Driver Education Classroom and In-Car Curriculum

Unit 8

Sharing the Road with Other Users



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Overview, Objectives and Words to Know

Unit 8 Introduction Lesson Content

Overview

Unit 8 will introduce the driver to other roadway users and how to interact with them. The student will learn to interact with pedestrians, bicyclists, motorcyclists, and drivers of large vehicles, emergency vehicles, trains, public transportation and construction vehicles as well as how to drive through work zones. The characteristics of and interaction with these motorized and non-motorized users will be discussed. Risk reducing strategies will be presented for sharing the road with other users.

Objectives

The student will:

Words to Know

- 1. Describe the importance of sharing the road with other users.
- 2. Describe the characteristics of pedestrians and how to share the road with them.
- 3. Describe the characteristics of bicycles and how to share the road with them.
- 4. Describe the characteristics of motorcycles, scooters and mopeds and how to share the road with them.
- 5. Describe the characteristics of large vehicles and how to share the road with them.
- 6. Describe the characteristics of emergency vehicles and how to share the road with them.
- 7. Describe the characteristics of trains and public transportation and how to share the road with them.
- 8. Describe the characteristics of construction vehicles and work zones and how to share the road with them.
- 9. Define key words associated with the unit objectives.

 Mid-block crosswalks Move-over laws No-zones Off-tracking Railroad crossings 	 Rollover Slosh Surge Total stopping distance Truck escape ramp (TER) 	TurbulenceUnderride collisionWork zone
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Unit 8 Sharing the Road with Other Users

Unit 8 Intr	roduction Lesson Overview
	Teacher Information and Resources
Slides	PowerPoint Slides 8.1 – 8.43
Videos	 8.5.1 Don't Cut Off Trucks (1 minute 28 seconds) 8.5.2 Following Large Vehicles (1 minute 29 seconds) 8.5.3 Large Vehicles and Turning (2 minute 5 seconds) 8.5.4 Blind Spots (1 minute 56 seconds) 8.7 Look, Listen and Live (6 minutes 30 seconds)
Video Review	 8.5.1 Video Review: Don't Cut Off Trucks 8.5.2 Video Review: Following Large Vehicles 8.5.3 Video Review: Large Vehicles and Turning 8.5.4 Video Review: Truck Blind Spots 8.7 Video Review: Look, Listen and Live
Fact Sheets	 8.1 The Importance of Sharing the Road with Other Users 8.2 Sharing the Road with Pedestrians 8.3 Sharing the Road with Bicycles 8.4 Sharing the Road with Motorcycles, Mopeds and Scooters 8.5 Sharing the Road with Large Vehicles 8.6 Sharing the Road with Emergency Vehicles 8.7 Sharing the Road with Trains and Public Transportation 8.8 Sharing the Road with Construction Vehicles and Work Zones 8.9 Words to Know Definitions Page
Worksheets	8.9 Words to Know Matchup
Learning Activities	8.0 Key Words – Word Wall
Textbooks	Preferred Textbook: W HOW to DRIVE Chapter 11
	Other Textbooks: Drive Right: Chapters 10 and 11
	Responsible Driving: Chapters 10 and 11
	Other Textbook:
Unit 8 Test	Unit 8 Test – Sharing the Road with Other Users – 10 questions

Unit 8 Sharing the Road with Other Users

Key Words	Unit 8 Activity Lesson Content	
Unit Objectives: Student will define the meaning of the key words in Unit 8.		
Lesson Content	Materials and Resources	
Key Words		
Clearning Activity 8.0 Throughout the instruction of Unit 8, conduct learning activity to help students with vocabulary and spelling of key words.	Learning Activity 8.0: Key Words – Word Wall	

Learning Activity 8.0



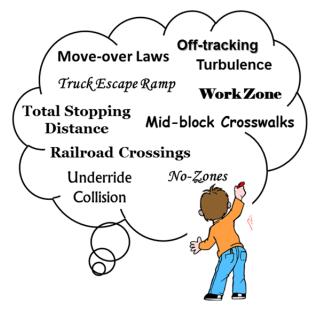
Word Wall

<u>Information</u>

Students begin to assimilate a new language in driver and traffic safety education. Some words are familiar, but others are new. The use of a word wall helps students with vocabulary and spelling as well as provides students with a tool for reference without "giving away" answers.

Materials Needed

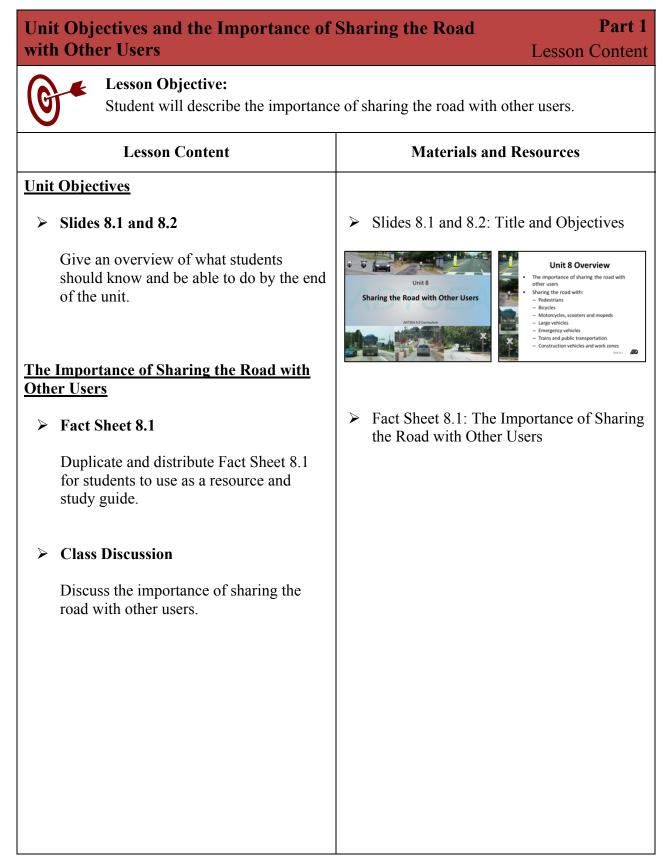
- 1. Make word cards out of paper, poster board, or card stock cut in strips.
- 2. Markers in various colors.
- 3. A space to post words (i.e., bulletin board).
- 4. Tape or stapler and staples to affix cards on the word wall.

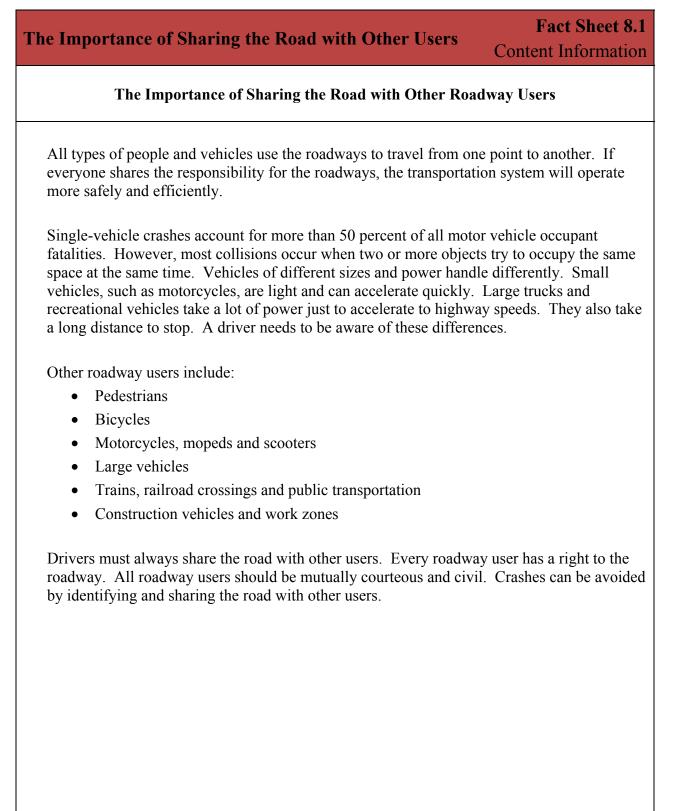


Key Words – Word Wall

Learning Activity

- 1. As the instructor introduces new words in a unit, the instructor should post these words on the word wall.
 - a. The instructor should remind students to use the words on the wall for recall and correct spelling.
 - b. When an instructor poses a question and a student correctly answers the question, the instructor should allow that student to make a word strip and post the strip in the designated location on the word wall. Because this is new learning, recalling words are part of the learning process.
 - c. Students often enjoy decorating their word with a particular flair, color, or design.
- 2. Words may remain posted for just the unit or remain posted throughout the course.





Sharing the Road with Pedestrians	Part 2 Lesson Content	
Lesson Objective: Student will be able to describe the characteristics of pedestrians and how to share the road with them.		
Lesson Content	Materials and Resources	
Sharing the Road with Pedestrians		
 Fact Sheet 8.2 Duplicate and distribute Fact Sheet 8.2 for students to use as a resource and study guide. 	Fact Sheet 8.2: Sharing the Road with Pedestrians	
Class Discussion		
Discuss the characteristics of pedestrian	S.	
Emphasize that pedestrians are especial defenseless because they do not have th same protection drivers have in a vehicl	e	
Slides 8.3 and 8.4	Slides 8.3 and 8.4: Sharing the Road with	
Discuss how to share the road with pedestrians. Emphasize that you must yield to pedestrians at all times and you should always check for pedestrians when driving.	Pedestrians Sharing the Road with Pedestrians For Dig	
	Sharing the Road with Pedestrians basing stopped velocit example stopped velocit 	

Sharing the Road with Pedestrians

Fact Sheet 8.2 Content Information

Sharing the Road with Pedestrians

Always recognize that pedestrians are especially defenseless, because they do not have the same protection drivers have in a vehicle. Drivers have a responsibility to take every precaution to avoid hitting pedestrians.

