

CHAPTER 18 Planning a Trip

Planning is essential to travel, whether it is to a local supermarket or across the country. Vehicle preparation, wise route decisions, and time management are key ingredients to responsible planning.

LESSON ONE

Preparing Yourself and Your Vehicle for a Short Trip

LESSON TWO

Getting Ready for a Long Trip

LESSON THREE

Loading and Driving with a Trailer

LESSON FOUR

Traveling Safely in a Light Truck: A Pickup, Sport Utility Vehicle, or Van

LESSON ONE

OBJECTIVES

- Describe how you would prepare yourself for a short trip
 Discuss how you would
- Discuss how you would prepare your vehicle for a short trip and the reasons for doing so.

Preparing Yourself and Your Vehicle for a Short Trip

Most traffic fatalities happen within 25 miles, or a short trip's distance, of the driver's home. Have you thought about ways to reduce your chances of being in a collision when you take a short trip away from home?

What Steps Should You Take When Planning a Short Trip?

A short trip can be a 5-mile drive to a neighborhood shopping center, a 2-mile drive to work or school, or a 45-mile trip to visit a relative who lives in another town. Even if you make the same trip every day, being prepared

can help you reduce the risk of being in a collision.



FOR NEW DRIVERS

Working a Self-Service Gas Pump

To operate a self-service gas pump, pull up to the pump that dispenses the kind of fuel your vehicle uses. If a sign says "Pay Cashier Before Pumping," the pumps will not operate until you pay. Otherwise, pump the amount you need, and pay when you are done.

- 1. Open the fuel filler door, and take off the gas cap.
- 2. Take the pump nozzle off its cradle, and place the nozzle in the fuel tank opening.
- **3.** Turn on the pump switch. It is usually located near the pump nozzle cradle.
- **4.** Squeeze the lever on the pump nozzle to begin pumping the fuel.
- 5. If you have prepaid or when the tank is full, the pump will shut off automatically. Otherwise, release the lever, and put the nozzle back on its cradle. Turn off the pump switch. Then put the gas cap back on, and shut the fuel filler door.

Prepare Yourself

You need to make advance preparations for a trip even if you'll only be driving a short distance. Ask yourself these questions before you get into the car.

Do I know how to get where I'm going? If you are going someplace you have never been before, work out your route in advance. Make sure that you have specific directions to follow, and use a map to check them out. Know the names of the streets and roads that you have to follow. Make sure that you are able to drive on them in the direction you want to go.

Do I know another way to get there? Sometimes even the best plans just don't work out. Your planned route may be

blocked for many reasons, so it's smart to have alternative plans to get where you're going by another route.

Do I have everything I need? Even though you will probably not take any luggage on a short trip, you may need some or all of the following items: identification, money, addresses, directions or a map, and a list of things to do, see, or buy.

Have I given myself enough time? Hurrying can make you nervous and careless. First figure out how long the trip should take, then add some time for the unexpected. You can anticipate some delays by listening to the radio for weather conditions and traffic reports.

Am I going at a good time? Try to avoid rush-hour traffic. There's no reason to get involved in a traffic jam if you don't absolutely have to. As you plan your route, remember that roads leading into urban areas will be busiest during the morning rush hours and roads leading out will be busiest in the evening rush hours.



Use a map to make sure you know how to get where you're going.

Prepare Your Vehicle

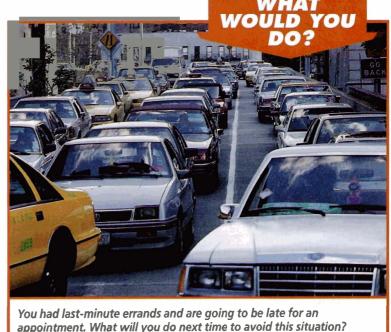
Every time you use your vehicle, you should check to be sure that it is in proper condition to be driven. (See Chapter 7 for predriving checks.) You should check to see that:

- tires are properly inflated.
- signal lights are working.
- front and back lights are working.
- you have enough fuel and oil.

Preparing yourself and your vehicle for a trip does not take much time. However, the time you spend in preparation will save you time and trouble in the long run.

Lesson 1 Review

- 1. What are some helpful questions to ask yourself as you prepare for a short trip?
- 2. What items should you check as you prepare to drive your vehicle?



