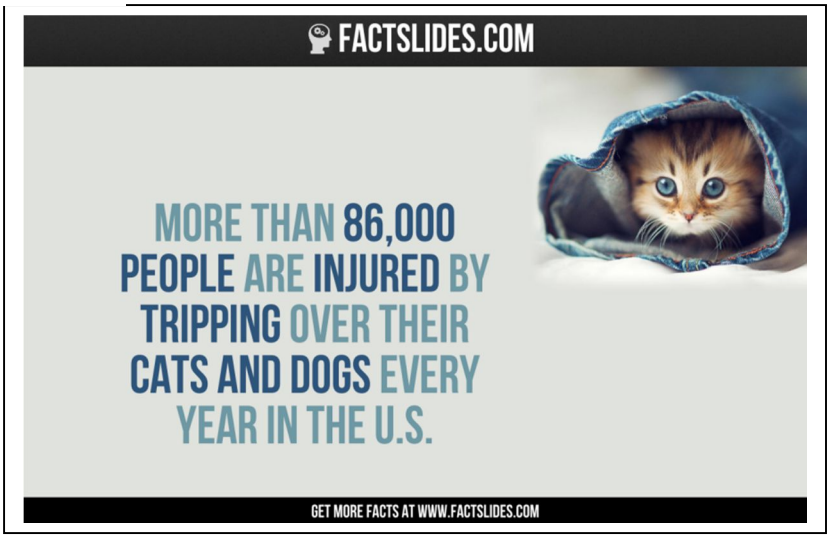
PARKSIDE DRIVING SCHOOL

Class 1

Highway Transportation System



Before you start to learn about driving, you need some context. You need to understand that many parts of your life leading up to this point have prepared you to become a driver. You may be just beginning to learn to control a car, but you have been learning how to become a driver your entire life. Take a moment and think about your home. Think about the path you take to get from your bedroom to the kitchen. Can you walk that path in your mind? Can you visualize the doorways you pass along the way? How about any pictures hanging on the wall? Did you have to watch out for a pet that might be at your feet? Did you have to watch out for your parents or siblings getting in the way? You path from your bedroom to the kitchen is just like a road. The path stays pretty much the same. The doors and walls don't move, but along the way, there are any number of things that you may notice and need to deal with.

The Highway Transportation System (HTS):

In driving, all the roads we travel on are part of the Highway Transportation System. Everywhere you want to go uses this system to help you get there safely. Its entire purpose is to get people where they want to go safely and efficiently. In addition to the roads, there are two other components to the highway transportation system. The vehicles and the drivers. Combined, these three components work together to make up the entire system.

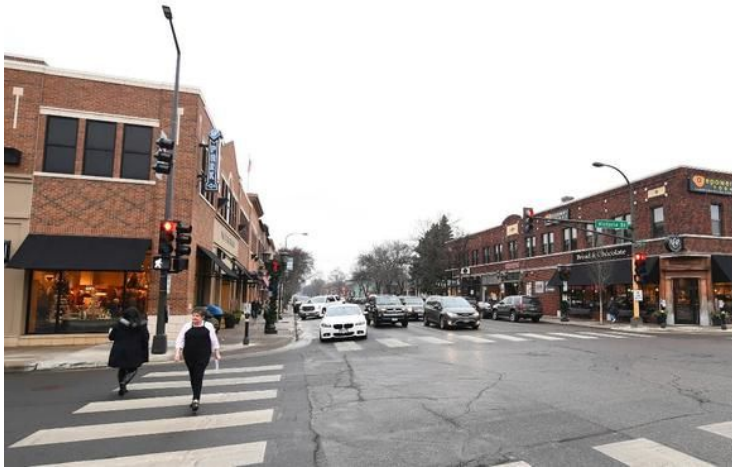
The Driver: This is the person in control of the vehicle. There may be times when you are the only driver on the road. At other times, you will find yourself surrounded by countless other drivers all trying to get somewhere at the same time. The driver is the weakest link in the system. Driver error is the most common cause of traffic crashes.

The Vehicle: The vehicle is anything that moves a person on a road. There are cars, trucks, busses, motorhomes, motorcycles, bicycles, or anything moving people from place to place on the roads. For the most part vehicles are pretty reliable. They do what the driver tells them to do. Your job as the driver is to make sure your vehicle is in good shape, and to watch out for other vehicles that may be near you.

The Roadway: Roads are whatever vehicles are moving on. Some are high speed, like the freeways. Some are low speed, like near your house. Some are gravel farming roads. Others might just be dirt trails out in the forest. No matter what the road looks like, it's part of the system to help you get to your destination safely. You'll find that there are many common rules, no matter what the road looks like. Here in America, all vehicles drive on the right side of the road. There are common paint lines and common signs to guide us down the roads. Without common rules, drivers would not be able to get places safely.

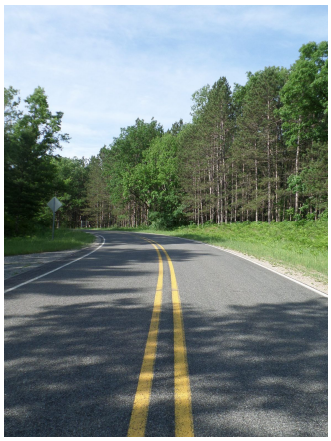
Examples of "The Roadway": For the purpose of discussing the Highway Transportation System, you need to understand all the things that are included in what they refer to as the roadway. We'll list the most common ones here.

Residential Streets: A residential street is typically a two-lane road with one lane of traffic travelling in each direction. Residential streets may or may not have sidewalks and curbs along the edges. Residential streets are often lined with houses which access the street by driveways. Residential streets usually allow for drivers to park their vehicles along the sides of the street.



Arterial Streets: An arterial street is a busier version of a residential street. It may have a higher speed limit, and it may have more than two lanes for vehicle travel. It may still have houses along it that access the street via driveways, and it may also have businesses along it which access the street via parking lot entrances. Arterial streets often restrict drivers from parking along the side of the street to allow for more traffic flow.

County Roads: County roads are typically two-lane paved roads that allow drivers to access rural areas. The speed limit on county roads is often higher than other roads. County roads often have a soft gravel shoulder along both sides. Drivers should expect county roads to be used not only by cars, but also by farming equipment and large trucks.



State Highways: A state highway is a major road designed to allow traffic to cross all or part of the state. All state highways are assigned a number. Even numbered highways travel East/West. Odd numbered highways travel North/South. The speed limit and traffic density on a state highway is often higher than other roads. When possible, state highways have paved shoulder areas for cars to drive onto in an emergency. Driveway and parking lot access from a state highway is limited to help with traffic flow. Some highways are divided in the middle by a median or some sort of barrier to protect drivers from oncoming vehicles.

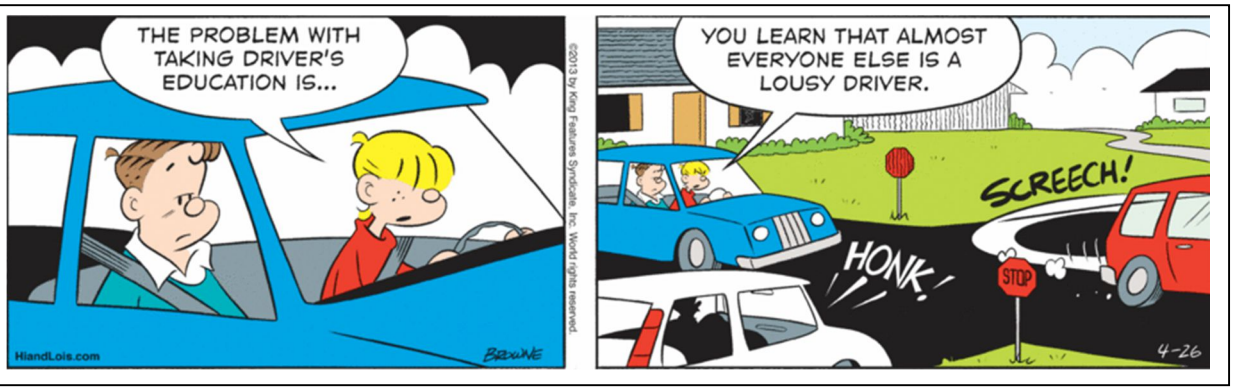
State and National Freeways: The freeway system is a connected set of roadways designed to allow a high volume of traffic to travel long distances with minimal stops. The freeway system is the highest speed roadway system in the US, and never has a traffic light or cross intersection. Drivers access the freeway by using acceleration lanes called on-ramps. Drivers exit the freeway using deceleration lanes called off-ramps. Freeways are almost always divided in the middle by a median or barrier. Freeways follow the same numbering system as state Highways. Most freeways are accessible to all traffic, but in some areas, there are tolls charged to drivers.

Private Driveway: A driveway is whatever path a driver uses to get from the street to a house. It might be paved, gravel, or even just dirt. A driveway is owned by the property owner, and is granted legal access to and from the street.

Commercial Parking Lot: A parking lot is a common place for drivers to park their cars while they are visiting a neighboring business or multi-family housing complex. Parking lots are owned by the property owner and are reserved for the use of authorized vehicles. If a driver leaves a car parked for an extended period of time, and is not there for an appropriate reason, the vehicle can be towed off the property at the vehicle owners' expense. There are also parking lots for access to public areas like parks and government offices. The rules are pretty much the same. You can park there when you are visiting those places, but you need to remove your car when you leave.

Sidewalks and Bicycle Paths: Along many roadways there are narrow paths designed to allow people to walk safely from place to place. Sidewalks are primarily designed for walking. Bicyclists can ride on a sidewalk in certain circumstances, but they must yield to pedestrians. Bicycle paths are often along the side of highways to allow a safe path for bicyclists to travel without being in the traffic flow with vehicles. Pedestrians can also walk or jog on a bike path, and the bicyclists still need to yield to pedestrians.

Why Take Drivers Ed: During the orientation at the beginning of class 1, we talk about how the course works, and why it's important, but let's go over some of the most important parts again.



Driver Education is NOT to get a license: It's true that if you want to get a license before you are 18, you must take this course, but the course is way more than that. You're going to be learning driving techniques and behaviors that will help you drive safely for your entire life. Getting a license is the easy part. Driving correctly for the rest of your life takes hard work and starts with good fundamental skills. This course is going to help you develop those skills.

Driving is NOT a "Human Right": Driving is a privilege provided to you by the state, which you earn by taking this course, passing some tests, and following certain rules. If you do things correctly, your driving privileges will last you a lifetime. If you don't follow the rules, your privileges may be suspended or revoked.

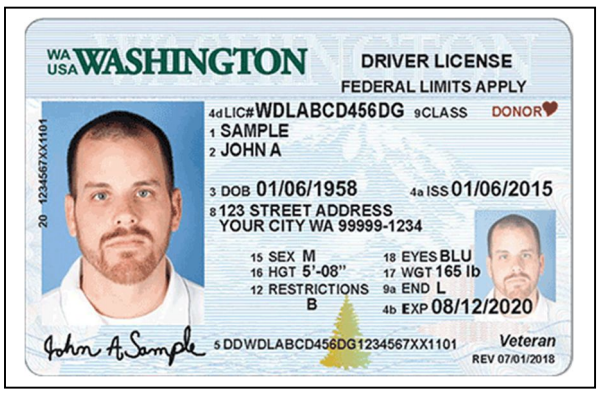
Driving is NOT a safe activity: The task of driving is the most dangerous task most people perform in their lifetime. Traffic collisions are the leading cause of death for young drivers, and a top 3 cause of death for drivers of all ages. Beyond deaths, there are roughly 6 million crashes every year in the US. Each of those crashes has the risk of car repairs, medical bills, or even death. This course is designed to give you the best information for you to use as a driver,

so you can avoid collisions and remain safe on the roads. Human error is the cause of 94% of all traffic collisions. Knowledge and fundamental skills are among the most effective means to reduce human error.

Target Zero: The state of Washington has developed a strategic plan to reduce traffic collisions. The plan is called Target Zero. Its stated goal is to reach zero traffic fatalities or serious injuries. Legislators, City Managers, Police, and many other agencies are working together to make Washington a safer place for drivers. Taking this course makes you part of the Target Zero team as well.

Driver Responsibility: The fact that you are taking this course suggests that you are mature enough to take this task seriously, and ready to become a responsible driver. The sad truth is that many drivers you will encounter on the roads have not taken a course like this and may not be as mature and responsible as they should be. Your job as a responsible driver is to always lead by example. Other drivers on the road will be watching you, just like you watch them. Always drive in a way that you would want them to copy. When you see someone else driving in a dangerous way, try to get away from that driver, and if you know who they are, consider talking to them about how their driving made you feel. Young drivers sometimes confuse demonstrations of a car's acceleration or cornering ability with control. If you feel unsafe with or around another driver, they are doing something wrong. If you make someone feel uncomfortable by your driving, and you don't try to make them more comfortable, then you are probably doing something wrong.

Law Changes: Most of the laws that drivers follow have been in place for a long time. I doubt anyone you talk to can remember a time in the U.S. before speed limits or stop signs. Since most of the driving laws are old, most of the drivers know about them and generally try to follow them, but every so often a new law gets added. When new laws are added, it takes time for all the drivers to learn about it and change their driving behavior. This course will introduce you to laws and behaviors that experienced drivers may not know about. One of your responsibilities as a new driver is to help spread the word about these things so we can all drive safe and legally.



Identification Cards: There are a few different types of identification cards issued in Washington. Some of them allow a person to operate a motor vehicle, others only act as a form of identification. You are required to keep the information on the card current. If anything changes, like address or last name, you must visit a DOL office within 10 days to update the information. Let's look at the various types of cards.

Washington Identification Card or Enhanced ID: This card can be issued to a person who lives in Washington but does not operate a motor vehicle. An ID always displays the person's photo, signature, address, and date of birth. With an enhanced ID, you can enter government buildings, and you can fly commercially between the US states, Canada, and Mexico.

Washington Instruction Permit: An instruction permit allows a person learning to drive to practice under direct supervision. The permit allows a person who has had a driver license for 5 years or more to supervise a new driver from the passenger seat. A permit is not a license. You must not drive unsupervised while you have a permit. Most importantly, the person in the passenger seat accepts full responsibility of the drivers' actions. The supervising passenger is responsible if the driver crashes, gets pulled over by law enforcement, or does anything else wrong behind the wheel.

Sometimes when you visit the Department of Licensing to get a permit, they issue you a piece of paper that acts as a temporary permit, then they mail your real permit to you. This paper permit does allow you to practice driving, but it expires. If you have not received your real permit by the expiration date, stop driving and visit a DOL office to figure it out.

Also, if the permit you are using to practice does not have your photo on it, you must carry some other type of photo id every time you drive. A school ID is fine. You must be able to prove to an officer that you are the person listed on the permit.

Washington Intermediate License: When a teenager under the age of 18 gets their first driver license, it is called an intermediate license, and it is issued with a few restrictions. These restrictions fully expire when the driver turns 18.

- The driver may not drive between the hours of 1:00AM and 5:00AM unless required to do so for immediate family, school, or employment related reasons.
- For the first 6 months, the driver may not have any non-immediate family passengers under the age of 20 in the vehicle.
- For the remaining time, the driver may not have more than 3 non-immediate family passengers under the age of 20 in the vehicle.
- While driving with an intermediate license, you may not use any handheld electronic device for any reason while driving. The only exception is using a phone to call an emergency number like 911.

