Chapter 11

Sharing the Roadway with Others

Karl Weatherly/Getty Images
How Do You Share the Roadway with Others?

The community of roadway users includes not only car drivers but also pedestrians, animals, cyclists, and truck and other large vehicle operators. It is important to learn how to pass and interact safely with different types of traffic. Good drivers do this by communicating with and anticipating the actions of others on the roadway.

LESSON 1
Driving with Pedestrians and Animals

LESSON 2
Driving with Bicycles and Motorcycles

LESSON 3
Driving with Light Trucks and Small Vehicles

LESSON 4
Driving with Large Vehicles

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- Study Guides
- Behind-the-Wheel Checklist
When driving, you must be alert to all roadway users, not just other motorists. Roadway users such as pedestrians and animals can present special problems. Pedestrians move slowly compared to motor-vehicle operators, and animals darting into the roadway can create a need to react suddenly. Anticipating these problems can help you protect yourself and others.

What Problems Do Pedestrians Pose to Drivers?

Pedestrians pose problems because they are often difficult to see. Adults and children who walk are smaller than cars and trucks, and they don’t have headlights or brake lights. Drivers concentrating on traffic, signs, and signals often fail to see pedestrians until it is too late.

Jaywalking, or walking across the street without regard for traffic rules or signals, is a common pedestrian error. Pedestrians do not always use the designated crosswalk or obey the lights or signs that tell them when it’s safe to walk across the street. Walking into the street from between parked vehicles is another type of jaywalking.

Pedestrians may be distracted when crossing to the other side of the street. Intersections are the most common sites of fatal collisions with pedestrians who often hurry across streets either against a red light or just as a light is turning red. When traffic is light, pedestrians sometimes cross at places other than intersections because they assume no vehicles are coming. In areas without sidewalks, pedestrians walk in the street or roadway, posing an additional risk to drivers.

Children

Children are at a disadvantage when crossing the street because they’re even smaller and less visible than adults to drivers. Children are less capable than adults of judging when it’s safe to cross a street, and they’re less likely to fully understand the consequences of their actions.

In many urban and suburban areas, children use the street as a playground. When playing on sidewalks, children tend to forget about traffic and dart into the street, often between parked vehicles.
Even when playing on the sidewalk, children or young adults on skateboards, sleds, roller skates, or bicycles sometimes lose control and shoot over the edge of a sidewalk into the street.

**ADULTS**

Adults often jaywalk, particularly when rushing to get somewhere or to escape harsh weather. Adult pedestrians often assume that drivers will see them and that drivers will grant them the right-of-way. Making either one of these two assumptions can result in a pedestrian fatality.

**How Can You Avoid Hitting a Pedestrian?**

Never assume a pedestrian can see your vehicle. A pedestrian who is preoccupied, or one who has been drinking, may not notice your approach even if it’s night and you have your headlights on. You should always be ready to take evasive action. To warn a pedestrian that you are approaching, tap your horn lightly. Blasting your horn loudly could frighten a pedestrian into doing something dangerous.

Searching is essential to avoid hitting pedestrians. You must watch for them. Search the roadway and sides of the road continuously as you drive. However inconvenient, you should always yield to pedestrians. They have the right-of-way, even if they are crossing the road illegally.

In particular, watch for children on or near the roadway or for clues that children may be present. Playground and school-crossing signs, toys in a front yard, or a tricycle in a driveway are all clues that children may be nearby.

**PEDESTRIANS IN RESIDENTIAL AREAS**

In residential areas, reduce speed and drive as far away from the curb or parked vehicles as you safely can. Use **ground viewing**, which means searching beneath parked vehicles as much as you can, as you drive, searching for any sign of movement. Be on the alert for children on bicycles in suburban areas.

**PEDESTRIANS IN URBAN AND SUBURBAN AREAS**

In urban and crowded suburban areas, exercise special care at intersections, particularly when you are making a turn. Be alert for people crossing against the light, stepping off a curb prematurely, or rushing to beat a changing light. Also be alert for adults and children near bus stops, train stations, in school zones, near parks, and in shopping areas.

**OTHER PEDESTRIANS**

Watch, too, for pedestrians who need more time to cross a street than the “walk” signal allows them. Although not exactly a pedestrian, you must also be careful of someone riding a skateboard or on roller skates, especially near intersections.

