wife, actress Mabel Barrison, who had lost a long battle with tuberculosis. Her death occurred as the company was on short hiatus before the "Goddess of Liberty" opened in Kansas City, and the dedicated Howard hardly missed a performance. Whether or not the audience was aware of his personal tragedy remains a mystery, but Howard's vulnerability and loneliness at this particular time, which he admitted freely in his autobiography, undoubtedly contributed to his heartfelt acceptance of Butte's hospitality.

After the performance, Mrs. E. Creighton Largey hosted a small party for Howard, to

continued

whom she had been introduced in Chicago. Mrs. Largey was married to the son of Butte's fourth copper king, the late and wealthy Patrick Largey. The small gathering at the Largey home included *Butte Miner* city editor Charles C. Cohan. Mrs. Largey joked with Howard that he had slighted her adopted state by including a song about Illinois in "The Goddess of Liberty" instead of one about Montana. Howard responded that there were no songs about Montana. "So why don't you write one?" asked the hostess. And thus Howard, who evidently couldn't resist such a challenge, was hooked. Charles Cohan, the only professional writer present, was designated the lyricist. The guests left the pair alone. Cohan began scribbling on the back of an envelope, and Howard began humming and pacing the floor. When Mrs. Largey returned a half hour later, the composition was finished. Before the evening's end, everyone had joined in singing the catchy refrain.

The following day the troupe moved to Helena and Howard's musical arranger whipped up a suitable version that the company rehearsed with the Black Eagle Band of Great Falls, in town to perform at the state fair. "Montana" made its public debut to a full house at the Helena Theater (formerly the Ming Opera House) on Jackson Street September 29 as a musical number in the "The Goddess of Liberty." The *Daily Herald* reported the next morning that the audience "quickly caught the spirit of the song and Howard was compelled to repeat it 12 times" before the production could continue.

Montana Governor Edwin L. Norris was in the audience, and requested a meeting with Howard and Cohan to discuss official approval of "Montana" as the state song. The two told the governor that they would be pleased with such acclaim, but that they would like to donate the proceeds to a worthy charity. Someone present at the meeting suggested the Montana Children's Home (now Shodair Hospital), and all agreed. That next afternoon, Howard and the Black Eagle Band delighted a crowd of 10,000 with their performance of "Montana" at the Montana State Fair. Great Northern Railroad president James J. Hill ordered 100 copies of the music, and these were the first proceeds the hospital realized. Over the years, many requests for the music have been accompanied by more sizable donations. Humorist Will Rogers is said to have paid for his copy of "Montana" with a hundred dollar bill. Although the copyright has now expired, Shodair Hospital continues to distribute the sheet music for "Montana" upon request.

The *Butte Miner* prophetically claimed on the eve of the composition of "Montana" that Joe Howard never wrote a song that wasn't full of sparkle and dash. His music "had all the qualities of harmony and grace and ... that sweet, lingering melody that always haunts the memory...." Among Howard's 35 musical comedies and 500 popular songs are "A Boy's Best Friend is his Mother," "Shuffle Off to Buffalo" and "I Wonder Who's Kissing Her Now," the latter of which sold 3 million copies and became the premise for a biographical movie. Howard also gained notoriety as the first newsreel cameraman and the recorder of the funeral of President William McKinley who was assassinated in 1901. Howard later made a fortune with his Sunday night radio program "The Gay Nineties."

Charlie Cohan, editor-turned-onetime-lyricist, was originally from Anaconda. He married Helenan Pearl Pozanski and went on to write *Born of the Crucible,* a novel about Butte published in 1919 in the aftermath of the infamous murder of Frank Little. Cohan moved away from his native state in 1927 to join the staff of the *Los Angeles Times,* where he was an editor until his retirement in 1959. He died at 85 in 1969. According to writer Howard Kegley, Cohan and Howard saw each other only one other time years later. The unlikely pair had a good laugh over their happenstance partnership, but both expressed satisfaction that the proceeds of their odd collaboration continued to benefit Montana children.

continued

It was not until 1945 that the Montana Legislature and Governor Sam Ford made formal the adoption of Howard and Cohan's "Montana" as the state song. The Twenty-Ninth Session of the Montana Legislature made it official in Joint House Resolution No. 5, which reads in part, "Whereas, the song has by long usage by the citizens of Montana of all ages, become popularly recognized throughout the state as the song of all the people of Montana, and its words and music are dear to the hearts of Montana Citizens, and have been carried throughout the earth wherever Montanans gather ... is hereby adopted as the official state song of the State of Montana."

"Montana" was unequivocally inspired by the state's hospitality. Following a warm welcome and thanks to Howard's inability to resist a dare, it was conceived in the music room of a wealthy Butte family to be born to thunderous applause and instant fame on a Helena stage. Throughout its life, "Montana" never brought its progenitors a penny, yet the tuneful offspring has benefited Montana children and delighted generations of Montanans. The day after its Helena debut, the *Helena Daily Herald* proclaimed the song a monster hit and predicted that it would "linger in the minds of its hearers for a long time." And so it has.

Copies of the music can be obtained through Shodair Hospital, Box 5539, Helena, MT 59604.

Lesson 5: Montana's State Animal

Essential Understandings

Knowledge about behavior and habitat can help people successfully share the earth with other creatures. Culture and experience influence people's perspectives on the world and the creatures within it.

Activity Description

Students will learn to identify grizzly bears and how to be safe around all bears. They will learn how the grizzly became our state symbol. They will also read short pieces that reveal two historical figures' attitudes toward grizzlies: Chief Plenty Coups and Captain Meriwether Lewis, and, after reading, contrast their perspectives. Finally, they will write informally about whether they agree that grizzlies are the best state animal for Montana.

Objectives

At the conclusion of the lesson students will have:

- Thought (and written about) which animal they think best symbolizes Montana.
- Learned about bear safety and identification.
- Read about historic bear encounters.
- Compared different perspectives on grizzly bears.

Time

Two to three 50-minute class periods

Materials

Footlocker/User Guide Materials:

- Lesson 5 PowerPoint: "Montana's State Animal," available on the footlocker flash drive or at http://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson5.pptx.
- Reading handouts (below)
- Bear fur and footprint (optional)
- *Staying Safe around Bears Coloring & Activity Book* (optional)

Classroom Materials

- Computers and internet access for students
- Pen/pencil and paper
- Chart paper and markers

Pre-Lesson Preparation

Arrange to project the Write Your Way In and Out prompts and Part 1 of "Montana's State Animal" PowerPoint

Review readings and make copies of reading handouts.

Review and choose the annotation strategies you would like your students to use. (If you don't already have an annotation guide, you might find this one, created by New York educator Mary Blow, useful: https://www.scholastic.com/content/dam/teachers/blogs/mary-blow/migrated-files/annotating_the_text_-_student_notes.pdf.)

Procedure

Introduction: Write Your Way In (3 minutes)

1. Provide students with the following prompt: Which animal do you think should be Montana's state animal, and why?
2. Project slide 2 of the PowerPoint.

   Ask students to take out a pencil and their writing journals, or a sheet of paper, and date it. Then, let them know that they will be thinki hard and writing for three minutes nonstop, as soon as you say, "Go!" You will be using a timer and they

continued

must keep on going, not lifting their pencils until the three minutes are up. If they are stuck for what to write next, encourage them to write, "I am thinking!" until they think of more to say. Create a sense of urgency! For this exercise, they should not be concerned with their spelling, etc. They should just think and pour out their thoughts on paper. When the timer goes off at the end of three minutes, tell students to draw a line where they stopped.

2. Ask students to share the animals they chose. Project slide 3. Ask: Does anyone know what Montana's state animal is?
3. Project slide 4: Let them know that it is the grizzly bear and that as a class you will be learning more about grizzlies—both today and historically—including how to recognize a grizzly and how to stay safe around bears.

Part 1: Learning about Grizzly Bears

1. Share the rest of the PowerPoint with the class, pausing at slide 21. (The last slide has "write your way out" instructions. It should be used after students complete Part 3 of the lesson.)
2. Challenge students. Can they pass Montana Fish, Wildlife, and Parks Bear ID test? Allow them to take the online test: http://fwp.mt.gov/education/hunter/bearID/.

Part 2: Comparing Perspectives

1. Divide students into groups of four (mixed reading abilities).
2. Distribute two large pieces of butcher paper, markers, and a first reading handout to each group: Meriwether Lewis on Grizzly Bears, Part 1.
3. Let students know this is the first of three pieces they will be reading about grizzly bears. You are going to work together as a class on the first reading, but the next two they will work on in their small groups.
4. Project the document using a document projector or computer. Model the process by reading the document straight through the first time without stopping and then going back and rereading it, annotating the document while doing a "think aloud." **Note:** There are some vocabulary words that will likely be unfamiliar to your students. Figuring out these vocabulary words can be part of the annotation process and/or the discussion, but providing ways to cope with unfamiliar vocabulary should be part of your "think aloud."
5. Discuss the reading as a class:
   - Are there things about this reading that confused you? (Provide clarification and background information as needed.)
   - According to Lewis, how was the bear different from a black bear?
   - According to Lewis, how did Indians feel about grizzly bears? Did he think the Indians were right?
   - Were there words that were new to you from this reading? What does "formidable" mean? Do you think that is a good word to describe a grizzly?
6. Tell students that for all three readings, they are going to be creating story maps that summarize the reading using pictures and/or a very few words. Emphasize that this is not an art assignment. Let them know they can use symbols, pictures, arrows (to show the order of events), and/or words—but if they use words they should use as few as possible.
7. Model your expectations by creating the first story map together. Using the board, work as a class to create a story map summarizing the first reading. (Use stick figures to reemphasize that this is not an art assignment.) Then ask for a student volunteer to use the story map to present a summary of the first reading to his or her classmates.
8. Let students know that they are going to repeat this exercise in their small groups.

continued

Hand out the second reading: Lewis and Clark on Grizzly Bears, Part 2. Tell them that first they will read the piece silently to themselves. Then they will read it a second time and annotate it, just as you did as a class with the first reading. After they have read the piece individually, they will discuss it as a group and work together to visually present what they read, using symbols and very few words. Remind them that their story map should SUMMARIZE the event Lewis describes—and that they should be able to use it to explain the story.

9. Have a few groups share their story maps with the class.

10. As a class, discuss the reading:

    - Are there things about this reading that confused you? (Provide clarification and background information as needed.)
    - A few weeks earlier, Lewis wrote that Indians were scared of grizzlies but that he did not think they were that dangerous. Do you think he still believed that?
    - What words did Lewis use to describe grizzly bears? What additional words would best describe his attitude toward the bear?

11. Repeat the process one last time with Handout 3: Plenty Coups on Grizzly Bears. First have students read silently, then have them reread and annotate, and finally have them discuss the reading as a group and create charts summarizing the event.

12. Choose a few groups that have not yet presented to present their story maps summarizing the reading.

As a class, discuss the reading:

- What did his grandfather want Plenty Coups to do with the bear's heart?
- What does Plenty Coups think about grizzlies?
- What qualities do grizzly bears have that Plenty Coups admired?
- How does saying "I have the heart of a grizzly" help Plenty Coups when there is trouble to face?
- Do you think that Plenty Coups' ideas about grizzlies are representative of Crow culture and tribal ideas about grizzlies or are they just his personal opinions?