LESSON TWO

OBJECTIVES

- 1. Explain how you would prepare yourself for a long trip.
- Describe how you would prepare your vehicle for a long trip.

Getting Ready for a Long Trip

You face risk when you take a long trip, just as you do when you take a short trip. Fatigue, unfamiliarity with the area, and uncertain weather conditions are some factors that can increase driving risk on a long trip. Long trips also present you and your vehicle with some different needs.

What Should You Do to Prepare for a Long Trip?

If you plan to take a long trip, some of the preparations you should make are similar to those you make for a short trip. Others, however, are important only when you are traveling long distances.

Prepare Yourself

Here are some questions that you should ask yourself to prepare for a long trip.

How will I get to where I want to go? You may choose the most direct route to your destination, or you may choose to drive on a more leisurely route through scenic country. Whichever you choose, plan your route

carefully. Use a map, and keep in mind the risks that each route may pose. The most direct route may involve expressway driving, where high speeds and large trucks present special problems. On the other hand, a scenic route may lead through congested towns or wilderness areas with no gas stations or places to stay.

Plan your route before you start the trip. Don't try to read a map while you're moving on the roadway. If you need to check the map, pull into a rest area or onto the shoulder when it is safe to do so.

You may want to write to or visit an auto club or travel agency to obtain maps, route suggestions, and recommendations on places to stay.

◆ Call ahead to make reservations at hotels or motels along your route and at your destination.



Where will I spend the night while I am on the road? Plan where you will spend each night, and make your reservations in advance. Ask about rates and parking facilities, and figure this information into your budget and schedule.

Will I have had enough sleep the night before driving? Be sure that you get enough rest before getting behind the wheel. If you become tired while driving, pull over at a rest stop.

A good plan is to drive in 2-hour stretches with 15-minute breaks in between. Don't try to drive more than a total of 8 hours in a day. If you're traveling with another person who also drives, share the driving task.

Budgeting Your Money and Planning Your Time

A long trip can be expensive. To figure out how much money you'll need, make a budget. Use the categories above, adding others if you need to. Figure your budget by the day or by the week. Your emergency supplies should include an extra set of vehicle keys as well as replacements for or additions to supplies you normally carry in your trunk or other vehicle storage area. (See Chapter 15 for a list of emergency supplies.)

The Addition of	BUDG	ET	2			
	Food	Lodging	Gas	Tolls	Parking	Recreation
Day 1	\$75	\$95	\$18	\$5	_	\$20
Day 2	\$120	\$70	\$15		\$5	_
Day 3	\$70	\$80	\$ 15	\$3		\$15

S	CHEDU	ILE			
	Dep Place	art Time	Average Speed	Arrive Place	Time
Day 1	Holyoke	7 A.M.	40 mph	Boston	9 A.M.
Day 2	Boston	2 P.M.	45 mph	NYC	6 P.M.
Day 3	NYC	6 A.M.	45 mph	Washington, D.C.	11 а.м.

BEFORE-TH			
Emergency supplies	Professional vehicle checkup	Maps and travel books	
Extra fuses Gloves Duct tape Flashlight First aid kit Keys	Brakes Transmission Shocks	City maps State maps Places of interest	



Although a scenic route may be more enjoyable, a limited-access highway tends to be much safer and more energy efficient. You'll have fewer stops, starts, curves, and hills, and you'll be able to maintain a steady speed for longer periods of time.

FYI

To find the recommended air pressures for your tires, check your vehicle owner's manual or look for a sticker that may be affixed to a doorpost or to the inside of the fuel filler door. Never exceed the maximum tire pressure recommended for your vehicle.

Planning your travel time by making a schedule is also helpful. In making up your schedule, consider such factors as rush-hour traffic, speed limits, the kind of route you want to take, how far you want to drive at a time, and occasional stops for stretching, eating, and relaxing. Plan your driving time so that you avoid morning and early-evening rush-hour traffic.

