ENVIRONMENTAL STUDIES TREK
A SELF-GUIDED TOUR FOR UPPER LEVEL ENVIRONMENTAL STUDIES STUDENTS
This TREK was developed for upper level Environmental Studies students. Topics covered include habitats, environment, human impact, and climate. There are questions for each trail at the Zoo (note: the Wells Fargo Family Farm is closed November-March). If you need assistance in locating something Zoo staff and volunteers can help.

We are meeting together at the Minnesota Zoo for ___________________________.

(lunch or program)

Meet at __________________ at _____________.

(location) (time)

The bus will be leaving at ____________.

(time)

Meet at __________________ before we depart.

(location)

Other reminders:
Directions: Look for the answers to the following questions on the graphics in the Great Hall of Discovery Bay and be sure to answer each question thoroughly.

Activity Stop: Shark Reef

1. Crevalle jacks and Horse-eye jacks are indicators of what in their environment?

2. What reproductive strategy do Goliath groupers use?

3. Explain where and why shark fin soup is desirable in some cultures. What are the environmental impacts of this practice?

4. What reproductive strategy do sharks use?

5. Define bycatch and explain its impact on sea turtles.

Activity Stop: Hawaiian Monk Seal Habitat

6. What human activities have threatened monk seal populations?
Activity Stop: Our Oceans, Our Choices

7. Describe the habitat and organisms found in tide pools.

8. Describe the environmental impact of shrimp farming.

9. Find the “Planet Ocean” graphic. Describe why all of the following ocean factors are important:

- Depth
- Chemistry
- Tides
- Currents
- Waves
10. Explain how fishing and fisheries contribute to the Triple Bottom Line (be sure to explain both positive and negative impacts of fisheries).

11. Using the series of posters explaining the “Heart of the Climate System.”

   A. Explain how oceans are related to climate regulation.

   B. Describe the importance of coastal ecosystems.

   C. Give an example of the impact of a warming ocean on plants and animals.

   D. Explain the impact of ocean acidification and global warming on sensitive animals like corals.
12. Visit the “Fish Smart Diner” and select two different options (OR visit seafoodwatch.org and choose two options from different lists). Compare and contrast the environmental impacts of each seafood you selected.

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<th>Fish selected:</th>
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<td>List the environmental impact of this fish.</td>
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Directions: Look for the answers to the following questions on the graphics along Russia’s Grizzly Coast and the Northern Trail and be sure to answer each question thoroughly.

Activity Stop: Sea Otters

13. Define keystone species and explain why otters are a keystone species in their ecosystem.

Activity Stop: Mammoth Dig

14. Describe the climate of the tundra and some of the plants and animals you find there.

Activity Stop: Conservation Cabin

15. Inside the cabin by the Amur leopard, describe the three major threats to species in Russia’s Grizzly Coast and at least one action being taken to protect threatened species.
Activity Stop: Prairie Dogs


Activity Stop: Moose

17. List and define the three factors contributing to Minnesota moose decline.

1.

2.

3.
Directions: Look for the answers to the following questions on the graphics along Tropics Trail and the Minnesota Trail and be sure to answer each question thoroughly.

Activity Stop: Africa

18. Define the term “biodiversity hotspot” and explain the location of the majority of these hotspots.

19. What are the issues facing the fig tree and how can you help?

20. Explain the environmental impact of palm oil on the rainforest.

Activity Stop: Minnesota

21. Label the three biomes found in Minnesota.
22. Summarize the ecosystem services provided by wetlands.

23. List at least three invasive species and describe their impact on native species.

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Directions: Look for the answers to the following questions on the graphics at the Wells Fargo Family Farm and be sure to answer each question thoroughly.

24. Visit the timeline of agriculture in the building behind the farm house and record the events for the following dates:

   A. 1862:

   B. 1896:

   C. 1933-1939:

   D. 1938:

   E. 1945:

   F. 1970:

   G. 1980's:

   H. 1983:

   I. 1986:

   J. 1993:

   K. 1996: