

Let's Take a Drive!

Grade Level: 4-5

Approximate Length of Activity: Two to three class periods

Objectives

1. Students will figure out mileage for the trip they plan.
2. Students will be able to problem solve and draw conclusions from data collected.
3. Students will be able to read a map.
4. Student will know how to solve problems involving decimals and will be able to apply a formula.

Michigan Content Standards: (Math) N.FL.04.10; N.FL.04.11; N.FL.04.12; N.MR.04.13; N.MR.04.14; N.ME.04.15; N.FL.04.34; N.FL.04.35; M.UN.04.01; M.PS.04.02; N.FL.05.04; N.FL.05.05; N.FL.05.06

Materials Needed

- United States maps
- Current gas prices for gasoline with and without ethanol
- Pencils
- Paper
- Calculator
- Computer with Internet

Activity Outline

1. Group students in twos or threes.
2. Ask students, "do you really think it makes a difference what type of gasoline I put in my car?" Review various octane levels of gasoline as well as gasoline blended with E10 or E85. "How does it make a difference?" Have students discuss this question with each other. Some reasons might be – better for the environment, cheaper price, higher performance for my car, energy independence, etc.
3. "Today, we are going to look at the amount of money I will save or not save by using ethanol-enriched fuels."
4. In groups, students will determine a place that they would like to visit on summer vacation. (They have to be able to drive to their final destination.)
5. Students will then look at maps to determine the best way to get to their city of choice. Using the maps (or if short on time, have students use Internet) to determine total distance of their trip.
6. Students need to find the different gas prices for different states that they will be traveling through using the following website:
<http://www.fueleconomy.gov/feg/gasprices/states/index.shtml>

7. Have students figure their trip if they were to only use gasoline with ethanol (must specify if they are using E10 or E85 ethanol-enriched fuels) and if they were only using gasoline without ethanol. Do they save gas money? Is there a difference? Have students draw conclusions from their findings from their trip. What are other variables that affect the cost of this driving trip? To locate E85 stations across the county, visit: www.E85Fuel.com.
8. Students share their findings with classmates and discuss their role as soon to be consumers of cars and gasoline.

Related Activities

1. The lesson "Corn: An A-mazing Plant" located in the social studies section of this curriculum guide.
2. The lesson "Food and Fiber Products" located in the science section of this curriculum guide.

Acknowledgment

This lesson was provided courtesy of the Ethanol Promotion and Information Council. Additional teaching materials are available. For more information or materials, visit, www.drivingethanol.org or email info@drivingethanol.org