

Transportation

Objectives

Students will determine the monthly and yearly costs of owning one or two cars. They will draw pictures of their cars.

Suggested Vocabulary

automobile, Department of Motor Vehicles, driver's license, license plate, loan, payment, insurance premiums, mechanic, repair, alarm, public transportation, traffic accident, inspection, unleaded gasoline, tune-up, gas station/service station

Materials

- Transportation Price List (page 56), one per student or pair of students
- Transportation Summary (page 57), one per student
- My Car (page 58), one per student
- Family Profile Record Sheets (page 10) from previous simulations

Optional:

- Basic Operations with Whole Numbers (pages 81 and 82)
- Answer Key (page 93)
- Measurement Conversion Chart (page 96)

Procedure

1. Divide the class into cooperative learning groups. Ask the groups to discuss the pros and cons of buying a new car and a used car. Have each group create a chart that shows this information.
2. Ask students to review the costs for purchasing and insuring different kinds of cars that are given on the Transportation Price List so they can decide whether they can afford to buy new or used cars for their families.
3. Other forms of transportation, such as city buses, commuter trains, motorcycles, and bicycles, are not considered in this cost analysis but can be discussed with students.
4. You may wish to have students look through the automobile sales in the classified advertisements of the newspaper. If they can find new or used car prices that are better than the approximate ones provided on the price list, allow them to use these values in their calculations.
5. Discuss the three groups of new cars shown on the Transportation Price List. Have students give examples of economy, mid-price, and luxury cars. Then talk about the conditions of used cars. Ask volunteers to describe what they think fair, good, and excellent conditions mean.
6. Ask students why they think automobile insurance is important. Invite an automobile insurance agent to speak to your class. Encourage students to ask the agent questions about what services the agency provides and what the different costs are for new and used cars.

Transportation *(cont.)*

Procedure (cont.)

7. Have students record their car insurance costs on their Transportation Summary forms.
8. Students should decide whether they will make monthly payments or pay for their cars in full, using money in their savings or checking accounts. If students purchase their cars, they will not have any monthly car payments. Therefore, the value recorded on their Transportation Summaries will be zero. Point out that they will still have to pay for car insurance and gasoline.
9. Write the following gas prices on the chalkboard or have students determine what the price of each grade of gas is in your community and write that information on the chalkboard.

Gas Prices

\$1.14 per gallon (3.79 liters) of regular unleaded

\$1.20 per gallon (3.79 liters) of mid-grade unleaded

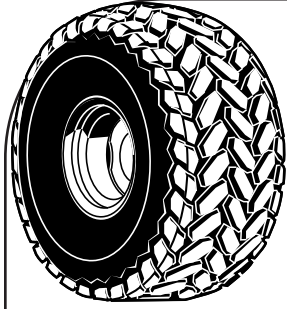
\$1.35 per gallon (3.79 liters) of premium unleaded

10. Tell students to calculate the amount of money they spend on gas if they use 18 gallons per week. After students have calculated the weekly cost of gasoline, have them multiply that value by four to get the monthly cost. Remind them to record the monthly value on their Transportation Summary forms.
11. Have students calculate the cost, insurance, and gasoline for a second car if their families need vehicles for their spouses.
12. Encourage students to draw pictures of their family cars.
13. As an alternative to drawing pictures, you may wish to have students make collages, using car pictures from newspapers and magazines.
14. Remind each student to write the total estimated transportation expenses on his or her Family Profile Recording Sheet (page 10). Be sure students write monthly and yearly estimates. Point out that yearly estimates can be obtained by multiplying the monthly estimates by 12.