Prepare Your Vehicle

Your vehicle should always be in good condition. However, before a long trip, you should have a mechanic check the following:

- brake shoes and pads
- exhaust system for leaks
- front-end alignment
- tire condition
- fluid levels in the engine, transmission, and battery
- shock absorbers
- belts and hoses

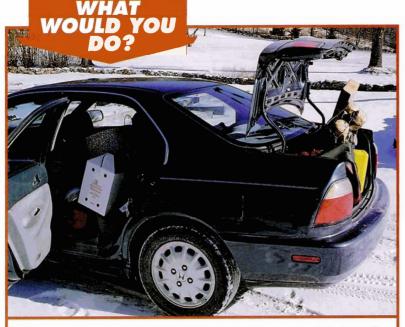
Pack the vehicle carefully. Overloading can have an adverse effect on your vehicle's handling, acceleration, and fuel efficiency.

Before you load your vehicle, consult your owner's manual for the maximum weight load recommended per tire. Then be sure that your tires are inflated to the tire pressure recommended to carry any extra weight.

When you pack the vehicle, follow these additional guidelines.

• Pack the heaviest objects at the bottom of the trunk or storage area.

- If you use a vehicle-top carrier, be sure to place only lighter objects in it.
- Do not put anything on the rearwindow shelf that will obstruct
 your view of the roadway behind
 you or that can be thrown forward
 in a sudden stop. Do not obstruct
 the back seat windows by hanging
 clothes over them.



You and your family are about to take a three-week driving trip. What will you do to make this vehicle trip-worthy?

Lesson 2 Review

- 1. How can you prepare yourself and your vehicle for a long trip?
- 2. How can making a budget and a schedule help you with your plans for a long trip?

LESSON THREE

Loading and Driving with a Trailer

Many drivers tow boats, campers, or other kinds of trailers behind their vehicles. Towing a trailer, however, can make driving more difficult.

OBJECTIVES

- Describe factors you should be aware of when planning to use a trailer.
- Explain the procedures for driving a vehicle with a trailer attached.

KEY TERM

hitch

What Do You Need to Know About Trailers?

Knowing some of the special features and needs of trailers can help you minimize the risk when driving with one attached to your vehicle.

Weight of the Trailer and Its Load

Many vehicles are limited in the amount of weight they can pull in a trailer. Consider the weight of your vehicle, the weight of the trailer you're planning to haul, and the weight of the load. Check your owner's manual for recommended factory load limits.

Necessary Equipment

If you tow a trailer frequently, your vehicle may need additional equipment, such as a heavy-duty suspension, anti-sway bars, a large-capacity radiator, transmission cooler, and heavy-duty shock absorbers. You will need to add mirrors on your vehicle to increase visibility. You also need extra emergency equipment for heavier trailers, including a hydraulic jack, blocks for holding on grades, and tow ropes.

To tow a trailer, you need a **hitch**, a device that attaches to the back of the vehicle, and safety chains. For ordinary loads, use a hitch that is welded or bolted to the frame of the vehicle. For heavier loads, there are special hitches for load equalizing. When your hitch is installed, also install an electrical outlet for the trailer's taillights, stoplights, and turn signals.

Preparing to Tow a Trailer

The increased load that a trailer puts on your vehicle means that you will need to check your oil and transmission fluid more often than



The poorest trailer hitch is a bumper attachment unit. Do not use this kind of hitch for anything except the very lightest loads.

◆ Pack a trailer so that 60 percent of the load is in the front half.





The wheel may be civilization's most important technological development. The wheel is believed to have been invented in about 3500 B.C. Its invention is credited to the Sumerians, a civilization that developed in the Tigris-Euphrates Valley in the area that is now Iraq.

usual. You will also need to replace air, oil, and fuel filters sooner than you ordinarily would. You may need to increase the air pressure in your tires.

Packing a Trailer

The rear end of your vehicle will have to support 10 to 15 percent of the trailer load. Therefore, the vehicle itself should carry 10 to 15 percent less than the maximum weight recommended by the owner's manual. Too much weight in the back of the vehicle will cause its front to rise and will affect steering, braking, and the aim of the headlights.

When you pack the trailer, follow manufacturer's guidelines. Load the heaviest items at the bottom, over the trailer wheels. About 60 percent of the weight should be packed in the front half of the trailer, and the total weight should be about equal from side to side. Be sure to pack all items tightly or tie them down so that they cannot shift during driving maneuvers.