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In 2002, more than 4,800 pedestrians were killed and about 71,000 were injured in traffic crashes in the United States. Over 75% of pedestrian fatalities occurred at intersections compared to about 50% of the injuries. The pedestrian fatality rate is highest for persons over 74 years old while persons 10 to 15 years old have the highest injury rate.

More than 650 bicyclists were killed and about 48,000 were injured in the United States in collisions with motor vehicles in 2002.
BACKING UP

When backing up, never rely on your rearview mirror alone. Before backing up, make certain there is no one behind or next to your vehicle. This is particularly important with regard to children who may be too small for you to see when you are behind the wheel. If you think there may be people behind your vehicle, get out of your car and check the area before backing up.

What Responsibilities Do Pedestrians Have?

Pedestrians have responsibilities, too. Like drivers, pedestrians must pay attention to motor vehicles, signs, signals, and rules. Pedestrians must judge gaps in traffic and cross streets only when and where it is safe—and legal—to do so.

Here are some general rules for pedestrians:
- Never assume that a driver will see you and stop.
- Pause before crossing—look and listen for approaching traffic.
- Cross only at intersections.
- Cross only when the light is green or when a pedestrian signal shows a “walk” symbol.
- Do not step off the curb while waiting for the light to change.
- When walking on or near a roadway, walk facing traffic.
- When walking or jogging on or near a roadway, wear reflective clothing, especially when visibility is reduced. In addition, do not wear headphones.
- When walking with young children, always take them by the hand when crossing streets.

Tips for New Drivers

PEDESTRIANS TO WATCH FOR

Certain pedestrians require drivers to pay special attention.
- Elderly pedestrians may have impaired eyesight or hearing. They may move and react slowly and require extra time to cross streets.
- The physically challenged, such as people who are blind and people in wheelchairs, may need extra time to cross streets.
- Pedestrians with strollers or carriages may need extra time to move onto or off a sidewalk.
- Joggers running with their backs to traffic can pose a hazard. Many do not wear reflective clothing, which makes them difficult to see when visibility is low.
- People on the job, such as mail carriers, delivery people, or roadway maintenance workers, may be distracted by their work and step out into the roadway without checking traffic.
- Umbrellas and hooded parkas may impair pedestrians’ ability to notice traffic.
What Problems Do Animals Pose for Drivers?

The dangers posed by animals on the roadway should not be taken lightly. Smashing into a 150-pound deer at 50 miles per hour, for example, will not only kill the animal but will also wreck your vehicle and may well kill the passengers. Colliding with small animals can present problems, too. Small animals can be family pets, and the driver may feel remorseful after hitting them. Small animals also can cause crashes if drivers try to avoid them.

The problem of animals on the roadway is particularly serious during the hours between sunset and sunrise, when it’s hard to see them. Fog can also contribute to vehicle-animal collisions.

AVOIDING COLLISIONS WITH ANIMALS

Whether you’re driving on city streets or along country roads, keeping an eye out for animals will help you avoid hitting them.

Search for movement along the sides of the road. Be especially cautious when driving through farmland or any wooded areas where you are more likely to encounter deer or other large animals alongside or in the road. At night, search for sudden, unusual red spots of light that may be identified as the reflection of your headlights off animals’ eyes. In urban and suburban areas, most pets are located around or near homes, so be especially careful there.

As you’re driving, think about what you could do if an animal suddenly darted onto the road and into the path of your car. If another car is not following you closely, your best choice could be to apply the brakes.

Lesson 1 Review

1. What are some pedestrian behaviors that could lead to collisions with vehicles?
2. What precautions can drivers take to avoid collisions with children?
3. What are some of the basic safety rules pedestrians should follow?
4. What steps can you take to minimize the risk of hitting a large animal?
Bicyclists and motorcyclists present special problems for other traffic. These vehicles have a right to use the roadway, but they are at great risk in a crash. As a driver, you can take precautions to avoid crashing into a cyclist.

How Can You Recognize and Reduce the Risk of Problems Caused by Cyclists?