Washington Driver License: A driver license is an ID card with an endorsement added allowing the holder to drive a privately operated vehicle. There may be additional endorsements or restrictions listed on the card limiting the driver in the legal operation of a vehicle. Common endorsements are to allow the operation of a motorcycle or commercial vehicle. An example of a common restriction would be stating that the holder must not drive if not wearing corrective lenses (glasses or contacts) to see clearly.

From the Washington Drivers Guide:

"Young drivers face increased risks due to their inexperience. Motor vehicle crashes are the leading cause of death for young people ages 16 to 25 in Washington."

"From 2009-2011, nearly 35% of traffic fatalities involved a young driver age 16 to 25. In that same time frame, young drivers were involved in 38% of all serious injury collisions even though they only represented 14% of the driving population."

"To be issued an intermediate driver license, you must:

• be between the ages of 16 and 18 years old.

• show us proof that you have passed an approved driver-training course with at least 30 hours of classroom and six hours of behind-the-wheel instruction.

• pass the medical and vision screenings, the knowledge test, and the driving test.

• have had an instruction permit for at least six months.

• show us that your parent or guardian certifies you have had at least 50 hours of driving experience, including 10 hours at night, which you gained while a licensed driver with at least five years of licensed driving experience supervised you."

"An intermediate license comes with these driving restrictions:

• you cannot drive between 1 a.m. and 5 a.m. unless you are with a parent, a guardian, or a licensed driver who is at least 25 years old.

• for the first six months, no passenger under the age of 20 may be with you while you drive unless that person is a member of your immediate family.

• for the remaining time, no more than three passengers under the age of 20 may be with you while you drive unless they are members of your immediate family.

• may not use a cell phone or other wireless communication device while operating a motor vehicle unless the holder is using the device to report illegal activity, summon medical or other emergency help, or prevent injury to a person or property."

"First violation – the passenger and nighttime restrictions are extended until age 18 and a warning letter is sent to you and your parent or guardian if you receive a ticket for violating the restrictions or any other traffic law or you are involved in a collision."

"Second violation – you are suspended for six months (or until age 18 if that comes first)."

"Third violation – you are suspended until age 18. You and your parent, or guardian, are notified before any suspension action is taken."

Your Homework: While you're taking drivers ed, it's important that you observe the way your parents, siblings, and others drive. Put the phone down, ask to sit in the passenger seat, and watch how they drive. Ask them why they are making the decisions they make. Notice how they control the car, and how they keep a safe distance away from other cars. You will learn more at home than you will with Parkside. For now, make every time you're in the car, an opportunity for learning.

One more thing. Log your practice hours. We have a form you can download from the resources page of parksidedriving.com, but even better, consider using an app. There are several apps available. We like Trypscore because it does more than just log your hours. It also monitors your driving and gives you rewards for good driving.

Self-Reflection: Am I ready to learn to drive? Am I responsible enough for this task? Will I make time to learn and practice? Am I excited to become a driver?

Tips for Parents: Our biggest advice for parents at the beginning of this process is to take things slowly, and to remain calm. Everyone in the car will be nervous, and nerves may begin to fray quickly. Go out to the driveway and sit in the car for a few minutes. Let them start it, turn the wheel, press the pedals. Honking the horn can break the tension. 😊 Go out for a 10-minute drive on slow straight streets. When the nerves are raw, stop and switch drivers. Your goal is to build their confidence. If you do things correctly at the beginning, they will want to practice more, and they will become good, safe drivers. Don't rush it!

Also Parents, consider using a Parent-Teen Driving Agreement. These agreements help families set expectations for everyone to follow. The one we have included on the following pages not only sets limits and consequences for the teen driver, it also allows for rewards for good driving behavior. Most importantly, taking the time to discuss and compete an agreement sets the tone that driving is a responsible adult task and that drivers are personally responsible for their actions as a driver.

Be on Time: Please make sure to arrive on time for each class and driving lesson. Students may be left unattended at our school locations after a drive lesson if their ride has not arrived for pick-up. We prefer not to leave a student unattended, but a good educational experience for all students is our primary goal.

Pro Tip: New drivers struggle with things that experienced drivers don't even remember having trouble with. One example is the type of shoe the driver is wearing. Flip-flops, or any other shoe that does not stay tight to the drivers' heel are risky. In a panic, they might move their feet around erratically and end up with the shoe stuck between or behind the pedals. Similar problems exist driving with heels or driving barefoot. Don't let the wrong shoe choice be the cause of a crash.

PARENT-TEEN DRIVING AGREEMENT

RECITALS

WHEREAS: A written Parent - Teen Driving Agreement is purposeful… because it helps parents protect teens by holding them accountable for their driving behavior and life choices.

WHEREAS: A written Parent – Teen Driving Agreement is personal…because both make promises to each other that connect them in a personal and meaningful way.

WHEREAS: A written Parent-Teen Driving Agreement is powerful…because it lists family rules a teen must abide by in order to obtain a driver's license; and maintain the privilege to drive once teen has been issued a license. Further, it lists consequences for violating a family rule or vow. And finally, it lists rewards for driving ticket free for 12 months following the date license was issued.

THEREFORE: As a parent and teen who recognize the value and benefit of a written driving agreement, we enter into the agreement below in a spirit of love, mutual respect, and trust.

AGREEMENT

We the undersigned agree:

- This agreement begins the date the teen is issued a permit and ends on their 18th birthday.
- Parent(s) may modify this agreement at their discretion.
- To have an open, honest and mature discussion about any violation of a family rule or vow.
- The teen shall abide by family rules listed herein in order to obtain a driver's license and to maintain the privilege to drive once a license has been issued.
- While learning to drive, a consequence for violating a family rule may include extending the date beyond which the teen is eligible to obtain a driver's license.
- Once licensed, a consequence for violating a family rule may be based on the circumstances.

FAMILY RULES

Teen must not:

- Drink alcohol, consume marijuana, use an illegal drug or illegally possess a firearm.
- Attend a gathering where minors are consuming alcohol, marijuana, or illegal drugs.
- Ride with a person who has been drinking, consuming marijuana, or using drugs.
- Drive any vehicle without parental permission.
- Allow a person to a drive family vehicle without parental permission.
- Drive beyond boundaries or to an off-limits area without parental permission.
- Ride in a vehicle that does not have a properly functioning seat belt for each passenger.
- Drive in a manner parent(s) would deem unacceptable.
- Give a ride to a stranger.
- Violate any of the State intermediate driver license laws.
- Drive while using earbuds or headphones.

Teen must:

- Obey supervisor during driving practice.
- Encourage, to the best of their ability, safe and responsible driving behavior when a passenger in a vehicle.
- Share driving plans, destinations, and expected return times.
- Abide by agreed upon curfew
- Inform parent if expected to be late arriving to a destination.
- Inform parent of any encounter with law enforcement.
- Call parent whenever there is an emergency.

7 DRIVER VOWS

Once licensed teen vows:

- Not to Speed
- Not to Drink Alcohol or Use Drugs
- Not to Engage in Road Rage
- Not to Text or use Social Media
- To Avoid Distractions
- To Ensure All Passengers Wear a Seat Belt
- To Obey the Law

CONSEQUENCES FOR RECEIVING A CITATION FOR A MOVING VIOLATION OR COLLISION

FIRST VIOLATION: Loss of license for _____; and/or any penalty imposed by a court.

SECOND VIOLATION: Loss of license for _____; and/or any penalty imposed by a court.

THIRD VIOLATION: Loss of license for _____; and/or any penalty imposed by a court.

REWARDS FOR DRIVING TICKET AND COLLISION FREE

Parent promises teen shall receive the rewards herein every ____ month(s) from license issue date until teen's 18th birthday; provided teen drives ticket free and at fault collision free during each interval.

- _____
- _____
- _____

PARKSIDE DRIVING SCHOOL

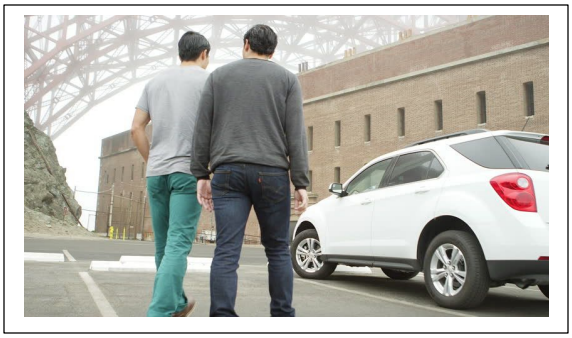
Class 2

Before you drive

Every time you do something, you think about it first. This is called preparation. Some things are easy to prepare for now but may have been difficult at first. Take eating, for example… By now, you are probably pretty good at putting food in your mouth, but when you were a baby, you sometimes missed your mouth and ended up with spaghetti in your hair. Over time, you have learned how to eat without missing your mouth. Now, whenever you put spaghetti on your fork, you are prepared to put it in your mouth. Preparation is always the first step to any action. If you prepare correctly, your chance of doing the action correctly is very good.

Driving is a perfect example of an activity that requires preparation. Before you drive, there is an entire list of steps you must do to make sure you get to your destination safely, and on time. If you skip a step, you won't get spaghetti in your hair. Unfortunately, the consequences might be much worse. Let's go over the basic steps to take before the vehicle moves.

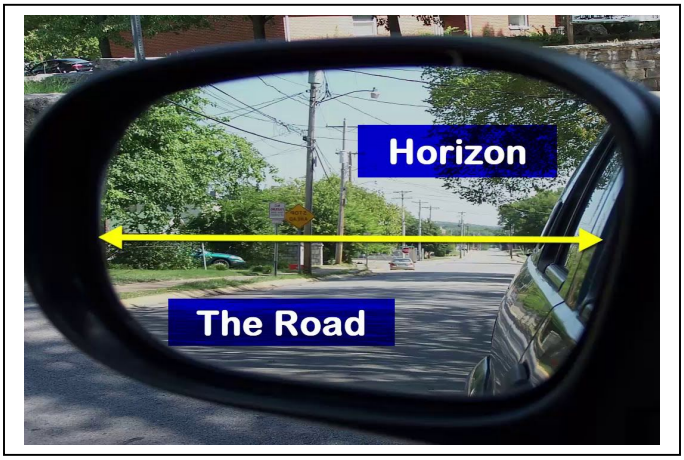
Driver fitness: When we say fitness, we don't mean exercise. We mean, are you "fit" to drive? Being fit to drive can vary from person to person, but it is critically important before you get behind the wheel that you are mentally and physically ready for the driving task. Are you awake enough? Sometimes people jump out of bed, throw on clothes, and jump in the car mere minutes later. You may be up and moving but may not be mentally fit enough to drive. Another example of bad driver fitness is stiff joints or aching muscles. If your body is sore and painful, your reaction time may be delayed by your body's defense mechanism of pain avoidance. Always take a few moments to make sure you are ready to drive. Once you are driving, you're responsible for everything that happens.



Approaching the car: Your car may be parked in a garage, a driveway, a parking lot, the side of a road, or who knows, maybe in your yard. No matter where it is, you're going to have to walk up to it to get in. As you approach, you need to inspect the car, and its surroundings, for anything that may be a problem. Look at the tires, lights, and window glass. Look under the engine area for any sign of leaks. Look around the car for anything you need to move out of the way. Look for problems. Don't assume the car is fine, assume there is something wrong. It is never safe to drive a car with something wrong. The lives of everyone in and around your car depends on your car being safe. Another thing to glance at is your rear license plate. Make sure the month and year tabs are not expired. When you get into the car, make sure you know where the registration and insurance documents are located, and make sure the documents are current. You may not legally operate a vehicle that is not actively registered and insured.

Adjusting the controls: Once you are inside the car, there are a few things that need to be adjusted so you are prepared to drive. First, lock the doors. You don't want anyone getting in the car that you didn't invite and locked doors stay closed better in a crash. Next, adjust the seat and head restraint. Adjust the seat in this order: Eyes. Feet. Arms. Head.

1. If the seat has a height adjustment, adjust it up or down until your chin is at about the top of the steering wheel. You want to sit high enough that you can see clearly down the road, but not so high that you are looking down at the front of the car.
2. Adjust the seat forward or back until the heel of your right foot can rest on the floor and the ball of that foot can press the brake. Your left foot should be able to rest on the dead pedal.
3. Adjust the incline/recline setting so that your arms comfortably reach the steering wheel. You might also be able to adjust the steering wheel distance and angle. To get it just right, reach out across the top of the steering wheel. Adjust the incline/recline forward or back until your wrist is sitting on the top of the steering wheel.
4. Last, but very important, adjust the head restraint so that it is directly behind the center of your head. Don't let it be low and behind your neck or you'll be at risk of serious neck injury in a crash.
5. After adjusting the seat, put on your seat belt. If you have any passengers or pets in the car with you, make sure they are buckled in too. You'll probably learn very quickly that it's a mistake to put your seatbelt on before adjusting the seat. The seatbelt will constrict your movement and make it hard to adjust the seat comfortably.



Adjust the Mirrors: After you have adjusted the seat and the other controls, then adjust the mirrors. Each mirror has a specific purpose. Adjust each mirror so you can see areas behind and to the sides of the car. Once you've completed these steps, you're ready to start the car. Remember, if you adjust the mirrors before you adjust the seat, you will need to do it all over again to make sure the mirrors show the correct areas.

There are 2 methods for adjusting the side mirrors. This is another one of those "old way" vs. "new way" things. The old way is like the picture above. You can see how the mirror is adjusted so you can see the side of your own car? Adjusting the mirror in this way helps drivers determine how far they are from other things that appear in the mirror, but every bit of your own car that you can see means the blind area you can't see is bigger.

Now take a look at this image. See how you can just barely see your own car? This is the new way. This is the optimal adjustment method to minimize your blind area. If you have your mirrors adjusted this way, and you want to see the side of your own car for some reason, just tip your head slightly to the side and you'll see everything you want to see.

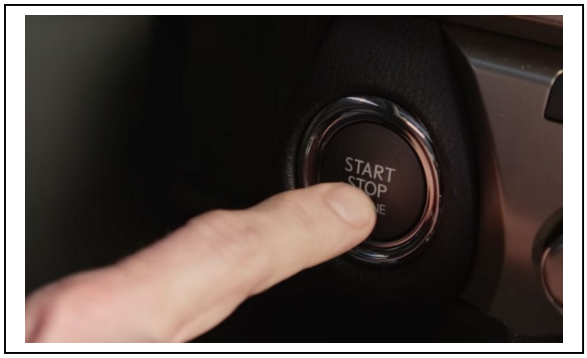
Seatbelts and Restraints: Have you ever ridden a rollercoaster, or an amusement park ride at the fair? Would you ride something like that if there was nothing to hold you in the seat? Probably not… So now imagine the craziness that happens inside a car when it crashes into something. That's a LOT worse than even the most extreme thrill ride. This is why all vehicles are required to be equipped with seatbelts, and why all passengers are required to be correctly belted at all times. Most of the time you don't crash and the seatbelt doesn't have to do anything, but when there is a crash the seatbelt is often the primary thing that keeps you alive.

Several specific laws have been put in place to make sure people always wear seatbelts. Drivers and passengers are required to wear a seat belt using both lap and shoulder straps, if equipped. The shoulder strap must be snug across the center of the chest. Every living thing in the car must be secured while the vehicle is in motion, including children and pets. Children up to 4'9" tall, or 13 years old, must be secured in a properly fitted car seat. If you are going to transport small children, make sure you check all the laws, and secure them correctly. Pets must either be transported in a crate, or safely secured so they will not be harmed or harm others in a crash. When it comes to children, the driver is responsible for all minors below the age of 16 who are found to be unbelted. Get in the habit of wearing your seatbelt every time you drive and make sure everyone else is secured before moving the car.