Check what you have done. The bottoms of both the vehicle and the trailer should be nearly parallel to the ground.

How Do You Drive a Vehicle with a Trailer Attached?

Towing a trailer requires new driving skills and plenty of practice.

Starting

Maneuverability and acceleration are limited when you tow a trailer. Check traffic carefully. Signal before moving. Allow a large gap before entering traffic. Start slowly, and check traffic in the mirrors frequently.

Backing

Backing is a difficult maneuver. Use these guidelines to back with a trailer: back slowly; to go left, turn the steering wheel to the right and then

straighten it; to go right, turn the steering wheel to the *left* and then straighten it. Do not turn the steering wheel too much or hold it in the turned position too long. Doing so can cause the trailer to jackknife.

Making a Right Turn

To turn right, follow these steps.

- 1. Check traffic and signal for the right turn in advance of the intersection.
- 2. Position farther from the curb than if you didn't have a trailer attached.

♦ Practice backing with a trailer before you actually need to do it.

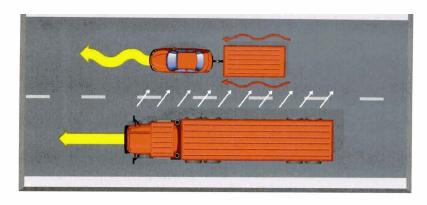


- 3. Steer the vehicle straight ahead until the front wheels are well beyond the curb line.
- **4.** Turn the steering wheel sharply right.
- **5.** Complete the turn by straightening the steering wheel.

Making a Left Turn

To turn left, follow these steps.

- 1. Check traffic and signal early.
- 2. Proceed farther into the intersection than usual to allow for the trailer.
- 3. Swing wide enough so that the trailer will not cut the corner.
- 4. Complete the turn and move into traffic.



◆ A draft from large vehicles can make a trailer move from side to side. Be ready to adjust steering.

Overtaking, Passing, and Being Overtaken

When you plan to overtake and pass another vehicle, allow much more time and space because of the length and weight of the trailer.

When you are being passed by a light vehicle, observe the same rules that you do in a car. (See Chapter 9.) However, if a heavy vehicle is passing you, the air that it displaces will tend to push the trailer to the side. Be ready to adjust your steering.

Slowing and Stopping

If your trailer does not have brakes, the brakes on your vehicle control all slowing and stopping. If the trailer does have brakes, then your vehicle's brakes control the trailer's brakes.

The additional weight and length of the trailer mean that you will

need more time and space to stop. When you do enter traffic, allow a greater following distance than you ordinarily would.

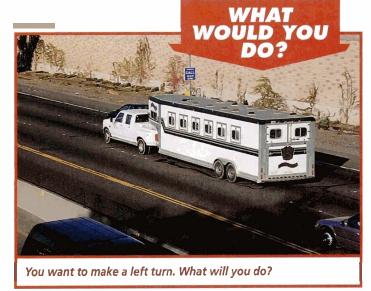
Before driving with a trailer, check your insurance to be sure that you are covered for towing a trailer. Also check the laws about trailers in states that you will be traveling through.

Lesson 3 Review

- 1. Why is it important to pack a trailer carefully?
- 2. In what ways is driving with a trailer different from driving without one?

SAFETY TIPS

If you are pulling a trailer, you will need twice the usual distance to merge into traffic, to pass another vehicle, or to stop.



LESSONIFOUR

OBJECTIVES

- Explain the importance of visibility and vehicle size when traveling in a pickup truck, sport utility vehicle, or van.
- Describe how you can protect yourself and other motorists when driving a large vehicle.

KEY TERM

sport utility vehicle (SUV)

Iraveling Safely in a Light Truck: A Pickup, Sport Utility Vehicle, or Van

The most popular vehicles on American roads today are light trucks. This category includes pickups, vans, and **sport utility vehicles (SUVs).** An SUV is designed for a variety of uses and usually incorporates four-or all-wheel drive. It features increased ground clearance and a cargo area included within the interior of the vehicle. Driving a light truck or sharing the road with light trucks requires consideration for their size and limitations.