Cyclists cause problems because they are difficult to see. Drivers have the protection of their vehicles' metal frames and bodies, but cyclists are unprotected. In the event of a collision, skid, or blowout, the risk of serious or fatal injury to the cyclist is very high. In 2009, over 4,500 cyclists (630 bicyclists and 4,281 motorcycle operators and passengers) were killed and more than 140,000 cyclists (90,000 motorcyclists and 51,000 bicyclists) were injured in collisions in the United States.

There are several types of two-wheeled vehicles. Motorcycles and bicycles are most commonly seen on suburban and city streets. Motor scooters are similar to motorcycles, but they have smaller wheels and less power. A moped has even less power and is basically a bicycle with a lawn-mower engine. All these two-wheeled vehicles share the roadway with motor vehicles and present some of the same visibility problems.

Because these vehicles are not as common as cars or trucks, drivers tend not to look for cyclists. If you don’t see them right away, you have less time to react to their actions. Motorcycles and bicycles are very maneuverable, but they are smaller, less stable, and less visible than other vehicles. Bicyclists can’t go very fast. Two wheels provide less stability than four, making motorcycles and bicycles harder to steer and handle than many people realize. Be aware of cyclists and of how the problems they face are different from yours.

Watching Out for Cyclists

Two-wheeled vehicles are much more difficult to spot than other vehicles for drivers, especially when they approach from behind or from the side (see Figure 11.1). Motorcycles and bicycles are easily hidden from drivers’ sight by larger vehicles sharing the roadway. On highways, motorcycles do not take up entire lanes, and they are so small they may not be seen, especially when they are straddling the line between two lanes of traffic.

It is difficult for riders of two-wheel vehicles to see to the rear. The small handlebar mirrors on motorcycles and bicycles offer their drivers only a limited view to the rear. Many riders have trouble seeing in the rain. Some motorcycles have no windscreen or windshield wipers to aid visibility in case of a sudden shower, and bicycles never have these visibility aids.
Always make cyclists aware of your intentions and position. Drive with your headlights on, and signal well in advance when turning, changing lanes, or stopping. Tap your horn early to warn a cyclist of your approach.

In addition, you can take specific actions when sharing the road with cyclists. Make a visual check for cyclists when changing lanes or turning. Also increase your following distance with motorcyclists, and remember that motorcycles are entitled to the full lane width.

**DANGEROUS ROADWAY CONDITIONS**

Road conditions that are minor annoyances to motor vehicles can pose major hazards to motorcyclists. Potholes, gravel, wet or slippery surfaces, pavement seams, railroad crossings, and grooved pavement can cause motorcyclists to slow down or turn suddenly. If you are aware of the effect of these conditions and drive with care and attention, you can help reduce motorcycle collisions, injuries, and fatalities.

Be aware of the problems that cyclists face in order to anticipate situations in which a cyclist might have problems. Cyclists can veer or skid into the path of a vehicle. They might suddenly slow down, steer widely left or right, or stop suddenly.

Cyclists must make more adjustments in speed or positions than a driver in situations such as these: encountering a storm drain, a gravel surface, or a pothole; driving on a rain-slicked road or through a large puddle; getting caught in an unexpected rain or snow shower; and being blown by a sudden strong gust of wind.

If a cyclist is carrying a passenger, be especially careful. A passenger leaning the wrong way can throw a motorcycle or bicycle off balance.

**What Special Responsibilities Do Motorcyclists Have?**

Motorcyclists and motor-scooter operators have the same rights and responsibilities on public roadways as automobile drivers. While everyone must follow the same traffic laws, motorcyclists face unusual dangers because motorcycles require exceptional handling ability.

Motorcycle drivers should not take advantage of the smaller size of their vehicles to weave carelessly in and out of lanes of traffic at high speeds. This behavior is highly dangerous to the cyclist, and it is confusing to other drivers. Motorcyclists should try hard to stay out of other drivers’ blind spots. Other drivers might not be as aware as they should be about looking in their mirrors.
for motorcycles to begin with, so it is important that a motorcyclist never be in a spot that is not visible to nearby vehicles.

Consider driving two-wheelers with the headlight on, even during daylight hours, to increase visibility.

**FAILURE TO OBEY TRAFFIC LAWS**

Human error or ignorance accounts for countless collisions involving cyclists. Careless riding poses a danger not just to the cyclist but to all roadway users.