Pedestrians who do not drive, especially children and older people do not know the traffic laws and what a driver can do with a motor vehicle; therefore, they may take more risks and can cause serious problems. Pedestrians are also difficult to see, and drivers have difficulty determining their intentions. Allow for more time and space for pedestrians as you would for any other vehicle on the road.

- Yield to pedestrians at all times, even if they are not in a crosswalk and they are crossing the street where they should not be.
- Sometimes you will see mid-block crosswalks between intersections which require you to yield as you would at an intersection. Mid-block crossings have warning signs and pavement markings.
- Even when you are facing a green light, you must yield the right-of-way to all pedestrians in the intersection. You only have the right-of-way when your intended path is clear.
- When preparing to make a left turn or U-turn, check for pedestrians in your path, even if you have a green arrow.
- As you prepare for a right turn, especially on a red traffic signal, be cautious of pedestrians approaching on your right.
- When approaching a stopped vehicle from behind, slow down and do not pass until you are sure that there are no pedestrians crossing in front of it. You may not pass a vehicle stopped for a crosswalk even on multi-lane roads.
- Always check for pedestrians in your path before backing, especially in shopping centers or places where there are many pedestrians.
- Be careful in school, playground and residential areas where children could run out from between parked vehicles. It is a good idea to drive slower than the speed limit in these areas and be prepared to stop quickly.
- In a school zone when lights are flashing or children are present, you must obey a slower speed limit. At a school crossing where there is traffic patrol, stop and yield when you are signaled to do so.





Sharing the Road with Bicycles	Part 3 Lesson Content	
Lesson Objective: Student will be able to describe the characteristics of bicycles and how to share the road with them.		
Lesson Content	Materials and Resources	
Sharing the Road with Bicycles		
 Fact Sheet 8.3 Duplicate and distribute Fact Sheet 8.3 for students to use as a resource and study guide. 	 Fact Sheet 8.3: Sharing the Road with Bicycles 	
 Class Discussion Discuss the characteristics of bicycles. Emphasize that bicycles are not easily seen in traffic and bicyclists have varying 	g	
 levels of skill. Slides 8.5 and 8.6 Discuss how to share the road with bicycles. Emphasize that bicycles should be treated as vehicles, and drivers must always yield to bicycles as they would for pedestrians and other vehicles. 	entited to use the read would for postestiman and vehicles would for postestiman and vehicles	
	Sharing the Road with BicyclesImage: Sharing the Road with BicyclesIm	

Sharing the Road with Bicycles

Sharing the Road with Bicycles

Bicycles are becoming increasingly more popular; therefore, it is important to become aware of how to share the road with bicycles. Bicyclists may not be easily seen in traffic. Drivers must to be alert for bicyclists and be extra careful when approaching them. Just as motorists have different levels of skill; bicyclists also have varying levels of skills. A skillful bicyclist rides predictably and holds a steady line. An unskillful bicyclist may swerve unpredictably, ignore traffic signs and signals, and ride without a light at night. If you see an unskillful bicyclist, be ready for any sudden movements.

- Bicycles are legally entitled to use the road and should be treated as vehicles. Drivers must yield to bicyclists as you would for pedestrians and other vehicles.
- Drivers must yield the right-of-way to a bicyclist when a bicycle path or bike lane intersects a road.
- Do not attempt to share a lane with the cyclist. Follow the bicycle and wait for a safe opportunity to pass.
- When approaching or passing a bicyclist, slow down and allow as much space as possible. If you are about to make a right turn, do not pass a bicyclist immediately before the turn, slow down and let the cyclist clear the intersection before making your turn.
- Be careful after you have passed a bicyclist. Do not slow down or stop quickly. A motor vehicle's brakes are more powerful than a bicycle's, and sudden stopping could cause a crash.
- Do not sound your horn close to bicyclists, unless there is a chance of a collision. Sounding your horn to alert your presence may startle them and cause them to steer into your path and crash.
- When making turns, watch carefully for bicyclists entering your lane. Be especially careful if you see children riding bikes on the sidewalk. They may come onto the road.
- Never turn sharply in front of a bicyclist and do not force a bicyclist off the road.
- Although bicyclists are required to ride in the direction of traffic, drivers should look for them riding anywhere on the roadway.
- Be particularly careful around bicyclists when the roadway is wet or covered with sand or gravel. Like motor vehicles, bicycles cannot brake as quickly or turn as sharply under these conditions. Road conditions which lessen traction affect bicycles much more than vehicles.
- You should check for bicyclists in your path before backing. Be especially cautious near schools or residential areas where bicyclists may be present.

Sharing the Road with Motorcycles, Mopeds and Scooters Part 4 Lesson Content		
Lesson Objective: Student will be able to describe the characteristics of motorcycles, mopeds and scooters and how to share the road with them.		
Lesson Content	Materials and Resources	
Sharing the Road with Motorcycles, Mopeds and Scooters		
 Fact Sheet 8.4 Duplicate and distribute Fact Sheet 8.3 for students to use as a resource and study guide. 	Fact Sheet 8.4: Sharing the Road with Motorcycles, Mopeds and Scooters	
 Class Discussion Discuss the characteristics of motorcycles, mopeds and scooters. Emphasize that motorcycles are difficult to see and have less protection than drivers do. 		
 Slide 8.7 Discuss how to share the road with motorcycles, mopeds and scooters. Emphasize that motorcycles, mopeds and scooters have the same rights and responsibilities as other drivers and they are entitled to their own lane. Always look for motorcycles while driving, especially when turning. 	<section-header></section-header>	

Sharing the Road with Motorcycles, Mopeds and Scooters

Fact Sheet 8.4 Content Information

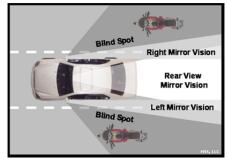
Sharing the Road with Motorcycles, Mopeds and Scooters

Motorcycles, mopeds and scooters are small vehicles that accelerate quickly. Because of their size, they are also more difficult to see. Danger exists because the motorcyclist is exposed and has no protection should a collision occur. To stop a motorcycle, the motorcyclist must operate separate brakes for front and rear wheels. A motorcyclist must coordinate the hand throttle, hand clutch and front gearshift lever to accelerate smoothly. Unlike four-wheel vehicles, a motorcycle might have difficulty remaining upright.

Motorcycles, mopeds and scooters have the same rights and responsibilities as other drivers. However, it is more difficult to see them, and drivers find it difficult to determine what they will do. There are special situations and conditions we need to be aware of so we can safely share the road with motorcycles/scooters/mopeds:

- Do not share a lane with a motorcycle/scooter/moped. They have the right to use a complete traffic lane and they need space to react to other traffic.
- Always make a visual check for motorcycles/scooters/mopeds by checking mirrors and blind spots by turning your head and looking before entering or leaving a lane of traffic and at intersections.
- Before turning left, be alert for motorcycles/scooters/mopeds by looking carefully to the front and sides of your vehicle.
- When following a motorcyclist/scooter/moped, allow for a 3 to 4 second following distance or more in wet conditions or you may not have enough time or space to avoid a crash. Motorcycles/scooters/mopeds can stop quickly, and

following too closely endangers your life and that of the motorcyclist.





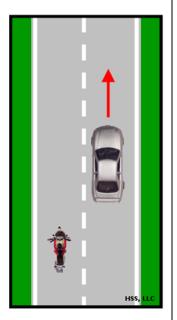
Sharing the Road with Motorcycles, Mopeds and ScootersPart 4 contin Lesson Con	
Lesson Content	Materials and Resources
Sharing the Road with Motorcycles, Mopeds and Scooters	
Slide 8.8 Discuss how to share the road with motorcycles, mopeds and scooters. Emphasize that motorcycles, mopeds and scooters cannot cope with adverse weather conditions as well and need more space.	<image/> <text></text>

Sharing the Road with Motorcycles, Mopeds and Scooters

Fact Sheet 8.4 Content Information

Sharing the Road with Motorcycles, Mopeds and Scooters

- When a motorcycle is following, check the rearview mirror often.
- Do not assume a motorcycle/scooter/moped is turning when you see its turn signal flashing. Motorcycle/scooter/moped turn signals may not self-cancel, and the motorcyclist/scooter/moped may have forgotten to turn them off. Do not pull out in front of a motorcycle/scooter/moped until you see that it is actually beginning to turn. Keep in mind that motorcycles/scooters/mopeds may not have turn signals, so it is important to leave enough space for the motorcyclist/scooter/moped to maneuver.
- Always signal your intentions before changing lanes or merging with traffic. Signaling allows the motorcyclist/scooter/moped to anticipate traffic flow and find a safe lane position.
- Remember that a motorcyclist cannot cope with adverse weather conditions as well as a four-wheeled vehicle can, so increase the space around the motorcyclist in bad weather.
- Always dim your headlights when approaching a motorcycle/scooter/moped. Because of their vulnerability, the blinding effect of high beams can be far more dangerous to them than to drivers of motor vehicles.
- When a motorcycle/scooter/moped is passing your vehicle, you should maintain your lane position and speed. Allow the motorcyclist/scooter/moped to complete the maneuver and assume proper lane position as quickly as possible. Never speed up or interfere with their ability to pass safely.
- Keep in mind that scooters and mopeds travel at much lower speeds than motorcycles.