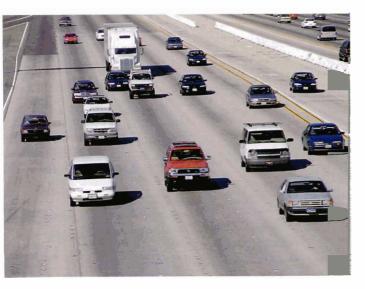
How Do You Drive a Pickup, Sport Utility Vehicle, or Van?

A number of factors make light trucks more difficult than cars to drive and more difficult to share the road with.

Visibility

A taller vehicle allows the driver to see over surrounding traffic and take advantage of that height to search farther down the road for pending problems. This gives the driver an advantage in planning driving strategy.

 Because you sit higher in a van or sport utility vehicle, you can see farther ahead than you do in a car.



Vehicle Size

Most pickups, SUVs, and vans are wider and higher than cars. This greater width and height, along with a greater weight, pose special problems that you must learn to deal with in order to manage risk.

Know the height of your vehicle. The extra height of most light trucks means that vehicles sharing the road with them often cannot see through, around, or past them to determine what lies ahead. While you can see through the glass area of a car, the same cannot always be said for these taller vehicles. When following one, stay farther behind to increase your ability to see around it.

Because these vehicles are taller than cars, the headlights and bumpers are above the rest of the traffic. In case of a collision, the bumpers will not match up with those of surrounding cars but will more likely strike the cars' bodies above their bumpers, resulting not only in more damage to the vehicles but also an increased possibility of injury to the cars' occupants.

Because headlights are higher they cause more glare when approaching or following other traffic. As the driver of the taller vehicle, you should be aware of this and stay farther back from vehicles you are following and pay strict attention to keeping your lights on low beam when approaching other vehicles.

Additional height also causes problems when you are trying to turn or stop suddenly. The center of gravity is higher, and the vehicle will roll to the side or pitch forward more easily than a car. The additional size and weight makes pickups, SUVs, and vans handle much less securely than cars in emergency situations.

Don't forget to check the height of your vehicle, especially a van, which might not fit into some garages or enclosed parking spaces.

Know the weight of your vehicle. Pickups, vans, and sport utility vehicles, because of their construction and additional components, weigh more than cars. Weight is the enemy of fuel mileage, handling, and braking. Being larger, these vehicles take longer to stop, turn, or accelerate than does a lighter vehicle.

Be alert for wind. The square shape and taller height mean that light trucks present a greater surface to the wind and are more susceptible to it.

Know about your vehicle's tires. Tires determine how well any vehicle can stop, turn, or accelerate. Tires used on pickups, SUVs, and vans have a more open and rugged tread design to allow them to deal with off-road use. However, this makes them less efficient on wet or dry pavement because they place less rubber on the road, limiting the ability of these larger, heavier vehicles to stop or turn. On average, a pickup or sport utility vehicle will take between 10 percent and 20 percent more distance to stop from highway speeds than a passenger car.

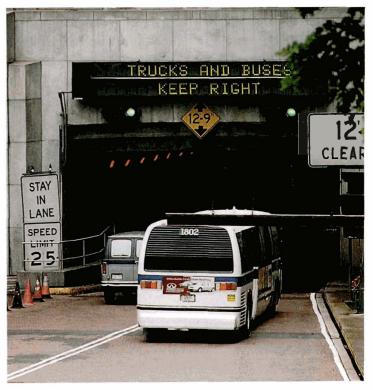
Protecting Other Motorists

Adjust your driving to take into account that you are driving a larger and wider vehicle than

SAFETY TIPS

Larger vehicles are capable of carrying more passengers. This means more opportunity for distraction. Don't allow others in the vehicle to take your mind away from the very important job of driving.

◆ Look for signs on underpasses that tell you what the maximum clearance is.



ADVICE FROM THE EXPERTS



Bill Hughes Director, National Travel, AAA

Allow sufficient time to get to your destination to avoid feeling rushed and making last-minute decisions. Keep a sufficient amount of fuel in your vehicle—you may not know how long it is to the next service station. Plan your stops so that you don't find yourself in an area where suitable accommodations cannot be found. Select a map that offers the proper level of detail to ensure that you can find your way safely. Check the map for toll roads to make certain you have enough cash to get to your destination.