Every occupant of a vehicle must wear a seatbelt while the vehicle is in motion. The only exception to this law is for school busses and some other commercial transport vehicles. People may not ride in the back of a pickup or in an RV without wearing a seatbelt. Don't get tricked by things you see others do. If you're not belted, you're breaking the law.

Don't get tricked into thinking that newer cars are safe without wearing your seatbelt. Most modern vehicles have safety devices called passive restraints. Air bags are a very common example of these. The way they work is by creating a temporary buffer between the passengers bodies and the hard parts of the car during a crash. They do a great job, but they rely heavily on the passengers wearing a seatbelt. The seatbelt keeps the passengers in the spot where the airbags can do their job. Otherwise, they are not nearly as effective.

One more thing about restraints… Everything you transport with a vehicle must be secured in such a way that it will not fall off your vehicle. You must strap down and/or tarp things that you transport in open areas like truck beds or trailers. You can be charged with littering if something flies off your vehicle and you can be charged with much more serious offenses if something falls off your vehicle and damages, injures, or kills someone. If something does fall off your vehicle, or if you come upon something dangerous in the road, find a safe place to park off the road, and then safely retrieve the item if possible. If the item poses a safety risk to other drivers, try to get their attention without putting yourself in danger. If there is no safe way to clear the roadway, call 911 and report the problem.



Starting: Car technology changes fast. Manufacturers are constantly changing the way the driver interacts with the car. Before you can drive the car, you need to know how to start it, and how to control it. Some cars have keys that you must insert into a slot and turn to start the engine. Other cars have push buttons to start. Regardless, most modern cars require the brake pedal be pressed and the vehicle be in park (or neutral). Once the engine is running, stop turning the key or pressing the button, and it will keep running until you turn the key backwards, or press the button again. If you hold the key too long, you may hear a loud grinding noise. It takes a little practice, but you'll learn to stop turning the key before the grinding noise. Before turning off the car, make sure you have rolled up the windows and turned off the lights and accessories. Some cars do these tasks automatically, but others rely on the driver. If you forget to turn things off, the car battery may be dead the next time you get in the car.

Preparing to move: Now that the engine is running, you can adjust the things that help make your drive safe, comfortable, and enjoyable. If any of the windows are fogging up, or have ice on them, you should turn on the defroster so air movement across the glass can improve your vision. If there is a lot of ice or dirt on the outside of the glass, you may need to get out and scrape the glass or clean it with glass cleaner. This should have been something you noticed as you were approaching the car… If there is just a little dirt on the windshield, you may be able to use the windshield wipers and washer fluid to clear them. If you run out of washer fluid or if you notice your wipers are leaving streaks, you should fix those problems before driving. Finally, before moving the car, adjust the heat or air conditioning so you are a comfortable temperature and if you want to listen to music or something, get that all setup before you start driving. While we're talking about music, it is illegal to wear headphones or earbuds while you drive. You need your ears open to listen for traffic. If you want to listen to music, use the radio, or connect your device to the car so it plays through the speakers. In some cases, you may want to wear an earpiece so you can talk on a phone hands free. This is illegal while you are driving with an intermediate license. Once you're 18, if you wear such a device, you should try to only wear it on your right ear, and at as low volume as possible. Your left ear will hear sounds from outside the vehicle best, so try to keep it open for that.

Caution, talking on a phone hands free while driving is very distracting. While talking hands free does allow you to keep your hands on the wheel and your eyes looking on target, your brain is distracted by the mental task. Hands free is not brain free!

First Movement: If you have taken the time to do all the things mentioned above correctly, then you are ready to move the car. As with everything else, there are preparations to be done so the car moves in the way you want it to. There is one rule to follow that will always keep you safe. The **first** thing you do is put your foot on the brake pedal and press it down. The **last** thing you do is release the brake pedal. Once you are firmly pressing the brake, you are safe to release the parking brake, put the gear selector in the proper gear, and perform a visual scan of the area all around the car. If you are completely sure it is safe, then you can slowly release the brake, and begin to move. If anything doesn't seem right, press the brake again. Remember, brake on first, brake off last. That will always keep you safe. Another wise tip is to never press the accelerator until you are sure it is safe. In most cases, the car will roll a bit just by releasing the brake. Only after you are sure it is safe to move faster should you press on the gas. When you do press on the accelerator, press it soft and slow. You can always press the pedal more if you need to speed up, so take it slow at first.

Exiting and Securing the vehicle: When you get to your destination, there a few things you need to do before you walk away from your vehicle. You need to make sure the vehicle is safe to leave it. Follow these steps to always secure your vehicle.

- Make sure the vehicle is in the Park gear, and the parking brake is firmly set. If you don't set the parking brake, the vehicle might move on its own. Even if it doesn't move, it puts a lot of pressure on the gears to hold the car in place.
- Check your surroundings before opening the door. Another car moving in your vicinity may not see you open the door and may hit you. If you have other passengers in the vehicle, make sure they check before opening their doors as well.
- Check how you are parked. If anything about the way your car is parked looks like a problem, get back in and re-position the car. If your car is not parked correctly, it may be easier for someone else to crash into it.
- Lock your vehicle and make sure the windows are all closed. Even if you are not in a high theft area, you should always lock the car when you are not with it. Thieves can show up anywhere, and so can little kids looking for a new place to play. Even worse, some nasty neighborhood animal might climb in and make your car it's bed.
- As you walk away, make sure your car does its complete shutdown sequence. Most modern cars delay turning off the headlights and inside lights for a few seconds. If something is wrong, you should notice and fix it. Also, take a moment to scan the area around your car for landmarks that will help you remember where you parked. That mall parking lot starts

to look really big when you can't remember where you left your car. Cities also often have multi-level parking garages. Make sure you notice which level you are parked on. It's easy to forget details like this and then have trouble finding your car later.

- One last thing… Did you leave any living thing in the car? A little brother or sister or pet in the back seat can be easier to forget than you might think. Don't let yourself get in a rush. Your passengers are your responsibility.

Headlights: Headlights are the lights at the front of the car that help you see when driving in the dark or in bad weather. Without them, driving at night would be very dangerous. Headlights also serve another purpose. They help other drivers see you. In fact, that is why it is best that you always drive with your headlights on, day or night. The more visible you are to other drivers, the safer you are from someone who may be distracted or just not able to see very well. Most newer cars have automatic and daytime headlight setting you can turn on, so lights are automatically on whenever the car is running. This can be very helpful because then they turn off when you turn the engine off. Otherwise, the battery may be drained the next time you try to start the car. The law about when the headlights must be on is confusing. To avoid a ticket, make sure your headlights are on at least ½ hour after the sun sets and keep them on at least until ½ before the sun rises. If you think about it, that's the entire time it is completely dark.

There are two settings for your headlights, low beam and high beam. You use low beams whenever you are driving with other traffic nearby. The low beam setting directs the headlights low and to the right, so they don't blind oncoming traffic and they don't shine in the rear-view mirror of the car in front. The high beam setting is for when you are driving without other traffic nearby and is especially helpful at higher speeds. High beams direct the light further out in front of you, so you can see further ahead more clearly. But be careful, use only the low beams in fog or when it is snowing or raining hard. Light from high beams will reflect back, causing glare and making it difficult to see ahead.

There are laws regarding the use of low and high beams. You need to know these laws and follow them, so you don't create an unsafe condition for other drivers around you. Dim your high beams whenever you come within 500 feet of an oncoming vehicle. Also, use your low beams when following 300 feet or less behind another vehicle. These laws explain what you have to do if your high beams are on, but what if someone else has their high beams on around you? Anytime another car's headlights are blinding you, look down at the front of your vehicle

and look away from the source of light. That usually means you look down and to the right shoulder of the road to avoid the headlight glare.

While we're talking about headlights, remember that all the other lights on the car are important too. The law says that all the lights should work at night. Check the taillights, brake lights, front and rear turn signal lights and don't forget the rear license plate light. You can get pulled over and ticketed if any of them don't work.

From the Washington Driver Guide:

"Your safety and that of the public can depend on what you do before and while driving. Things like adjusting the seat, mirrors, using safety belts, checking your vehicle, locking your doors, maintaining a clear view and securing items in and on the vehicle minimizes the risk you present out on the road."

"Your safety and minimizing risk on the road, starts with the vehicle you are driving. It is the duty of drivers to make certain that the vehicles they drive are safe to operate."

"You should always check and adjust your seat and mirrors before you start to drive"

"You should have clear vision in all directions, all controls should be within reach, and at least one-third of the steering wheel should be between your hands."

" You should sit so the air bag will hit you in the chest if there is a collision. Also, sit so you can touch the floor below the brake pedal with your feet."

"Head restraints are designed to prevent whiplash if you are hit from behind. They should be adjusted so the head restraint contacts the back of your head."

"In Washington State it is illegal to drive or to be a passenger without properly wearing seat belts or using child safety restraints."

"Also remember to lock the vehicle's doors. Locking reduces the risk of doors opening during a sudden swerve, braking, or crash."

"The driver will also be fined for any passengers under age 16 who are not properly wearing a seat belt or secured in a child safety restraint. Passengers over 16 years are responsible for wearing their seat belts and for paying any fine."

"Air bags are designed to work with seat belts, not replace them."

"By law, your vehicle's headlights must be turned on from a half hour after sunset until a half hour before sunrise. Lights must also be on any time conditions make it difficult to see people or other vehicles."

"If a vehicle comes toward you with high beams on, look away from the headlights and toward the right side of the road until the car has passed. This will keep you from being blinded by the

other vehicle's headlights and allow you to see enough of the edge of the road to stay on course. Do not try to "get back" at the other driver by keeping your bright lights on. If you do, both of you may be blinded."

"Driving with an unsecured load is both against the law and extremely dangerous. Drivers who fail to properly secure their load may face a costly fine and jail time if they cause a crash. According to the Washington State Department of Ecology, roughly 40% of highway litter comes from unsecured loads, which causes hundreds of crashes per year on our roadways. A load must be securely fastened and is only considered secure when nothing can slide, shift, fall, or sift onto the roadway, or become airborne."

Your Homework: Practice these steps at home with a parent or trusted friend. Tell them what you're looking for as you approach the car. Ask questions if something doesn't look right. Figure out how the controls in your family cars work. The adjustments can be different in various cars. Find out if your cars' parking brake is set with a lever or a pedal and find out how to set it and release it. Learn where the reservoir is for adding washer fluid. Find out if your gear selector is an arm on the steering column or a lever on the center console. Oh, and where is the registration and proof of insurance? Are they current?

Self Reflection: Take a moment and consider how you will handle these daily challenges.

You've overslept and you're running late for school. How will you make sure you and your car are ready to be driven when you are feeling time pressure?

Your younger sibling likes to play in the driveway and sometimes leaves toys around the cars. How will you make it a habit to be sure you won't run over something or someone?

Family pets often lay near cars to be near the engine warmth or cool from the shade. How will you make sure they are safe before you start the engine, or begin to move?

What can you do if someone in your car doesn't want to wear a seatbelt?

When you are checking your vehicle, do you know what a tire looks like when it needs to be replaced?

Tips for Parents: As experienced drivers, we often forget what it was like for us when we were learning to drive. In addition, we sometimes don't realize all the little things we do as we prepare to drive each day. In reality, we do a lot of the things listed above subconsciously as a part of habit. For example, you probably notice one of your tires is flat before trying to drive. Something just looks wrong as you approach the car. New drivers don't have these skills of observation developed yet. They won't notice things the same way we do. It's our job as mentors to help them develop these skills, so they come home to us safe each day. And one other thing… Do you know how to set and release your parking brake? Many new drivers say their family never uses it, or their car doesn't have one. Take their learning process as an opportunity to correct some of your bad habits. Set the parking brake every time you put the vehicle in park. Your car will thank you by giving you many more miles of trouble-free driving.

PARKSIDE DRIVING SCHOOL

Class 3

Basic Car Controls

There are 206 bones in the adult human body. Those bones are connected by over 650 muscles and about 4000 tendons which all work together to move us around and keep us alive. That's a lot of parts that have to do their job correctly every time. Imagine what would happen if just one of them stopped working. What if you tried to stand up, but your leg wouldn't bend? What if you tried to write, but your thumb wouldn't pinch the pen? What if you tried to speak, but your mouth wouldn't open? Admit it, you can think of some people that no mouth thing sounds kinda nice for…

A car is like our bodies in this way. The typical car consists of about 30,000 parts that are all bolted, screwed or welded together. Each of those parts has a purpose and the car may not function perfectly if any of the parts become broken or missing. In this lesson, we're going to go over some of the most basic controls on the car. We'll cover the parts you will interact with most often and some of the ways that the car communicates things to the driver.

Manual Controls: There are certain things you do to control the car with your arms and legs. The most common are steering, accelerating and braking. In some cases, you may also shift manually, and you may occasionally have to show a turn signal with your arm outside the window. Let's look at each of these controls.

Steering: When you are sitting in the driver seat, there is a big round wheel in front of you. When you turn the wheel left or right, the front wheels aim the front of the vehicle in the same direction. The best place to have your hands on the wheel is as close to straight across the middle as possible. That's right, I said it. The old 10 & 2 description is bad! If your hands are high on the wheel, you will have to move your hands more when turning, so try to keep them straight across the middle. The placement of your hands on the wheel is especially important if you are in a crash. With your hands in the correct location, the air bag can deploy without hitting your arms. If your hands are in the wrong location, like 10 & 2, the airbag can hit your arms causing you loss of

steering control and possible injury. While we're on the topic of bad ways to use the steering wheel, here are some other things to avoid. You are going to see experienced drivers do some of these things. Don't let their bad habits become your bad habits. Steering wheel control mistakes lead to crashes that could have been easily avoided with proper hand use.

- Always steer with your hands on the outside rim of the steering wheel. Don't wrap your thumbs inside the wheel and definitely don't grab the wheel from the inside (palm up).
- Don't rest your left arm or elbow on the door sill. You can get your arm jammed in there in an emergency and lose a lot of steering control.
- Don't rest your right arm on the center console unless you can maintain a good grip of the wheel at the correct position. Again, this can cause you to get your arm jammed in an emergency.
- Don't fingertip grip. The steering wheel should be inside your hand enough that all your fingers have good contact.
- Gripping the wheel super tight doesn't help. You need a good grip, but don't hulk out…
- If you just turned the wheel, then you need to un-turn the wheel back to straight. Never just let the steering wheel spin freely. It will probably spin itself back to straight, but with driving, probably isn't good enough.
- Never Palm Steer. This is when you push your open hand against the face of the steering wheel and steer by letting the wheel spin against the palm of your hand. There are a few problems with this. First, Palm steering uses only one hand. Second, none of your fingers are holding the wheel in place so if it were to slip, who knows what could happen.
- Don't rest your right hand on the gear shift. Drivers of manual transmission cars can get in the habit of leaving their right hand on the gear shift to be ready to make the next shift. This is a silly bad habit because drivers don't shift all that often. It's no big deal to put your hand back on the wheel between shifts.

Low Speed Steering: (Hand over hand)
When the car is moving slowly, you may need to turn the steering wheel a lot. The technique we use for this is called hand over hand steering. As you approach a slow turn, make sure your hands are straight across from each other. When you begin to turn, rotate your hands in the direction of the turn until your low wrist is uncomfortably twisted. Then release your grasp with your low wrist. Continue to rotate the steering wheel with your high wrist and replace your free hand high on the wheel to continue turning. When you have finished turning, simply rotate the steering wheel back to straight using the opposite process. Hand over hand steering takes a little practice, but it is the most controlled way to turn the wheel during a slow and tight turn, because the steering movement is very smooth.