Sharing the Road with Large Vehicles	Part 5 Lesson Content	
Lesson Objective: Student will be able to describe the characteristics of large vehicles and how to share the road with them.		
Lesson Content	Materials and Resources	
<u>The Importance of Learning About Large</u> <u>Vehicles</u>		
 Fact Sheet 8.5 Duplicate and distribute Fact Sheet 8.5 for students to use as a resource and study guide. Class Discussion Discuss the importance of learning about large vehicles. Explain the statistics of large truck collisions. Emphasize that many passenger car drivers are the cause of most large truck collisions involving a fatality. 	Fact Sheet 8.5: Sharing the Road with Large Vehicles	

Fact Sheet 8.5 Content Information

Importance of Learning About Large Trucks

According the National Highway Traffic Safety Administration (NHTSA) there were 3,380 fatalities and 74,000 people injured in crashes involving large trucks in 2009. In the U.S. 296,000 large trucks were involved in traffic crashes during 2009. Truck drivers contribute to these accidents. However, automobile drivers are most often at fault in collisions between cars and trucks. It is now becoming clear, however, that too many drivers of passenger cars unnecessarily endanger themselves by failing to recognize that trucks and cars differ in the way they behave on the road.

Sharing the Road with Large Vehicles	Part 5 continued
Lesson Content	Materials and Resources
	Lesson Content

Fact Sheet 8.5 Content Information

TRUCK ROUTE

TRUCKS

USE RIGHT

LANE

RUNAWAY

TRUCK RAME

1 MILE

USE LOW

GEAR

TRUCKS

Warning and Regulatory Signs for Large Vehicles

While traffic and road signs are for all drivers, there are specific signs that are more applicable to large vehicles. Some of these signs include:

- Steep Grade take precautions and be prepared for the effects of this grade on the truck; braking and possibly gearing down to slow the engine
- **Rollover Potential** highway design or condition may make the potential for a shift in stability of the vehicle resulting in a rollover
- Low Ground Clearance know the truck's dimensions above as well as below the truck. Slow down when crossing this area.
- **Maximum Height Warning** know the truck's dimensions and know the route. The driver may need to determine an alternate route
- **Truck Route** the route, while used by others is designed for trucks because of highway design, traffic patterns, and construction specifically done to handle truck weights and high volume. Other highway users need to be prepared to drive with large trucks and know their handling.
- **Trucks Use Right Lane** trucks on this roadway are to use the right lane because of highway design or grade, etc. Multiple trucks in this lane may slow traffic. Drivers should use caution when passing and returning to the lane shared with trucks. A truck may still come into the left lane.
- Runaway Truck Ramp (Distance 1 mile) in some areas where steep grades have the potential to result in a truck speeding out of control or having brake failure, designated areas have been placed so trucks may use them in case of an emergency. These ramps may be used by cars in the event of brake failure or speeding out of control.
- Use Low Gear lower gears are needed on steep or winding roads. This sign alerts drivers to the need for lower gears on this roadway. It is a warning to all drivers of the potential to create an emergency.
- **Reduced Speed Limit for Trucks** in some areas, trucks need to drive slower than other vehicles. This sign warns truck drivers to slow down to posted truck speed.

As the driver of a car, you should be aware of these signs and potential situations that might arise around large vehicles. Be cautious and think ahead. Prepare for action in case of an emergency.

Sharing the Road with Large Vehicles	Part 5 continued
Lesson Content	Materials and Resources
	Lesson Content Materials and Resources Slide 8.10: Hazardous Materials and Large Vehicles

Fact Sheet 8.5 Content Information

Hazardous Materials and Large Vehicles

There are vehicles that are specifically designed for the transport of hazardous materials. Drivers of these vehicles have received special training to carry this cargo. Hazardous materials trucks are labeled on the back or side of the vehicle with a diamond shape and often contain a symbol, name or number of the substance and the class number.



- When passing, make sure there is enough space to allow you to pass and return to the lane and remember it is only safe to return when you can see the front of the truck and its wheels in your rearview mirror.
- When driving over hills, remember that trucks may go slow uphill, but when going downhill trucks will often gain speed quickly.
- Allow space and room to maneuver in the event of an emergency situation with the truck, another vehicle or with your own vehicle.
- Remember that a liquid load poses special dangers if sloshing or surging occurs.
 - **Slosh** when the center of gravity shifts to the outside of the tank, the liquid load rocks from side to side inside the tank. If the liquid shifts or rocks past the balance point and the pull of gravity prevails the truck will roll.
 - Surge As a result of sudden braking, the liquid in the tank rolls from frontto-back and then back-to-front causing it to slam into the front and back of the tank structure.
 - **Rollover** When the truck loses its balance point and the center of gravity shifts, the truck will roll.
- Liquid slosh and surge are caused by speed, turning radius, sudden braking or acceleration, and by sudden maneuvers. Rollovers can happen anywhere but most happen on straight roadways.

Drivers may not know the specific contents inside vehicles carrying hazardous materials by their signs, but they need to recognize when a vehicle is carrying dangerous cargo and execute maneuvers with extra care and caution. Any unexpected or unsafe actions by other vehicles may cause the truck driver to take sudden, evasive actions to avoid a crash. Crashes with hazardous materials can endanger not only the drivers on the highway, but in some instances can affect people, animals and the environment in areas surrounding the crash.

Sharing	the Road with Large Vehicles	Part 5 Lesson Content
6.	Lesson Objective: Student will be able to describe the other the road with them.	characteristics of large vehicles and how to share
	Lesson Content	Materials and Resources
Sharing the Road with Large Vehicles		
Dupl 8.5.1	o Review 8.5.1 icate and distribute Video Review . Students should complete the ssheet as they watch the videos.	Video Review 8.5.1 and Answer Key: Don't Cut Off Trucks
Discu 8.5.1 Play <i>Don</i> (Tim After 8.5.1	es 8.11 and 8.12 - Video 8.5.1 uss the topics covered in Video Video 8.5.1. <i>t Cut Off Trucks</i> e: 1 minutes 28 seconds) viewing, review Video Review to gauge student understanding of ideo.	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><image/><image/><image/><image/><image/></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>

Sharing the Road with Large Vehicles Video Overview 8.5.1 Video Overview 8.5.1: Don't Cut Off Trucks

<u>Title</u>

Don't Cut Off Trucks

<u>Time</u>

1 minute 28 seconds

Topics Covered

- 1. How large vehicles have longer stopping distances than cars.
- 2. How to safely pass large vehicles.
- 3. The consequences of pulling in front of large vehicles.

Video Review

- 1. Have students complete a video review worksheet as they watch the video.
- 2. After viewing the video, review the worksheet to gauge students' understanding of the video.

Instructor Notes

Shari	Sharing the Road with Large Vehicles Video Review 8.5				
	Video Review 8.5.1: Don't Cut Off Trucks				
Name	D	Date			
1.	Why can't large vehicles stop or maneuver	like passenger cars and trucks?			
2.	How can car drivers help truck drivers antic	pipate traffic conditions?			
3.	Who is at-fault when a crash occurs where t	he passenger car cuts off a truck?			

Video Review 8.5.1 ANSWER KEY

Video Review 8.5.1: Don't Cut Off Trucks ANSWER KEY

- 1. Why can't large vehicles stop or maneuver like passenger cars and trucks? *Answer: They weigh more and take longer to stop and turn*
- 2. How can car drivers help truck drivers anticipate traffic conditions? *Answer: By signaling lane changes well in advance*
- 3. Who is at-fault when a crash occurs where the passenger car cuts off a truck? *Answer: The passenger car*

Unit 8 Sharing the Road with Other Users

Sharing the Road with Large Vehicles	Part 5 continued Lesson Content
Lesson Content	Materials and Resources
Large Vehicles and Stopping Distance	
 Slide 8.13 Discuss what components can increase or decrease stopping distances. Ask "Why do large vehicles have longer stopping distances than passenger vehicles?" Solicit responses from students. Discuss why large vehicles have longer stopping distances. Emphasize that large vehicles are much heavier and explain the weight differences between large vehicles and passenger cars. 	 Side 8.13: Large Vehicles and Stopping Distance Unit State S

Fact Sheet 8.5 continued Content Information

Large Trucks and Stopping Distance

Total stopping distance is the distance a vehicle travels while making a stop. A total stopping distance is made up of perception distance, reaction time and braking distance.

There are many factors that affect the braking distance of a vehicle such as:

- Speed of the vehicle Higher speeds will cause the vehicle to take longer to stop.
- Vehicle condition Tires, brakes, suspension all can affect braking distance depending on their condition.
- **Roadway surface** Rain, snow, leaves, gravel, and dirt can cause a vehicle to have a longer braking distance.
- Hills Braking distances can be increased depending on the grade of hill.
- Weight of the vehicle Large vehicles can have much longer braking distances depending on the vehicle weight.

Stopping distances between large vehicles and cars are drastically different. Studies by the Insurance Institute for Highway Safety have shown that at 55 miles per hour a fully loaded tractor trailer can take 49% more distance to stop than a passenger car (335 feet versus 225 feet).

Large vehicles traveling at 55 m.p.h. with a full load, under ideal conditions, will travel a total of 335 feet before coming to a complete stop. Large vehicles take much longer to stop than a passenger car and motorists must take this into account while driving.

Why do large vehicles have longer stopping distances than cars?