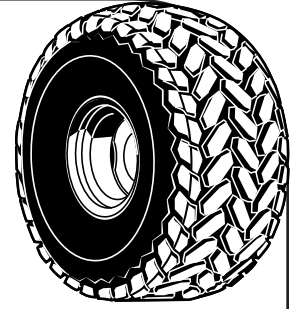
Transportation *(cont.)*

Follow-Up Activities

1. If possible, arrange to take students to a car manufacturing plant. As an alternative, you could arrange a field trip to an automotive repair or body shop.
2. Have students do research to learn about vehicles that run on alternative fuel sources such as natural gas, electricity, solar power, human power, and hydrogen.
3. You may wish to have students investigate to learn what the different advantages and disadvantages of purchasing and leasing automobiles might be.
4. Obtain automobile accident report forms from an insurance company and the local police department. Reproduce these forms. Give students the experience of filling out these forms.
5. Arrange to take students to traffic court. Tell them to take notes during the hearings. Discuss students' observations of the process. Ask them what they think works well and what they think can be done to make improvements.
6. Have students do research to determine how gas is obtained, how it is processed, how it gets to the pumps, and how the price is established.
7. Provide students with outline maps of the world on which they can write. Have them do research to learn where the world's largest oil deposits are found. Ask them to color and label these locations on their maps.
8. Have students keep a log of how much gas their real-life family uses and how many miles they travel using that amount of gas. Show students how to calculate how many miles per gallon a car gets. Ask them to figure out how many miles per gallon their cars get. If a student does not have a car, tell him/her to use a classmate's log to do the calculations. Then allow the class to work together to rank students' cars in order from best gas mileage to worst gas mileage.
9. Make a class graph that shows what kinds of vehicles each student's family owns. These can be divided into groups by vehicle models such as pickup trucks, motorcycles, two-door cars, four-door sedans, station wagons, sport utility vehicles, and sports cars, or they can be classified by the names of vehicle makers.
10. Encourage students to design the cars of their dreams. Allow them to use their imaginations to draw diagrams for any kinds of cars they think they would like to drive. Students may enjoy making models of their dream cars. Invite volunteers to share their diagrams or models.



Transportation Price List

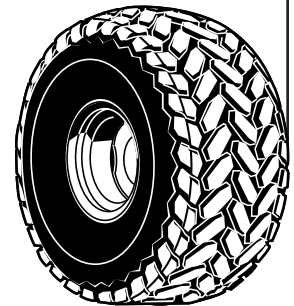
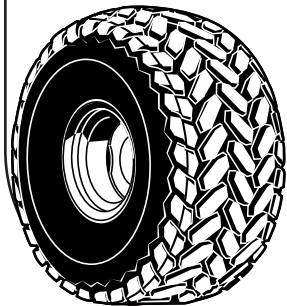


NEW CARS

Type of Car	Total Price	Car Payments	Car Insurance
Economy Car	\$7,000	\$225 per month	\$100 per month
Mid-Priced Car	\$25,000	\$340 per month	\$125 per month
Luxury Car	\$60,000	\$1000 per month	\$250 per month

USED CARS

Condition of Car	Total Price	Car Payments	Car Insurance
Fair Condition	\$2,500	\$65 per month	\$50 per month
Good Condition	\$3,000	\$90 per month	\$70 per month
Excellent Condition	\$5,000	\$100 per month	\$90 per month



Transportation Summary

Use the Transportation Price List (page 56) to fill out summary information for each car your family has.

CAR 1

Type or condition of car: _____

Make: _____

Model: _____

Year: _____

The total price of car: _____

Monthly car payment: _____

Monthly car insurance premium: _____

Weekly cost of gasoline (18 gallons per week): _____

Monthly cost of gasoline (4 x weekly cost): _____

Total spent per month on car 1: _____

CAR 2

Type or condition of car: _____

Make: _____

Model: _____

Year: _____

The total price of car: _____

Monthly car payment: _____

Monthly car insurance premium: _____

Weekly cost of gasoline (18 gallons per week): _____

Monthly cost of gasoline (4 x weekly cost): _____

Total spent per month on car 2: _____

My Car

Use the space below to draw a picture of your car.