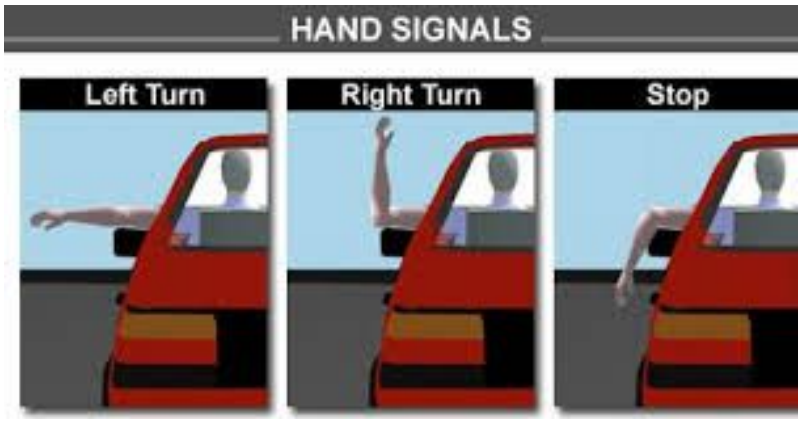
There is also another low speed steering technique called hand-to-hand steering. Instead of crossing over your free hand, you simply bring it up to the meet your gripping hand at the top of the wheel, switch gripping hands and then lower your free hand. This is sometimes called shuffle steering. The risk with shuffle steering is that it tends to be a little jerky, and if you don't perform it correctly, there may be moments when neither hand is gripping the wheel.

High Speed Steering: (Push-Pull)
When we say "high speed" in this context, we mean above about 20mph. This is the steering we use for most turns and curves. At speeds of 20mph or above, you could very easily steer too much, or get your hands tangled using the low speed techniques. If you steer too much, you will likely skid, which means you have lost full control of the car. To prevent this from happening, you use what is called push-pull steering. With this technique, you start with your hands straight across from each other. In the image above, your left hand will never leave the green area and your right hand will never leave the red area. As you enter a turn, you push up slightly with one arm and pull down slightly with the other arm. It's more pushing than pulling. Your arm muscles are built to push things more smoothly than they pull. Regardless, you never cross your arms or release either grip with this technique. You should be traveling fast enough that a small amount of turning will aim the vehicle exactly where you want it to go.

Gear Shifting: Some drivers think, since they drive a vehicle with an automatic transmission, they don't need to learn about shifting but that's not true. Park and Neutral are gear settings. Reverse is a gear. Even when driving an automatic, there are times when it is very helpful to shift manually into a lower drive gear. When you place a vehicle into a lower gear, you limit the top speed of the vehicle. This can make going up or down a steep grade much easier and safer. If you have a car in your family that has a fully manual transmission, it would be good for you to eventually learn to drive that as well. For now, just learn how to shift between all the gear settings your vehicle has.

The first thing to learn about shifting is where your gear shift lever is and how to move it. Some cars have a shift lever attached to the steering column. Some have a lever mounted in the center console. Some newer vehicles have even come out with buttons or dials on the dash that allow you to change gears. Before you can make the car move, you need to understand how the gear selector works.

Turn Signal Arm: We're going to go over the importance of using your turn signal in another lesson, but you need to know how to turn on and off the signal. The turn signal arm extends to the left of the steering column just behind the steering wheel. To signal right, push the arm up. To signal left, push the arm down. If you turn the wheel sharply, the signal will turn itself off. If you only make a slight turn, you will need to return the arm to center manually. In many vehicles, the turn signal arm also has several other switches on it. It is common for the headlights and windshield wipers to be controlled by twisting or switching things on the turn signal arm. Make sure to take some time getting familiar with the turn signal arms in each of your family vehicles. Each auto manufacturer does them a little different.



Hand Signals: Let's say you are at school and it's time to go home. You get in your car, but you realize something is wrong. Your turn signals don't work! How can you drive home? Well, it's a little annoying, but you can drive using hand signals when you need to. To use hand signals, you need to roll down your driver side window and stick your arm out so any cars around can see it. If you are turning left, stick your arm straight out to the left. If you are turning right, bend your arm up 90 degrees at the elbow. If you are slowing down or stopping, bend your arm down 90 degrees at the elbow. Keep in mind, it may be more difficult for other drivers to see your hand signals, so you should only drive a short distance and then get your car repaired so the lights work as they should.

The Horn: Every vehicle is equipped with a horn that produces a loud blaring noise when you need to warn someone they are in danger. The center of the steering wheel usually acts as a button which you can push to activate the horn. You should only use the horn when you are warning someone of danger from your direction. In other words, don't honk at someone unless they need to look towards you. When someone honks, everyone in the vicinity will look to see where the sound is coming from. That means a whole lot of people may become distracted at the same time and could crash. Only use your horn in an emergency. Never use your horn to bully other drivers. When you honk at someone, consider it the same as yelling at them. This can lead to road rage incidents and other

problems. Also, the longer you honk, the more aggressive you appear. A quick beep or two is usually enough. If you are heading for a certain crash, a long honk may be necessary.

Accelerating: To make a vehicle move, the engine needs to be sped up. You do this with your right foot by pressing a pedal called the accelerator. Some people call it the gas pedal because the harder you press it, the more gas your engine consumes. There is a technique for pressing the accelerator pedal so that you maintain full control of the vehicle. Start by making sure your seat is adjusted so you can rest your heel on the carpet just below the accelerator. Then, press the pedal by pivoting your ankle forward. Don't press the pedal by straightening and bending your knee. That's too much movement and the car will lurch and buck out of control. Think of it as if there were a balloon under the pedal that you don't want to pop. If you press the pedal smoothly, the balloon will stretch. If you press the pedal too firmly, the balloon will pop. Sometimes you may need to press the accelerator pedal down a long way toward the carpet. That is fine and safe so long as you press the pedal smoothly, so you can keep control of the vehicle.

Braking: To slow down a vehicle, or make it stop, something has to create resistance to the vehicle momentum. You've probably heard the quote from Isaac Newton, "A body in motion tends to stay in motion unless acted on by an outside force." In a vehicle, one of the outside forces is the braking system, and is controlled by a brake pedal. To use the brake pedal, rest your right heel on the carpet below the brake pedal and pivot your ankle forward and back in the same way you control the accelerator. Again, don't press the pedal by extending your leg at the knee. Just use your ankle. If you press the brake too firmly, the car may screech to a stop suddenly. If you press it too softly, you may not slow enough, or stop in your desired location. Practice braking from various speeds until you get comfortable with how much pressure is needed for different things. Use only your right foot! Never use your left foot to apply the brake. When you want to speed up, your right foot controls the accelerator. When you want to slow down, your right foot controls the brake. Don't confuse yourself by giving your left foot a job.

Parking Brake: The parking brake (sometimes called the emergency brake) works differently than the hydraulic brakes attached to the brake pedal. The parking brake is designed to apply the rear brakes only, to hold the car in place when it is parked. This is especially important when the car is parked on a hill and could roll away if not properly secured. Always set the parking brake immediately after you shift to park. Make it a habit and you'll always remember. Vehicles are equipped with one of 3 ways to set and release a parking brake. Most 2 and 4 door cars have a hand lever near the gear shift lever which allows you to pull up to set the brake, and then push a release button and lower to release the brake. Don't push in the button when setting the brake. You want to hear a clicking sounds that tells you the brake is setting nice and tight. Only push the button when you are ready to release the brake.

In larger vehicles like SUV's, vans and pickup trucks, the parking brake is controlled by a small foot pedal high and to the left of the main brake pedal. Large vehicles are equipped this way because they weigh

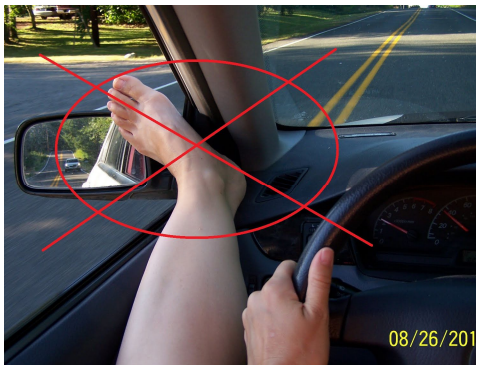
more and need more braking force. Since most people have stronger legs than they do arms, a foot pedal works better for heavier vehicles. There are two common ways to release a pedal style parking brake. There may be a release lever low on the dash or you may need to press the pedal to make it release. When you release the brake, let the pedal push against your foot.

Some newer cars come equipped with an electronic parking brake. It is usually a button located in the center console near the gear shift lever. The button works the same way your window buttons work. Pull up to set the electronic brake. To release it, press your foot on the main brake pedal, and then press down on the parking brake button.

No matter which type of parking brake your vehicle has, there is always a sensor to detect if you are trying to drive with the brake still engaged. There will be a light on your dash that tells you the brake is engaged. If you ignore that light and try to drive, the car will chime an alarm at you until you release it. It can be dangerous and it can cause damage to the brakes, if you drive a long distance with the parking brake engaged.

Clutch Pedal: If your vehicle has an automatic transmission, there will not be a clutch pedal. If you are driving a manual transmission vehicle, there will be a pedal just to the left of the brake pedal. This pedal allows the driver to temporarily separate the transmission from the engine so that a gear change can happen. Learning to drive a manual transmission vehicle can take time and patience. If your family has an automatic vehicle, we suggest you learn to drive in it first. If your family only has a manual vehicle for you to learn in, you can still do it. First, practice starting and stopping in an open area that is flat. Remember that the most important thing is that you are in control. If you feel out of control, then you are letting risk creep in. Practice shifting slowly and smoothly, until you can do it without thinking.

Another thing about the clutch pedal. Never rest your foot on the clutch pedal. Even the slightest pressure on the pedal can cause damage to the clutch over time. When the car is moving, the clutch pedal should be all the way out. When preparing to shift, the clutch should be all the way in.



Dead Pedal: There is a pedal, or flat spot, all the way to the left of the footwell that doesn't move. It's just stuck there to give you a good place to rest your left foot. Whenever you are driving, you need to be in a good stable position to maintain control of the car if something goes wrong. Placing your left foot on the dead pedal and keeping it there, will give you a very stable stance inside the vehicle. Never fold your left leg under you or place your left foot in any other area. You don't want your left leg or foot getting in the way of controlling the car.

Electronic Controls: Vehicles have many controls that are handled by electronic systems. The turn signal arm, headlight dimmer switch, and windshield wipers are common examples mentioned earlier. Many modern vehicles also have electronic controls for the side windows, seats, and other controls. Take some time to get familiar with the other electronic controls your car has. Whenever you get in a different car, make sure you know how that car's controls work before you start moving. You do not want to be distracted by the controls while you are driving.

Vehicle Climate Controls: Car technology has come a long way over the years in helping the driver and other occupants feel comfortable in the vehicle. Technology has come so far, in fact, that it can be distracting and confusing sometimes. Let's go over a few of the basic controls so you know how they work.

Side Windows: Most modern cars have power side windows. There is a button that controls lowering or raising the window to allow fresh air from outside the vehicle to enter the vehicle. If you are driving an older vehicle, there may be a crank instead of a button. As a general rule, you should always have the side windows all the way up (closed), or all the way down (open). These are the two safest positions for the windows to be. If you are involved in a crash with the side windows part way down, your head may impact the edge of the window glass, which can cause a serious injury.

Temperature Control: Located somewhere on or near the dash, you will find a way to control how warm or cool you would like the vehicle to be. Some cars simply have a dial that rotates from green to red. Other cars may have an actual temperature number that you can set. Some cars even allow the different occupants in the car to set the temperature for their seating area.

Air Flow Control: Also located on or near the dash, you will find a way to control where the air flows from as it enters the car. You can set the control to blow on your face and upper body, legs, up onto the windshield, or some combination of those. Then, once you have decided where you want the air to flow from, some of the air grilles can be adjusted to aim the air specifically where you want it.

Air Speed Control: Located near the other climate controls, you will find a control for the fan which pushes air into the car. Turn it down for slow air movement. Turn it up for fast air movement.

Air-conditioning settings: If your car has AC, then you can use it to cool the inside of the car when it is uncomfortably hot. There are two AC settings. Regular or MAX. The regular setting pulls air into the car from outside and cools it. The MAX setting recirculates inside air keeping it cooled to the temperature you select. When you first get into a hot car, use the regular setting so cooler outside air can replace the hot inside air. Once your car gets down to a comfortable temperature, switch to the MAX setting to keep it at that temperature.

Pro-Tip: One thing to know is that while the AC system is working to cool the inside of your vehicle, it is actually making your engine work harder and may cause the engine to overheat in some situations. If your engine temperature gauge goes into the danger zone, or any temperature warning lights come on, make sure you turn off the air-conditioning right away. You may also need to turn on the heat. Ugh… It

may be uncomfortable for you, but it may allow your engine to keep running until you can get to a repair shop and fix the problem.

Gauges and Warning Lights: Cars are designed to give information to the driver in a way that is safe for the driver to see the information while driving. The gauges are located in front of the driver in a cluster below the windshield. Every vehicle has a Speedometer to tell you how fast you are travelling. There is always an Odometer that tells you have many miles the vehicle has travelled since it was new. There is also always a fuel gauge letting you know how much fuel is in your tank. If you're driving an electric vehicle, instead of a fuel gauge, there is some type of energy gauge. There is usually a Tachometer that tells you how hard the engine is working and a temperature gauge telling you how hot the coolant in your engine is. In addition to these gauges, there are lights that the vehicle can turn on to alert the driver of a problem. Each light will be in the shape of a symbol intended to help you understand it's meaning. If you don't recognize the symbol, refer to your owners' manual for an explanation. Never assume a warning light is no big deal. Sometimes the problem is something minor, but sometimes the very life of your vehicle depends on you getting it check right away.

Warning Chimes: Some things that go wrong with a vehicle are simply too important to not notice. A good example is when you are about to run out of gas. In cases like this, you may notice the car making an annoying "bing" sound. That sound is telling you there is something wrong that needs your immediate attention. Another good example is when you try to drive with your parking brake set, or if you leave your turn signal on for a really long time. . There is also usually a symbol that will light up on your dash whenever a chime is made. When you hear the warning chime, fix the problem right away. If you can't figure out what is wrong, don't drive the vehicle until it's fixed.

Gauge Distraction: We cover distracted driving in another chapter, but it needs to be mentioned here. Many new drivers allow their gaze to fixate on the gauges for too long. Especially the speedometer, climate controls and infotainment center controls. This can lead to something happening in traffic that the driver doesn't notice or react to. It's important for you to be aware of the information the gauges and vehicle controls are telling you, but your primary concern is where you are going and what is in your path. Glance at the gauges every few seconds and then get your eyes back up and looking ahead.

U-Turns & Multi-Point Turns: Up to this point in the class we've been discussing how vehicle controls work. Now is a good time for you to start practicing what you've learned. Turning around is one of the most basic maneuvers you will perform as a driver, so it's a good thing to start with as a practice maneuver. Grab your parents and head to the car. Practice these steps on a quiet street or a parking lot where there isn't anything scary you could hit. We want you to work on the fundamentals right now, not worry about obstacles.

1. Come to a complete stop with no obstacles in any direction near your car.
2. Signal the direction you plan to turn.
3. Look in your rearview mirror and both side mirrors for anything approaching from behind.
4. Look in the outside mirror in the direction you are about to turn.
5. Look over your shoulder into the blindspot in the direction you are about to turn.
6. If you found no obstacles in steps 3-5, start rolling slowly and turn quickly.
7. As you turn, look where you want the car to go, and adjust your steering to aim the car where you are looking.