- The biggest factor in the difference in the stopping distance is the weight.
 - A tractor trailer can weigh 80,000 pounds.
 - The average passenger vehicle weights 2,500 to 3,500 pounds.
- Speed of vehicle
- Size of tires
- Brakes
- Roadway conditions

Sharing the Road with Large Vehicles	Part 5 continued Lesson Content
Lesson Content	Materials and Resources
Passing Large Vehicles	
≻ Slide 8.14	Slide 8.14: Passing Large Vehicles
Discuss the procedures for passing large vehicles on the roadways. Discuss what to do when being passed by large vehicles.	 Passing Large Vehicles Be aware that large vehicles can create urbulence Pass quickly and safely Maintain speed after passing Move back only when from of the trut k is visible in the rearview mirror
> Slide 8.15	Slide 8.15: Meeting Large Vehicles
Ask "If a large vehicle were approaching, what would you do with your vehicle's speed and lane position?" Solicit responses from students. Discuss what to do when meeting large vehicles on the roadways.	 Meeting Large Vehicles Seep as far as possible to the side to reduce wind turbulence. When in doubt about the speed of an oncoming truck, do not turn left in front of its path
➢ Slide 8.16	 Slide 8.16: Turbulence Around a Large Vehicle
Discuss the effects of turbulence from large vehicles. Emphasize how turbulence from a large vehicle can push a motorist off of the road.	 Furbulence Around a Large Vehicle Wind that can affect the stability of use index around a on travel around a on travel are weblicle apart and affect's vehicle stability. Hold steering wheel firmly and allow plenty of space

Fact Sheet 8.5 continued Content Information

Passing and Meeting Large Trucks

Passing - Many motorists are apprehensive about passing vehicles because of their size, but the same rules apply for passing a large vehicle as for passing cars.

- 1. Check the traffic to the front and rear. Do not pull out if being overtaken by traffic from behind or if there is other traffic approaching.
- 2. Once you have decided to pass and see that the roadway is clear, do not hesitate. Fewer accidents occur when there is clear, decisive action.
- 3. When moving into the passing lane, be aware that large vehicles can create turbulence.
- 4. Truck drivers work hard to get up to normal highway speeds, sometimes shifting through 15 gears. For this reason, and because vehicles take longer to stop due to their size and weight, truck drivers appreciate it if, after passing, drivers maintain their speed.
- 5. If the driver flashes his/her lights after you pass, it may be a signal that it is clear to pull back in. Do not trust this signal. Check to make sure you have cleared the front of the large vehicle and can now safely return to the lane.
- 6. Be sure to move back only when you can see the front of the truck in your rearview mirror. After you pass a truck, maintain your speed.

Being passed - When a truck passes, you can help the truck driver by keeping to the far side of your lane. You will make it easier for the truck driver if you reduce speed slightly. In any event, do not speed up while the truck is passing. After passing, the truck driver should signal to let you know that the truck will be returning to the lane.

Meeting - When you meet a truck coming from the opposite direction, keep as far as possible to the side to avoid a sideswipe accident and to reduce the wind turbulence between the two vehicles. Remember that the turbulence pushes the vehicles apart. It does not draw them together.

Also, because of its large size, a truck often appears to be traveling at a slower speed than it really is. A substantial number of car-truck collisions occur at intersections because the driver of the car does not realize how close the truck is or how quickly it is approaching. When in doubt about the speed of an oncoming truck, do not turn left in front of its path.

Turbulence from large vehicles – Because of their size, large vehicles can create turbulence, which is wind that can affect the stability of vehicles nearby. Two main areas of turbulence around a large vehicle are the front and the rear of the vehicle. Turbulence pushes the vehicles apart and affects your vehicle's stability. When passing or meeting large vehicles hold the steering wheel firmly and allow plenty of space between your vehicle and large vehicles.

Unit 8 Sharing the Road with Other Users

Sharing the Road with Large Vehicles	Part 5 continued Lesson Content
Lesson Content	Materials and Resources
Lesson Content Following Large Vehicles > Video Review 8.5.2 Duplicate and distribute Video Review 8.5.2. Duplicate and distribute Video Review 8.5.2. Slides 8.17 and 8.18 - Video 8.5.2 Discuss the topics covered in Video 8.5.2.	 Materials and Resources Video Review 8.5.2 and Answer Key: Following Large Vehicles Slides 8.17 and 8.18: Video 8.5.2 Following Large Vehicles
 Play Video 8.5.2. <i>Following Large Vehicles</i> (Time: 1 minute 29 seconds) After viewing, review Video Review 8.5.2 to gauge student understanding of the video. 	<image/>

Sharing the Road with Large Vehicles Video Overview 8.5.2: Following Large Vehicles Title Following Large Vehicles Time

<u>1 mie</u>

1 minute 29 seconds

Topics Covered

- 1. How to safely follow large vehicles.
- 2. The importance of leaving space behind a large vehicle.

Video Review

- 1. Have students complete a video review worksheet as they watch the video.
- 2. After viewing the video, review the worksheet to gauge students' understanding of the video.

Instructor Notes

Shari	ing the Road with Large Vehicles	Video Review 8.5.2			
	Video Review 8.5.2: Following Large Vehicles				
Name		Date			
1.	How should car drivers position their vehicle so they are following at a safe distance?				
2.	2. How much room should a driver leave behind a large truck when coming to a stop?				
3.	What are some reasons why it is so impo	rtant to leave space behind the back of a truck?			

Video Review 8.5.2 ANSWER KEY

Video Review 8.5.2: Following Large Vehicles ANSWER KEY

- 1. How should car drivers position their vehicle so they are following at a safe distance? *Answer: Position vehicle so the car driver can see the truck's mirror*
- 2. How much room should a driver leave behind a large truck when coming to a stop? *Answer: At least one car length behind the truck*
- 3. What are some reasons why it is so important to leave space behind the back of a truck? *Answer: If not enough room to stop, the car may strike the back of the truck, it allows the car driver to have adequate visibility to react in time if debris is on the road*

Sharing the Road with Large Vehicles	Part 5 continued Lesson Content
Lesson Content	Materials and Resources
Following Large Vehicles	
➢ Slide 8.19	Slide 8.19: Following Large Vehicles
Ask "What are some of the hazards with following a large truck too close?" Solicit responses from students. Identify the hazards of following large vehicles.	<text></text>

Fact Sheet 8.5 continued Content Information

Following Large Vehicles

One of the biggest problems resulting from tailgating a large vehicle is sight distance. If you follows too closely, the truck's size will almost prevent you from viewing the road ahead. You will be forced to depend on the truck's brake lights for a signal that something is going on in the front.

- Avoid following too closely, and position the vehicle so the truck driver can see the car in his or her side mirrors.
- When coming to a stop behind a truck, always leave plenty of room between your vehicle and the truck. Also, move your vehicle to the left of your lane so that the driver can see you in his/her left side mirror. Being too close to the rear of a large vehicle when it is stopped can contribute to a rollback collision. This type of collision generally occurs when a truck driver is forced to stop on an upgrade. As the driver takes his/her foot off the brake and engages the clutch, the truck may roll backwards a few feet striking the vehicle to the rear.
- Another extreme hazard for passenger car drivers is striking the back of a large truck. This type of collision is known as an "**underride**." Underride is generally defined as a type of collision in which a portion of a passenger vehicle slides under another vehicle. Underrides can occur between two passenger vehicles but are more common and more dangerous between a large truck and a passenger vehicle.
- Following large vehicles too closely can place a motorist in danger if debris should fall from the truck. Tires can blowout. Cargo, large pieces of metal, spare tires, etc., can all fall off a large truck causing considerable damage to any vehicle following too close. In some cases, debris falling from large vehicles has caused some drivers to the rear to become seriously injured or killed.
- The road clearance of large vehicles is high enough to straddle road debris (blown tires, wood, dead animals) and unfortunately most of today's vehicles will not have the ability to avoid this debris if they are following too closely.

Sharing the Road with Large Vehicles	Part 5 continued Lesson Content
Lesson Content	Materials and Resources
 Turning in Front of Large Vehicles Video Review 8.5.3 Duplicate and distribute Video Review 8.5.3. Students should complete the worksheet as they watch the videos. Slides 8.20 and 8.21 - Video 8.5.3 Discuss the topics covered in Video 8.5.3. Play Video 8.5.3. Large Vehicles and Turning 	 Materials and Resources Video Review 8.5.3 and Answer Key: Large Vehicles and Turning Slides 8.20 and 8.21: Video 8.5.3 Large Vehicles and Turning Interpret Vehicles uning in front of a large vehicle Interpret of stop at intersections to leave room for large vehicles turning Interpret Vehicles turning int at
(Time: 2 minutes 5 seconds) After viewing, review Video Review 8.5.3 to gauge student understanding of the video.	<page-header><page-header><page-header><image/><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></page-header></page-header></page-header>

Sharing the Road with Large Vehicles Video Overview 8.5.3 Video Overview 8.5.3: Large Vehicles and Turning Title Large Vehicles and Turning Time

<u>1 mic</u>

2 minutes 5 seconds

Topics Covered

- 1. Turning in front of a large vehicle.
- 2. Where to stop at intersections to leave room for large vehicles turning.
- 3. Large vehicles turning right at intersections.

Video Review

- 1. Have students complete a video review worksheet as they watch the video.
- 2. After viewing the video, review the worksheet to gauge students' understanding of the video.

Instructor Notes

Shari	ing the Road with Large Vehicles Video Review 8.5.3		
	Video Review 8.5.3: Large Vehicles and Turning		
Name	Date		
1.	hen turning, what may large vehicles do when making turns to avoid driving over a rb or sidewalk?		
2.	What should a driver never do when a truck is attempting to make a right turn?		
3.	Why is it important to stop at stop lines at an intersection?		

Video Review 8.5.3 Sharing the Road with Large Vehicles ANSWER KEY Video Review 8.5.3: Large Vehicles and Turning ANSWER KEY 1. When turning, what may large vehicles do when making turns to avoid driving over a curb or sidewalk? Answer: Move into adjacent lanes 2. What should a driver never do when a truck is attempting to make a right turn? Answer: Never cut-in or pass the truck on the right side 3. Why is it important to stop at stop lines at an intersection? Answer: To set motorists back for large vehicles turning and give them more room to turn

Sharing the Road with Large Vehicles	Part 5 continued Lesson Content
Lesson Content	Materials and Resources
<u>Turning in Front of Large Vehicles</u>	
Slide 8.22 Discuss the hazards of turning in front of a large vehicle.	<image/> <section-header></section-header>

Fact Sheet 8.5 continued Content Information

Turning in Front of a Large Vehicle

One of the main causes of collisions between cars and trucks at intersections is the inability of motorists to accurately determine the speed of an approaching truck before making a left turn.