13. Let the class know that you are going to compare Plenty Coups' and Lewis's ideas about grizzlies. Ask: What words did Lewis use to describe grizzlies? (furious, formidable)

    What words did Plenty Coups use to describe grizzlies? (self-mastery, cool-headed)

14. Draw a Venn diagram on the board using two circles. Label it: Attitudes about Grizzlies. Label one circle Plenty Coups and the other circle Lewis. As a class, complete the Venn diagram. Where do Plenty Coups' and Lewis's attitudes overlap? Where do they differ?

15. Discuss: How might the different ideas that Lewis and Plenty Coups had about grizzlies reflect their different cultures?

Part 3: Choosing Montana's State Animal

1. Hand out copies of "How the Grizzly Bear Became Montana's State Animal." Tell students that you are going to read the narrative out loud, while they follow along. Let them know that you expect them all to chime in with the next word or phrase in the sentence every time you pause.

2. As you read, pause before an important word or phrase every sentence or two, so students can read those words. Ideally, the words you have them read will be the new vocabulary. The first time these vocabulary words appear, read them aloud, so students can hear how to pronounce them. The next time the word appears, have the students read that word.

continued

3. Discuss the reading:
   - What is one reason people thought the grizzly would be a good choice for state animal?
   - What is one reason people did NOT think the grizzly would be a good choice for state animal?
4. Bring up earlier readings: Do you think Chief Plenty Coups would approve of the grizzly bear for our state animal? Why or why not? How about Captain Meriwether Lewis?

Conclusion: Write Your Way Out (3 minutes)

1. Tell students: Now it's time for them to decide what they think. Ask them to retrieve their "Write Your Way In" essays. Tell them they will be writing below the line they drew earlier for this next three-minute, nonstop writing period.
2. Tell students that they are going to do another quick write, writing nonstop from the moment you say "Go!" until the timer goes off.
3. Project PowerPoint slide 21 with the Write Your Way Out prompts:
   - Now that you know more about grizzly bears, do you think they are a good choice for Montana's state animal?
   - If you chose a different animal earlier, have you changed your mind or do you still think it would be a better choice to represent Montana? Why?

Extension Activities

Have students complete one of the coloring or activity pages you have copied from the *Staying Safe around Bears Coloring & Activity Book*.

Read *Broken Shoulder (How the Big Dipper and North Star Came to Be)* and *The Bear Tepee,* both available through the Indian Reading Series (Find links below in Part IV. Resources and Reference Materials: Additional Resources). Use the accompanying Teacher Guided Activities. Discuss the new perspectives on grizzly bears these provide.

Explore additional historical encounters with grizzly bears or more recent debates over removing the grizzly bear from the list of Threatened or Endangered Species.

Reading Handout 1: Meriwether Lewis on Grizzly Bears, Part 1

Quotations are taken from the Lewis and Clark journals (spelling and punctuation corrected to make it easier to read).

Meriwether Lewis was one of the leaders of the Lewis and Clark Expedition that crossed the continent in 1804-1806. As they traveled, Lewis kept a journal. This information comes from one of his journal entries.

On April 29, 1805, Meriwether Lewis left camp with one of his men. Walking along the shore, they shot and wounded two grizzly bears. In his journal he wrote, "One of them made his escape. The other, after my firing on him, pursued [chased] me seventy or eighty yards, but fortunately had been so badly wounded that he was unable to pursue so closely as to prevent my charging [reloading] my gun; we again repeated our fire and killed him."

Lewis then described the bear. It looked different than the black bear he was familiar with. It also behaved differently. He wrote: "It is a much more furious [angry] and formidable [challenging] animal, and will frequently pursue the hunter when wounded. It is astonishing to see the wounds they will bear before they can be put to death."

Lewis first learned about grizzlies from talking to Indian hunters, but this was his first close encounter with a grizzly bear. He wrote, "The Indians may well fear this animal equipped as they generally are with their bows and arrows … but in the hands of skillful riflemen they are by no means as formidable or dangerous as they have been represented."

Source

Meriwether Lewis, William Clark, et al., April 29, 1805 entry in *The Journals of the Lewis and Clark Expedition,* ed. Gary Moulton (Lincoln, NE: University of Nebraska Press / University of Nebraska-Lincoln Libraries-Electronic Text Center, 2005), https://lewisandclarkjournals.unl.edu/item/lc.jrn.1805-04-29

Reading Handout 2: Lewis and Clark on Grizzly Bears, Part 2

Quotations taken from the Lewis and Clark journals (spelling and punctuation corrected to make it easier to read.)

On May 14, 1805, men from the Lewis and Clark Expedition had another encounter with a grizzly bear (Lewis called it a brown bear in his journal). Here is how he described what happened:

"In the evening the men in two of the rear canoes discovered a large brown bear lying in the open grounds about 300 paces from the river, and six of them went out to attack him. All good hunters, they took the advantage of a small eminence [hill] which concealed [hid] them and got within 40 paces of him unperceived [unseen]. Two of them reserved their fire … the four others fired nearly at the same time and put each his bullet through him. Two of the balls passed through … his lungs.

"In an instant this monster ran at them with open mouth. The two who had reserved their fires discharged their pieces [fired their guns] at him as he came towards them. Both of them struck him, one only slightly and the other fortunately broke his shoulder. This however only retarded [slowed] his motion for a moment only.

The men unable to reload their guns took to flight. The bear pursued and had very nearly overtaken them before they reached the river."

Two of the men got into a canoe. The other four hid in the willows and reloaded their guns. They shot the bear several more times, "but the guns served only to direct the bear to them."

The bear chased them "so close that they were obliged to throw aside their guns and pouches and throw themselves into the river although the bank was nearly twenty feet perpendicular; so enraged was this animal that he plunged into the river only a few feet behind the second man he had compelled take refuge in the water, when one of those who still remained on shore shot him through the head and finally killed him…"

Source

Meriwether Lewis, William Clark, et al., May 14, 1805 entry in *The Journals of the Lewis and Clark Expedition,* ed. Gary Moulton (Lincoln, NE: University of Nebraska Press / University of Nebraska-Lincoln Libraries-Electronic Text Center, 2005), https://lewisandclarkjournals.unl.edu/item/lc.jrn.1805-05-14 (Accessed September 10, 2018)

Reading Handout 3: Plenty Coups on Grizzly Bears

Quotations taken from *Plenty-Coups: Chief of the Crows.*

Plenty Coups was a Crow Indian chief. He told this story to author Frank Linderman, who wrote it down.

"One morning after I was eight years old we were called together by my grandfather. He had killed a grizzly bear the day before, and when we gathered near him I saw that he held the grizzly's heart in his hand. We all knew well what was expected of us, since every Crow warrior has eaten some of the heart of the grizzly bear, so that he may truthfully say, 'I have the heart of a grizzly!'" I say this, even to this day, when there is trouble to face, and the words help me to keep my head. They clear my mind, make me suddenly calm. … I felt myself growing stronger, more self-reliant, and cool from the day I ate a piece of that bear's heart."

Linderman explains: "The grizzly bear is 'always in his right mind,' cool-headed, and ready for instant combat against any odds, even when roused from sleep. Therefore, to eat of the raw heart of the grizzly bear is to obtain self-mastery [self control], the greatest of human attributes."

Source

Linderman, Frank B. *Plenty-Coups: Chief of the Crows.* Lincoln, NE, 1962. Pages 25-26.

Reading Handout 4: How the Grizzly Bear Became Montana's State Animal

The Montana Secretary of State is in charge of elections. In 1982, the Secretary of State was Jim Waltermire. He wanted to give Montana schoolchildren a lesson in how government works by letting them choose the state's official animal.

More than 55,000 students in 425 schools participated. They nominated 74 different animals native to Montana. Students conducted primary and general elections, complete with posters, voter rosters, speeches, and campaign buttons and bumper stickers.

When students finally voted, the grizzly bear won by a two-to-one margin over the runner-up, the elk.

In 1983, legislators acknowledged the students' efforts and proposed a bill naming the grizzly bear the state animal.

All bills go through hearings, where people can testify (tell the legislators what they think about a bill). More than 1,000 schoolchildren attended the two hearings on the Grizzly Bill. Some of them testified. The arguments for naming the grizzly as Montana's state animal included:

- "Montana is really the only one of the lower forty-eight states that has a grizzly population. That makes the grizzly unique to Montana."
- "By its very size, strength, and beauty, the grizzly represents an awesome spectacle. Montana has the same characteristics."
- "It has historic significance. Lewis and Clark made numerous references to grizzly spottings and episodes in their journals."

Among the arguments against the grizzly:

- "The grizzly by its very nature is not a friendly animal. Montanans, on the other hand, are friendly."

The Grizzly Bill passed in both houses, and on April 7, 1983, Governor Ted Schwinden signed the bill into law.

Source

Text adapted from "State Animal Grizzly Bear." Facts and Figures: MontanaKids.com. http://montanakids.com/facts_and_figures/state_symbols/State_Animal_Grizzly_Bear.htm (accessed November 22, 2017)

Lesson 6: Gift of the Bitterroot

Essential Understandings

We can learn from traditional stories. Even though life is different now than in the past, many Montana Indians continue to value the beliefs, values, stories, and practices of their ancestors.

Activity Description

Students will listen to a traditional story, learn about the importance of bitterroot to the Salish and Pend d'Oreille people historically and today, and create a Venn diagram comparing past and present.

Objectives

At the conclusion of the lesson students will have:

- Learned more about the Montana state flower and its importance to the Salish and Pend d'Oreille people.
- Practiced listening and comprehending narrative and informational text.
- Made and tested predictions.
- Made comparisons using a Venn diagram.

Time

One to two 50-minute class periods

Materials

Footlocker/User Guide Materials:

- *Gift of the Bitterroot* (Note: The Indian Land Tenure Foundation has posted the story online at https://www.lessonsofourland.org/wp-content/uploads/2017/08/Gift-of-the-Bitterroot.pdf, so you can access it that way as well and use it to project the illustrations. To access the material, you may need to create an account at https://www.lessonsofourland.org/, but as of 2018, accounts were free.)
- DVD *The Story of the Bitterroot* (directed by Steve Slocomb, produced by Looking Glass Films, 2005). (Note: Copies of this DVD were donated to all Montana public school libraries by the Indian Education Division of the Montana Office of Public Instruction. The material is also available on YouTube.)
- Laminated image of bitterroot plant
- Lesson 6 PowerPoint: "Salish and Pend d'Oreille Lands," available on flash drive and also at https://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson6.pptx.
- Story Map (below, optional)

Classroom Materials:

- Computer with internet access and projector.
- Globe, U.S. and Montana maps

Pre-Lesson Preparation

Become familiar with the story and its illustrations so you can tell the story rather than read it.

Prepare to project "When We Were Children" and "Gathering" from the DVD *The Story of the Bitterroot* (directed by Steve Slocomb, produced by Looking Glass Films, 2005).