Motorcycles are subject to the same laws as other motor vehicles. Riding between lanes, weaving in and out of traffic, riding in drivers’ blind spots, and failing to signal intentions are dangerous because drivers may not be able to presume a cyclist’s actions. Children on bikes may ride the wrong way on one-way streets or sail through intersections with barely a glance to either side.

When you are driving a motor vehicle, be alert to the possibility that cyclists may not follow traffic laws. Be prepared to take evasive action if necessary.

**DRIVE RESPONSIBLY**

Some cyclists become the victims of careless or inconsiderate drivers. These drivers may tailgate cyclists, cut them off, or pass too close for safety. Such reckless actions put both the driver and cyclist at risk. Many more collisions involving cyclists occur because drivers have difficulty seeing motorcycles and bicycles.

As a driver, follow all traffic laws so that you do not endanger cyclists and other users of the roadway. Keep an eye out for them, too.

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**Did You Know?**

Motorcycles have a shorter stopping distance than other motor vehicles. This means you need to increase your following distance when there is a motorcycle in front of you.
The most popular vehicles on American roads today are light trucks. These vehicles drive a bit differently than cars. Even if you don’t drive one, you will have to share the roadway with these vehicles. Knowing how they differ from cars will be a plus when you encounter them on the road, or even when you are driving a small car.

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

The category of light trucks includes pickup trucks, vans, and **sport utility vehicles (SUVs)**, which all sit higher off the road than a car and are usually wider, too. SUVs are passenger vehicles built on truck frames that usually have four-wheel drive, and they are considerably less fuel efficient than smaller cars.

Driving a light truck or sharing the road with them requires consideration of their size and limitations. Light trucks start, steer, and stop in much the same way as a car. However, the visibility they offer, their size, and other factors make light trucks and vans more difficult than cars to drive and more difficult with which to share the road. The best way to drive them is with an awareness of their limitations.

**FACTORS TO CONSIDER WHEN DRIVING A LIGHT TRUCK**

Driving a light truck safely has a lot to do with knowing your vehicle. Light trucks are different types of vehicles than cars. They are usually taller, heavier, and have different tires than cars. If you drive one, be aware of these differences because they affect where the vehicle can go and not go. These differences also influence how well nearby drivers can see and maneuver in traffic.

Because you sit higher in a van or sport utility vehicle, you can see farther ahead than you do in a car. 
**How can someone driving this vehicle use visibility in planning a driving strategy?**

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**OBJECTIVES**

1. **Explain** the importance of visibility, vehicle height, and vehicle weight when traveling in a light truck.
2. **Describe** what precautions you need to take when sharing the road with a small vehicle.

**KEY TERM**

- **sport utility vehicle (SUV)**
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.

Vehicle height. Most light trucks are a foot or so taller than most cars. The extra height affects where you can drive and where you can park. When you park, don’t forget to check the height of your vehicle, since some do not fit into certain garages or enclosed parking spaces. The extra height means that vehicles sharing the road with you often cannot see through, around, or past you to determine what lies ahead. While you can usually see through the front, side, and rear windshields 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 bumpers are above the bumpers of most passenger cars. In case of a crash, the bumpers will not match up with those of surrounding vehicles but will more likely strike the cars’ bodies above their bumpers. This will result in more damage to the vehicles and increase the possibility of injury to the cars’ occupants.

Because headlights are higher, they also 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. Make sure you keep your lights on low beam when approaching other vehicles.

Be alert for wind, too. High winds are more likely to blow these vehicles off the road. The square shape and taller height mean that light trucks present a greater surface to the wind and are more susceptible to it.

Vehicle weight. Because of their construction on truck frames and additional components, light trucks weigh quite a bit more than cars. Weight is the enemy of fuel mileage, handling, and braking. Light trucks usually get poor mileage, sometimes as little as 10 to 12 miles per gallon. Being heavier than cars, these vehicles take longer to stop, turn, or accelerate than do lighter vehicles.

The additional weight also makes pickups handle much less securely than cars in emergency situations. The added bulk 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.