- When in doubt about the speed of an oncoming truck, do not turn left in its path or drive toward it in an attempt to pass another vehicle. The truck may be going faster than you think.
- Large trucks use air brakes rather than the hydraulic brakes found in cars and light trucks. These brakes take longer to engage; adding many feet to a big rig's stopping distance. It takes more than 100 yards - the length of a football field-for an average fully loaded tractor-trailer truck traveling at 55 miles per hour to stop.
- Do not cut off a large vehicle in traffic or on the highway to reach an exit or turn or to beat a truck into a single-lane construction zone. The few seconds that might be saved are not worth a life or lives.

Sharing the Road with Large Vehicles	Part 5 continued Lesson Content
Lesson Content	Materials and Resources
Large Vehicles and Off-tracking	
Slides 8.23 and 8.24 Explain what off-tracking is, where it occurs and the dangers of off-tracking. Explain that staggered stops are designed to give large vehicles the clearance they need when turning.	<section-header><section-header><section-header></section-header></section-header></section-header>

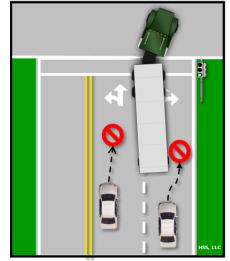
Fact Sheet 8.5 continued Content Information

Large Vehicles and Off-Tracking

Off-tracking – Occurs when the trailer of a large vehicle follows a tighter path than that of the tractor. The longer the trailer, the more the off-tracking. As a result, the tractors will swing wide left or right to prepare for the turn and to compensate for the off-tracking. Because right turns are sharper than left ones, off-tracking is greater on right turns.

Off-tracking is dangerous, but often unavoidable, because of the large size and limited turning radius of trucks. Left-turning drivers will first swing wide to the right, and right-turning drivers will first swing wide to the left, to enter a cross street. The sharper the turn, the narrower the intersection, and the longer the truck, the wider the driver must go. Off-tracking can force a truck's trailer to cut off or "squeeze" roadway users to the sides.

Many drivers following a tractor semi-trailer assume that if the truck moves to the left it is preparing to make a left turn. However, drivers of large trucks usually swing out to the left as the first step in making a right turn.



- If a truck is stopped at or approaching an intersection, never attempt to "cut in" along the right side of the roadway as the driver first maneuvers left, or you will find yourself sandwiched between the turning truck and the curb.
- Trying to pass a right-turning truck driver on the left can also present dangers. If the truck swings wide enough, it can force you to stray into oncoming traffic or the median of the cross street.
- Always give a truck driver sufficient clearance and time to complete a turn safely.

Many intersections are marked with stop-lines indicating where a driver must come to a complete stop. Stop-lines are designed to set motorists farther back at an intersection in order to give larger vehicles more turning space. These are called staggered stops.

	Part 5 continued
Lesson Content	Materials and Resources
Lesson Content Blind Spots > Video Review 8.5.4 Duplicate and distribute Video Review 8.5.4. Students should complete the worksheet as they watch the video. > Slides 8.25 and 8.26 - Video 8.5.4 Discuss the topics covered in Video 8.5.4. Dlay Video 8.5.4. Blind Spots (Time: 1 minute 56 seconds) After viewing, review Video Review 8.5.4 to gauge student understanding of the video.	<section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header>

Sharing the Road with Large Vehicles Video Overview 8.5.4 Image: Seconds Seconds Iminute 56 s

2. After viewing the video, review the worksheet to gauge students' understanding of the video.

Instructor Notes

Shari	Sharing the Road with Large Vehicles Video Review 8.5.4		
	Video Review 8.5.4: Blind Spots		
Name	Date		
1.	How long are blind spots in front of a large vehicle?		
2.	What should a driver do when driving on the left side of a large vehicle to avoid the blind spot?		
3.	What is one of the most dangerous areas around a truck?		
4.	Why are car drivers at risk when they are in a large vehicle's blind spot?		

Video Review 8.5.4 ANSWER KEY

Video Review 8.5.4: Blind Spots ANSWER KEY

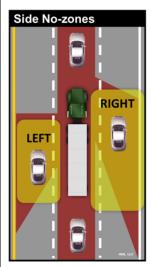
- 1. How long are blind spots in front of a large vehicle? *Answer: 20 feet*
- What should a driver do when driving on the left side of a large vehicle to avoid the blind spot?
 Answer: Travel through this blind zone steadily
- 3. What is one of the most dangerous areas around a truck? *Answer: The right side*
- 4. Why are car drivers at risk when they are in a large vehicle's blind spot? *Answer: They cannot be seen by a truck driver*

Sharing the Road with Large Vehicles	Part 5 continued Lesson Content
Lesson Content	Materials and Resources
No-Zones Around a Large Vehicles	
Slides 8.27 through 8.30	Slides 8.27 through 8.30: No-Zones
Discuss the blind spot areas, called no- zones around a large vehicle.Point out that large vehicles have larger blind spots than passenger cars.Emphasize that blind spots are larger to the right side and rear.	<section-header><section-header><section-header><section-header><section-header><section-header><complex-block><complex-block><image/></complex-block></complex-block></section-header></section-header></section-header></section-header></section-header></section-header>
➢ Slide 8.31	Slide 8.31 Rear No-Zones
Ask students, does this truck driver know a car is behind him? Why or why not? The answer is no, the truck driver does not know a car is behind him because you cannot see the truck's mirrors. The driver of the truck can only see you if you are far enough behind him, which this vehicle is not.	Franker Bergere Der Strate Strate Strate Strate Strate Der Strate Strate Strate Der Strate

Fact Sheet 8.5 continued Content Information

No-Zones Around a Large Vehicle

Many people think that because truck drivers ride much higher than other drivers that they can see better. Because of their large size, however, truck drivers have larger blind spots, called **"no zones,"** than do passenger car drivers. The no-zone represents danger areas around trucks where crashes are most likely to occur.



Rear No-zones

200

feet

Side no-zones

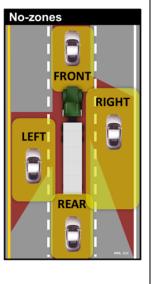
Large vehicles have no-zones on both sides. Trucks have larger blind spots on their right side starting behind the cab and extending up to the length of the truck. If you cannot see the driver's face in the side view mirror, s/he cannot see you. Avoid driving alongside a large vehicle for any longer than required. If the large vehicle needs to swerve or change lanes, the chances of a collision are greatly increased.

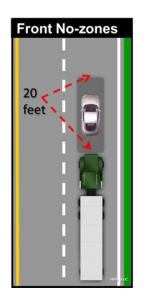
Front no-zones

Drivers in truck cabs with long hoods cannot see up to 20 feet in front of their bumper. This is enough room for a car to slip into a position of danger and be completely unnoticed by the driver. Even truck cabs with no hood, called cab-overs, can have a front blind spot up to 10 feet long. Large vehicles take longer to stop than cars; therefore, it is essential not to enter a roadway in front of a large vehicle or change lanes in front of a large vehicle.

Rear no-zones

Unlike cars, large vehicles have a huge blind spot directly behind them that extends up to 200 feet. If you are too close, the large vehicle cannot see your car, and you cannot see what is ahead of you. Avoid following the vehicle too closely and position your vehicle so the driver can see it in his/her side mirrors.





Sharing the Road with Large Vehicles	Part 5 continued Lesson Content
Lesson Content	Materials and Resources
Large Vehicles and Truck Escape Ramps	
Slide 8.32	Slide 8.32: Truck Escape Ramps
Discuss the importance of truck escape ramps and identify the different types of ramps.	 Since 3.52. Frace Escape Ramps Increase Parage Since State and the second second

Fact Sheet 8.5 continued Content Information

Large Vehicles and Truck Escape Ramps

Truck escape ramps (TERs) have been part of our highway system for well over thirty years. They are found in many different settings including the mountains, the suburbs, and even in small urban communities.

The combination of heavy trucks and highway downgrades has long presented potentially dangerous conditions for truck drivers, other drivers on the road, and occupants of roadside property. The problem of runaway trucks generally results from brake failures which can arise for many different reasons. The inability of drivers to control vehicle speeds on downgrades is not only hazardous, but can also have costly consequences. These ramps are to be used by large vehicles that are out of control because of brake failure. Passenger car drivers should be aware of the location of large trucks around their vehicles, especially when being followed on steep grades. Passenger vehicles should never stop or park in the area of these ramps.

As of 1990, TERs numbered about 170 in the 27 states reporting them, three times as many as reported in 1970. While most are in western states, over 60 are in 12 states east of the Mississippi River. The states without escape ramps are primarily Southern, Midwestern or Great Plains states. Ramps already constructed report varying degrees of usage, but even rare usage can warrant ramp construction.

TERs are generally used in two situations: on long mountain grades in rural areas and on short steep hills likely to be in areas of dense traffic and development. Those located at the bottom of short steep hills are often in areas where there have been accidents involving fatalities or areas where serious property damage has occurred. TERs are likely to be found in locations that require a stop or slow-speed turn at the bottom of a grade.

Sharing the Road with Large Vehicles	Part 5 continued Lesson Content
Lesson Content	Materials and Resources
Improving Your Road Sharing Skills with Large Vehicles	
Class Discussion	 Fact Sheet 8.5: Sharing the Road with Large Vehicles
Discuss how to improve your road sharing skills with large vehicles.	