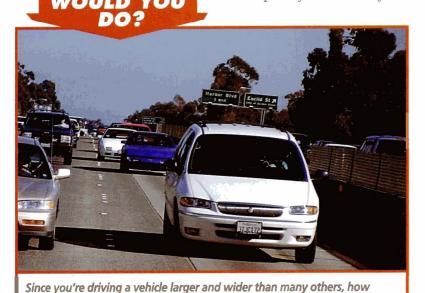
many others on the road. Maintain a greater margin of space around the vehicle. Keep in mind that you may be blocking the visibility of other drivers. Take this into consideration when you spot potentially threatening conditions ahead that cars behind you may not see.

Increase your following distance to give yourself more time to maneuver and stop. Manage the risk to yourself and to others by staying alert and allowing extra time and space to accomplish driving maneuvers.

Protecting Yourself

Driving long distances is always strenuous and requires frequent rest stops and careful planning. Because of size and the increased difficulty in maneuvering a pickup, sport utility vehicle, or van, you may get tired more quickly than when you are driving a car. Manage risk to yourself

> and to your passengers by planning to drive shorter distances and resting more often than you would if you were driving a car. If possible, share driving duties.



Lesson 4 Review

- 1. How would the size, weight, and height of a pickup, sport utility vehicle, or van make driving more difficult than driving a car?
- 2. How do you protect yourself and other motorists when driving a light truck?

should you adjust your driving to protect other motorists?

BUILDING SKILLS: READING MAPS

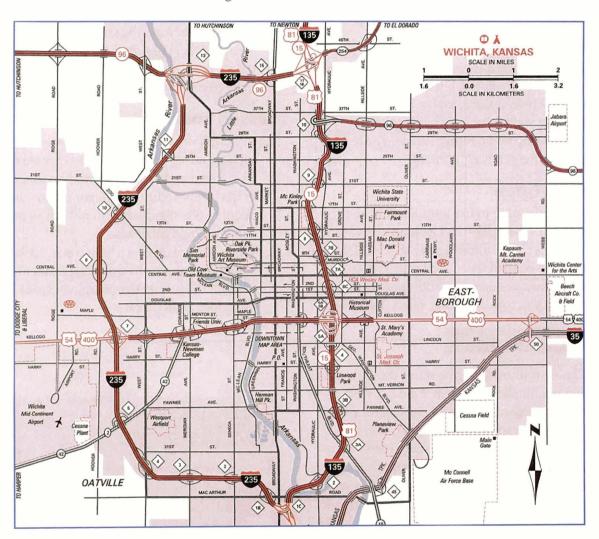
Reading City Maps

Driving in a new city is often very confusing. Most maps have insets that show major cities in larger scale. Below is an inset map of Wichita, Kansas.

Suppose you are coming into Wichita from the north, on Interstate 135. To get to Wichita State University, you would leave Route 15 at the interchange for 13th Street. Then you would head east to Hillside Avenue. To get from Washington Road to the Historical Museum, you would drive about 1 mile east on Douglas Avenue.

Try It Yourself

- 1. How would you get from Wichita State University to Friend University?
- **2.** Suppose you are at the airport. How would you drive to Planeview Park?
- 3. How would you get from the corner of 25th Street and Amidon Avenue to the Wichita Center for the Arts?



CHAPTER TO REVIEW

KEY POINTS

Lesson One

- 1. To prepare yourself for a short trip, have good directions or a map, know an alternate route, take all the items you need, allow extra time, and avoid rush-hour traffic.
- 2. To prepare your vehicle, be sure that tires are properly inflated, signal lights are working, front and back lights are in order, and that you have enough gas and oil.

Lesson Two

- Prepare yourself for a long trip by planning your route, making a budget and schedule, making reservations, and getting enough rest.
- 2. Prepare your vehicle by having it checked by a mechanic and making sure you have adequate emergency equipment.

Lesson Three

1. When planning to use a trailer, consider the weight of the trailer and its load, the weight of your vehicle, and whether your vehicle can tow and control the loaded trailer. Be sure you have any necessary additional equipment to help you tow the trailer safely. Pack the

- trailer so that 60 percent of the load is in the front half and the heaviest items are on the bottom, making sure the load is secure.
- 2. To start out in a vehicle with a trailer attached, check traffic, signal, allow a very large gap when entering traffic, and begin slowly. To back with a trailer, move slowly and turn the wheel left when going right and right when going left. To turn, signal early, position the vehicle beyond the curb line, and turn the steering wheel so that the trailer does not cut the corner. Allow extra time and space to pass, to be passed, and to slow and stop.