Tires. Light trucks have larger tires than passenger cars. Like all vehicles, maintaining the tire pressure recommended by the vehicle manufacturer determines how well the vehicle can stop, turn, or accelerate. Tires used on light trucks have a more open and rugged tread design to allow them to deal...
with off-road use. However, these tires are less efficient on wet or dry pavement because they place less rubber on the road, limiting their ability 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.

**SHARING THE ROADWAY WITH SMALL VEHICLES**

When you drive a light truck, be considerate of other drivers, particularly those in smaller vehicles. Adjust your driving to take into account that you are operating a larger and wider vehicle than many others on the road.

Maintain a greater margin of space around the vehicle. Increase your following distance to give yourself more time to maneuver and stop. 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.

Manage the risk to yourself and to others by staying alert and allowing extra time to accomplish driving maneuvers. Keep in mind that the difference in the size, shape, and weight of your vehicle affects its handling ability as well as your visibility.

**OTHER KINDS OF LARGER VEHICLES**

As a driver, you will encounter other kinds of larger vehicles on the roadway. Keep an eye out for emergency vehicles, maintenance vehicles, ice-cream trucks, or even snowmobiles.

**Emergency vehicles.** All drivers must yield the right-of-way to a police car, fire engine, ambulance, or other emergency vehicle using a siren and flashing lights. Pull as close to the right edge of the road as possible and stop, then wait for the emergency vehicle to pass. Do not stop in an intersection. Continue through the intersection and then pull to the right as soon as you can. Sometimes emergency vehicles will use the wrong side of the street to continue on their way. Their drivers may also use a loudspeaker to talk to drivers blocking their path.

Don’t be a “lookie-loo.” You interfere with the essential services of police, firefighters, ambulance crews, or other rescue or emergency personnel when you drive for “sight-seeing” to any emergency call site or when you slow down to gawk when passing by the scene of a collision. It is best that you keep the area clear so that the emergency crew can work effectively. When approaching the scene of an emergency, you must obey any traffic direction, order, or signal by traffic or police officers or firefighters. Obey their orders in emergency or special situations, even if it conflicts with existing signs, signals, or laws.

**Maintenance vehicles.** Roadwork involves construction and repair vehicles of many sizes and shapes with the potential to disrupt traffic. Be alert for signs and flags that warn of such vehicles working on or near the roadway. Drivers need to be alert to these vehicles and to adjust speed and position to accommodate sudden changes in traffic flow.

**Ice-cream trucks.** Approach vendors such as ice-cream trucks cautiously, since many of their customers are young children. Watch for children darting into the street and emerging from between parked vehicles to catch the ice-cream truck. In some states, drivers are legally required to stop for an ice-cream
truck equipped with flashing red lights and must yield the right-of-way to pedestrians going to and from the truck. Check your state driver’s manual.

**Snowmobiles.** During the winter, snowmobiles are allowed on certain roads in some states. Snowmobiles can come onto the roadway in unexpected places. They are often hard to see and can be difficult for their drivers to handle and to stop. Allow extra time and space to adjust to any maneuver that a snowmobile makes.

## How Do You Drive a Small Car?

Along with larger and heavier vehicles such as SUVs, there are also more small cars on the road today than ever before. Small cars are also lighter than most other cars. These vehicles cost much less to buy and operate than larger vehicles, but they have some drawbacks. In many small cars, for instance, the driver also sits lower and therefore has reduced visibility over the tops of other cars.

Small cars may have less power than larger vehicles. As a result, a small car may take a little longer to pass other vehicles. When driving a small car, allow yourself extra space and time to pass another vehicle. If a small car is passing you, give the driver ample space and time to maneuver. Small cars may also lose speed when climbing a steep hill.

Plan to give small cars extra room when roads are slippery or there are strong winds. Lightweight cars tend to skid more easily than heavier vehicles on slick roadways.

### WHAT WOULD YOU DO?

*Since you are driving a vehicle larger and wider than many others, how should you adjust your driving to protect other motorists?*

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### Lesson 3 Review

1. Describe how vehicle size affects visibility. Explain how you would manage risk when driving a sport utility vehicle and a small compact car.

2. What are some precautions you can take to protect yourself and other motorists when driving a pickup truck, sport utility vehicle, or van?

3. What can drivers of small cars do to minimize risk?
Driving with Large Vehicles

Some vehicles on the road are quite large. Trucks today can be up to 120 feet long, about eight times as long as the average car. Big trucks can weigh up to 60 tons, equivalent to the weight of 40 to 60 cars. Buses and farm equipment can be on the road. To manage visibility, time, and space near large vehicles, you need to understand their characteristics and limitations.

How Can You Safely Share the Roadway with Large Vehicles?

It is not difficult to share the roadway with large vehicles if you allow for their differences. You must be aware of problems related to their size and their stopping and turning limitations. To reduce the chance of a collision with a large truck, become more familiar with the physical capabilities of big vehicles and how they maneuver.

Put yourself in the truck driver’s place. Being aware of problems he or she faces will help you manage risk.

TRUCKS AND TRACTOR-TRAILERS

Trucks create visibility problems for other drivers. With a truck blocking your view, you can’t see other traffic or the roadway ahead. Drivers of trucks have limitations on their own visibility, which includes some large blind spots (see Figure 11.2). Trucks also stop more slowly and handle differently than cars. Here are some ways trucks are different:

Visibility. Truck drivers sit high above the roadway and have excellent visibility ahead. However, it is hard for them to see to the side and behind the truck. Despite the use of sideview mirrors, some vehicles may be all but invisible to a truck driver. Your vehicle can get lost in those blind spots. If you drive for a long time in those blind spots, you block the trucker’s ability to take evasive action to avoid a dangerous situation.

FIGURE 11.2
TRACTOR-TRAILER BLIND SPOTS

Tractor-trailer mirrors are mounted high, so the driver loses sight of your car if you travel alongside the trailer.

OBJECTIVES
1. Describe ways to share the roadway with large vehicles.
2. Describe at least three precautions you should take near slow-moving vehicles.
Generally speaking, if you can’t see the truck driver in his or her side mirror, he or she can’t see you. These blind spots are often called the “No Zone.”

**Time.** When you’re passing a truck, allow much more time than you’d need in order to pass a car. Not only is the truck longer, its bulk creates a wind factor that you’ll also have to be aware of as you steer around the vehicle. Remember that handling a truck is more difficult than handling a car. Weighed down with cargo, a truck accelerates slowly on flat ground and loses speed when climbing an uphill road. Going downhill, however, a truck’s momentum causes it to pick up speed. See Chapter 12 for more on momentum.

**Space.** Trucks take up a lot more room on the roadway than do cars. As a result, it is much harder to see around one when you are following it. Increase your following distance when you’re behind a truck. When you approach a truck in an oncoming lane, leave as much space as possible between the truck and your vehicle. Remember that a truck requires a wide turning area and more time and space to stop than a car does.

**Braking.** Large trucks take longer to stop than a car traveling at the same speed. The average passenger vehicle traveling at 60 mph can stop in about 160 feet once the brakes have been applied. However, a large truck traveling at the same speed takes about 300 feet to stop after the brakes have been applied. That’s almost twice as far as passenger vehicles. Don’t ever pull in front of a large truck and suddenly slow down or stop. The trucker will not be able to stop quickly enough to avoid crashing into you.

**Turning.** Truck drivers must often swing wide to complete a turn. For all turning vehicles, the rear wheels follow a shorter path than the front wheels: the longer the vehicle, the greater the distance between the paths of the front and rear wheels. When you follow a big truck, look at its turn signals before you start to pass. If you think the truck is turning right, wait a second and check the turn signals again. The driver may actually be turning left.

**Maneuverability.** Trucks are designed to transport products. Their bulky design means they are not as maneuverable as passenger vehicles. Large trucks require longer distances to start and stop. They take more space for turns and they weigh more. On multilane highways and freeways, large trucks usually stay in the center portion of the lane to help the flow of traffic. This also increases truckers’ options in case they must change lanes to avoid a hazard.

**AVOIDING CRASHES**

Colliding with a truck can do great damage to a smaller, lighter vehicle. Here are some of the most common mistakes passenger-vehicle drivers make when driving near large trucks.

- Cutting into the open space in front of a truck is dangerous. Slow down and don’t speed up to pass a truck so you can exit the roadway. Take a moment to slow down and exit behind a truck—it will only take a few extra seconds, and it’s much safer.
- Always pass a large truck on the left side, and after you have passed the truck, move ahead of it. If you linger beside the truck, you make it very difficult, if not impossible, for the trucker to take evasive action if an obstacle appears in the road ahead.
If a truck is bearing down on you as you drive downhill, move into another lane or pull over to let the truck pass.