Fact Sheet 8.5 continued Content Information

Improving Your Road Sharing Skills with Large Vehicles

- Do not follow too closely or tailgate. Most tractor-trailers are 8 ½ feet wide, and if motorists are within 200 feet of the back of a truck, part of the car or even the entire car will not be visible to the truck driver. The rule of thumb is that if a motorist cannot see the truck driver in his side mirrors, the truck driver cannot see the motorist.
- Do not linger alongside a truck when passing. Remember that trucks have larger blind spots; always pass a large truck completely, at a steady pace, and on the left side. Also, if a motorist lingers alongside of a truck, even if s/he is not in one of the truck's blind spots, s/he limits the truck's maneuverability if an obstacle appears in the road ahead.
- Do not cut off a truck in traffic or on the highway to reach an exit or turn, or to beat a truck into a single-lane construction zone. The few seconds that might be saved are not worth a life or lives.
- Tractor-trailers need to make wide right turns. If it looks like the truck ahead is turning left, do not rush ahead on the right side of the truck, because the truck might be making a right turn instead.

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Sharing the Road with Emergency Veh	hicles Part 6 Lesson Content
Control Control Contr	characteristics of emergency vehicles and how
Lesson Content	Materials and Resources
Sharing the Road with Emergency Vehicles	
 Fact Sheet 8.6 Part I Duplicate and distribute Fact Sheet 8.6 Part I for students to use as a study guide and resource. 	 Fact Sheet 8.6 Part I: Sharing the Road with Emergency Vehicles
Class Discussion	
Discuss the characteristics of emergency vehicles.	
Emphasize that drivers of emergency vehicles may, under emergency conditions, be exempt from traffic control laws.	
Slide 8.33 Discuss how to share the road with emergency vehicles and explain move-over laws.	Slide 8.33: Sharing the Road with Emergency Vehicles Sharing the Road with Emergency Vehicles Subject of the state
Slide 8.34 Discuss what to do when pulled over by law enforcement.	 Slide 8.34: Police/Traffic Stops Police / Traffic Stops Now to right side of road Twn off engine and turn on flashers Nemar (neguested, locate license, insurance and registration Remain in vehicle unless requested to get out

Sharing the Road with Emergency Vehicles

Fact Sheet 8.6 Part I Content Information

Sharing the Road with Emergency Vehicles

Drivers of emergency vehicles must drive with regard for the safety of other roadway users, but they may, under emergency conditions, be exempt from traffic control laws. Under emergency conditions, they may not obey traffic signals, may drive faster than the posted speed limit, or may disregard rules covering direction of movement or turning. Emergency vehicles have flashing lights and sirens. Examples of emergency vehicles include ambulances, fire department vehicles, and police vehicles.

When you hear a siren or see a vehicle approaching with flashing lights, pull over to the curb or edge of the road and stop. Always keep intersections clear. After the vehicle passes, carefully look behind you to check whether it is safe return to the roadway. Stay at least 500 feet away from the emergency vehicle.

Move-over laws

Require drivers to slow and change lanes when approaching a roadside incident. When approaching an emergency vehicle stopped on the roadway, proceed with caution by slowing and yielding the right-of-way by making a lane change into a lane not next to that of the emergency vehicle. If a lane change is unsafe, slow down and proceed with caution.

Police/traffic stops

If you are pulled over by law enforcement:

- Move to the right side of the road and position your vehicle out of the way of traffic.
- Turn off your engine and turn on your hazard flashers.
- Remain calm and keep your safety belt fastened.
- When requested, locate and provide your driver's license, proof of insurance and/or vehicle registration.
- Remain in the vehicle unless requested to get out.

Sharing the Road with Emergency Vehi	icles Part 6 continued Lesson Content
Lesson Content	Materials and Resources
Your State's Vehicle Law on Emergency Vehicles	
Fact Sheet 8.6 Part II Develop, duplicate and distribute Fact Sheet 8.6 Part II using your state's laws as they apply to yielding the right-of-way to emergency vehicles, police/traffic stops and move-over laws for students to use as a study guide and resource.	Fact Sheet 8.6 Part II: Your Sate's Vehicle Law on Emergency Vehicles

Sharing the Road with Emergency Vehicles

Fact Sheet 8.6 Part II Content Information

Your State's Vehicle Law on Emergency Vehicles

Provide content as it applies to yielding the right-of-way to emergency vehicles. Refer to the state's driver's handbook and the state's vehicle law.

The following topics should be addressed in addition to other state specific information:

Right-of-Way to Emergency Vehicles Fire Departments Police/traffic Stops Move-over Laws

Sharing the Road with Trains and Public TransportationPart 7Lesson Content	
Lesson Objective: Student will be able to describe the characteristics of trains and public transportation and how to share the road with them.	
Lesson Content	Materials and Resources
 Sharing the Road with Trains Video Review 8.7 Duplicate and distribute Video Review 8.7. Students should complete the worksheet as they watch the video. Slides 8.35 and 8.36 - Video 8.7 Discuss the topics covered in Video 8.7. Play Video 8.7. Look, Listen and Live 	 Video Review 8.7 and Answer Key: Look, Listen and Live Slides 8.35 and 8.36: Video 8.7 Look, Listen and Live Slides 8.35 and 8.36: Video 8.7 Look, Listen and Live
(Time: 6 minutes 30 seconds) After viewing, review Video Review 8.7 to gauge student understanding of the video.	<image/> <image/> <image/> <image/> <list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item><list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item></list-item>

Sharing the Road with Trains and Public Video Overview 8.7 **Transportation** Video Overview 8.7: Look, Listen and Live QO Title Look, Listen and Live Time 6 minutes 30 seconds **Topics Covered** 1. What to do when approaching a railroad crossing 2. Where to stop at railroad crossings 3. What to do when there is more than one track 4. What to do if traffic ahead of tracks and the driver needs to stop at a sign of signal 5. What to do if the vehicle stalls on the tracks Video Review 1. Have students complete a video review worksheet as they watch the video. 2. After viewing the video, review the worksheet to gauge students' understanding of the video

Instructor Notes

	Sharing the Road with Trains and PublicVideo Review 8.7Transportation					
	Video Review 8.7: Look, Listen and Live					
Name		Date				
1.	What should you do when you see an advanced warning sign and are approaching a railroad crossing?					
2.	2. Where should you stop at a railroad crossing when a train is approaching?					
3.	How long does it take the average train	to stop when traveling a	t 55 mph?			
4. What should you do if your vehicle stalls o		s on railroad tracks?				

Video Review 8.7: Look, Listen and Live ANSWER KEY

- 1. What should you do when you see an advanced warning sign and are approaching a railroad crossing? *Answer: Lower the radio, look for flashing lights, check behind you, put foot on the brake*
- 2. Where should you stop at a railroad crossing when a train is approaching? Answer: Stop at the white line on the pavement or no closer than 15 feet or average car length from crossing
- 3. How long does it take the average train to stop when traveling at 55 mph? *Answer: 1 mile*
- 4. What should you do if your vehicle stalls on railroad tracks? Answer: Leave the vehicle and call police or emergency number posted at the crossing, if a train is approaching, move away from the crossing

Sharing the Road with Trains and Publ Transportation	ic Part 7 continued Lesson Content
Lesson Content	Materials and Resources
Sharing the Road with Trains	
 Fact Sheet 8.7 Duplicate and distribute Fact Sheet 8.7 for students to use as a study guide and resource. 	Fact Sheet 8.7: Sharing the Road with Trains and Public Transportation
Class Discussion	
Discuss the characteristics of trains. Emphasize that trains do not run on set schedules, so you should expect them at any time and they cannot stop or swerve quickly.	
➢ Slide 8.37	Slide 8.37: Railroad Crossing Signs
Discuss railroad crossing signs and the meaning of each.	

Fact Sheet 8.7 Content Information

Sharing the Road with Trains

When approaching a railroad crossing always expect a train. Trains do not run on a set schedule. Even if you cross the tracks every day at the same time, do not take familiar crossings for granted. A typical locomotive weights approximately 200 tons. Add 100 railcars to the locomotive, and the train can weigh approximately 6,000 tons. A 100-car freight train traveling at 55 mph will need more than a mile to stop, which is equivalent to 18 football fields. Trains can only travel in one direction and one path. They cannot swerve or stop quickly.

Railroad crossing signs

Many railroad crossings have signs, lights and gates to caution you about railroad crossings.

- A round yellow warning sign with an "X" symbol and black "RR" letters is placed along the road prior to a railroad crossing. The sign cautions you to slow down, look and listen for a train and be prepared to stop if a train is approaching.
- A white, X-shaped sign with "Railroad Crossing" printed on it is located at the railroad crossing. You must wait for a train or railroad vehicle that is approaching the intersection. Your vehicle must remain behind the stop line or prior to the intersection until the intersection is clear.
- At highway-railroad grade crossings with more than one train track, the number of tracks will be posted. These signs warn you that there is more than one track and there may be more than one train crossing.
- At some highway-railroad grade crossings, in addition to the signs, you may see side-by-side lights that will flash alternately. When a train is approaching and lights are flashing you must stop prior to the stop line or gate crossing area. At some highway-railroad grade crossings a crossing gate will lower when a train is coming. You may not move around the gate until the gate is lifted or the lights have stopped.









