# A Trip to Ashfall Fossil Beds

## **Lesson Overview:**

Students will use the Virtual Tour and a Nebraska State Highway Map to plan a trip to Ashfall Fossil Beds.

## **Grade Level:**

Grades 4- 8

## **Objectives:**

1. Students will develop skills in map reading.

2. Students will develop skills in trip planning including calculating distances and expenses.

## **Nebraska State Standards:**

### **Social Studies**

SS 4.3.1.a Use local and state maps and atlases to locate physical and human features in Nebraska.

SS 4.3.1.b Apply map skills to analyze physical/political maps of the state.

SS HS.2.1.a Make decisions by systematically considering alternatives and consequences through the use of cost benefit analysis.

SS HS.3.5.a Apply geographic knowledge and skills to interpret the past and present in order to plan for the future.

### **Math**

MA 4.3.3.b Identify and use the appropriate tools, operations, and units of measurement, both customary and metric, to solve real-world problems involving time, length, weight, mass, capacity, and volume.

MA 5.4.2.b Formulate questions that can be addressed with data and make predictions about the data.

MA 7.2.3.f Solve real-world problems involving scale drawings using a proportional relationship.

## **Materials Needed:**

Access to computers with internet

Nebraska State Highway maps

Handout: A Trip to Ashfall Fossil Beds (included below)

## **Suggested Procedure:**

1. Teacher introduces students to the Virtual Tour of Ashfall Fossil Beds. The teacher can take students through aspects of the tour or allow the students to “take the tour” on their own.
2. Teacher hands out maps and introduces the students to the following aspects of the map:
   1. Locating towns/cities by using the coordinates.
   2. Identifying highways and how to calculate driving distance between towns.
   3. Identifying symbols for camping and points of interest.
3. Teacher distributes the activity handout.
4. Teacher oversees the students working and collects the completed work.

## **Extending the Lesson**

The handout contains ideas for extending the lesson.

## **Assessment:**

The completed handout.

## **Suggested resources:**

For assistance in answer question 9 of the handout.

**Official USA**: [Nebraska Airports](https://www.officialusa.com/travel/airlines/nebraska-airports.html" \o "Nebraska Airports)

Map Resources:

[Map Of Nebraska](https://goo.gl/maps/rvnRJRNYvsyJG1qv6)

[County Maps](https://dot.nebraska.gov/travel/map-library/county/)

[State & County Maps](https://mapgeeks.org/nebraska/)

**A Trip to Ashfall Fossil Beds** Use the Official Nebraska State Highway Map

1. Locate Ashfall Fossil Beds on the map. Ashfall is in Antelope County near the towns of Orchard and Royal. What would be the map coordinates for the Park?
2. If one were approaching the Park from mainly the East or West, which highway would be the main road to travel?
3. If one were approaching the Park from mainly the North or South, which highway would be the main road to travel?
4. If you were to travel to Ashfall Fossil Beds from your home, what would be your route? Write the roads you would travel in order from the first you would be on to the last before the Park.

Calculate the distance one-way and the traveling time (use 60 mph as driving speed).

1. If you planned at Ashfall Fossil Beds for two to three hours for your visit, would you be able to accomplish the trip in a day? Explain your answer.
2. If you could not accomplish your trip to Ashfall in a day, which town/city would you most likely choose for an overnight motel stay?

Where could you take advantage of tent camping instead of motel? (Might need to use an internet search to determine)

1. If you decided to make your trip to Ashfall Fossil Beds part of a longer vacation, what are some other attractions you would take in that are close-by or on-the-way?
2. Once at Ashfall, what are two items you want to see the most? Explain why.

What is a question you would like to ask one of the paleontologists?

1. (**Optional)** If someone were traveling from a distance from either the East or West to Ashfall, what is the most likely airport to arrive, close-by, on a commercial jet? (Might need to use an internet search to determine)
2. (**Extending the lesson**) Calculate expenses (gasoline, meals, and lodging) for the trip to Ashfall from your home. First, calculate as a day trip. Second calculate as a three-day trip.