Teaching Note: Be aware that Western genre labels for stories coming from an oral tradition have connotations that can be interpreted as negative. For example, it would be inaccurate and possibly demeaning to refer to traditional stories as fables, myths, or tall tales. They are often called legends, but even that term does not capture the essence of these stories coming out of an oral tradition. A good rule of thumb is to use language that is respectful of the

continued

potentially sacred nature of these stories to American Indian peoples. Therefore, treat them in class the way you might expect stories from the Bible to be treated—with respect. Here and elsewhere, if you don't know enough about a story to exclude it from the oral traditions and clearly use a different genre label, consider using the neutral term "traditional story." This avoids making assumptions about belief systems that are often known only to those within a particular cultural group. Be careful of the overarching categories of fiction and non-fiction. To an individual within the culture, these stories are rarely, if ever, considered fiction.

Procedure

Part 1

1. Pass around the laminated image. Tell students it is called a bitterroot. Ask: How do you think this was used? How do you think it got its name? Record their predictions on the board.
2. Introduce the book: Today we will learn if any of our predictions are accurate by reading a traditional story from the Salish and Pend d'Oreille people.
3. Using your classroom's globe, U.S., and Montana maps, find your location with the students and then point out
   - The location of the Flathead Reservation today and
   - The aboriginal territory of the Salish and Pend d'Oreille before the signing of the 1855 Hellgate Treaty. (The Salish have place names for sites as far north as Chief Mountain and as far east as Three Forks. You can use these as a guide to show how far north and east their traditional use area extended. Traditional use areas also extended to the south of the Bitterroot Valley and into eastern Washington.)
4. Project the PowerPoint slides, which show the aboriginal (original) territories of the Salish and Pend d'Oreille (slide 1) and the Flathead reservation today (slide 2). Compare where they live now (the reservation) to the larger territory they lived in at the time the story began to be told among their people, long ago (slide 3).
5. Read the entire story without interruption, stopping before the afterword.
6. Refer students back to their predictions. Which turned out to be correct?
7. Ask: What more do we now know about this special plant?
8. Review the story: What was happening to the people before the bitterroot was created? Whose tears created the bitterroot? What were the two things that the bitterroot provided to "comfort" the people in their time of need?

Optional: Have students create a story map and ask them to retell the story using their own words and pictures.

Part 2

1. Tell students they are going to learn more about the bitterroot from informational text published in the afterword. (Let them know that "informational text" provides factual information.) Read the afterword, which describes how the Salish and Pend d'Oreille greet, harvest, prepare, and celebrate the return of the bitterroot each year.
2. Ask students: How does your family prepare for special visitors? (Common responses will be cleaning, making up a guest bed, or perhaps preparing a special meal.) How did the Salish and Pend d'Oreille prepare for the bitterroot? (Special meal, greeting, prayers.)
3. During the time of the visit of their guest, the bitterroot, what did the people do? (Devoted all their time to gathering the root, once the feast and celebration were completed.)

continued

4. What do you think they do now? (They still conduct the greeting, feast, and gathering each year.)

5. Using sections of the DVD, *Story of the Bitterroot* (distributed by OPI to all school libraries in 2006 and available on YouTube), conduct a comparison study of then and now. To retain focus and avoid confusion, use only these selected segments.

   a. First, go to "When We Were Children" (Section E on the menu or Title 6 on the DVD) and scroll to time mark 1:18 in the DVD. Play the remainder of this section on times past (just under 10 minutes). This material is listed as "Part 5" on YouTube.

   b. Next, go to the section titled "Gathering" (Section G on the menu or Title 8), and watch the entire 7-minute section. This material is listed as "Part 7" on YouTube.

6. Ask students the following questions and record their answers on the board.

   - Based on the book *The Gift of the Bitterroot* and the video clips we have seen, what was it like gathering bitterroot in the past? (women dig, camp, travel to the bitterroot)
   - Where did they go to dig? (Missoula Valley, Bitterroot Valley, all places where the plant was found)
   - For how long? (digging time lasted about 2 weeks)
   - How were the roots preserved? (dried in the sun)
   - What is it like today? (women still watch for and greet the bitterroot, but men dig as well, shorter time, not encampment, small areas where plant is found, development and private landownership has caused loss of access and loss of the bitterroot)
   - What are the differences? (Go to Camas Prairie, gathering is brief as the tribes don't rely on the bitterroot to survive)
   - What things are the same? (still hold feast, greet and pray for the plant and for health and good fortune in the coming year, teach the children, some elders still use the bitterroot as food source, maintain norms for respect, women still central to gathering, greeting, and caring for bitterroot)

7. Draw a Venn diagram on the board. Label it "Gathering Bitterroot." Label one circle "Then" and the other circle "Now". Work with students to place the details they generated in discussion in the "Then" circle, "Now" circle, or overlapping area (for those things that are true both then and now).

Extension Activities

This lesson was adapted and excerpted from "Exploring Traditional and Contemporary Relationships of the Salish and Pend d'Oreille People to the Bitterroot Through *The Gift of the Bitterroot* as told by Johnny Arlee – Model Literacy Lessons Incorporating *Indian Education for All in the Elementary Grades,* by Tammy Elser. For the full weeklong unit, see *Indian Education for All Model Teaching Units: Language Arts – Elementary Level, Volume Two,* developed by the Office of Public Instruction, Indian Education for All, Revised 2013, http://opi.mt.gov/Portals/182/Page%20Files/Indian%20Education/Language%20Arts/Elementary%20Volume%202%20All.pdf (accessed November 24, 2017)

Show the five-minute excerpt, "Botany," from the DVD *The Story of the Bitterroot* (directed by Steve Slocomb, produced by Looking Glass Films, 2005). Copies of this DVD were donated to all Montana public school libraries by the Indian Education Division of the Montana Office of Public Instruction. The material is also available on YouTube.

Listen to Jennifer Greene's poem "Bitterroot Woman," track 10 of the audio recording *Heart of the Bitterroot,* 2008. Copies of this CD were donated to all Montana public school libraries by the Indian Education Division of the Montana Office of Public Instruction.

Story Map

Picture Panels **Writing Panels**

In the beginning . . .

NEXT

THEN

FINALLY

Lesson 7: The Montana State Fossil: A Lesson in Civic Engagement

Essential Understandings

Citizens have a responsibility to participate in civic life. The United States and all state governments have a process for determining the will of the people. Many dinosaurs lived in Montana long ago. Montana has been a very important center for paleontology.

Activity Description

Students will conduct basic research on Montana dinosaurs, then participate in a political campaign and a class election to select a class fossil. They will compare their choice with Montana's state fossil and learn more about the Maiasaurus.

Objectives

At the conclusion of the lesson students will have:

- Learned about some of the dinosaurs that once lived in Montana.
- Learned about the electoral process.
- Developed skills associated with civic responsibility.
- Learned about one of Montana's state symbols.

Time

Three to five 50-minute class periods

Materials

Footlocker/User Guide Materials:

- Lesson 7 PowerPoint: "Dinosaurs of Montana," available on flash drive and also at https://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson7.pptx.
- Dinosaur images
- Dinosaur Trail passports
- *Maia: A Dinosaur Grows Up* (book, optional)
- Dinosaurs and You activity sheets, (below, optional), one for each student
- List of Montana Dinosaurs/Candidates for State Fossil
- Fossil Research Graphic Organizer, one for each student
- Narrative Paragraph/Speech Planner, one for each student
- Voter Registration Card, one for each student
- Primary and Final Ballots, one for each student
- Campaign Roles and Duties (print or project)
- Poster Graphic Organizer, one for each student
- Primary and Final Ballot Tally Sheets

Classroom Materials:

- Computer with internet access and projector
- Books on dinosaurs from your school library

Part 1: Introduction and Research

Pre-Lesson Preparation

Review lesson plan.

continued

Divide students into ten mixed-ability groups of two to three students.

Cut list of dinosaur names into strips, so students can select the fossil they will be focusing on from a hat.

Gather materials (books from the library and/or computers with internet access)

Make copies of the Fossil Research Graphic Organizer, below (one per group or one per student).

Procedure

1. Define "fossil" (the remains of an animal or plant that lived millions of years ago, or the shape of one of these plants or animals that is now preserved in rock.)
2. Let students know that Montana is home to some of the most important fossil finds in the world.
3. Tell them that they are going to vote on a class fossil. But before they can do so, they need to learn a little more about fossils that have been found in Montana.
4. Show the "Dinosaurs of Montana" PowerPoint, which quickly surveys some of Montana's most spectacular fossil finds.
5. Randomly assign students a fossil to research by having them pick the name of a dinosaur from the hat.
6. Have students work in small groups to research their fossil/dinosaur using the internet and/or books from your school library and then complete the graphic organizer. Research can be done in small groups or individually before sharing with their small group.

Teaching Note: It is never too early to start teaching students the importance of citing where information comes from. (It helps readers judge the quality of the information.) When having younger students complete the citation, you may want them simply to list the title of the book and/or the URL of the webpage that they consulted. Older students can type the web address into a citation generator and then paste it into a document to be printed out and attached to their graphic organizer.

Part 2A: Conducting a Campaign: Speech Writing

Pre-Lesson Preparation

Print out Narrative Paragraph/Speech Planner for each student.

Procedure

Remind students that they will be campaigning to have the fossil they researched be elected as the class fossil. Using the Research Graphic Organizer and their Speech Planner, have students write a persuasive paragraph to read aloud to their classmates. Their goal is to persuade classmates to support their fossil in the paleological campaign.

Part 2B: Conducting an Election

Pre-Lesson Preparation

Print the Campaign Roles and Duties handout (or have ready to project).

Print one for each student: Voter Registration Card, Primary Ballot, Poster Graphic Organizer.

Create model poster (optional).

Print three copies of the Primary Ballot Tally Sheet.

Find the images of dinosaurs provided by the footlocker. If you are not using the physical footlocker, print the images from the PowerPoint.

Procedure

1. Explain how an election campaign works, reviewing the roles on the Campaign Roles and Duties handout. Then assign campaign roles and duties as they've been modified for the classroom.

continued

2. Hang pictures of the different dinosaurs/ fossils around the room.
3. Have precinct leaders distribute voter registration material and have students "register" to vote.
4. Ask students to stand by their fossil and read their paragraph. When everyone has read their paragraph, have the precinct leaders distribute the primary ballots. Each student will vote for three fossils.
5. Have election judges conduct the primary election, checking voter registration and collecting ballots. Election judges will turn the ballots over to the teacher.
6. Assign courthouse workers, election judges, and observers into three groups of three to count the ballots. Each group should have one observer, one courthouse official, and one election judge. Divide the ballots among the three groups along with a Primary Ballot Tally Sheet to use to count the ballots. Once each group has counted its ballots, have it report its totals to the class. Add the votes for each fossil together. Once the votes are counted, choose the top two or three (depending if there are ties for the count).
7. Review the fossil candidates that won the primary election. Students must now decide which fossil they want to support.
8. Have students create campaign material for their chosen candidate. Hand out the Poster Graphic Organizer and model what a completed poster would look like. This can be assigned as homework. As students complete their posters, have members of the campaign committees and the campaign coordinators hang them up in the halls for people to read and talk about.

Part 4: Final Vote and Lesson Wrap-up

Pre-Lesson Preparation

Prepare and print Final Ballots and Final Ballot Tally Sheet.

Procedure

1. Conduct the final election.
2. Talk about how the election process students engaged in is similar to how we elect political candidates.
3. Tell them that just as their class now has an official class fossil, Montana has an official state fossil.
4. Tell them that the process for selecting the state fossil was a little different from how they selected the class fossil. Instead of a vote by the people, it was chosen by legislators, who were elected by the people.
5. Ask: Can they guess which fossil actually is the Montana state fossil? Let them know that in 1985, the duck-billed dinosaur (*Maiasaura peeblesorum)* was named state fossil.

   It was chosen because of a very important fossil find at Egg Mountain, near Choteau, Montana. Fossil hunter Marion Brandvold found some dinosaur bones at the site in 1977. She showed them to paleontologist Jack Horner. When Horner and his team excavated the site, they found fourteen Maiasaur nests as well as skeletons of all ages of dinosaurs: babies, youngsters, and adults. This discovery changed the way scientists thought about dinosaurs because the nests were evidence that Maiasaurs cared for their young, like birds do. Before this find, everyone assumed that dinosaurs were more like reptiles, who lay eggs but do not care for their young.

continued

In years since, Egg Mountain has yielded the largest collection of "dinosaur eggs, embryos, and baby skeletons in the Western Hemisphere" and "one of the largest concentrations of adult dinosaur skeletons found in the world." ("Egg Mountain, the Two Medicine, and the Caring Mother Dinosaur," by John Dawson, for 2014 *Mesozoic Partner Highlights,* published on the National Park Service website, https://www.nps.gov/articles/mesozoic-egg-mountain-dawson-2014.htm, accessed November 22, 2017.)

Because this amazing discovery changed the way the world thought about dinosaurs, and because it was found in Montana, the legislature chose Maiasaurus as the state fossil.

Extension Activities

Read and discuss the book *Maia: A Dinosaur Grows Up* with your class. Possible discussion questions include

1. What does Maiasaura mean? (It means "good mother lizard.")
2. Why did they name it "Maiasaura"? (Because they took care of their babies.)
3. Dinosaurs aren't the only animals who lay eggs. What other animals lay eggs? (Birds, almost all reptiles and fish, and most amphibians)
4. Dinosaurs are not the only egg-laying animals that care for their young. What other examples can they think of? (Birds take care of their young. Reptiles, fish, and amphibians lay eggs—but they mostly don't take care of them.)

Have students read the Amazing Montanan biography on Jack Horner, below.

Watch an interview or talk by Jack Horner. As of 2017, a video of Jack Horner's sixteen-minute Ted Talk, "Building a Dinosaur from a Chicken," was available on YouTube. (Preview this first to make sure it is appropriate for your students.) Also available on YouTube are videos of Jack Horner talking about his dyslexia. (Search "Jack Horner dyslexia").

Tell students that all animals have things in common with one another—even humans and dinosaurs. Have students complete the worksheet "Dinosaurs and You," below.

Candidates for State Fossil

	Where in Montana?	Geological Period
Allosaurus	Mission Formation	Jurassic
Apatosaurus	Mission Formation	Jurassic
Deinonychus	Two Medicine Formation	Cretaceous
Maiasaura	Two Medicine Formation	Cretaceous
Pachycephalosaurus	Hell Creek Formation	Cretaceous

	Where in Montana?	Geological Period
Triceratops	Hell Creek Formation	Cretaceous
Tyrannosaurus	Hell Creek Formation	Cretaceous
Ankylosaurus	Hell Creek Formation Two Medicine Formation	Cretaceous
Ornithomimus	Hell Creek Formation Two Medicine Formation	Cretaceous
Anatotitan	Hell Creek Formation	Cretaceous

Fossil Research Graphic Organizer

Student Name: _____

Dinosaur Name: _____

Height

Weight

When did these dinosaurs live?

Where was the fossil found?

Interesting facts:

Picture

Citations:

Source 1:

Source 2:

Narrative Paragraph/Speech Planner

Student Name:

Dinosaur Name:

Opening line (How will you get the audience's attention?) What is your hook?

List four reasons this fossil is the best. (Remember, you can use your research.)

1.

2.

3.

4.

Closing line (How will you restate your point?)

Campaign Roles and Duties

Election Role	Actual Job Duties	Classroom Duties	Student
Precinct Leader	Elected position Gets out the vote Distributes campaign literature	Passes out papers	
Courthouse Worker	Counts votes	Collects papers	
Election Judge	Checks if voter is registered Collects and safeguards ballots Is responsible for proper and orderly voting in a precinct	Helps with voting Helps with counting votes	
Observer	Watches the counting process to make sure no one cheats	Observes counting	
Journalist	Reports news stories Takes notes and checks facts	Writes article for class newsletter or blog, optional	
Campaign Coordinator	Manages campaign Coordinates literature drops, advertising, and phone banks Writes blogs and letters	Organizes rallies to persuade voters to support candidate, oversees work of campaign committee	
Campaign Committee	Volunteers who work to elect a candidate	Hangs posters in hall	
Candidate	Person running for office	(In this case, a fossil)	

Registration Card	School:		
Last Name:	First Name:		Middle Initial:
Address:		State:	Zip Code:
County of Registration:	Classroom Number:	Date of Birth: (month/day/year): / /	
Date: / /	Signature:		

Registration Card	School:		
Last Name:	First Name:		Middle Initial:
Address:		State:	Zip Code:
County of Registration:	Classroom Number:	Date of Birth: (month/day/year): / /	
Date: / /	Signature:		

Registration Card	School:		
Last Name:	First Name:		Middle Initial:
Address:		State:	Zip Code:
County of Registration:	Classroom Number:	Date of Birth: (month/day/year): / /	
Date: / /	Signature:		

Primary Ballot – Choose 3 Fossils

- ☐ 1. Allosaurus
- ☐ 2. Anatotitan
- ☐ 3. Ankylosaurus
- ☐ 4. Apatosaurus
- ☐ 5. Deinonychus
- ☐ 6. Maiasaura
- ☐ 7. Ornithomimus
- ☐ 8. Pachycephalosaurus
- ☐ 9. Triceratops
- ☐ 10. Tyrannosaurus

Primary Ballot – Choose 3 Fossils

- ☐ 1. Allosaurus
- ☐ 2. Anatotitan
- ☐ 3. Ankylosaurus
- ☐ 4. Apatosaurus
- ☐ 5. Deinonychus
- ☐ 6. Maiasaura
- ☐ 7. Ornithomimus
- ☐ 8. Pachycephalosaurus
- ☐ 9. Triceratops
- ☐ 10. Tyrannosaurus

Primary Ballot Tally Sheet

Look at the ballots. Mark a line each time a fossil receives a vote.

_____ **Allosaurus**

_____ **Anatotitan**

_____ **Ankylosaurus**

_____ **Apatosaurus**

_____ **Deinonychus**

_____ **Maiasaura**

_____ **Ornithomimus**

_____ **Pachycephalosaurus**

_____ **Triceratops**

_____ **Tyrannosaurus**

Courthouse Worker:_____

Observer: _____

Election Judge: _____

Date Votes Counted: _____

Class: _____

Poster Graphic Organizer

Adjectives that describe my dinosaur:

Words that start with the same letter as my dinosaur:

Colors of my dinosaur:

Why should this dinosaur be chosen as the classroom fossil?

Final Ballot – Vote for One

Fossil: _____

Fossil: _____

Fossil: _____

Final Ballot – Vote for One

Fossil: _____

Fossil: _____

Fossil: _____

Final Ballot – Vote for One

Fossil: _____

Fossil: _____

Fossil: _____

Final Ballot – Vote for One

Fossil: _____

Fossil: _____

Fossil: _____

Final Ballot Tally Sheet

Courthouse Vote Counter: _____

Observer: _____

Election Judge: _____

Date Votes Counted: _____

Class/Teacher: _____

Student Name: _____

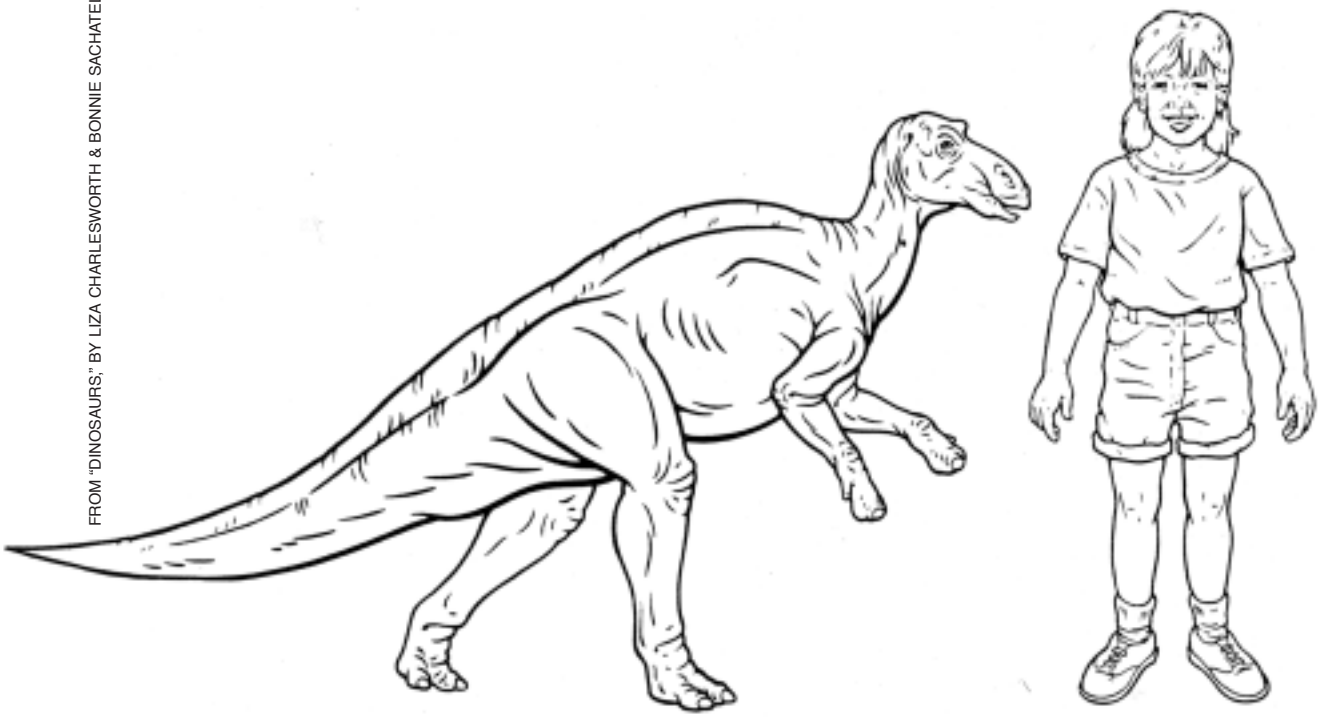
Lesson 7: The Montana State Fossil: A Lesson in Civic Engagement

Name _____

Dinosaurs and You

FROM "DINOSAURS," BY LIZA CHARLESWORTH & BONNIE SACHATELLO-SAWYER

MAIASAURA **PERSON**



Dinosaurs roamed the Earth millions of years ago. You are alive today. But you and dinosaurs still have a lot in common. On the chart below, list some ways you are alike and some ways you are different.