If during step 7 you had to stop and back up, then you are practicing a multi-point turn. The most risky part of a multi-point turn is when you are backing up. You need to back up slowly and look in the direction you want the car to go. Most importantly, only back up the shortest distance possible. As soon as you can go forward again, shift to drive and look where you want the car to go again.

Pro-Tip: You can make a u-turn or multi-point turn on any street unless there is a No U-turn sign, or a barrier blocking your path to the oncoming side of the road. Keep in mind, sometimes things that are legal to do are not safe to do in that moment. The driver wanting to make a u-turn must yield to absolutely anyone else nearby.

From the Washington Driver Guide:

"Signal when you change direction – Signaling gives other drivers time to react to your moves."

"Signal at least 100 feet before you make your move."

"If another vehicle is about to enter the street between you and where you plan to turn, wait until you have passed it to signal your turn. If you signal earlier, the other driver may think you plan to turn where they are and they might pull into your path."

"Signal when you slow down – Your brake lights let people know that you are slowing down."

"There are several occasions when you should not use your horn. They include encouraging someone to drive faster or get out of the way, letting other drivers know of an error, greeting a friend, around blind pedestrians, when passing bicyclists, or when approaching horses."

Your Homework: You need to get familiar with the car you will be practicing in. First, learn how to put your car in accessory mode. You may have to turn the key just a little, or you may have to push a button a certain way. Every car has an accessory mode where the electronics will work, but the engine is not running. Take some time and study all the lights and gauges. Then, start the car. Watch for any additional lights that flash on during start up. With the car running, turn on and off the turn signals. Try the lights. Honk the horn. Turn on and off the wipers. The next time you do each of these things, you will probably be moving in traffic.

Self Reflection:

Steering a car is a task best handled with the grip of both hands. To keep both hands on the wheel at all times, you have to resist using your hands when you talk (or dance to your favorite song). Will it frustrate you to steer without using your hands for other stuff?

The vehicles you will be driving have a lot of dash lights and gauges that may only light up infrequently. Will you notice a change on the dash and react to it timely?

Can you monitor the dash and gauges without getting distracted from controlling the car?

Honking the horn is an act of bullying. How will you handle situations when other road users frustrate you?

Tips for Parents: The task of driving a car is a very repetitive task. This can be a good thing, in that the more often you do a task, the more the brain forms a habit around that task. The brain can repeat a habit really well and without a lot of mental stress, so that can be really helpful when learning a complex task like driving. Habit formation can also be a problem. The brain doesn't differentiate between correct habits, and incorrect habits. So, if a driver does a repetitive task the wrong way several times, a bad habit can form. As parents, try to keep an eye out for this. The new driver probably won't recognize that they are doing something wrong. If you don't help them correct their behavior before it becomes a habit, they may drive that way for a long time. Two really common bad habits new drivers form quickly are bad hand position and incomplete stops. I'm sorry to put it this way, but they are probably learning those bad habits from you…

Another Tip: Learning to drive is about gaining competency at the task. Parkside uses a 10 point competency assessment matrix during our driving lessons to help students progress. You can be using the same matrix at home. Go to the resources page on the parksidedriving.com website. Under teen links, download the drive lesson scoring info document. When you're reflecting on the way they are driving, try to determine what score they would get in each category. The goal is to reach a score of 3 or higher by the end of the course in each category.

If you want extra credit parenting points, score yourself on the matrix. Not very many experienced drivers score above 3, even though most are capable of much higher…

PARKSIDE DRIVING SCHOOL

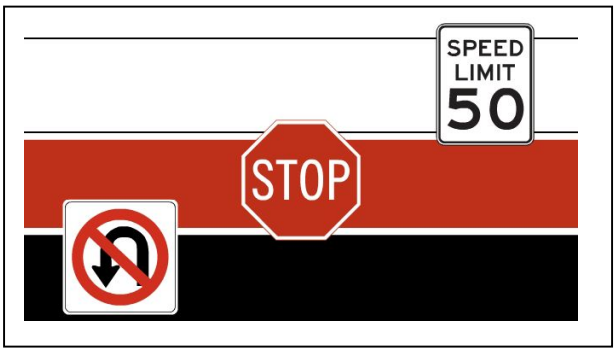
Class 4

Signs, Signals, & Road Markings

All right kids, get out your coloring books! No, not really, but we're going to talk about another part of driving that you've been preparing for ever since you figured out how to use crayons. Most of the things drivers use to navigate from one destination to the next appear on signs, signal lights, painted lines and markings on the road. Similar to your childhood coloring book, if you paid attention to the pattern, and colored inside the lines, the picture turned out pretty nice. If you got sloppy, then maybe your mom still liked it, but the rest of us thought it looked awful. While driving, you get used to what each sign, light, and paint marking means. If you pay attention, you can keep yourself safe. If you get sloppy, you may end up making your car look like one of those sloppy childhood drawings, except this time, even your mom won't be proud of you for it.

Traffic Signs: The primary purpose of any traffic sign is to tell you what you must do, to navigate to important destinations, or to warn you of hazards. Without signs, you only have the visual range of your eyes to help you drive down the road. Signs give you information about the laws of the road you are on, and about things ahead that you can't see yet.

Colors matter: Just like on the American Flag, the colors and patterns used on signs tell you a lot about what the sign is trying to tell you. Same thing with the colors of traffic signal lights and the paint used on the road. The first thing you should notice is the color. That will allow your brain to quickly process the rest of the information and decide how to react. Let's go over the most important color details.



Regulatory signs: Regulatory signs tell you what you MUST DO or MUST NOT DO. If you don't do what a regulatory sign says, you can get a ticket or worse. Regulatory signs may be colored black, white, or red. Examples of regulatory signs are stop sign (Red and Black), speed limit sign (White and Black), and yield sign (Red and White). Always do exactly what a regulatory sign says. These signs are not optional, or open for interpretation by the driver. If you violate a regulatory sign you can get a ticket and you are at a high risk of a crash. A red circle with a slash on a regulatory sign means you must not do the action being slashed.

Regulatory lights: There are only two regulatory light colors and one of them is only sometimes regulatory. A red light always means stop. A solid red light means you must completely stop and not proceed until the light changes color. A flashing red light means you must completely stop and only proceed after making sure your path is clear. Yellow lights can be regulatory if they are a temporary condition. A school zone light, for example, indicates that a temporary speed zone is in effect when the yellow light is flashing. A green light is not regulatory. It just tells you that you are allowed to proceed, if safe. Regulatory lights can be placed anywhere the flow of traffic needs to be controlled. You may even see them on some freeway onramps in large cities.

Speed limits: Speed limit signs are a regulatory sign. They tell you the maximum speed you may travel at the moment your vehicle reaches the sign. In Washington State, there is also an "assumed speed limit". This means that the speed limit on any road is 25mph unless otherwise posted. If you don't know the speed limit of the road you are driving on, always go 25mph until you see a speed limit sign.

Pro Tip: In Washington State there are no "minimum speed requirements". This means you are never required to drive faster than you feel safe and in control. Other drivers may get impatient and sometimes they may get rude, but you do you! Your primary responsibility is to drive safely and with maximum control. Don't let some bully make you drive dangerously or break the law.

Regulatory painted lines: Yellow painted lines are used to divide oncoming lanes of traffic. Always drive to the right of a solid or dashed yellow line, because the cars on the other side are coming towards you. White painted lines are used to divide lanes of cars travelling in the same direction or to mark the right edge of a road. Any solid yellow or solid white line painted on the road is regulatory. You may not cross a single or double solid yellow or white line, unless you must cross it to enter a driveway or parking lot. If a yellow or white painted line is dashed, or if there is a solid yellow line beside a dashed yellow line, you may cross under certain circumstances, to change lanes or pass a slow-moving vehicle. Crossing a painted line for any reason is a high-risk action. You must be sure it is safe before crossing a painted line. We will cover this more in future classes.

Warning signs: When a driver is approaching an area where the road may turn or change, a warning sign is often placed ahead of the change to warn the driver. Warning signs are always yellow with black symbols or lettering. If the warning sign has words on it, there will be as few words as possible. If the warning sign has a symbol on it, it will be as simple of a symbol as possible. Keep in mind, you may or may not need to react to a warning sign. It's simply important that you notice it, so you are aware of a change before you get to it. If there is a speed posted along with a warning sign, that is the recommended speed for the hazard you are approaching. In the picture above there is a sharp curve with a recommended speed. That speed sign is not the legal speed limit for the turn, it's a recommended speed. You would know it was a speed limit sign if it was White and Black. Yellow signs are always warnings.

Warning lights: A yellow light means "caution". The light is intended to draw your attention to something that is high risk. For example, a traffic light changes from green to yellow to alert drivers that they need to make every reasonable effort to stop because the light is about to be red. If a yellow light is flashing, you should scan the area carefully, and be ready to stop. If, after scanning the area, you see that it is safe, then continue. Flashing yellow lights are popular on busy streets where pedestrians cross. Pay special attention to those crosswalks. Pedestrians sometimes cross slowly and may be hard to see in some situations. Yellow arrows mean the same thing as a round yellow light, except they are used for turn-only lanes.

Pro Tip: A good rule of thumb is to always remove your foot from the accelerator pedal as soon as you see any yellow light. Move your foot over to cover the brake pedal and be ready to slow down. This way, if the light turns red, or something enters the roadway, you will be ready to brake and avoid any risks.

Warning paint markings: If something exists in the roadway that may be difficult for the driver to see, it can sometimes be painted white or yellow to draw the driver's attention. A good example of this would be a speed bump. A black lump across the street may be hard to see and be very upsetting to drive over at full speed, so they sometimes paint the bump yellow to draw attention to it.

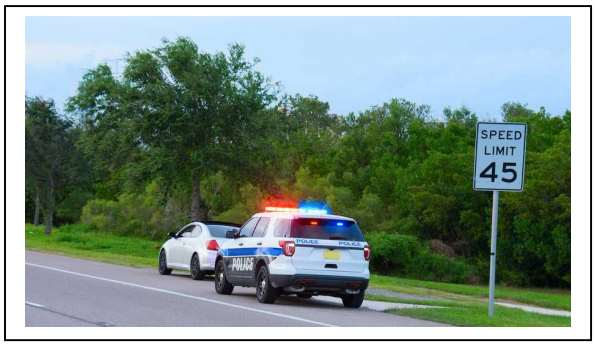
Information signs: There are signs at intersections that tell you the name of the roads. There are signs alongside the freeway giving you information about upcoming exits. There are signs indicating the most direct route to a hospital, park, school, airport, boat dock, etc. There are more information signs than we have time to discuss. Whenever possible, information signs are brown, green, or blue, with a contrasting color symbol or wording.

Information lights: The most common information light is the green light. It only serves to give you information. If the green light is on, you can enter the intersection unless it's not safe. If the green light is in the shape of an arrow, you may proceed in the direction of the arrow unless it's not safe. There may be times when other signs are accented by information lights as well. Hospitals and police stations sometimes have blue lights near the emergency entrance. Clear or white streetlights often line the sides of busy streets to help you see better during times of darkness.

Information paint markings: Sometimes it is so important that drivers notice something, they paint words or markings on the street. For example, at a busy stop sign intersection, the word STOP may be painted on the road just before you get to the intersection. Another example is at a multi-lane intersection. The right turn only lane might have a right arrow painted in the lane. The left turn only lane might have a left arrow painted in that lane. Pay attention to the paint markings and you'll be able to get where you are heading without confusion.

Construction signs and barricades: Whenever there needs to be a temporary change made to a road, signs and barricades will be placed around the area to protect the drivers and the workers. Construction zones can be short term or long term. They can change at any moment, and they can be active any time day or night. Whenever you see construction signs, barricades, or work equipment, make sure to slow down and look carefully for workers. It is very easy to get confused in a construction zone, so be careful. Drivers get killed in construction zones because they hit the hard things that are being used to protect the workers. This is a high-risk area. To further protect workers in construction zones any ticket you get while driving in a construction zone is automatically doubled.

Railroad crossing signs: Major railroad crossings usually have several signs and roadway markings to make sure you see there is a crossing ahead. First, there is an advance warning sign. This sign is yellow with a Black X, and two R's. Then, just before the crossing, there will be wide white lines on the road, sometimes there is another white X and 2 R's there too. Then, immediately at the tracks, there are often electronic arms that block the road, and side by side red flashing lights. All of these things are designed to make sure a driver does not get in the path of a train. Remember, though, a lot of railroad crossings occur on less traveled roads, and in many of those cases, there are no warning signs at all. No matter what, you need to use your eyes and look before crossing any tracks. Trains can't stop quickly, or swerve to miss you. You must give them the respect they deserve.



Emergency Lights and Sirens: There are some vehicles authorized to have lights and sirens mounted to them for emergencies. The most common of these is Police, Fire, Ambulance and Tow vehicles. The law requires that you pull over and yield the roadway to these vehicles when they approach from any direction. The idea is simple. You don't know where they need to go, so you stop so you are not in their way. Another law to remember is that whenever you see an emergency vehicle parked along the side of the road with its lights on, you are required to change lanes to leave an empty lane between you and them as they pass. If there is no other lane to change into, or if traffic is too heavy to change lanes, then you must slow down to at least 10mph below the speed limit (maximum 50mph) and be cautious as you pass.

School zones, Crosswalks, and Bicycle lanes: Anywhere you might expect young children to be, you can expect there to be a lot more rules about driving. Children don't always make good decisions and may run out into a street without realizing the risk. So, drivers need to pay special attention, and drive slower, to keep them safe. To help the drivers identify these high-risk areas, there are special speed signs, crossing signs, crosswalk markings, and flashing lights. Same thing with bicycles. Since bicycles often share the roadway with vehicles, but often don't travel at the same speed as the vehicles, there are often special lanes for them to travel. Drivers must watch for bicyclists at all times and be ready if the cyclist does something unexpected. Since the cyclist is not protected by a steel framed vehicle, a crash is much more deadly for them.

School Zone Speed Limits: In Washington State, there is a school zone speed limit for roads near elementary and middle schools to protect children walking to and from school. The speed limit in school zones is always 20mph. If you are ticketed in a school zone, the fine is doubled.

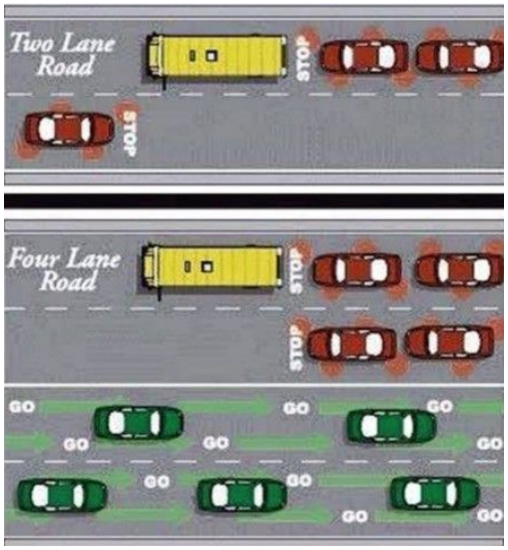
School Busses: School busses transport children to and from school. Many of the kids on the bus are young and can be unpredictable. When they get off the bus, they may forget about the risks from other cars and run into the street. To protect them from the dangers of other traffic, there are laws that all drivers must follow when driving around stopped school busses. The lights and signs on a school bus are very similar to the lights and signs in other places. Red lights are regulatory. Yellow or Amber lights are warning. The Stop sign beside the driver is regulatory just like any other stop sign. Let's go over a few scenarios.