Lesson Four

- 1. Although drivers of pickups, sport utility vehicles, and vans sit higher and can see farther ahead and around them than other drivers, this additional height means that people following them will not see as much as they would otherwise.
- 2. When you are driving a light truck, allow extra stopping distances by following farther behind vehicles. Allow an extra margin of space in all directions at all times.

PROJECTS

- 1. Choose four neighboring states through which you might take a long trip. Find out what their laws are regarding driver licensing for pickups, SUVs, vans. Compare other state laws with the laws in your own state. Prepare a report on their differences and similarities.
- 2. Find out where your ancestors lived or where they entered this country. Plan a trip to that place. Plot out your route, and make a budget and schedule. Mark your route on a map for display, and report on your travel plans.



Explore the Glencoe Web site to find more information on the advantages and disadvantages of driving an SUV. Find out which SUVs are the safest.

drivered.glencoe.com

CHAPTER 18 REVIEW

CHAPTER TEST

Choose the letter of the answer that best completes each sentence.

- 1. When packing a trailer, 60 percent of the load should be
 - a. over the wheels.
 - **b.** in the front half of the trailer.
 - c. at the bottom of the trailer.
- 2. You should not drive more than a total of
 - a. 8 hours a day.
 - **b.** 5 hours a day.
 - c. 12 hours a day.
- 3. Most traffic fatalities occur
- **a.** within 50 miles of the driver's home.
 - **b.** within 25 miles of the driver's home.
 - c. when a vehicle is changing lanes.
- **4.** If you are going someplace you have never gone before, you should
 - a. use a road map while you are driving.
 - **b.** stop periodically to ask directions.
 - c. plan your route ahead of time.
- **5.** If you tow a trailer frequently, you may need a
 - a. hydraulic jack.
 - **b.** vehicle-top carrier.
 - c. boat.
- 6. You can anticipate some delays by
 - a. using a map.
 - b. having an alternate route.
 - c. listening to the radio for traffic and weather reports.
- 7. Before starting on a long trip, you should
 - a. choose the quickest route.
 - **b.** choose the most leisurely route.
 - **c.** keep in mind the risks that each route may have.
- 8. You can make a schedule to
 - a. know when to exceed the speed limit.
 - b. plan your travel time.

- **c.** keep track of how much money you spend on a trip.
- 9. When backing a trailer,
 - a. turn right to go left.
 - **b.** turn left to go left.
 - **c.** look over your right shoulder.
- **10.** Drivers of taller vehicles can see farther ahead because they
 - a. have better eyesight.
 - **b.** have bigger mirrors.
 - c. can see over smaller vehicles.

Write the word or phrase that best completes each sentence.

overloading	shock absorbers
restrictions	following distance
trailer hitch	urban areas

- 11. Roads leading into _____ are busiest during the morning rush hour.
- **12.** ____ can have an adverse effect on your vehicle's acceleration.
- **13.** Have a mechanic check for worn _____ before a long trip.
- **14.** Use a(n) that is welded or bolted to the frame of your vehicle.
- **15.** When you drive a vehicle heavier or taller than a car, you should increase your _____

DRIVER'S LOG

In this chapter, you have learned how to plan long and short trips, how to tow trailers safely, and how to drive pickups, sport utility vehicles, and vans. Make a personal checklist to remind you of considerations that you would take into account when planning a cross-country trip in such vehicles.

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UNIT CUMULATIVE REVIEW

This review tests your knowledge of the material in Chapters 1–18. Use the review to help you study for your state driving test. Choose the answer that best completes each statement.

- 1. To stop heavy bleeding, use
 - a. an air bag.
 - b. shock.
 - c. adhesion.
 - d. direct pressure.
- 2. At a flashing red traffic signal, you must
 - a. slow down.