ALIKE	DIFFERENT
We both have eyes.	People have hair.

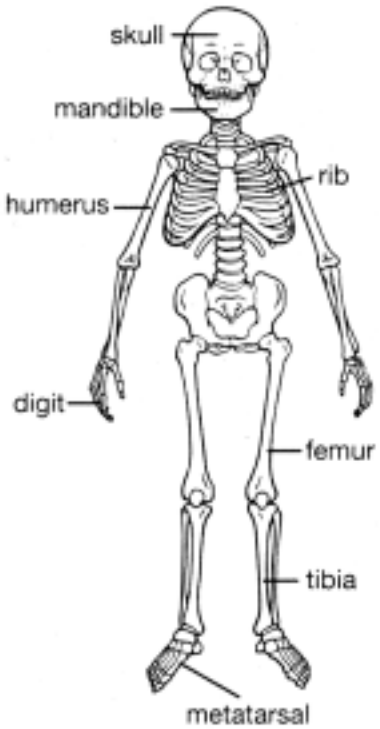
Lesson 7: The Montana State Fossil: A Lesson in Civic Engagement

Name _____

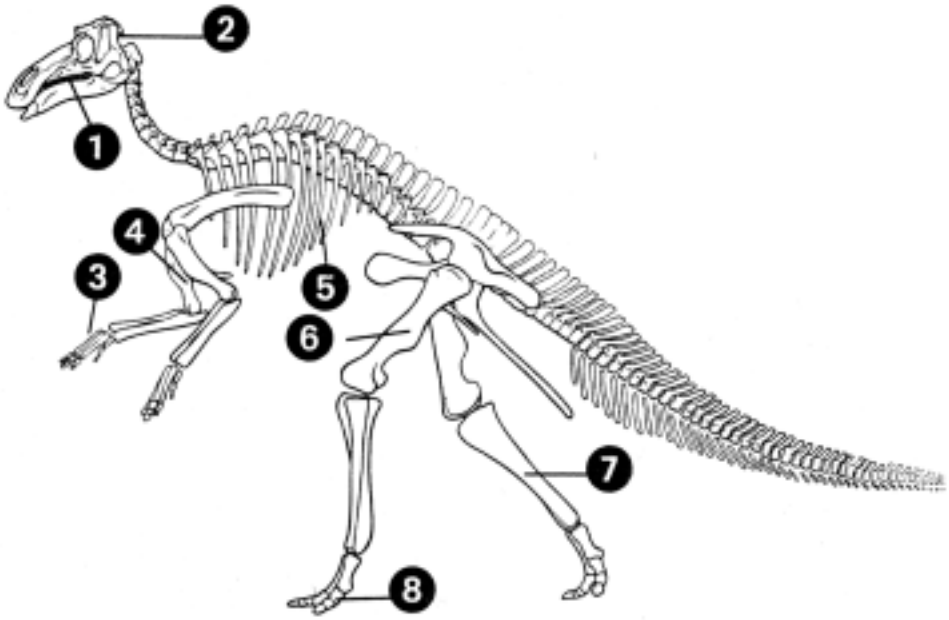
Dinosaurs and You (Part Two)

FROM "DINOSAURS," BY LIZA CHARLESWORTH & BONNIE SACHATELLO-SAWYER

PERSON



MAIASAURA



Look at the skeleton of the person. That's what you look like inside! Use it to label the same bones on the dinosaur.

Bone ❶ is a mandible

Bone ❷ is a _____

Bone ❸ is a _____

Bone ❹ is a _____

Bone ❺ is a _____

Bone ❻ is a _____

Bone ❼ is a _____

Bone ❽ is a _____

Lesson 8: Learning about Montana Sapphires

Essential Understanding

Montana is a mineral-rich state. Mining and refining minerals is a complicated process.

Activity Description

Students will read and share information about Montana sapphires with their classmates, complete a K/W/L chart on sapphires, and learn more about sapphires through a PowerPoint and the sapphire exhibit included in the footlocker.

Objectives

At the conclusion of the lesson students will have:

- Learned about one of Montana's state gems.
- Practiced interpreting informational text.
- Practiced reading, listening, and speaking skills.

Time

One 50-minute class period

Materials

Footlocker/User Guide Materials:

- Sapphire display case
- Tea Party text below
- Lesson 8 PowerPoint: "Learning about Montana Sapphires," available on the flash drive and also at http://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson8.pptx. Note: This PowerPoint was created for classroom use only.
- Article: "The Sapphires of Montana: A Rainbow of Colors," by Robert E. Kane, *Gem Market News,* January/February 2003, Vol 22, Issue 1, Part 1, revised and reprinted January 2004. (Optional)

Pre-Lesson Preparation

Photocopy and cut the Tea Party text into strips. Make sure you have one strip for each student (it is okay if more than one student has the same information).

Arrange to project the "Learning about Montana Sapphires" PowerPoint.

If you are new to the technique, learn about "Tea Parties" by searching online for "tea party technique lesson plan."

If you are new to the technique, learn about K/W/L charts by searching online for "KWL chart."

Procedure

1. Tell students that they will be learning about one of Montana's state gems. Distribute strips (differentiate by giving struggling readers strips with less text). Allow students a chance to read (and reread) the text on their paper to make sure they know how to pronounce all the words and what their text means. Circulate and help them as needed.
2. Conduct a "tea party." (5 minutes)
   a. Have students move around the room. When they encounter another student, have the students read the information on their paper out loud to one another. After they've both read their papers, have them find someone else to share with.
   b. Have students come back together. Ask them what they

continued

think Montana's state gem is. (They will likely say "sapphire.") Tell them that Montana has two state gems and one of them is the sapphire! The other is the agate—but that today you are going to be learning about sapphires.

3. Create a K/W/L chart.

   a. Start with what you now know about sapphires. Students should be able to share information they know from the tea party.

   b. After listing what you know, have students come up with things they want to know.

4. Share the PowerPoint with the class. Then share the sapphire exhibit boxes with the students, reiterating the process used to mine sapphires.

   The box has the following samples:

   1A. Rocks and minerals (including sapphires)

   Rocks, sapphires, and a few other minerals (including dark red garnets) are still mixed together, after being run through mining equipment to remove clay, dirt, and larger rocks. The concentration (number) of sapphires is greatly exaggerated in this sample. There is a lot of variation in the ratio of sapphires to rocks and dirt, but a typical grade (concentration) varies from ten to one hundred carats per cubic yard. A carat is 0.00044 pounds.

   1B. Separated minerals, mostly sapphires

   The rocks and other minerals seen above in 1A have been removed using gravity and by hand. What remains are mostly sapphires, although a few garnets and other minerals may still remain. These stones have also been run through a sizing sieve to collect stones of similar size.

   1C. Acid-treated sapphires

   These sapphires have been treated with acid in a tumbler. A final visual check is done to identify and remove non-sapphire minerals before heat treatment.

   2A. Rough "oxidized" heated sapphires

   Here are sapphires, still rough stones, after oxidizing heat treatment. The process sometimes produces pinks, but none in this sample. Orange, yellow, and pink sapphires are called "fancies."

   2B. Rough "reduced" heated sapphires

   To bring out blues and greens, these sapphires, still rough stones, have received reducing heat treatment. The process sometimes produces purples, but none in this sample.

   3A. Preform sapphires

   These sapphires have received their first cut. They are called preforms. Preforming (or pre-shaping) is the process of grinding the piece of rough stone into the approximate shape of the finished stone.

   3B. Faceted sapphires

   These faceted sapphires have received their final cuts. Faceting makes sapphires sparkle by reflecting light from many angles.

After sharing the exhibit box, return to the K/W/L chart. Are there questions that remain unanswered? How can you find out that information?

Extension Activities

Buy sapphire gravel and have students use a sapphire gravel screen to separate out the sapphires. (One source for sapphire gravel as of 2017 is https://www.gemmountainmt.com/sapphire-gravel but you can search online for a

continued

source if this one is no longer available. If you buy sapphire gravel bags, search online for "build a sapphire gravel screen" and for instructions of how to use them.)

Examine the sapphires under a microscope.

Share the article "The Sapphires of Montana: A Rainbow of Colors."

Tea Party Text

Montana sapphires are minerals that were formed deep beneath the surface of the earth. It took just the right combination of geologic features, such as heat, pressure, and chemistry, to create these beautiful stones.

After the Montana sapphires were formed deep underground, volcanic action brought many of them to the surface.

Montana is the only state that commercially produces gem-quality sapphires in the United States.

Precious stones are measured in carats (a unit of weight). Montana has millions and millions of carats of sapphires in the ground.

Montana has some of the largest sapphire deposits in the world.

Montana sapphires occur in more colors than perhaps any deposits in the world.

There are four main places in Montana where gem-quality sapphires are commercially mined. They are all in southwestern Montana.

Sapphires mined at Yogo Gulch are different from other Montana sapphires. They come out of the ground a brilliant blue. They don't need any special treatment to have an intense, beautiful blue color.

Yogo sapphires are only found in Yogo Gulch. They are harder to mine than other Montana sapphires since they are found in "host" or "mother" rocks. It takes a lot of work to get them out.

Sapphires found at the Missouri River, Dry Cottonwood Creek, and Rock Creek deposits are generally called Montana sapphires. Originally, they were embedded in host rocks, but their host rocks eroded away over millions and millions of years. Because of this, they are much easier to mine than sapphires from Yogo Gulch.

Sapphires used to be used to make tiny parts in watches, but natural sapphires are no longer used in watch making. Today, natural sapphires are mostly used in jewelry.

Sapphires are very hard stones. The only common natural mineral harder than a sapphire is a diamond.

The word sapphire comes from the Greek word meaning "blue." But Montana sapphires come in many colors, including pink, yellow, orange, green, purple, and blue.

The most expensive sapphire found in Montana was discovered in 1972. It sold for $380,000 in 2015. It was a 12½ carat faceted stone (and was half an inch across).

Gold miner Ed Collins found the first reported sapphires in Montana in 1865, along the Missouri River near Helena. Most early gold miners thought sapphires were a nuisance. They were looking for gold.

In 1895, miner Jake Hoover sent some attractive blue stones that were trapped in his gold sluice on Yogo Creek to the assay office. (Assay offices tested the purity of precious metals.) The assayer sent them to Tiffany Jewelers in New York, where they were identified as fine sapphires.

In 1896, a commercial sapphire mine opened in Yogo Gulch. When it closed in 1929 it had produced 2.5 million carats of gem-quality

sapphires. (A carat is a unit of weight used for measuring jewels.) They were reported to be worth as much as $25 million.

Although Yogo sapphires come out of the ground looking brilliant, other Montana sapphires look like pale greenish blue, transparent pebbles. Most Montana sapphires need to be heat-treated to bring out their brilliant colors.