School bus is stopped along the side of the road with no lights on: If the bus is just sitting there with no lights on, then it is parked. Either there are no passengers on the bus, or the bus doors are all closed so no passengers can get on or off. In this case, you can pass alongside the bus just as if you were passing alongside any other parked vehicle. You should always be alert for any people moving around a parked vehicle, even a bus, but you are not required or expected to stop.

School bus is moving or stopped on or near the road with its yellow (Amber) lights flashing: When a school bus has its yellow lights flashing, it is warning other drivers that it is about to slow or stop. While the yellow lights are flashing, the doors will remain closed. Drivers can pass alongside a bus with its yellow lights flashing but must be cautious for anyone moving around the bus.

School bus is stopped with red lights flashing and/or the stop sign is out: When a school bus has its red lights flashing, it is loading or unloading passengers. This is the highest risk time for a crash to occur. Follow these rules when approaching a bus with red lights flashing:

- If you are driving in the same direction as the bus, you must stop. It does not matter how wide the road is, or how many lanes there are.
- If you are driving in the opposite direction as the bus, and there is no empty lane between you and the bus, you must stop.
- If you are driving in the opposite direction as the bus, and there is at least one empty lane, or a center median, between your lane and the bus, you may proceed with caution as you pass the bus. You are not required to stop.



Transit Busses: Since we were just talking about school busses, let's briefly mention transit busses. A transit bus travels on a route and carries anyone with the necessary pass. For the most part, you drive among transit busses in the same way you do any other large vehicle. Give it some extra room and expect it to make frequent stops. When a transit bus is stopped to load or unload people, you can pass the bus if there is a safe and legal way to do so. When a transit bus signals that it is ready to rejoin traffic, however, you are required to yield and let it enter.

From the Washington Drivers Guide:

"If a traffic signal is not working, come to a complete stop, then yield to traffic as if it were a four-way stop. "

"Traffic signals are lights that tell you when or where to stop and go. A green light means you can go if it is safe. A yellow light means caution and a red light means stop."

"A green arrow means you can safely turn in the direction of the arrow. There should be no oncoming or crossing traffic while the arrow is green."

"Fines are doubled for anyone that passes a stopped school bus. The penalty for failing to stop for a stopped school bus may not be waived, reduced, or suspended."

Your Homework: Go for a drive with a family member and try to find as many different signs and roadway markings as you can. Tell the person you are driving with what you think each sign is trying to tell you and see if they agree. Go to a railroad crossing, and a school zone, and look for the warning signs there too. If possible, go find a bicycle lane and see how it interacts with the rest of the road. Doing this exercise will accomplish two goals. You will learn what the signs and markings mean, and you will probably also drive some places you have never been. Practicing driving in unfamiliar areas is good for you. Just make sure to be careful.

Self Reflection: Signs are usually alongside the road, but your eyes are supposed to be looking where you want the car to go. How will you make sure you notice the important signs without losing focus on the roadway ahead?

One reason people sometimes get hit by trains is they get used to crossing the tracks when a train isn't there. Then, that one time, there is a train, and they get hit. When you cross railroad tracks, do you always look first or do you get lazy? What about intersections and crosswalks? Do you always look before you cross high-risk areas?

Traffic signs are often just after intersections. How will you make sure you always see the signs even when there are other important things to be watching for?

School zone speed limits exist partly because some drivers need a regulatory reminder to drive safely in high risk areas. Do you need reminder signs to be a good driver?

Tips for Parents: One of the first things a driving instructor learns when working with new drivers is, they often don't see things that experienced drivers notice without even trying. For new drivers, the visual landscape is simply too busy for them to pick out the important stuff and ignore the rest. Help them by pointing out important signs and important risks as soon as possible. This will train them to widen their visual focus and scan further down the road.

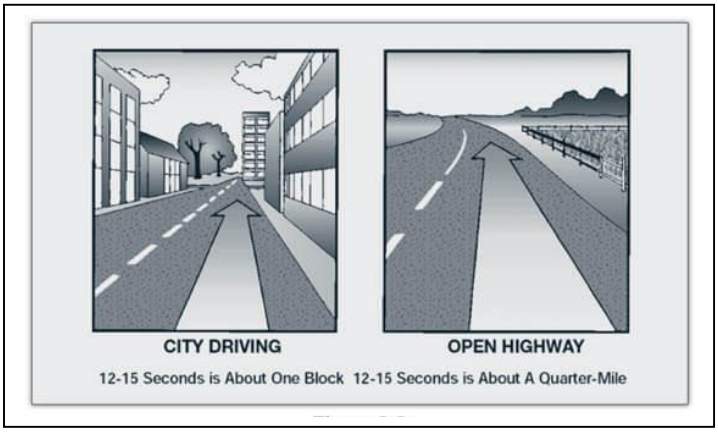
PARKSIDE DRIVING SCHOOL

Class 5

Visual Targeting & Tracking

And Basic Vehicle Positioning

Do you know how eyes work? The eyeball is a very complex little piece of our bodies. It is widely considered the most important thing that provides information to our brain. Think about it, have you ever looked at an animal? Did you notice that it didn't take very long for them to make eye contact with you? Even insects are known to be able to make quick eye contact with virtually every living thing they encounter. Some even know to attack the eyes of their prey in order to gain an advantage. Since our eyes are so important to us, it makes sense that we would rely heavily on them for the driving task. A true, but sometimes overused saying is, "your car goes where your eyes are looking". That statement is simply saying that your brain thinks whatever you are looking at is the most important thing. So, if you are looking down the middle of the road, you will tend to aim the car there. However, if you look at a parked car along the side of the road, you might head towards it. To keep yourself safe while driving, one of the first things you need to learn is how to correctly target and track with your eyes.



Targeting: When you are trying to find a friend in a crowded room, the process your brain is using is targeting. Your brain targets each face in the room until it finds the face that it recognizes as your friend. Targeting is a fairly easy task for the brain to handle, but when it comes to driving, you have to train the brain to choose correct targets and ignore dangerous targets. A correct target is one that allows you to travel on a safe path from where you are towards that target. A bad target is one that would guide you into the path of something dangerous or illegal. Ideally, you should try to find a target that is at least 15 seconds of driving time in front of you. The further away the target is, the better, because it allows your brain more information to make decisions from. If you form a target too close in front of you (Like right in front of the hood) then your brain will have to find new targets very quickly and your risk of making a mistake is worse.

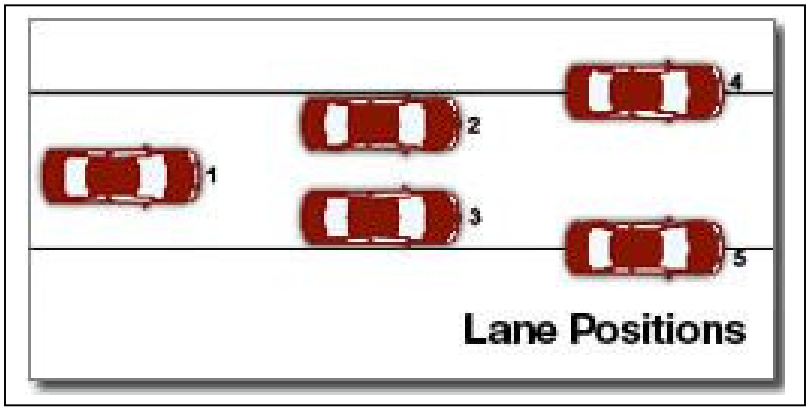
When selecting a target, it may not be something you can actually drive all the way to. For example, there may be a tree way out in front of you that lines up perfectly with the direction you are heading. Obviously, you can't drive all the way to the tree, or you'll hit it. You can still use that tree as your target for a while and then make a new target as you go. Remember, the best targets are at least 15 seconds of driving time ahead of you, so you're going to have to find a new target at least every 10 seconds or so.

Risk Targeting: Never, never target something you consider a risk! Whenever you are driving, you need to be actively scanning all around your vehicle searching for risks that may hit you or get in your path. That process is called searching and it's good. Targeting a risk, however, means the driver identifies a risk and then fixates on it. Often this happens out of fear that you may hit or be hit by that thing. Risk targeting is a very common bad habit many drivers develop and it leads to a lot of crashes. Always remember that your brain tends to direct you to go where your eyes are looking. Don't target the thing you are afraid to hit, or you may subconsciously aim directly at it.

Targeting Other Vehicles: Sometimes the best available target you can find is a vehicle ahead of you in the same lane. Following another vehicle down the road can be helpful in many ways. If you watch that vehicle carefully, it's a little like watching your own future. If they slow, stop, or swerve, then you may need to react as well. Targeting the vehicle in front of you does have one big downside, however. The target you choose needs to be about 15 traveling seconds ahead of you. As you follow a vehicle down the road, you may gain on that vehicle and become too close to use it as a safe target. When this happens, find a new target 15 seconds out. Even if that means you have to look around, over, or through the vehicle in front of you. If you continue to target a vehicle too close in front of you, you may not have time to avoid a crash if that vehicle slows, swerves, or stops suddenly. If you find yourself tailgating another driver, chances are you are targeting them. Find a way to see beyond that vehicle to a new, safer target. Remember, if you hit another vehicle from behind, you will almost always be found at fault for that collision.

Pro-Tip: If you are going to use a vehicle ahead of you as your target, always pick the one farthest ahead of you that you can see. If you do this, you will never get surprised by something unexpected ahead of you, and your confidence will go way up.

Tracking: Can a train swerve to avoid a collision? Of course not. Trains are only able to follow the path set by the tracks. The train engineer has no ability to target and direct it. The engineer can only control the speed of the train as it follows the tracking path. As a driver, try to think of your driving lane similar to a set of train tracks. You should stay in your lane and follow it, until you need to change lanes or make a turn. As you travel down your lane and toward a target, your brain is watching to see if you are tracking correctly, and if not, sends new instructions to your arms and legs to adjust your path. Tracking down a straight path is pretty easy. Tracking around a curve is more difficult. Tracking over a hill or through a dip can also be challenging because it can be hard to see far enough ahead to search for a good target. The speed you are traveling also plays a role. The faster you are travelling, the quicker you reach your target. That means you must make tracking adjustments more quickly to stay on track. If you are having trouble tracking towards targets, slow down. The "speed limit" is exactly what it says. You must not travel faster than the speed limit. You can travel any speed below the limit any time you need to. Don't pressure yourself into driving faster than you can travel safely.



Lane Positions: The driving lane is usually much wider than your vehicle. The driving lane is the entire area of the road that it is safe for you to be driving. On a simple residential street, it may stretch from the center of the street all the way to the right-side curb. No matter how wide or narrow the lane is, there are 5 lane positions and each one is used for specific purposes. Let's go over each one individually.

Lane Position 1: For most of the driving you do, this is the lane position you want to be in. Lane position 1 is exactly in the center of the lane. This leaves the safest space to each side. Lane position 1 is used on straight roadways and any time you are travelling with traffic on both sides of you at the same time, like the center lane of the freeway.

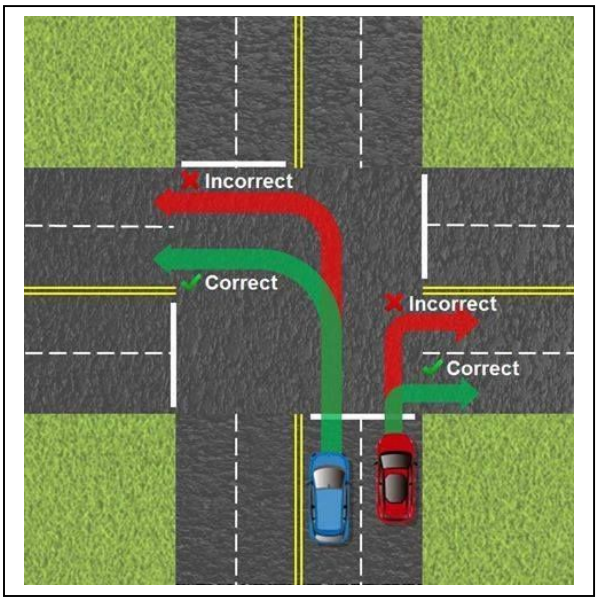
Lane Position 2: Lane position 2 is along the left edge of the lane. No part of your vehicle is outside of your lane, but you're driving along the left edge. You use this lane position any time you are preparing to turn left. You use lane position 2 when driving through a curve to the left, if there are no oncoming vehicles. You may also use this lane position when passing a pedestrian or bicyclist in order to give them a little extra room. Remember, lane position 2 is still completely inside the lane.

Lane Position 3: This is the opposite position of 2. Lane position 3 is along the right edge of the lane. You drive in this position when preparing to turn right, or when tracking around a curve to the right. You may also drive in lane position 3 when going over a hill crest or any other time you can't see far ahead. Lane position 3 is also good for when an oncoming vehicle is really wide. Again, when driving in this position, all of your vehicle is still completely in the lane.

Lane Position 4: Now we have to let part of our car leave the lane. If your left tires are outside of your lane, you are in position 4. You may have to drive in this position to pass a transit bus or avoid an obstacle in the road. You only want to be in position 4 for a short time. It can be very dangerous to be too far left.

Lane Position 5: This time, we're leaving the lane to the right. Again, you may have to do this to avoid something in the road or you may be directed there for construction or to go around a crash. Watch for gravel and debris in lane position 5. The right side of the road tends to collect stuff you don't want to drive over.

Turning at Intersections: When you approach an intersection, you need to communicate your intentions as clearly as possible. If you are planning to turn at that intersection, the first thing you need to do is signal in that direction. Always signal at least 100 feet before the place you plan to turn. Then, position your vehicle so that your intention to turn is clear. For a right turn, move into lane position 3 before arriving at the intersection. For a left turn, move into lane position 2 before arriving at the intersection. Finally, when it is safe and legal to make the turn, always turn into the closest lane travelling in that direction, unless signs and painted lane markings direct you otherwise. Never turn into the second lane at an intersection. That lane is reserved for traffic coming from a different direction, and you might crash into them.



Cornering: Let us say this as simply as possible. A vehicle cannot travel as quickly through a corner as it can in a straight line. There are a couple forces that affect a vehicle while it is turning. Inertia is the force that keeps a vehicle moving straight. The faster the vehicle, the stronger the force of inertia. When the driver turns the steering wheel,

inertia resists the vehicle from turning. If the vehicle is moving at a high enough speed, the force of inertia will overpower the tires' grip on the road and the vehicle will not steer. It will simply skid straight until it has slowed down enough, or crashes into something. Centrifugal force is similar to inertia. As a vehicle is traveling through a curve, centrifugal force is working to push the vehicle outwards. As with inertia, higher speed makes centrifugal force stronger making the vehicle skid away from where the tires are directing the vehicle. The solution is always to slow down before you enter a curve and never speed up quickly until exiting the curve. You will always have more control when the vehicle is travelling straight.

Tight Turn-Arounds: We covered simple U-turns and Y-turns in class 3, but there are times when you need to turn around and it's not so simple. When you need to maneuver in a tight space, it all starts with your eyes. You need to develop reference points for exactly where the front and rear bumpers are. By exactly, I mean within about 3 inches. If you can confidently place your car that close to an obstacle without hitting it, then you will be amazed how tight of a space you can turn around in. You will also need to be patient! It could take 10 or more back and forth jockey's to turn around in a really tight space. Don't get in a hurry. Take the time to do it safely, and you'll be successful.