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- **b.** yield to an emergency vehicle.
- c. come to a full stop.
- d. reverse direction.
- **3.** A vehicle's weight, body design, and engine type all contribute to
 - a. the driver's popularity.
 - b. oil consumption.
 - c. fuel efficiency.
 - d. night vision.
- 4. Plan your time on a trip by
 - a. making a budget.
 - **b.** making a schedule.
 - c. taking a scenic route.
 - **d.** wearing a watch.
- 5. At least once a month, check your vehicle's
 - a. brake linings.
 - b. fluid levels.
 - c. shock absorbers.
 - d. front-end alignment.
- 6. At a four-way stop, yield to the
 - a. vehicle at your right.
 - b. vehicle behind you.
 - c. truck at your left.
 - d. oncoming car.

- 7. To prove your identity at the department of motor vehicles, you can take
 - a. a phone bill.
 - b. your parent's tax return.
 - c. a birth certificate.
 - d. a report card.
- 8. Coolant is stored in the
 - a. glove compartment.
 - **b.** power train.
 - c. radiator.
 - d. steering column.
- 9. Vehicle financing can be obtained through
 - a. a bank.
 - b. your school.
 - c. an insurance company.
 - d. the federal government.
- 10. Tires should be rotated every
 - **a.** 50 miles.
 - **b.** 500 to 600 miles.
 - **c.** 5,000 to 6,000 miles.
 - d. two years.
- 11. You should pack a trailer so that
 - a. 25 percent of the load is in the front half.
 - **b.** 60 percent of the load is in the front half.
 - c. the load is evenly distributed.
 - **d.** your vehicle's rear bumper touches the ground.
- 12. Narcotics
 - a. stimulate the central nervous system.
 - **b.** are safe and easy to use.
 - c. are often used by truck drivers.
 - d. can cause death.
- 13. One problem common to urban driving is
 - **a.** busy intersections.
 - **b.** large animals on the road.
 - c. high altitudes.
 - d. interchanges.

UNIT 4 CUMULATIVE REVIEW

- 14. Driving through deep puddles can lead to
 - a. brake failure.
 - b. front-end alignment.
 - c. engine lock.
 - d. clutch fade.
- **15.** You are responsible for providing a vehicle for the
 - a. in-vehicle test.
 - b. knowledge test.
 - c. Smith System.
 - d. visual acuity test.
- **16.** A factor in the cost of motor vehicle insurance is
 - a. ethnic background.
 - b. age.
 - c. parents' driving records.
 - **d.** number of school years completed.
- 17. The night before your knowledge test,
 - a. stay awake and study.
 - b. get plenty of rest.
 - c. take a stimulant.
 - d. go out with your friends and relax.
- 18. Driving faster than the posted speed limit is
 - a. sometimes necessary.
 - b. legal on country roads.
 - c. always illegal.
 - d. legal but irresponsible.
- You can increase visibility in dense fog by using
 - **a.** your dome light.
 - b. brake lights.
 - **c.** low-beam headlights.
 - d. high-beam headlights.
- 20. The catalytic converter
 - a. is a pollution-control device.
 - b. is an optional feature.
 - c. is attached to the battery.
 - d. converts miles to kilometers.

- **21.** Think twice about buying a vehicle if its passenger death rate is
 - a. less than 1 per 10,000 registered vehicles.
 - **b.** more than 2 per 10,000 registered vehicles.
 - c. less than 2 per 10,000 registered vehicles.
 - d. more than 1 per 100,000 registered vehicles.
- **22.** To relax during the in-vehicle test,
 - a. chat with the examiner.
 - **b.** admit that you are nervous.
 - c. hold your breath.
 - d. wear loose clothing.
- 23. The odometer tells you
 - a. the speed of the vehicle.
 - b. how far you have driven.
 - c. the engine temperature.
 - d. how much fuel is in the tank.
- 24. One step of the Smith System is
 - a. the SIPDE process.
 - b. risk.
 - c. angle parking.
 - d. keep your eyes moving.
- 25. To start a vehicle, insert a key in the
 - a. steering wheel.
 - b. dashboard.
 - c. ignition switch.
 - d. carburetor.
- 26. Traction is poorest at about
 - a. 32°F.
 - **b.** 112°F.
 - c. 40°F.
 - **d.** the equator.
- **27.** The air filter is part of the
 - a. cooling system.
 - b. exhaust system.
 - c. protection system.
 - d. fuel system.