- Trucks have blind spots. When you follow behind a truck and you cannot see the truck driver’s sideview mirrors, the trucker has no way of knowing you are there. Tailgating a truck or any vehicle is dangerous because you take away your own cushion of safety.
- A large tractor-trailer often appears to be traveling at a slower speed because of its large size. Many collisions have taken place at intersections because a passenger-vehicle driver did not realize how close the truck was or how quickly it was traveling.

**BUSES**

Buses are also quite large. The same visibility and handling factors that pertain to trucks also apply to buses. Allow buses an equal amount of “elbow room,” and follow the same 4-second distance rule when following a bus. If you’re driving in town, remember that local buses stop frequently to pick up and discharge passengers, often disrupting traffic flow in the process.

Be especially careful when you approach or pass a stopped bus, whether it’s a school bus or not. Reduce speed and keep alert for pedestrians rushing to catch the bus and discharged passengers hurrying across streets in front of the bus. Always be ready to stop.

Always stop for a school bus. Remember, it’s a law that drivers traveling in either direction must stop for a school bus with red lights flashing. The flashing lights indicate the bus is picking up or dropping off children.

Allow a wide vehicle more room to maneuver, especially on turns. *Why is it important to allow a wide vehicle more room to maneuver?*
How Do You Deal with Slow-Moving Vehicles?

Try to spot a slow-moving vehicle as early as possible, because your vehicle will approach it more rapidly than a vehicle traveling at a normal rate of speed. Slow-moving vehicles often, but not always, display special signs identifying them as slow moving. If a vehicle is especially wide, it may carry a “wide-load” sign on the rear. Once you identify such a vehicle, reduce speed immediately and follow at a safe distance.

Since you will want to pass these vehicles, consider the driver’s likely actions before passing. If you decide to pass, do so safely and only where it is legal to pass. If you see a slow-moving vehicle traveling in the opposite direction, be alert for oncoming vehicles moving into your path as they pass the vehicle.

**WHAT WOULD YOU DO?**

You are passing this truck. What should you do?

**Lesson 4 Review**

1. Name three types of large motor vehicles with which you might share the roadway. Explain how you can reduce risk when interacting with these vehicles.
2. When you are sharing the roadway with a slow-moving vehicle, what are three precautions you should take?
3. How can you share the roadway safely with large motor vehicles?
**FIGURING TRAVEL TIME**

Travel involves rate of speed, distance, and time. To find how long it will take you to get somewhere when you know your distance and speed, divide the distance by the speed. (To get an exact answer, you may have to change miles per hour to miles per minute by dividing mph by 60.)

\[ T = \frac{D}{S}, \text{ where } T = \text{time}, \]
\[ D = \text{distance}, \text{ and } S = \text{speed}. \]

For example, suppose you will drive 270 miles at an average speed of 45 mph. How long will the trip take?

\[ T = \frac{270}{45} \]
\[ T = 6 \]

The trip will take 6 hours.

Figure the time for each distance and speed below.

<table>
<thead>
<tr>
<th>TIME</th>
<th>DISTANCE</th>
<th>SPEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>20 miles</td>
<td>30 mph</td>
</tr>
<tr>
<td>(b)</td>
<td>40 miles</td>
<td>35 mph</td>
</tr>
<tr>
<td>(c)</td>
<td>115 miles</td>
<td>50 mph</td>
</tr>
</tbody>
</table>

To estimate distance when you know speed and time, multiply the speed and the time.

\[ D = S \times T \]

How far can you travel in 5 hours at an average speed of 35 mph?

\[ D = 35 \times 5 \]
\[ D = 175 \]

You can travel about 175 miles.

Now look back at each problem. If you wanted an estimate instead of an exact answer, what shortcuts could you take?