All Yogo sapphires are Montana sapphires. But not all Montana sapphires are Yogo sapphires.

PowerPoint Text

Title Slide: Learning about Montana Sapphires

Slide 2. There are four main sapphire deposits in Montana.

Slide 3. The sapphires from Yogo Gulch are different from other Montana sapphires. They are called Yogo sapphires and come out of the ground a brilliant blue.

Slide 4. Other Montana sapphires (just called Montana sapphires) come from the Missouri River deposits, Dry Cottonwood Creek, and Rock Creek.

Slide 5. These Montana sapphires are much easier to mine because they are found loose, in dirt and gravel.

Slide 6. Why are sapphires different colors?

Pure sapphires are colorless. Trace (tiny) amounts of metallic elements can create stunningly beautiful colors. For example, trace amounts of titanium together with iron create blue sapphires. Orange sapphires are produced by a certain mixture of magnesium and chromium.

Slide 7. If you wanted to make a beautiful pin out of Montana sapphires—but you didn't want to buy them, what would you need to do?

Slide 8. Step 1. Get gem-bearing gravel from a sapphire deposit.

Slide 9. Step 2. Use water and a sapphire screen to separate the gems from the other pebbles. Sapphires have a greater density than lightweight gravel. So the sapphires and other "heavy" minerals fall to the bottom of the screen. Turn the screen over and it is easy to pick out the sapphires. [Play the movie to see this in action.]

Slide 10. Step 3. Find a professional to place the sapphires in a rock tumbler with acid. (This acid is VERY strong and dangerous.) This removes natural stains and unwanted minerals that are stuck on the sapphires.

Slide 11. Step 4. Find a professional to heat-treat the sapphires by placing them in a ceramic tube in a hi-tech furnace. The furnace heats the sapphires to 1700 degrees C. This brings out the orange and yellow colors. If those are the colors you want, the next step is sending the stones to the cutter.

Slide 12. If you want blue and green sapphires, the professional needs to heat them again in a "reducing atmosphere." In a reducing atmosphere, helium gas replaces oxygen in the furnace. The second burn is even hotter than the first. The temperature in the furnace reaches 1900 degrees C. (Heat-treating sapphires is a relatively new thing. Montana sapphires weren't heat-treated until the 1990s.)

Slide 13. Step 5. After they are heat-treated, send your sapphires to the cutter. The cutter will first cut pre-forms. Depending on what customers want, the cutter will add more cuts to create completely faceted sapphires. Faceted jewels catch the light, which makes them shine.

Slide 14: Now you can take your sapphires to a jeweler to have your pin designed.

Slide 15: Credits.

Lesson 9: Creating a Museum of Montana State Symbols

Essential Understanding

There are many things to love about Montana. Our state symbols celebrate some of these things.

Activity Description

Students will use the artifacts and images from the footlocker to create a classroom museum. They will write interpretive labels and then invite other classes and/or parents and community members to view their displays.

Objectives

At the completion of this lesson, students will

- Understand more about the symbols of Montana.
- Have read and reinterpreted informational text.

Time

Three to five 50-minute class periods, depending on age of students

Materials

Footlocker/User Guide Materials:

Artifacts and photographs in trunk

Lesson 9 PowerPoint: "How to Create an Exhibit," available on the flash drive and also at http://mhs.mt.gov/Portals/11/education/docs/footlocker/Symbols/Lesson9.pptx.

Exhibit Checklist, one per group (below)

Exhibit Worksheet, one per student (below)

Student Narratives

Classroom Materials:

Paper, pencils, and Sharpies (or computers on which to type and print labels)

Pre-Lesson Preparation

Copy the Exhibit Checklist, one for each group

Copy appropriate part of the Student Narratives for each group

Copy an Exhibit Worksheet for each student

Print and cut out the sample labels

Review "How to Create an Exhibit" PowerPoint (script below)

Procedure

Assign students into teams of two or three. Tell students each team will study a different Montana state symbol as part of a museum exhibit your class is going to create:

Group 1: Will focus on the state fish. (Object: stuffed cutthroat trout)

Group 2: Will focus on the state bird. (Object: stuffed meadowlark)

Group 3: Will focus on the state tree (Objects: cross-section of ponderosa pine and cone)

Group 4: Will focus on the state gemstones (Objects: agate and sapphire exhibit)

Group 5: Will focus on the state animal (Objects: grizzly paw print, grizzly fur, *Staying Safe around Bears Coloring & Activity Book*)

Group 6: Will focus on the state fossil (Objects: *Maia: A Dinosaur Grows Up,* model of Maiasaura and nest)

continued

Group 7: Will focus on the state butterfly (Object: mounted butterfly)

Group 8: Will focus on the state flag (Object: state flag)

Each small display will use objects from the footlocker and photographs the students will find online.

Show the PowerPoint, "How to Create an Exhibit." (Script provided below.)

Then pass out the Exhibit Checklist. You may want to assign specific tasks to specific students, or simply provide each group with the checklist and allow the students to divvy up the work.

When the exhibit is complete, tour the exhibits as a class. Then arrange for parents and/or other classes to visit your museum. Have students stand near their displays so they can answer questions (and make sure the objects don't get lost).

"How to Create an Exhibit" PowerPoint Script

Slide 1: Have you ever visited a museum? Have you ever wondered about how all that information was gathered and displayed so well within the exhibits? Let's look at how exhibits are designed.

Slide 2: What exactly is an exhibit? An exhibit displays items to tell a historical, educational, or personal story. What story do we want to tell with our upcoming symbols exhibit and how are we going to do it?

Slide 3: What are the parts of an exhibit? Exhibits have titles **(click)**, objects **(click)**, often called artifacts, photographs **(click)**, informational graphics like charts, maps, or posters **(click)**, and labels **(click)**. These different parts of the exhibit come together to tell a story.

Slide 4: Each of you will be creating part of our classroom exhibit. The title will pull the entire exhibit together. **(click)** What do you notice about the title? (It is the biggest text. It explains what the entire exhibit is about.)

One possible title for our exhibit could be "Montana State Symbols." If you don't like that we can brainstorm a different title. Decide where to write the title (on the board or on a banner).

Slide 5: Each part of an exhibit has a main text label. **(click)** What do you notice about the main label? (This label is bigger than any of the other labels in the exhibit except the title and it tells the main idea for the section.)

For our classroom exhibit, each group's main label should be typed in 40-point type (or written in large black marker) and should read as follows: **(click)**

In DATE Montana chose SYMBOL as the TYPE OF SYMBOL.

For example, if my topic were the bitterroot, my main topic label would look like this **(click)**:

In 1895 Montana chose the bitterroot as the state flower.

Slide 6: History exhibits almost always have objects, often called artifacts. What do you notice about the objects in this exhibit? (They relate to the topic. They are interesting to look at.) For your exhibit you will use at least one object.

Slide 7: Where can you find additional information about the objects on display?

In the secondary label. Secondary labels discuss the objects they sit next to. They are smaller

continued

than the main label but still big enough to read easily. Each object in our exhibit will have a secondary label and should be typed in 24-point type and follow this format **(click)**:

- Name of Object. One- or two-sentence description of the object (write this on the board)

Since I am focusing on the state flower, I'm going to look through the artifacts and choose the object or objects relating to the bitterroot. Then I'll read the information about the bitterroot provided in the footlocker and answer the questions on my worksheet.

I'll use that information to write my label **(click)**:

Bitterroot. Bitterroots grow in western Montana. They were an important source of food for early Indian peoples.

Slide 8: What else do you see in exhibits besides labels and objects? (Photographs.)

(click) For your exhibit you will need at least two images. Each image should also have a secondary label. The image label should provide a brief description of the image. It should also have as much of the following information as is available:

- The name of the person or group who created the image,
- where the image was created,
- when it was created, and
- where you got the image (the source or credit line).

Write on board: Description, created by WHO, WHERE, WHEN. CREDIT.

Slide 9: Since I'm focusing on the bitterroot, I'm going to search on the internet for a picture using "Google Images." (Model this—click on image to access the internet.) I'm going to click on the website to download my picture and find out more information about my image. (Model this, including where and how you want students to save the images.) Then I'm going to write my caption. (Write a caption on the board including as much information as is available: "Picture of bitterroot," created by WHOM, WHERE, WHEN. Borrowed from Website Name.)

Slide 10: Sometimes exhibits also have informational graphics like maps or charts. Why would you want to include a map in an exhibit about state symbols? (To show where the bitterroot flower can be found.) The maroon area is where they have been found in recent years and the lightest area is where they have been found the longest.

Slide 11: When I put all these pieces together—main label **(click)**, object, photograph, map, and secondary labels **(click)**—I will have an exhibit, just like the ones that are in museums.

Museum curators (the people who decide what goes in an exhibit) always worry about using the space they have wisely. They never put two images that are similar in an exhibit. They want each image to provide the visitor with new information. That's why I did not choose two pictures of flowers. I chose a picture of the roots and a map. The picture shows what the roots look like. The map shows where the flower is found.

Now it is your turn. You can choose whether you want to include a map, chart, or multiple pictures in your exhibit. Just remember: your images must convey new information and you must have CAPTIONS and CREDITS for every image you include.

Slide 12: Credit Slide

continued

In 1895 Montana chose the bitterroot as the state flower.

Bitterroot. Bitterroots grow in western Montana. They were an important source of food for early Indian peoples.

Map of Montana showing where bitterroot grow. Created by the Montana Natural Heritage Program, Montana Fish, Wildlife and Parks, 5/17/18. Borrowed from http://fieldguide.mt.gov/RangeMaps RecencyMap_PDPOR040D0_FS.jpg.

Exhibit labels for bitterroot section of the exhibit (for teachers to display as model).

Exhibit labels for bitterroot section of the exhibit (for teacher to display as model)

Exhibit Checklist

Each group needs to complete the following tasks:

- ☐ Write main label
- ☐ Find artifact(s) to feature in the display
- ☐ Read the information provided for the artifact and answer the questions for that object
- ☐ Write a label for the object
- ☐ Find and choose images to feature in the display (you should have at least two images).
- ☐ Make sure the images you choose show different things about the state symbol.
- ☐ Write a label for image(s).
- ☐ Write a label for the map or other graphic.
- ☐ Print draft labels.
- ☐ Edit/proofread all labels as a group (have all group members proofread those labels they did NOT write).
- ☐ Make corrections and print final labels.
- ☐ Arrange exhibit (this can be as simple as laying the photo(s), map, labels, and artifacts flat on a table, or it can include creating an exhibit board).

Exhibit Worksheet

What is your main topic?

Main label: In _____ (DATE) Montana chose _____ (NAME OF SYMBOL) as the state _____(CATEGORY OF SYMBOL).

Here is a model to follow for the main label:

Main label: In 2015 (DATE) Montana chose Scobey Soil (NAME OF SYMBOL) as the state soil (CATEGORY OF SYMBOL).

Read the information about your object that is provided in the footlocker. Then answer the questions below. Repeat this step for every object you plan to put in your exhibit.

What is the name of the object?_____

How does it relate to your symbol?_____

List three interesting facts about the object or the symbol.