Sharing the Road: This lesson has been about using your eyes to aim the car where you want it to go. The problem is you are not alone on the road. For you to safely target and track to your destination, you need to share the road with a number of other road users. Some of them are big, like trucks and busses. Some of them are small, like motorcycles and bicycles. The thing that matters most is that you and they get where they are going without a crash. Let's consider a few of the most common other vehicles out there.

Pedestrians: People walk all the time. Even when you become a driver, you still walk a lot. You walk from where you park the car to work, school, home, the store, etc. Some of the walking people do is among vehicles as they walk along or cross a road. This is where pedestrians become at serious risk for injury. When they get hit by a moving vehicle, it is always life threatening. For that reason, drivers have the ultimate responsibility to protect pedestrians by watching for them and yielding to them at all times.

Bicyclists: When you think of someone riding a bicycle, what I would like you to think is they are a pedestrian moving really fast. That's basically the only difference. When a moving vehicle hits a bicyclist, the bike provides almost no protection to the rider, so the potential for injury is about the same. One of the biggest challenges for drivers when it comes to bicycles is they can be hard to see and some riders make sudden unexpected movements. Follow these steps to help you protect bicyclists when you are driving near them:

- When you pass, leave at least 3 feet between your car and them
- Don't tailgate them. Stay 3-4 seconds back until you can safely pass
- If there is a bike lane along the road, expect there to be bikes in it
- When parked along the side of the road, check for bicyclists before opening your door.

Motorcycles: You can see where I'm going here, right? If bicyclists are basically pedestrians that move fast, then a motorcyclist is basically the same thing moving even faster. In most states, motorcycle riders are required to wear a helmet. Many riders wear special protective clothing to help them in a crash, but make no mistake, when a motorcycle crashes, it's a really bad day. Follow the steps above for driving around bicyclists, but remember that motorcycles can move as fast as a car, so they can be much more challenging to have nearby.

Trucks: A lot of vehicles get called "trucks". Pickup Truck, Moving Truck, Semi Truck, etc. A general rule of thumb for you is this… The bigger the truck, the more problems it can cause you. Trucks block your view of anything on the other side of the truck from where you are. This means you're kinda blind in that direction. There is an obvious reason why blind people can't get drivers licenses, right? You gotta be able to see in order to make sure you are safe as a driver. How do you improve your visibility around large vehicles? Here's some pointers:

- Increase your following distance so you can see around the vehicle
- Don't drive beside a large vehicle for a long time
- Avoid driving on major trucking routes when other roads are available
- When stopped in traffic behind a large vehicle, leave a little extra space, and position your vehicle so you can see their driver side mirror. This means they can see you too!

Another challenge trucks cause is they make wide turns. This means they may use more than 1 lane to turn left or right at an intersection. You must never drive up alongside a truck at an intersection when he has his signal on. The space you think is wide enough for you to drive into is the space he needs to turn. You will screw everything up and there will either be a crash, or a serious road block while you get out of harms way.

From the Washington Driver Guide:

"You can be a safer driver by looking well ahead. You can avoid the need to stop or turn quickly. The less you have to stop or turn quickly, the less likely you are to run into someone or have someone run into you."

"By looking well ahead, you can save on fuel. Every time you have to stop quickly, it takes time and fuel to get your vehicle back up to speed. A gradual approach into a stop situation puts you in a win-win situation. You will use the least amount of fuel, you will put the least amount of wear on your tires and braking system, and you have the best opportunity to control the traffic to your rear. Most of all, you will be developing a good habit that will eventually occur even when you don't think about it."

Your Homework: To practice tracking, you need to progress from easy to difficult. So, start with driving a few minutes on a straight road that has well painted lines on the right and left sides of a lane. Try to look down the center of your lane and make the car track on the same line your eyes are looking. When this gets easy, find a faster road, then a road with some soft turns, and finally a road with some sharp curves. Remember, your car goes where your eyes are looking.

Self Reflection: If tracking is a process of having your car go where your eyes are looking, then it's going to be important that you don't get distracted by things inside and around the car while you drive. Are you an easily distracted person? Do you have habits in place to help you stay focused on tasks? Do you need to create new habits specifically for the driving task?

There are some driving tasks that require you to briefly take your eyes off target to check for risks behind or to the sides. Have you let the car wander off target? Are you able to check your blind spot and stay in your lane?

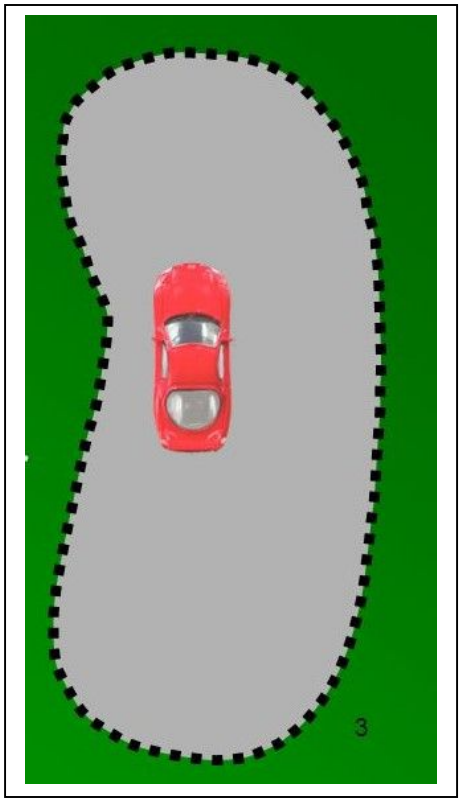
Tips for Parents: For brand new drivers, they often think they are looking in the correct place while driving, when in fact they are not. This can sometimes lead to arguments between the new driver and a parent. Instructors use the phrase "Look where you want the car to go" a lot. When we say that, we watch to see where their eyes go. If it's to the wrong spot, then we can suggest a better target and see if their gaze corrects. Also, when a new driver is working on targeting and tracking, it's common for them to get tunnel vision and forget to check for hazards to the sides and rear. As the parent, you need to keep your head on a swivel watching all those areas, so the driver can concentrate on the task at hand.

PARKSIDE DRIVING SCHOOL

Class 6

Reference Points & Yielding

Can you put on a coat with your eyes closed? How do your arms know how to get into the sleeves? Well, it starts with reference points. Even with your eyes open, you may sometimes have trouble putting on a coat because part of the process occurs behind your back where your eyes can't see. Over time, you become familiar with where the arm hole is and now you can usually do it without any effort at all. Then, you go and buy a new coat and it may be a challenge to find the arm hole again. Our brains try to find easy ways to do things, so it forms reference points for virtually every task we do. That way, we can do that task over and over again and achieve the same outcome each time.

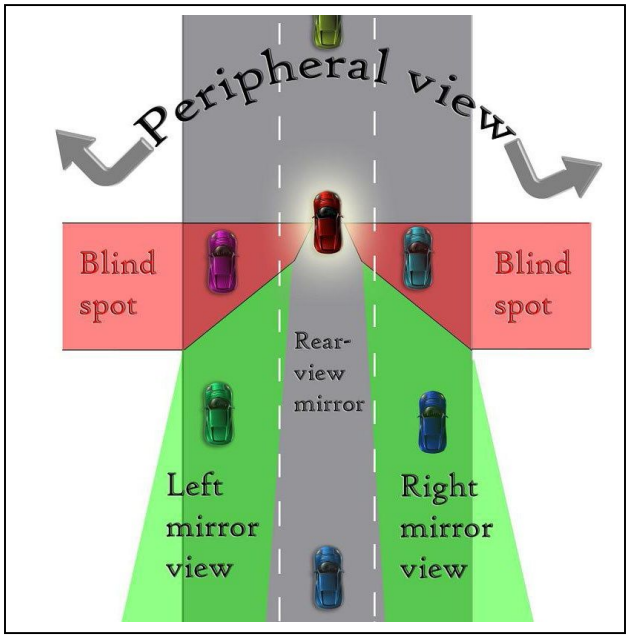


Blind Area: Driving is a task that requires us to form a lot of reference points. The car is large and only a small portion of it is glass, so there are lots of areas around the car that we can't see with our eyes. This is called the blind area and every vehicle has one. The bigger the vehicle, the bigger the blind area. The gray area on the image to the left shows the blind area around a car. Notice how much bigger the gray area is compared to the car itself. This makes the car feel larger than it is, which challenges the driver's sense of space needed to navigate on the roads. We use reference points so we can position the car correctly while we're driving, parking and avoiding obstacles.

Remember, the larger the vehicle is that you are driving, the larger the blind area is around it. The size of your body is a factor as well. A tall person may have a little better view around the car as compared to a short person. Reference points are how we solve these visual challenges and drive safely.

Blind Spots: These are different than the blind area. A blind spot is an area the driver cannot see by looking ahead or in the mirrors. The typical car has 4 blind spots which lead to a large number of traffic collisions. But there is good news! Every blind spot related collision is easily preventable. It takes two drivers making a mistake to create a collision. If either driver recognizes the blind spot risk and makes a change, the collision will not occur. Let's go over where the blind spots are and how to reduce their negative effects.

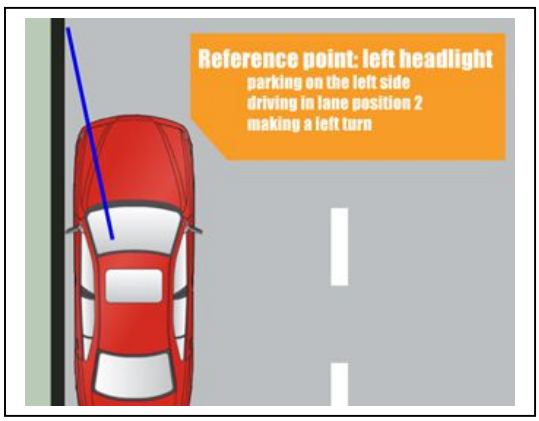
Front A-Pillar Blind Spots: The A-Pillar is the metal part of the car that holds the sides of the windshield in place and helps prevent the roof of the car crushing in the event of a roll-over. A-Pillars are very good at their job, but they can't be seen through. It is very easy to lose sight of a pedestrian, bicyclist, or animal in the A-Pillar blind spot. The way a driver reduces the risks associated with the A-Pillar blind spot is to visually scan for moving objects to the left and right while driving. A driver should shift their gaze to the left, out the side window, every few seconds. To the right, the driver should look at least as far as the passenger side mirror every few seconds. This left to right scanning method widens the drivers' field of view and allows the driver more opportunity to see obstacles before they become blocked by the A-Pillar.



Left and Right-Side Blind Spots: Have you ever checked to see how far to the side you can see with your eyes looking straight ahead? Reach your arms out to each side of your body and wiggle your fingers. Can you see your fingers moving without turning your head? How far back can you move your hands before you lose view? This is called your peripheral view. Everything beyond the limit of your peripheral view is a blind spot. But wait a minute, you might say. The car's side mirrors allow a driver to see down the side of the vehicle, right? Yes, and no. Yes, the side mirrors give you view of a portion of the area beside your vehicle, but not a complete view. The side blind spots are larger than the area your mirrors can cover, so it is very easy to lose sight of something if you only look in the mirrors. There is only one way to be sure there is nothing in your side blind spots, turn your head and look. We'll go over this issue more in future lessons, but you need to start practicing blind spot checks now. Don't try to drive anywhere without looking there with your eyes first.

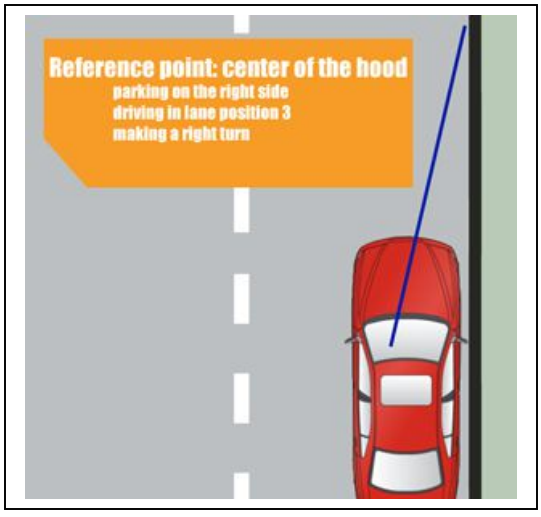
Reference Points: These help us know where things are around the car that we can't see with our eyes. We're going to talk about a few of the most important reference points today. Keep in mind, every car is shaped slightly different, so you will have to form slightly different reference points for each vehicle you drive.

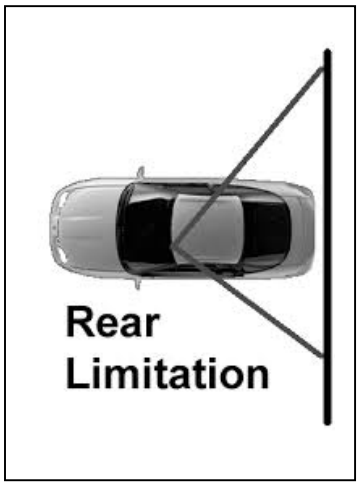
Front Limit: The front bumper is the thing furthest forward from you. You need to be able to stop the car before you hit something (or someone!) with your front bumper. From where you are sitting, behind the wheel, the hood prevents your view of the bumper. You need a reference point you can use. It may sound odd, but your reference point is your side mirrors. If you line up the bottom edge of either side mirror with something in front, that is where your front bumper is. The most important time you use this is when stopping at an intersection. You need to stop before your car is blocking the crosswalk or out in the cross street. This one is also important for parking with a curb in front of you. Use this reference point to protect your car from scraping across the top of parking curbs and sidewalks.



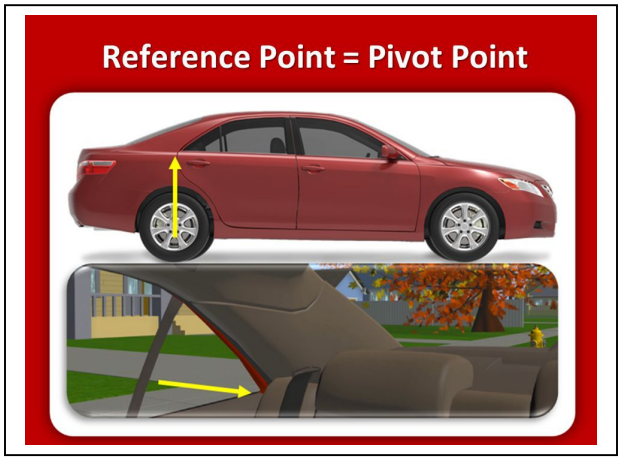
Left Side Limit: If you don't know where the left side of your car is when you are driving down the road, then you won't feel safe approaching oncoming cars. You need to be sure all of your car is on the right half of the road, so you need a reference point to use. Use your left headlight as a reference. You will use this reference point a lot. Every time you prepare to turn left, park along something to your left and especially every time you drive on a road with a painted yellow center line. If you cross that line without knowing it… That's bad!

Right Side Limit: In the US, we drive our cars on the right half of the road. That means we usually park along the right side of the road. And to make things a little more difficult, the law says we have to park within 12" of a curb. That means we have to get our tires really close to the curb, even though we can't see the curb from where we are sitting in the car. If you are "average" height, the typical reference point is about the center of the car hood. If you are shorter, or taller, it may be a bit off center. Take the time to really figure this one out. If you hit the curb with your wheel and tire, it can cause damage and embarrassment.