Sharing the Road with Trains and PublicPart 7 continueTransportationLesson Context		
Lesson Content	Materials and Resources	
Sharing the Road with Trains		
Slide 8.38	Slide 8.38: Crossing Railroad Crossings	
 Discuss how to cross railroad crossings and what to do if the driver's vehicle stalls on the railroad tracks. Emphasize that drivers should look both ways before crossing tracks and should never stop on railroad tracks. 	<image/>	

Sharing the Road with Trains

How to cross railroad crossings

- Slow down when approaching a railroad crossing.
- Pay attention to signs, warning lights and gates at crossings.
- Look both ways and cross the tracks quickly, without stopping.
- Always yield the right-of-way to trains at railroad crossings.
- If a train is crossing the roadway, wait to cross until the train has passed and well down the track or until railroad devices indicate it is safe to cross.
- If you need to stop for a traffic signal, stop at the stop line, prior the tracks. Do not stop on the tracks. Stopping on train tracks is very dangerous.
- Always wait for the vehicle ahead of you to clear the tracks before you start across.
- Only proceed through a railroad crossing if you are sure you can completely clear the crossing without stopping on the tracks.
- Never attempt to beat a train. A train can travel much faster than your vehicle.
- If there are no flashing lights or gates at the crossing, use extra caution. Slow down, look, listen and cross the tracks quickly if there is no train in sight.

Vehicle stalled on tracks

Do not shift gears when crossing railroad tracks, in case you might stall. If you do stall your vehicle:

- Check in both directions for approaching trains.
- Get everyone out of the vehicle and a safe distance from the tracks.
- Call the emergency number that is posted near the crossing, local law enforcement or 911. Give the operator the six digit number and letter that identify the crossing. The railroad will know which crossing is blocked and an oncoming train may be stopped by the dispatcher.
- Do not return to your stalled vehicles. Returning to your stalled vehicle is dangerous, for trains could approach at any time.

Sharing the Road with Trains and Pu Transportation	blic Part 7 continued Lesson Content
Lesson Content	Materials and Resources
Sharing the Road with Public Transportation	
Slide 8.39	 Slide 8.39: Sharing the Road with Transit Buses
Discuss how to share the road with transi buses.	t Sharing the Road with Transit Buses • Watch for buses that have stopped • Unlike a school bus drivers do not have to stop for a transit bus
Emphasize that buses make frequent stops at may travel at slower speeds.	 Cook for passengers that might cross driver's path Do not pass a stopped bus, wait until bus starts moving
➢ Slide 8.40	 Slide 8.40: Sharing the road with Light Rail Vehicles and Trolleys
Discuss how to share the road with light rail vehicles and trolleys.	Sharing the Road with Light Rail Vehicles and Trolleys
Emphasize that they have the same rights and responsibilities as other roadway users and require more room and handling ability because of their size.	 • Taffic signals used to control these whickes marked with a "" • Do not drive through or park on tracks or safety zone for passengers • Do not pass on the left • Never turn in front of an approaching light rail vehicle or trolley • Maintain safe following distance

Sharing the Road with Public Transportation

Transit buses

Buses make frequent stops and may drive at a slower speed.

- Watch for buses that have stopped. They may block your view of pedestrians about to cross the street, or they may be about to pull into traffic.
- Unlike a school bus, drivers do not have to stop for a transit bus when they drop off or pick up people, unless they are behind them.
- Look for passengers boarding and exiting the bus that might cross into your path.
- Do not be tempted to pass a stopped bus if you are caught behind a bus; wait until the bus starts moving before changing lanes.

Light rail vehicles and trolleys

Light rail vehicles and trolleys have the same rights and responsibilities on roadways as other vehicles. Light rail vehicles, because of their large size, require more room and handling ability.

- Be aware of where light rail vehicles and trolleys operate and what their limitations are.
- Trolleys differ from trains in that they are very quiet and they move more abruptly, but some of the same rules apply. For instance do not proceed across the tracks until you can see clearly in both directions or a signal indicates you may proceed.
- Some traffic signals are used to control traffic for trolleys and light rail vehicles only. The lights on these signals are marked with a "T" and the tracks are marked with railroad crossing signs and flashing red signals.
- A safety zone is a space set aside for pedestrians boarding, entering and waiting for trolleys and light rail vehicles. Do not drive through or park on tracks or in a safety zone for any reason. You may pass the zone as soon as it is safe to do so and at no faster than 10 mph.
- Do not overtake and pass on the left of a trolley or light rail vehicle, whether it is moving or standing, except when you are on a one-way street. When the tracks are so close to the right side of the road that you cannot pass on the right, or when a traffic officer directs you, pass on the left.
- Never turn in front of an approaching light rail vehicle or trolley. Let it pass before making your turn.
- Maintain a safe following distance from the rail vehicle or trolley if it shares the roadway with other users. In many cases, you may drive in the same lane as a trolley or light rail vehicle.

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Sharing the Road with Construction Vehicles andPart 8			
Work	Zones	Lesson Content	
G	Lesson Objective: Student will be able to describe the characteristics of construction vehicles and work zones and how to share the road with them.		
Lesson Content		Materials and Resources	
<u>Sharing the Road with Construction</u> <u>Vehicles and Work Zones</u>			
E fe	Fact Sheet 8.8 Duplicate and distribute Fact Sheet 8.8 for students to use as a study guide and esource.	Fact Sheet 8.8: Sharing the Road with Construction Vehicles and Work Zones	
> (Class Discussion		
	Discuss the characteristics of onstruction vehicles and work zones.		
d a: n	Emphasize that work zones are angerous places for workers and drivers nd the reduced speed limits are eccessary for the safety of the workers nd motorists.		

Sharing the Road with Construction Vehicles and Work Zones

Fact Sheet 8.8 Content Information

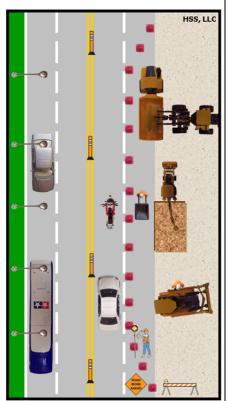
Sharing the Road with Construction Vehicles and Work Zones

A work zone is an area where roadwork takes place and may involve lane closures, detours and moving equipment. Highway work zones are set up according to the type of road and the work to be done on the road. The work zone can be long or short term and can exist at any time of the year, but most commonly in the summer.

Work zones on U.S. highways have become increasingly dangerous places for both workers

and drivers. Approximately 35,000 people per year are injured as a result of motor vehicle crashes in work zones. There are a large number of work zones in place across America, therefore, highway agencies are working on not only improving devices used in work zones, but to change the behavior of drivers so crashes can be prevented.

- When approaching a work zone watch for materials such as cones, barrels, signs, large vehicles, or workers in bright colored vests to warn you and direct you where to go.
- All temporary signs in work zones have an orange background and black letters or symbols and tell you what to do, how soon you will encounter the work zone and the speed limit through the work zone.
- The reduced speed limits are necessary for the safety of the workers and motorists. If there are no reduced speed limit signs, you should obey the normal posted speed limit.



Sharing the Road with Construction Vehicles and Work ZonesPart 8 continu Lesson Conte		
Lesson Content	Materials and Resources	
Sharing the Road with Construction Vehicles and Work Zones		
Slide 8.41 Discuss how to safely drive through work zones.	 Slide 8.41: Safely Drive Through Work Zones Stely Driving Through Vork Zones Persona of Ragers Orevase following Orevase following Merge as soon as possible Use caution in work zones at night equipment Derge as soon as possible Derge as possible Derge	
Slide 8.42 Discuss how to drive safely around construction vehicles.	<section-header><section-header><section-header><section-header><section-header><section-header><section-header><image/><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header>	

Sharing the Road with Construction Vehicles and Work Zones

Fact Sheet 8.8 continued Content Information

Sharing the Road with Construction Vehicles and Work Zones

Safety tips in work zones

As a driver, you should learn and abide by the following safety tips for driving in work zones:

- Watch the traffic around you and be prepared to react by reducing your speed, obeying signs and flaggers, and increasing your following distance.
- Do not become oblivious to work zone signs when the work is long term or widespread, and be aware that traffic patterns in work zones can change daily including lane shifts or alternating lane closures.
- Merge as soon as possible. Motorists can help maintain traffic flow and posted speeds by moving to the appropriate lane at first notice of an approaching work zone.
- Use extreme caution when driving through a work zone at night whether workers are present or not.
- Adjust your lane position away from the side where workers and equipment are located when possible.
- Some work zones, such as line painting, road patching and mowing are mobile. Just because you do not see the workers immediately after you see the warning sign does not mean they are not out there. Observe the posted signs until you see the one that says "End Road Work."
- Expect delays, plan for them and leave early to reach your destination on time.

When you can, avoid work zones altogether by using alternate routes.

Construction vehicles

These are found at or nearby construction sites. They are very large and loud. Proceed with caution around them. Many construction vehicles start out slowly and because of heavy loads they haul, acceleration takes longer. Remember the following in order to drive safely around construction vehicles:

- Do not tailgate.
- Driver may not see you in his side mirrors.
- Keep a safe distance between your vehicle and any construction vehicle(s).

If a construction vehicle is following:

- Keep checking in the rear view mirror.
- Do not stop quickly unless necessary.
- Remember construction vehicles need a lot of braking distance.

Unit Review and Test	Part 9 Lesson Content
Lesson Objective:	
Student will evaluate their knowled review questions, key word matchu	ge of the content presented in Unit 8 through p worksheet and unit test.
Lesson Content	Materials and Resources
<u>Review Questions</u>	
Review Questions	Unit 8 Review Questions
Ask review questions to summarize discussion on Unit 8.	

