

DeSoto National Wildlife Refuge Visitor Center

Self-Guided Education Curriculum



DeSoto and Boyer Chute National Wildlife Refuges are located in the migratory bird corridor of the Missouri River floodplain and provide essential habitat for resident, migratory, and endangered species. The Steamboat Bertrand Museum Collection, large concentrations of wetland-dependent birds and inventive environmental education partnerships make these refuges unique within the National Wildlife Refuge System. High quality floodplain forest, grassland, wetland, sandbar, and riverine habitats support diverse and productive populations of migratory waterfowl, shorebirds, and other native birds as well as rare threatened and endangered species including the pallid sturgeon, Piping Plover, and Least Tern.

U.S. Fish and Wildlife Service staff and partners work collaboratively to understand, restore, and conserve biological communities on the refuges in a dynamic and changing environment, and work to promote an enduring appreciation for the refuges, the Refuge System, and Service trust resources.

The story of the Steamboat *Bertrand*, along with other historic periods like the Lewis and Clark Expedition, heralded dramatic changes to the natural environment in the Missouri River Valley, impacting the wildlife and natural habitats of the area. Refuge resources and stories foster an appreciation for the refuges' role in conserving the river's unique natural history.

All activities in this self-guided curriculum are correlated with Nebraska State Academic Standards.

Procedure

Introduction:

For the beginning, you have two different options to choose from. You can

1. Watch the short 4 minute video about the Bertrand excavation
2. Go over a Bertrand brochure. [SS 4.4.1.c and SS 4.3.1.a] You may choose either or both depending on your lesson plan, but both will be a good introduction on the Steamboat Bertrand and how it was excavated.

Display Area:

This section covers the different habitats around the refuge and how the landscape had been changed over the years by humans.

For this segment, you have the activity sheet labeled “Visitor Center.” With this self-guided worksheet, the students search for answers in the display areas before the museum. For a wrap up, you can discuss a few things that the students learned about how the animals affected by these changes have coped. “Are they still living around here? Why or why not?” [SS 4.2.2.a, SS 4.3.3.b, SS 4.3.5b, and SS 4.4.4]

The Bertrand Museum:

To finish off the lesson, you have two different choices again. You can either do the activity labeled “Compare & Contrast” or “What am I?” and depending on your given time you could do both.

Compare & Contrast

For this activity, before you enter the museum, you will have your students choose three different house hold or common items (clothes, snacks, utensils, utility, toiletries, etc.). You will label each box with a different item and draw it. Once this is completed, the students are instructed to go through the exhibit and locate an artifact that resembles their item the most. Once found, they will label the artifact in the corresponding box (across from the item they are comparing it to) and draw it. On the back, they will fill out three similarities and differences amongst their items and artifacts. At the end, the students will be asked to share at least one of their items to the class. [SS 4.2.1.a and SS 4.2.2.a]

What am I?

There will be two different versions of this with questions shifted around on the B worksheet in case you didn’t want your students working together and copying answers. Otherwise, for this activity, the students will be instructed to read each question carefully, for each statement is describing an artifact in the museum. They will have to go by description of appearance and use to discover what the artifact is, for they will be scattered throughout the museum exhibit (each artifact in question is labeled). At the end of this activity, you may ask them to share what their favorite artifact they found was and if there was anything in the museum that surprised them (encourage them to explore and look around after completing their worksheet to answer this question).

Observation Area:

This activity will take place at the window gallery and will ask students to make observations and inferences about the nature environment through careful observation.

Visitor Center Activity Sheet

Display Area:

Pick a display - Wetlands, Cottonwood Forest, or Prairie.

1. Which display (habitat) did you choose? Why? _____

Imagine if you were in this habitat,

2. List 4 sounds that you would hear:

a. _____ b. _____ c. _____ d. _____

3. List 4 things that you might smell:

a. _____ b. _____ c. _____ d. _____

4. What other wildlife (not seen in the display) might you find in this habitat?

Striking It Rich:

1. Why are people coming to this area? _____

2. List three tools or supplies used by miners. What do you think these tools were used for?

a. _____

b. _____

c. _____

Cutting the Tall Timber:

1. Why did people need timber? _____

2. List two tools used to cut down trees. How did they work?

a. _____

b. _____

Bustin' the Prairie Sod:

1. What do you think is meant by "bustin' the prairie sod"?

2. Draw a picture of an animal that lives in the prairie. Why does it live on the prairie?

3. Look at the map next to this display, name 1 of the 6 states that the Missouri River flows through besides Nebraska or Iowa. _____

4. How did the Missouri River help people get to Montana in 1865? _____

Compare & Contrast

Directions: Choose three household items that can be found in your house and write them under “Item.” Draw your item. Then go through the Bertrand museum and find the best fitting artifacts that match your items. Write their name beside the corresponding “Artifact” box and draw. Then on the back, compare and contrast the similarities and differences of these items. Be ready to share at the end.

Item #1 _____ 	Artifact #1 _____
Item #2 _____ 	Artifact #2 _____
Item #3 _____ 	Artifact #3 _____

Item/Artifact #1: _____

Similarities-	Differences-
1. _____ _____	1. _____ _____
2. _____ _____	2. _____ _____
3. _____ _____	3. _____ _____

Item/Artifact #2: _____

Similarities-	Differences-
1. _____ _____	1. _____ _____
2. _____ _____	2. _____ _____
3. _____ _____	3. _____ _____

Item/Artifact #3: _____

Similarities-	Differences-
1. _____ _____	1. _____ _____
2. _____ _____	2. _____ _____
3. _____ _____	3. _____ _____

What Am I? Version A

Directions: Read the descriptions below. Go through the Bertrand museum and locate what you think the passage describes and write the answer on the blank. (All items described will have some form of label.)