**TRY IT YOURSELF**

1. Traveling at local speeds, about how many miles away is a location 20 minutes from your home?
2. Use a map to plan a trip from one city to another. Estimate the amount of time it will take to travel the distance between the two cities.
3. Use a map to figure out which cities or towns are about 3 hours away from your home.
CHAPTER 11 REVIEW

Key Points

Lesson 1

1 Some of the problems posed by pedestrians include jaywalking, crossing the street without looking, and walking in the street or roadway when there is no sidewalk. (Page 228)
2 To avoid collisions with pedestrians, reduce speed, drive as far away from curbs and parked vehicles as you can, use ground viewing, and exercise special care at intersections. (Page 229)
3 Pedestrians should pay attention to rules, signals, and signs; judge gaps in traffic; and cross the street only when it is safe to do so. (Page 230)
4 What steps can you take to avoid hitting large animals? (Page 231)

Lesson 2

WHAT WOULD YOU DO?
Motorcyclists are approaching you. What can you do to minimize the risk?

1 To reduce the risk of collision with cyclists, always make cyclists aware of your intentions and position, make a visual check for cyclists when changing lanes and turning, increase your following distance, and be aware of problems that cyclists face. (Page 232)
2 Motorcycle drivers should not take advantage of the smaller size of their vehicles, should try to stay out of other drivers' blind spots, and consider driving with the headlights on at all times. (Page 233)

Lesson 3

Visibility is important when driving a light truck because it enables you to see over surrounding traffic and search farther down the road for pending traffic. Vehicle height affects where you can drive and where you can park, blocks the vision of drivers in smaller vehicles, causes more glare, and creates more problems in the wind. Increased vehicle weight means that light trucks get poor fuel mileage and require special caution for handling and braking. (Page 236)

1 When driving a small vehicle, allow yourself extra space and time to pass another vehicle and when roads are slippery or there are strong winds. (Page 238)

Lesson 4

WHAT WOULD YOU DO?
You are passing this truck. What should you do?

1 To safely share the road with a truck or tractor-trailer, be aware of the "No-Zone," allow more time for passing than you would in order to pass a car, increase your following distance, do not pull in front of the larger vehicle and then suddenly slow down or stop, and beware of the truck's turn signals when passing. For buses, reduce speed and keep alert for pedestrians; you should always be prepared to stop. (Pages 239–240)
2 Try to spot a slow-moving vehicle as early as possible. When you identify such a vehicle, reduce speed immediately and follow at a safe distance. Before passing, consider the driver's likely actions. (Page 242)
On a separate sheet of paper, write the letter of the answer that best completes each sentence.

1. As the use of cycles increases,
   a. collisions with other vehicles will decrease.
   b. air pollution will decrease.
   c. the number of collisions with other vehicles might also increase.

2. Drives use ground viewing to
   a. search the road for animals.
   b. search beneath parked vehicles for signs of movement.
   c. avoid large puddles.

3. Because truck drivers sit high above the surface of the roadway, they
   a. don't have any blind spots.
   b. have great visibility of the road ahead.
   c. are able to see above fog.

4. If another car is not following you closely and an animal suddenly darts onto the road, your best choice may be to:
   a. apply the brakes.
   b. turn off your vehicle's engine.
   c. steer to strike it at an angle.

5. When driving behind a motorcyclist, you should
   a. increase your following distance.
   b. pass at the first opportunity.
   c. turn on your high beams.

6. Most small cars have
   a. more power than larger cars.
   b. the ability to pass easily.
   c. less power than larger cars.

7. Crossing a street without regard for traffic rules or signals is called ______.

8. Motorcycles are harder to steer than many people realize because two wheels provide less ______ than four.

9. Local buses stop frequently to pick up and discharge passengers, often disrupting ______ in process.

10. When you see an ______ using its siren, pull as close to the right edge of the road as possible and stop.

On a separate sheet of paper, write the word or phrase that best completes each sentence.

- traffic flow
- emergency vehicle
- stability
- jaywalking

Writing

Driver's Log

In this chapter, you have learned about the responsibilities and risks of sharing the roadway with motorists, pedestrians, cyclists, and animals. Write what you think are the five most important responsibilities a driver has when sharing the roadway.

Projects

1. Observe the interaction between pedestrians and traffic at a busy intersection for about 15 minutes. Make note of unsafe actions taken by both pedestrians and drivers. Discuss your observations with the class.

2. Visit a bicycle shop or sporting goods store. What products does the store sell to help make cyclists, joggers, and others more visible in dim light?