What is the name of the object?_____

What is the name of the object?_____

What is the name of the object?_____

Answer these questions as best you can for every image you plan to use in your exhibit. Note: You might not be able to find information to answer every question. If the information is not available, leave that question blank.

What is this image of?_____

How does the image relate to the symbol?_____

When was it taken or created? _____

Where was it taken or created? _____

Who took it or created it? _____

Where did you find the image? _____

Use your answers to the questions above to craft your secondary labels. Your secondary object label must be in the following format:

Name of Object. Description of object/interesting information about the symbol the object is related to.

Here is a model to follow for objects:

Scobey State Soil. Scobey soil covers more than 700,000 acres in north-central Montana. It is one of the reasons that wheat grows so well there. Scobey soil also supports the plant life on part of the largest remaining prairie on the northern Great Plains.

Your secondary image label(s) must be in the following format: **Descriptive title.** Who created the image, when, and where (if you have this information). Here is a model to follow for images:

Map of Montana showing where there is Scobey soil. Created by the Smithsonian National Museum of Natural History, date/place unknown. Borrowed from https://naturalhistory.si.edu/.

III. Student Narratives

Historical Narrative for Students

Sometimes the way people feel about the place where they live is just too big to describe in words. Symbols help us express feelings like respect for the land, pride in our communities, and a sense of place.

Like most other states, Montana has adopted many symbols that represent people's appreciation for the things that make Montana special.

STATE SEAL: The Montana state seal shows Montana's history and natural beauty. At the top, a sunrise shines over snowy mountains. See the pick, shovel, and plow? These symbols of Montana's mining and farming history are placed in front of mountains, hills, trees, cliffs, waterfalls, and the Missouri River. Seals are official marks put on documents to prove they are official. The Secretary of State keeps the stamp with state seal on it in his or her office.

STATE FLAG: The Montana state flag shows the state seal on a blue rectangle with yellow edges. This flag was copied from a flag taken into battle during the Philippine-American War in 1898 by the First Montana Infantry, U.S. Volunteers. The name "MONTANA" at the top was added in 1981.

TRIBAL FLAGS AND SEALS: Each of Montana's seven reservations has its own flag and seal. So does the Little Shell Chippewa Tribe, which has no reservation. Tribal seals and flags represent tribal governments, just like the Montana state seal and flag represent the Montana government. The symbols on these seals and flags show important parts of the tribes' histories and cultures.

STATE SONGS: "Montana," "Montana Melody," and "Montana Lullaby."

Montanans have written many songs about Montana, and the state has adopted three of them as official state songs. The first is called "Montana." Butte newspaper editor Charles Cohan and famous songwriter Joseph E. Howard wrote it in 1910. There is also a state ballad, "Montana Melody." "Montana Melody" was written by LeGrande Harvey and Carleen Harvey and adopted as the official state ballad in 1983. And, in 2007, the legislature officially approved "Montana Lullaby," by Ken Overcast and Wylie Gustafson, as the official state lullaby.

STATE GEMSTONES: Agate and Sapphire

Agates from the east and sapphires from the west share the spotlight as Montana's two state gemstones. They were named Montana's state gemstones in 1969.

Agates represent the uniquely beautiful landscape of eastern Montana. You can find agates along the Yellowstone River, especially between Forsyth and Sidney. The agates began to form after volcanos erupted east of what is now Yellowstone National Park 40 to 50 million years ago. The volcanic ash was rich in silica. Silica in the ash dissolved (mixed with and became part of the liquid) in the groundwater and seeped into empty pockets in "host" rocks. After millions of years inside the host rocks, these tiny crystals of silica became agates. No two agates look alike. That is one of the exciting things about collecting agates.

The brilliant sapphires found in western Montana—especially the Yogo sapphires, found near Yogo Creek—represent the light-filled beauty of western Montana. Yogo sapphires are special because they keep their brilliance even in artificial light, which no other sapphires in the world will do.

Yogo sapphires are only found in Yogo Gulch near Lewistown. The mines there have produced over $40 million worth of sapphires.

continued

There are three other large sapphire deposits in Montana. Sapphires found in Montana come in every color of the rainbow.

STATE FLOWER: Bitterroot

The bitterroot became the state flower in 1895. It has bright pink flowers.

Montana Indians used the dried roots of the bitterroot for food and trade. They would harvest the bitterroot in mid-spring, before its flowers form. Before the bitterroot blooms, it can be hard to spot because it is very small.

A traditional Salish story tells how the bitterroot came to be: "The sun heard a mother crying because she could not find food for her family. The sun changed the mother's tears into the bitterroot so she would always have food for her children." You can find bitterroot blooming among the mountains and boulders (large rocks) of western Montana in late spring and early summer.

STATE TREE: Ponderosa Pine

The ponderosa pine is the most common tree in Montana. The ponderosa can grow 300 feet tall and 8 feet around. It takes about 150 years for a ponderosa pine to become full grown.

Loggers have harvested millions of board feet of ponderosa pine from Montana forests. Ponderosa pine was used for railroad ties and telegraph poles, to hold up mine shafts, and to build homes.

The state legislature named the ponderosa pine state tree in 1949. You can see this "king of the forest" almost everywhere along the roads of western Montana.

STATE ANIMAL: Grizzly Bear

Most of the grizzly bears in the Lower 48 states live in Montana. Adult grizzlies can grow to eight feet long and weigh 1,500 pounds. Their back feet leave paw prints as big as magazines. They can run as fast as a horse for short distances.

Schoolchildren voted on the state animal in 1982. The grizzly won by a 2-1 margin. The legislature followed the children's recommendation and named the grizzly bear Montana's state animal in 1983.

STATE FOSSIL: Maiasaura

Some of the most important fossils in the world came from Montana. Montana adopted the Maiasaura as its state fossil after an important discovery at Egg Mountain, near Choteau. The fossils found at Egg Mountain revealed the first proof that some dinosaurs took care of their babies the way birds do. That's why these duck-billed dinosaurs are called "Maiasaura." Maiasaura means "good mother lizard."

Maiasaura lived 135 million years ago. When they hatched, baby duck-bills were about 14 inches long and weighed only one and one-half pounds. Adults grew to over 30 feet in length and weighed three tons (about the same weight as a giraffe, but twice as long).

The legislature named the Maiasaura Montana's state fossil in 1985. They chose it to honor Montana's importance in the geologic history of the world.

STATE FISH: Blackspotted Cutthroat Trout

Montana is known for its great fishing. In the 1970s, anglers (people who love to fish) decided the state should recognize its fishing heritage by choosing a state fish.

For a state fish, they wanted to choose a game fish that

- was native to Montana
- not already adopted by another state
- could be found in more than one area of the state, and
- had a distinctive appearance.

The blackspotted cutthroat met all of these conditions. It was also on the threatened species list. Overfishing and changes in the environment meant the blackspotted cutthroat might soon become endangered. Montana anglers did not want this. They thought naming

continued

it as the state fish could help stop this from happening. The fish became Montana's state fish in 1977.

STATE BIRD: Western Meadowlark

The western meadowlark is known for its loud, cheerful song. Meadowlarks make their nests on the ground. But you can find them in spring and summer along most dirt roads, sitting on fence posts singing to other meadowlarks nearby. They are about as big as a robin, with a bright yellow chest and throat under a black collar.

In 1930, schoolchildren across Montana chose the meadowlark as the bird that best represented Montana. The next year, in 1931, the legislature named the western meadowlark the state bird.

STATE BUTTERFLY: The Mourning Cloak

Bright blue shimmering spots along the inner edge of a yellow or light brown border mark the mourning cloak's dark brown wings. If viewed closely, the wings reflect purple highlights. The underside of the wing is dark brown with lighter edges.

Mourning clock butterflies come out in early spring, even before all the winter snow has melted. They are usually the first butterflies to leave hibernation. They rest on dark tree trunks where they are hard to see and turn their dark wings toward the sun to absorb the heat. Tree sap is one of their most important foods.

Mourning cloak butterflies live for about ten months. This is a long time for a butterfly. Before they die, females lay eggs. These eggs hatch into the caterpillars that will eventually metamorphize (change) into butterflies.

Schoolchildren campaigned to have the mourning cloak named the official state butterfly in 2001.

STATE GRASS: Bluebunch Wheatgrass

Bluebunch wheatgrass became Montana's state grass in 1973. It represents the fertile, nutritious grasslands of the Great Plains.

Bluebunch wheatgrass is found all over the state and throughout the West. It grows mostly in flat areas and on lower mountain slopes. It starts to "green up" early in the spring. It grows in most soils and sticks up out of the snow in the fall. The grass does not need much water to grow. For these reasons, it is an especially important food for grazing animals like cattle and sheep. Before cattle came to the plains, the grass was a favorite food for bison, deer, elk, and antelope.

STATE SOIL: Scobey Soil

In 2015, fourth grade students at Longfellow Elementary School in Bozeman asked the legislature to name Scobey soil the official state soil. And it did.

You can find Scobey soil on more than 700,000 acres in an area in north-central Montana known as the "Golden Triangle." It is called the Golden Triangle because of its "amber waves of grain." Scobey soil is a big reason the area's wheat farms are so successful. Scobey soil also supports plant life in the largest remaining natural prairie on the northern Great Plains.

STATE NICKNAMES: "The Treasure State" and "Big Sky Country"

"The Treasure State" came naturally as a Montana motto because of the state's valuable minerals, gems, and metals. In the 1960s Montanans also adopted the nickname "Big Sky Country," after a novel called *The Big Sky,* by Montana author A. B. Guthrie Jr. They chose this nickname to reflect their love of the land and Montana's wide-open spaces.

Amazing Montanan Biography
Jack Horner

Jack Horner was born in Shelby, Montana, in 1946. As a kid, Jack hated school. He had a hard time learning how to read and do math because he had a learning disability called dyslexia. Dyslexia makes it very hard to read. Today, schools know how to help students with dyslexia and other learning disabilities. But they did not have that information when Jack was in school.

Even though he did not like school, Jack was very curious. He was especially interested in dinosaurs. Jack found his first dinosaur bone on his family's ranch when he was eight years old. After that, he knew he wanted to become a paleontologist (a scientist who studies fossils).

After Jack graduated high school, he went to the University of Montana. Because of his learning disability, he flunked out of school.

Jack could not become a paleontologist without a college degree. But he was able to get a job as a fossil preparator. Fossil preparators use toothbrushes and other small tools to clean and repair fossils.

Jack and his friend Bob Makela were fossil hunting near Choteau, Montana, when they met John and Marion Brandvold. The Brandvolds showed them some bones. Jack got very excited. The Brandvolds took Jack and Bob to where they found the bones. There Jack and Bob found fourteen dinosaur nests!

The nests had eggs and baby dinosaurs in them, so they called the area "Egg Mountain." The nests showed that some dinosaurs took care of their young, like birds do. Before that, scientists thought that dinosaurs did not care for their young.

The nests were made by a species of duck-billed dinosaurs that had never been discovered before. The team named the new species

Maiasaura peeblesorum. Maia means "good mother." Saura means "lizard". So Maiasaura means "good mother lizard."