1. I am fairly large with different versions of me; mostly all black and I have a few rusted holes in some spots. I used to be used for digging up dirt for planting crops, but now I am not used as much because they have more mechanical (and larger) versions of me that don't require as much physical work.

What am I? _____

2. I am small and delicate with intricately carved designs in my orb shaped bodies attached to my very needle like stem. I am made out of brass and have a bronze color. My use was to make women and ladies look fashionable while I helped hold down their hats or their hair-do's together.

What am I? _____

3. I have a black, flat head made out of metal (some being very rusty) and long, wooden handle. I am used in digging and am still around today. (There was a large number of me being shipped on the boat.)

What am I? _____

4. I have a wood boxed base with a metal handle on top that you turn to grind down the coffee beans into small pieces. I am not very commonly used anymore with all the new technology.

What am I? _____

5. I am made of treated rubber so that I stay flexible when cold and still solid when hot. I was used to keep water off of my wearers and am black in color. I am also the only living example of me in the world.

What am I? _____

6. I am a small and skinny piece of wood used to start a fire when you strike my head onto a certain surface. I am highly flammable (a lot of me were buried rather than displayed due to my flammability) and once, accidently, caught a man's pants on fire.

What am I? _____

7. I belong to a girl and am used to do homework or write/draw on. I am wood rimmed with my famous name FANNIE carved on the top of my frame. I am more commonly known as a chalkboard.

What am I? _____

8. I am white in color and was used in the days past as a portable toilet. You would leave me in the corner of a room and I was used when necessary. If I was used, I'd be cleaned out the following day to prevent too much smell.

What am I? _____

9. I am black and look like a metal grapefruit. I was used in a Mountain Howitzer gun.

What am I? _____

10. I am small and brown and commonly used as a snack wherever you may find me; but sometimes I am not all that easy to eat (you might have to work to crack me open).

What am I? _____

11. I am a big, black rock appearing object that is commonly used as a heat source. I am also known as the object you get from Santa Claus if you were "naughty."

What am I? _____

12. I am made of metal (one being round and the other rectangle shaped) with different designs sticking out on me. I am used to make a delicious breakfast when you put batter in me while I'm hot and close my lid; within a few minutes the batter is cooked and most commonly topped with maple syrup.

What am I? _____

What Am I? Version B

Directions: Read the descriptions below. Go through the Bertrand museum and locate what you think the passage describes and write the answer on the blank. (All items described will have some form of label.)

1. I have a black, flat head made out of metal (some being very rusty) and long, wooden handle. I am used in digging and am still around today. (There was a large number of me being shipped on the boat.)

What am I? _____

2. I have a wood boxed base with a metal handle on top that you turn to grind down the coffee beans into small pieces. I am not very commonly used anymore with all the new technology.

What am I? _____

3. I am a big, black rock appearing object that is commonly used as a heat source. I am also known as the object you get from Santa Claus if you were “naughty.”

What am I? _____

4. I am black and look like a metal grapefruit. I was used in a Mountain Howitzer gun.

What am I? _____

5. I belong to a girl and am used to do homework or write/draw on. I am wood rimmed with my famous name FANNIE carved on the top of my frame. I am more commonly known as a chalkboard.

What am I? _____

6. I am white in color and was used in the days past as a portable toilet. You would leave me in the corner of a room and I was used when necessary. If I was used, I'd be cleaned out the following day to prevent too much smell.

What am I? _____

7. I am made of treated rubber so that I stay flexible when cold and still solid when hot. I was used to keep water off of my wearers and am black in color. I am also the only living example of me in the world.

What am I? _____

8. I am fairly large with different versions of me; mostly all black and I have a few rusted holes in some spots. I used to be used for digging up dirt for planting crops, but now I am

not used as much because they have more mechanical (and larger) versions of me that don't require as much physical work.

What am I? _____

9. I am small and brown and commonly used as a snack wherever you may find me; but sometimes I am not all that easy to eat (you might have to work to crack me open).

What am I? _____

10. I am small and delicate with intricately carved designs in my orb shaped bodies (attached to my very needle like stem). I am made out of brass and have a bronze color. My use was to make women and ladies look fashionable while I helped hold down their hats or their hair-do's together.

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11. I am a small and skinny piece of wood used to start a fire when you strike my head onto a certain surface. I am highly flammable (a lot of me were buried rather than displayed due to my flammability) and once, accidently, caught a man's pants on fire.

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12. I am made of metal (one being round and the other rectangle shaped) with different designs sticking out on me. I am used to make a delicious breakfast when you put batter in me while I'm hot and close my lid; within a few minutes the batter is cooked and most commonly topped with maple syrup.

What am I? _____

Observation Area

Directions: Have students find a place to look out the observation gallery windows and have them search for animals and answer the following questions.

1. List wildlife or evidence of wildlife (tracks and nests) you notice while looking out at the refuge.

2. DeSoto National Wildlife Refuge is a home (or habitat) for wildlife. List 4 plants or animals that you think live on the refuge.

1. _____ 2. _____ 3. _____ 4. _____

3. Looking out the windows, what changes can you see that people have made to this area? List as many as you can see. Why have they made these changes?

4. Why is DeSoto National Wildlife Refuge important to you? _____