Unit 8 Review Questions



- 1. What should you do if pedestrians are not in a crosswalk? *Answer: Yield to them anyways*
- 2. What should you do when approaching or passing a bicyclist? Answer: Slow down and allow as much space as possible, let the cyclist clear the intersection before turning.
- 3. What should you do when a motorcycle is following your vehicle? *Answer: Check your rearview mirror frequently*
- 4. Why do large trucks have longer stopping distances than cars? *Answer: They weigh more than cars*
- 5. Why is it dangerous to follow a large truck too closely? Answer: You cannot see the road ahead, the truck driver cannot see you, and you do not have as much time to stop. It can contribute to a rollback collision and debris could fall from the truck.
- 6. What does turbulence do to a vehicle? *Answer: Pushes vehicles apart.*
- 7. What should you do when you hear or see an emergency vehicle approaching? *Answer: Pull over to the curb or edge of the road and stop until the vehicle has passed.*
- 8. What should you do when approaching a railroad crossing? Answer: Slow down, look for warning lights and gates, look both ways before crossing.
- 9. Do you have to stop for a transit bus, like you do for a school bus? *Answer: No, unless you are behind it.*
- 10. How should you adjust your driving in a work zone? Answer: Slow down, increase your following distance, and possibly adjust lane position.

Unit Review and Test	Part 9 continued Lesson Content
Lesson Content	Materials and Resources
Words to Know Review	
 Fact Sheet 8.9 Duplicate and distribute Fact Sheet 8.9. Use the definitions page as a resource for teaching and for the students as a resource and study guide. 	Fact Sheet 8.9: Unit 8 Words to Know Definitions Page
 Worksheet 8.9 Duplicate and distribute. Have students complete the worksheet. Review the answers. 	Worksheet 8.9 and Answer Key: Unit 8 Words to Know Matchup

Unit 8 Words to Know Definitions Page



Mid-block crosswalk – area located in the middle of a block, which requires you to yield as you would at an intersection. Usually there will be warning signs to alert you of a crosswalk.

Move-over laws – require drivers to slow and change lanes when approaching a roadside incident or when approaching an emergency vehicle stopped on the roadway.

No-zones – large blind spots, which represent danger areas around trucks where crashes are most likely to occur.

Off-tracking – occurs when the trailer of a large vehicle follows a tighter path than that of the tractor. As a result, the tractor will swing wide left or right to prepare for the turn and to compensate for the off-tracking.

Railroad crossings – intersection on the roadway where vehicles and trains cross and are usually marked with signs, lights or gates.

Rollover – when a truck loses its balance point and the center of gravity shifts, the truck will roll.

Slosh – when the center of gravity shifts to the outside of the tank, the liquid load rocks from side to side inside the tank. If the liquid shifts or rocks past the balance point and the pull of gravity prevails the truck will roll.

Surge – as a result of sudden braking, the liquid in the tank rolls from front-to-back and then back-to-front causing it to slam into the front and back of the tank structure.

Total stopping distance – the distance a vehicle travels while making a stop, made up of perception distance, reaction time and braking distance.

Truck escape ramp (TER) – used by large vehicles that are out of control or cannot stop because of brake failure, usually found on long mountain grades in rural areas and on short steep hills likely to be in areas of dense traffic and development.

Turbulence – wind from large vehicles that can affect the stability of vehicles nearby.

Underride collision – a type of collision in which a portion of a passenger vehicle slides under another vehicle, more common with a passenger car and a large vehicle.

Work zone – an area where roadwork takes place and may involve lane closures, detours and moving equipment.

Unit 8 Wor	ds to Know Matchup			Worksheet 8.9
Name		Date		
Directions: Match the clues on the left with the words in the list on the right. Place the matching letter in the blank to the left of the number.				he right. Place the
1.	Dangerous areas around trucks the driver is unable to see where crass likely to occur.		A.	Mid-block crosswalk
2.	Occurs when the trailer of a large follows a tighter path than that of resulting in the tractor swinging v right to prepare for the turn.	the tractor,	B.	Move-over laws
3.	A collision in which a portion of vehicle slides under another vehi		C.	No-zones
4.	Area located in the middle of a b requires you to yield to pedestriat would at an intersection.		D.	Off-tracking
5.	Requires drivers to slow and char when approaching a roadside inc an emergency vehicle stopped on the road.	ident, such as	E.	Railroad crossings
6.	An area where roadwork takes pl involve lane closures, detours and equipment.		F.	Total stopping distance
7.	The distance a vehicle travels wh stop.	ile making a	G.	Truck escape ramp
8.	Occurs when wind from large ver the stability of vehicles nearby.	hicles affects	H.	Turbulence
9.	Area of the roadway which interstrain.	sects with a	I.	Underride collision
10.	Used by large vehicles that are or or cannot stop because of brake f		J.	Work zone

Unit 8 Wor	ds to Know Matchup		Worksheet 8.9 ANSWER KEY
	ANSWER KEY		
	latch the clues on the left with the words in the lister in the blank to the left of the number.	t on t	he right. Place the
C1.	Dangerous areas around trucks that the truck driver is unable to see where crashes are most likely to occur.	A.	Mid-block crosswalk
D2.	Occurs when the trailer of a large vehicle follows a tighter path than that of the tractor, resulting in the tractor swinging wide left or right to prepare for the turn.	B.	Move-over laws
I3.	A collision in which a portion of a passenger vehicle slides under another vehicle.	C.	No-zones
A4.	Area located in the middle of a block, which requires you to yield to pedestrians as you would at an intersection.	D.	Off-tracking
B5.	Requires drivers to slow and change lanes when approaching a roadside incident, such as an emergency vehicle stopped on the side of the road.	E.	Railroad crossings
J6.	An area where roadwork takes place and may involve lane closures, detours and moving equipment.	F.	Total stopping distance
F7.	The distance a vehicle travels while making a stop.	G.	Truck escape ramp
H8.	Occurs when wind from large vehicles affects the stability of vehicles nearby.	H.	Turbulence
E9.	Area of the roadway which intersects with a train.	I.	Underride collision
G10.	Used by large vehicles that are out of control or cannot stop because of brake failure.	J.	Work zone

nit Review and Test Part 9 conti Lesson Co	
Lesson Content	Materials and Resources
Unit Review and Test	
➢ Slide 8.43	Slide 8.43: Unit Review
Discuss what the students have learned by the end of this unit.	Wint & Review This unit, you learned: In this unit, you learned: Predestrans Bicycles Bicycles Bicycles Protestrans Distriction republic transportation Construction vehicles and work zones Construction vehicles and work zones
Reading Assignment	> Textbooks
Assign students the reading material for the next unit. Students might begin reading after they have completed the Unit 8 Test.	 Preferred Textbook: HOW to DRIVE Chapter 13 Other Textbooks: Drive Right: Chapter 8 Responsible Driving: Chapter 2 Other Textbook:
 Unit 8 Test Duplicate and distribute the Unit 8 Test. Collect and grade the test. After returning tests to the students, review the answers and clarify any confusion. 	Unit 8 Test, page 8-82

Unit 8 Review

Unit 8 Review

In this unit, you learned:

- The importance of sharing the road with other roadway users.
- How to interact with pedestrians.
- How to interact with bicycles.
- How to interact with motorcycles.
- How to interact with large vehicles.
- How to interact with emergency vehicles.
- How to interact with trains and public transportation.
- How to interact with construction vehicles and work zones.
- Key words associated with the unit objectives.

Sharing the Road with Other Users	Unit 8 Test
Select the best answer and place the appropriate letter (A, B, C, or D) on th	e line provided.
1. You are coming to an intersection. You see a tractor-trailer con intersection from the left and starting to turn right. What should tractor-trailer?	•
A. It will not interfere with your path of travel	
B. It will turn wide and use part of your lane to complete its tur	'n
C. It will stop and let you pass	
D. It will speed up and turn quickly	
2. The driver of a large truck or tractor-trailer rig will have the mo A. Ahead of his rig	st difficulty seeing:
B. Overhead clearance signs approaching at bridges	
C. To the sides and rear of his vehicle	
D. Down into passing vehicles	
3. When following a large truck or tractor-trailer:	
A. Increase your following distance	
B. Stay behind at all times for protection	
C. Drive in the driver's blind spot	
D. Keep the truck ahead to block the wind	
4. If you approach an oversized vehicle marked with a "Wide Load	d" sign, you should:
A. Make it move to the edge of the road	
B. Speed up to get around it	
C. Flash your lights to warn other drivers	
D. Slow your speed and increase the distance you are from it	
5. Motorcycles:	
A. Offer the rider little or no protection in a crash	
B. Speed up and stop quickly	
C. Are sometimes difficult to see in traffic	
D. A, B and C are all correct	

Sharing the Road with Other Users	Unit 8 Test Page 2
6. When you are driving and following a motorcycle, you shou	ıld:
A. Pass the motorcyclist at the first chance you have	
B. Increase your following distance	
C. Wave at the motorcyclist to get his or her attention	
D. Blow your horn so the rider can move out of the way	
7. When passing someone riding a bicycle ahead of you:	
A. Blow your horn to pass the rider	
B. Get close and make them move over	
C. Slow your speed and increase the space between you and	l the bicyclist
D. Have them move to the sidewalk to ride	
8. If the bicycle rider near you is a child:	
A. Expect the child to know the state's bicycle laws	
B. Expect the child to be in total control of the bicycle	
C. Expect the child to know all of the safety rules when ridi	ng
D. Expect anything could happen and adjust your driving	
9. When approaching and driving through a construction zone,	you should:
A. Get through quickly to avoid dust	
B. Slow your speed and adjust your vehicle's position	
C. Watch the construction taking place	
D. Turn on the radio to drown out the noise	
10. When approaching a railroad crossing, you should:	
A. Stop on the tracks to make sure a train is not coming	
B. Look both ways and cross the tracks quickly	
C. Cross quickly if you see a train approaching	
D. Speed up to beat the train	

Unit 8 Test ANSWER KEY

Unit 8 ANSWER KEY

1	В	6	В
2	С	7	С
3	А	8	D
4	D	9	В
5	D	10	В