Egg Mountain is one of the most important dinosaur finds in the world. It changed the way people thought about dinosaurs. Before Egg Mountain, no one imagined that a dinosaur could be a "good mother."

Jack has found many other types of dinosaur fossils too, including many new species. He became one of the world's most famous paleontologists. He worked at the Museum of the Rockies in Bozeman for thirty-three years. And he continued to hunt dinosaur fossils.

Amazing Montanan Biography
Dan Carney

Dan Carney grew up in Pennsylvania. In 1978, he graduated from the University of Montana with a degree in wildlife biology. While he was still in school, he volunteered for the Border Grizzly Project. Scientists knew very little about grizzly bears, so Dan worked with a team to gather information about where the grizzlies lived and what they ate.

After he graduated, Dan worked with the Border Grizzly Project for several years. Then he went back to school. He received a master's degree in Wildlife Science from a university in Virginia, where he studied black bears. He came back to Montana in 1987 and went to work for the Blackfeet Nation's fish and game department. He's been working as a wildlife biologist for the Blackfeet Nation ever since.

Dan is the director of the tribe's Threatened and Endangered Species Program. When he started working for the tribe, not many grizzly bears lived on the Blackfeet Reservation. That number has grown over the last thirty years.

A big part of Dan's job is giving people the tools they need to share the land with grizzly bears. He helps farmers and ranchers put up electric fences to keep bears away from calves, pigs, and beehives filled with honey. He makes sure there are bear-resistant garbage cans (trash cans that are hard for bears to open) to keep bears away from towns.

Dan loves working with grizzly bears. Even after forty years, he is impressed by their magnificence, their intelligence, their ability to adapt, and their strength.

In 2010, Dan received the 2010 Recovery Champion "Partner in Mission" Award from the U.S. Fish and Wildlife Service. The award

recognized his work in restoring grizzly bear numbers on the Blackfeet Reservation.

For most of Dan's career, biologists have worried that grizzly bears could become endangered. Grizzlies were listed as a "threatened species" from 1975 through 2017. Many scientists think that the grizzly population is now big enough that the bears can be "delisted" (taken off the threatened species list). Has that happened yet? (Do some research to find out.) If it has, it is because of the work of people like Dan.

Vocabulary List

Ballad Slow, romantic song

Bill A plan for a law.

Fossil The remains of an animal or plant that lived millions of years ago, or the shape of one of these plants or animals that is now preserved in rock.

Golden Triangle An area in north-central Montana that is a good place to grow wheat

Hearing A meeting to find out what people think about an issue

Legislature A governmental body of lawmakers

Lullaby Song to put a baby to sleep

Mammals A group of animals that share certain characteristics. Mammals are warm blooded. They have hair or fur. They have backbones. And the babies drink their mother's milk.

Motto A short saying that expresses a belief or idea

Paleontologist A scientist who studies fossils

State seal The mark that is put on documents to prove they are official

Symbol Something that represents an idea

Testify Tell legislators what you think of a bill

IV. Resources and Reference Materials
Additional Resources

Useful Websites/Apps

CSKT Fish and Wildlife Apps:

http://csktfwapps.org/ (accessed December 6, 2017)

Download this free App for information on animals found on the Flathead Reservation, including scientific information, audio recordings of songs and calls, Salish, Pend d'Oreille, and Kootenai cultural information about each species, and audio recordings of each species name in the Salish and Kootenai languages.

Montana Dinosaur Trail:

http://www.mtdinotrail.org/ (accessed December 6, 2017)

The website provides information about fourteen different museums in Montana with dinosaur displays.

MontanaKids.com Facts and Figures:

http://montanakids.com/facts_and_figures/state_symbols/ (accessed December 6, 2017)

Read about and see pictures of Montana's state symbols.

Montana Field Guide:

http://fieldguide.mt.gov/ (accessed December 6, 2017)

Search Western Meadowlark for link to audio, photographs, and maps showing range and migration. Search other state animals and plants for similar information.

Picture Books

Gibbons, Gail, *Grizzly Bears.* New York, 2003.

Gros Ventre Elders Board from the Fort Belknap Reservation. *Broken Shoulder (How the Big Dipper and North Star Came to Be).* The Indian Reading Series: Stories and Legends of the Northwest. Portland, OR, 1978. (Both the book and accompanying lesson plans are available for download: http://apps.educationnorthwest.org/indianreading/5/index.html)

Horner, John R. and James Gorman. *Maia: A Dinosaur Grows Up.* Bozeman, MT, 1985.

Lessem, Don. *Jack Horner: Living with Dinosaurs.* Illustrated by Janet Hamlin. New York, 1994.

Myers, Rex C. and Norma B. Ashby, *Symbols of Montana.* Helena, MT, 1968.

Pine, Julie. *The Bear Tepee,* illustrated by Donna Livingston. The Indian Reading Series: Stories and Legends of the Northwest. Portland, OR, 1978. (Both the book and accompanying lesson plans are available for download: http://apps.educationnorthwest.org/indianreading/4/index.html)

continued

Sateren, Shelley Swanson. *Montana: Facts and Symbols.* Mankato, MN, 2000.

Swinburne, Stephen. *Moon in Bear's Eyes,* illustrated by Crista Forest. Brookfield, CT, 1998.

CDs and DVDS

*Heart of the Bitterroot: Voices of Salish and Pend d'Oreille Women. (*CD) Cajune, Julie: Executive Producer. Npustin Press, 2007. (Check your library. OPI's Indian Education Division donated a copy to every public school library in Montana.)

Articles and Books for Upper Grades and Educators

DeSanto, Jerry, Bitterroot: *The Montana State Flower.* Babb, MT, 1993.

Hands-on History Footlockers

The Montana Historical Society's Footlocker program offers thematic "traveling trunks" focused on a wide variety of topics. Each footlocker is filled with reproductions of clothing, tools, everyday objects, maps, photographs, and documents. User Guides with lesson plans and standards alignment accompany each footlocker.

Availability and Cost: Footlockers are available to Montana educators for two weeks at a time. No rental fee is charged for the use of footlockers. However, schools are responsible for the cost of shipping the footlocker to the next venue via United Parcel Service (UPS) or the United States Postal Service (USPS).

For more information and to order a footlocker, visit http://mhs.mt.gov/education/HandsonHistory.

Available Titles

Architecture: It's All Around You—Explores the different architectural styles and elements of buildings, urban and rural, plus ways in which people can preserve buildings for the future.

Cavalry and Infantry: The U.S. Military on the Montana Frontier—Illustrates the function of the U.S. military and the life of an enlisted man on Montana's frontier, 1860 to 1890.

Coming to Montana: Immigrants from Around the World—Showcases the culture, countries, traditions, and foodways of Montana's immigrants through reproduction clothing, toys, and activities.

Contemporary American Indians in Montana—Highlights the renaissance of Montana's Indian cultures and tribal efforts to maintain their identities and traditions.

Discover the Corps of Discovery: The Lewis and Clark Expedition in Montana—Traces the Corps' journey through Montana and their encounters with American Indians. Includes bison hide, trade goods, books, and more!

East Meets West: The Chinese Experience in Montana—Explores the lives of the Chinese who came to Montana, the customs that they brought with them to America, how they contributed to Montana communities, and why they left.

From Traps to Caps: The Montana Fur Trade—Gives students a glimpse at how fur traders lived and made their living along the creeks and valleys of Montana, 1810-1860.

Gold, Silver, and Coal Oh My!: Mining Montana's Wealth—Chronicles the discoveries that drew people to Montana in the late 19th century and how the mining industry developed and declined.

The Home Fires: Montana and World War II—Describes aspects of everyday life in Montana during the 1941-1945 war years. Illustrates little-known government projects such as the Fort Missoula Alien Detention Center and Civilian Public Service Camps.

continued

Inside and Outside the Home: Homesteading in Montana 1900-1920—Focuses on the thousands of people who came to Montana's plains in the early 20th century in hopes of making a living through dryland farming.

Land of Many Stories: The People and Histories of Glacier National Park—Focuses on the commemoration of the centennial anniversary of Glacier National Park. Examines the human experience in the area now known as Glacier National Park, from pre-contact to the recent past, focusing on human-environmental interaction.

Lifeways of Montana's First People—Emphasizes the various tribal lifeways of the people who utilized the land we now know as Montana in the years around 1800.

Montana Indian Stories Lit Kit—Immerses students in storytelling and the oral tradition with seven class sets of Montana Indian stories collected for the Indian Reading Series (1972) and reprinted by the Montana Historical Society Press. The lit kit includes animal puppets and User Guide. NOTE: Out of respect for the storytelling customs of many Montana Indian people, this kit will be made available for use in the winter months (November through March.)

Montana Place Names Mini Footlocker—Consists of ten copies of the book, *Montana Place Names: from Alzada to Zortman,* and the lesson plan "Mapping Montana, A to Z." Teachers will need to order classroom sets of Montana maps separately from Montana Office of Tourism or by calling 406-841-2870.

Oral History in the Classroom Mini Footlocker—Includes eight Sony IC Audio Recorders, batteries and chargers, useful reference material, and detailed lesson plans for creating a classroom-based oral history project.

Original Governor's Mansion: Home to the Stewart Family in Turbulent Times, 1913-1921—Investigates life and politics, 1913-1921, as well as the history and architecture of a magnificent building.

Prehistoric Life in Montana—Exposes Montana prehistory (10,000-12,000 years ago) and archaeology through a study of the Pictograph Cave site in eastern Montana.

Stones and Bones—Uncovers the earliest evidence of Montana's human history through a study of casts and reproduction stone and bone tools, including replica artifacts from the Anzick collection found in Wilsall, Montana.

To Learn a New Way—Explores the late 1800s and early 1900s, a time in which Montana Indians were moved to reservations, and experienced allotment and boarding schools, all of which resulted in dramatic changes in their lands, languages, and way of life.

Tools of the Trade: Montana Industry and Technology—Surveys the evolution of tools and technology in Montana from the late 1700s to the present.

Treasure Chest: A Look at the Montana State Symbols—Provides students the opportunity to explore hands-on educational activities to gain a greater appreciation of our state's symbols and their meanings.

Woolies and Whinnies: The Sheep and Cattle Industry in Montana—Reveals the fascinating stories of cattle, horse, and sheep ranching in Montana, 1870 to 1920.

Other Resources from the Montana Historical Society

In addition to the hands-on history footlockers, the Montana Historical Society offers a large number of online resources and lesson plans for grades K-12 at http://mhs.mt.gov/education/Educators. Resources include:

Indian Education for All Lesson Plans—From examining early trade routes to analyzing primary sources relating to the Marias Massacre, these lesson plans will help your students grasp the Essential Understandings regarding Montana Indians while learning more about specific Montana history topics.

Integrating Art and History Lesson Plans—Material on Charlie Russell, Montana's Cowboy Artist; Plains Indian pictographic art; and Plateau Indian beaded bags provide a beautiful way to approach Montana history.

Teaching with Primary Sources—The Montana Historical Society has created a number of lesson plans that provide students an opportunity to analyze primary source material, including artwork, photographs, letters, diary entries, and historical newspapers.