Rear Limit: Backing a car is more difficult than driving forward. There is a LOT more area behind you that you cannot see from the driver seat. Unfortunately, just because it's hard doesn't mean you don't have to do it. It means you have to practice backing a lot! To help you avoid backing into things, the reference point is about halfway back on either rear side windows. The exact spot will depend on how long your legs are and how far back your seat is adjusted. To practice this, try backing to the edge of your driveway. Stop, put the car in park, and get out to look if the back of the car is where you thought it would be. If not, get back in the car, make an adjustment and then take another look. Don't fall into the trap of using your side mirrors or backup camera. Mirrors and cameras do a good job of showing obstacles, but they do a poor job of determining distance. Your eyes are the only thing you have that can really judge distance accurately.



Rear Pivot Point: But wait, there's more! Sometimes, you can't just back up straight. Sometimes you have to back and turn at the same time. Backing out of a parking space or out of your driveway. You have to be able to turn the car at the right time and the right amount, so you place the car in a safe spot. To figure out the turning point for a car going backwards, you need to remember which wheels do the turning. The only wheels that steer the car are at the front of the car. The rear wheels never turn, they stay straight. If you turn the steering wheel all the way to the right, the rear pivot point will be about the center of your right rear wheel. If you turn the steering wheel all the way to the left, the rear pivot point will be the center of your left rear wheel. If you turn the steering wheel less than all the way, the pivot point will move further back toward your rear bumper, meaning you will back in a wider arc. Always be sure to keep your eyes moving and looking for hazards and obstacles all around your car while backing and turning. A small mistake while backing can turn into a big crash if you don't pay attention.

Always back slowly, and if possible, with your foot hovering over the brake pedal. You are required to yield to anything behind you. The blind area behind the car is huge and there is no undo button to press after you hit something. Never back quickly, and never back without your eyes looking where you want to go.

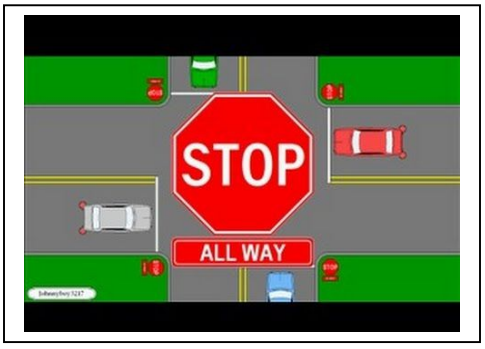
Stopping in Traffic: Sometimes when you approach a stop sign or traffic light, there are cars ahead of you already stopped. You need to stop your vehicle far enough behind another car that you will not be shoved into them if you get hit from behind. There is a reference point for this as well. You should be able to see the rear tires of the vehicle in front of you where they touch the ground. You should be able to see this just over the top edge of your hood. Never crowd up so close to the back of another car that you cannot see the tires.

Yielding: It's a weird word, Yield. What does it mean, exactly? It doesn't mean stop and it doesn't mean slow down. It certainly doesn't mean go. So, what does it mean??? Well, it means allowing others to go before you.

Yield Signs: Yielding means you create a safe space for another car to enter. Whenever you see a yield sign, you are required to let anyone else nearby continue on their path without you getting in their way. Does that make sense? If you get to a yield sign and there is no one around, then you can continue on your path without stopping or slowing. If you get to a yield sign and there is another car or pedestrian nearby, you must stop until they have crossed your path. Then you can continue again. If you get to a Yield sign and you can't see if it is safe to enter the intersection, then you must slow or stop and only proceed when you can see it is safe.

Right-of-way Yielding: Most of the roads we travel on have traffic travelling in two directions. That's not much of a problem since we travel on our right half of the road, and oncoming traffic travels on their right half of the road. No problem, right? Well, except for intersections. At intersections, cars are required to turn across the path of oncoming cars and that can be dangerous. So, yielding rules had to be established to make it safe for drivers to make these turns. If you are going straight through an intersection that does not have a yield sign, you are not expected to stop unless you are avoiding a crash. If you are turning at an intersection, you are required to stop for any vehicle or pedestrian that you would block while making the turn. This is referred to as yielding the right-of-way. It can be helpful to remember that right-of-way is never something you, as the driver, can "take". Another driver must "give" the right-of-way to you. If another driver does not give you the right-of-way when you try to cross their path, you will likely crash.

Where to stop when Yielding: Every intersection, driveway, and parking lot has a location where drivers are expected to stop while they yield to other traffic. If there is a painted stop line on the road, stop behind it. If there is a painted crosswalk, stop with no part of your car covering it. If there is a sidewalk, stop with no part of your car covering it. If there is nothing but a cross street, then stop at the point nearest the roadway, but before any part of your vehicle is blocking the roadway.

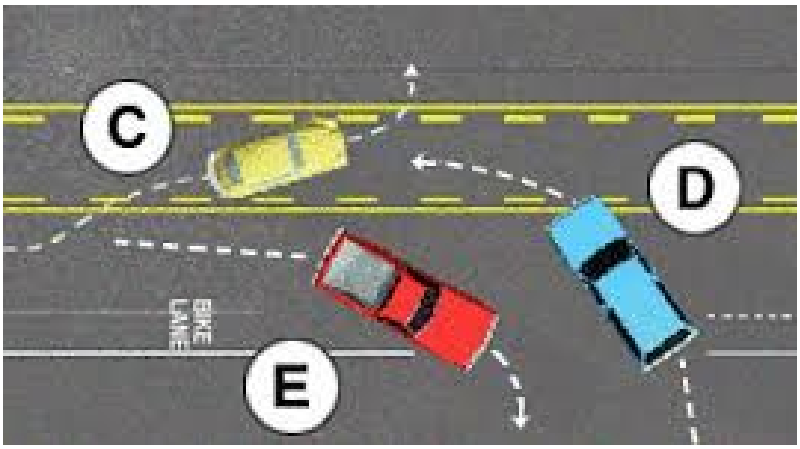


4-Way Stop Yielding: A 4-way stop intersection is just what it sounds like. It's an intersection with stop signs at all 4 corners. The yielding rules are very simple. If you are the first vehicle to arrive at a 4-way stop intersection, then all vehicles arriving later must yield you the right-of-way. If you get to the intersection after another vehicle has arrived, you must yield the right-of-way to them. But what if you get there at the exact same time as another vehicle? In that case, you yield right of way to any vehicle to your right. If you are to the right of another vehicle, then they must yield the right-of-way to you. It sounds confusing, but it really isn't. Just look to your right and yield to anything that might be there.

Uncontrolled & T intersection Yielding: There are some intersections in areas with not a lot of traffic, that don't have any signs or signals to control traffic. These are called uncontrolled intersections. Often, they are in a residential location where there is just a single side street to the left or right of a primary street. These are called T intersections because if you look down on them from above, they make the shape of a T. When you approach any uncontrolled intersection, the rule in Washington is the same. Always yield to whoever enters the intersection first. If two cars get to the intersection at the same time, always yield to the car to your right.

Roundabout Yielding:
A roundabout works very similarly to a 4-way stop, except when they are working correctly, no one stops. The yielding rule for a roundabout is you must yield to any vehicle already in the circle. As you approach the roundabout, scan the circle for any vehicles or pedestrians that might be in your path. Once they have crossed in front of you, go ahead and enter the circle to the right. When you get to your intended exit from the circle, turn on your turn signal to tell everyone you are leaving.

Two-Way Left Turn Lane: Busy streets often have a lane down the middle painted yellow that is used by drivers to enter and exit that street a little easier. These lanes are very intimidating to new drivers because it can seem like there are no rules. There are rules, and if you follow them, this lane can become your best friend when the traffic gets heavy. Here's what you do and don't do:

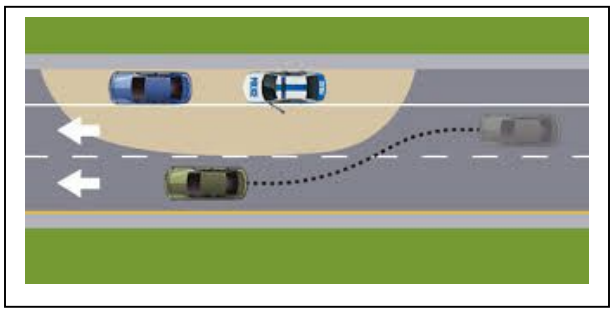


- If you are turning left from the road (car C), you make a lane change into the yellow lane and then turn left when traffic allows.
- If you are turning left onto the road (car D)) you turn left into the yellow lane and then lane change to the right when traffic allows.
- Never travel more than 300 feet in the yellow lane.
- Never use the yellow lane as a passing lane.
- Never turn into the yellow lane from another street or if it is not painted across in front of you.

Yielding to specific vehicles: There are a few specific vehicles which all drivers must yield to at certain times. There are serious consequences if you do not yield to them, so always keep a look out for these vehicles.

Transit Bus: We mentioned this on a previous lesson, but it's something drivers get wrong a lot, so let's cover it again. If the transit bus is stopped along the side of the road, and is signaling intent to re-enter traffic, you must yield so it has a safe space to enter. If the transit bus is stopped along the side of the road without any signal lights, you may pass the bus if there is an available traffic lane in the direction you are travelling. You are not allowed to cross a double yellow painted line or occupy a two-way left turn lane in order to pass a transit bus.

Trains: You must yield to any train moving toward a crossing of the road you are travelling on. Warning lights and gates may not exist at every railroad crossing and in some circumstances, the lights and gates may not function. Every driver is expected to visually check for trains before crossing a set of tracks.



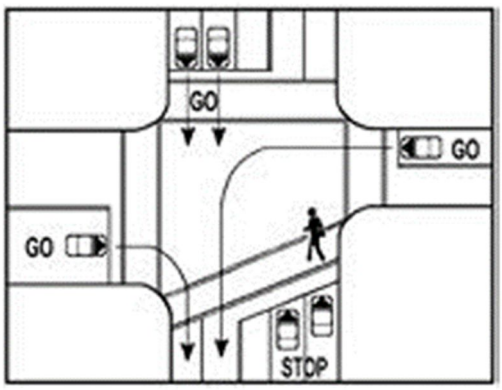
Emergency Vehicles (Police, Fire, Ambulance, Tow Trucks): If the emergency vehicle has **Red** or **Blue** lights flashing or is using its siren, all traffic must pull to their right most edge of the road and yield to the emergency vehicle. If you are passing an emergency vehicle with its lights on, you must change lanes and pass with an empty lane between you and the emergency vehicle, if it is safe to do so. If you must pass an emergency vehicle without an empty lane between you and them, you must slow down at least 10MPH below the speed limit, or a maximum of 50MPH, and pass with caution.

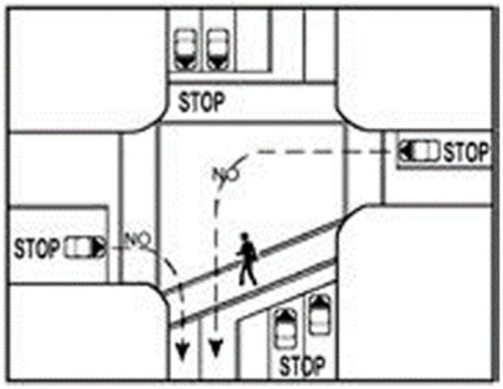
Extra Caution: The law states you must move over and pass emergency vehicles with an empty lane, but you are also required to maintain a safe distance from all other cars. Don't cut someone else off, or tailgate another driver just to leave an empty lane. It's your responsibility to see the emergency situation coming up and make a safe lane change so you can keep the emergency people (and everyone else) safe.

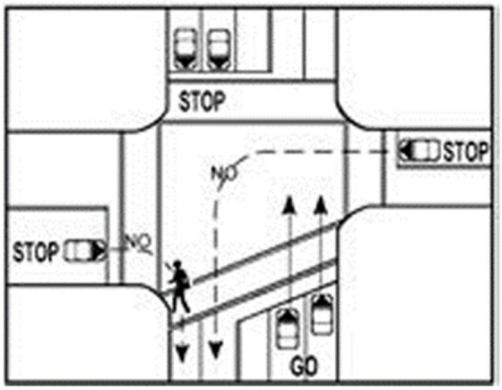
Broken Down / Abandoned vehicles: There may be times when you see a vehicle parked on the side of the road broken down. The driver may be trying to fix it, or it may just be parked there waiting to be towed. If you have the ability to safely change lanes and pass with an empty lane between you and the vehicle, do it. If you have to pass close by it, scan carefully for any people or hazards, and then pass at a safe speed for whatever hazards you see.

Yielding at Driveways and Parking Lots: As a driver, you must never enter or leave a driveway or parking lot without yielding to anything that may be at risk. Any time you approach a sidewalk you intend to drive across, always at least slow down significantly so you have time to scan for any risks. If your view of the sidewalk is blocked by something, always completely stop before crossing the sidewalk.

Yielding to Pedestrians / Bicyclists / Mobility Devices: As a driver, you are required to always do everything possible to avoid a collision with anything. This is especially true when it comes to road users with limited protective devices. When a vehicle collides with one of these people, it's a really bad day for them. Their chance of serious injury or death is very high. For that reason, there are specific laws about how drivers must yield to at risk road users.







- If a pedestrian is standing or walking on any part of your half of the road, you must stop and yield to them.

- If a pedestrian is standing or walking on the opposite side of the road, but within 1 lane of your half of the road, you must stop and yield to them until they are more than 1 lane away from your lane on the opposite side of the road.

- If a pedestrian is crossing in a marked crosswalk, you must yield to them until they are at more than 1 lane on the opposite side of the road.

- Bicyclists travelling on the roadway should be travelling in the same direction as other traffic. Give them space to operate on the roadway the same as any other vehicle. If you are going to pass a bicyclist, change lanes if possible. If you have to pass a bicyclist in the same lane, make sure there is at least 3 feet between the side of your vehicle and the bicyclist.

- Specialty mobility devices are often used by people who have a reduced ability to walk on their own. These devices are capable of quick speeds and can turn sharply. If you approach something like this on the road, give it plenty of space and pass cautiously.

- There are times when people choose to operate moving things on the roads that are not really legal on the roads. We could try to make a list, but just imagine some crazy stuff and you'll get the idea. There is one rule to follow above all others in this case. As a licensed driver, you are required to do everything possible to avoid a collision with absolutely everything. You can't always control all the things that come near your vehicle, but you absolutely have full control of your vehicle. Never think you won't get in trouble if a crash happens. Assume you are always at least a little bit responsible for any crash.

From the Washington Drivers Guide

“The law says who must yield the right-of-way, it does not give anyone the right-of-way. Failure to yield right of way is the number one citation in city collisions.”

“For their own safety pedestrians should walk toward oncoming traffic and off the roadway. You should be ready to yield to pedestrians in case they step into your path.”

“Pedestrians and bicyclists have the right-of-way at crosswalks and intersections, whether the crosswalk is marked or not.”

“At an intersection where there is no stop sign, yield sign, or traffic signal, drivers must yield to vehicles in the intersection and to those coming from the right.”

“At a four-way stop the driver reaching the intersection first, goes first (after coming to a complete stop). If more than one vehicle arrives at the same time, the vehicle on the right goes first.”

“Drivers must not enter an intersection unless they can get through it without having to stop.”

“A roundabout is an intersection control device with traffic circulating around an island. Approaching vehicles must yield to the traffic in the circle.”

“Drivers must stop if a pedestrian or bicyclist is within one lane of their half of the roadway.”

“Drivers crossing a sidewalk while entering or exiting a driveway, alley, or parking lot must stop and yield to pedestrians and bicyclists. It is illegal to drive on a sidewalk
except to cross it.”

Your Homework: New drivers, and sometimes their parents, usually prefer learning to drive in just one of the family vehicles. Maybe it's the smallest car, or the oldest car. This homework assignment is to drive each of the family cars at least a little. You need to practice forming reference points in each vehicle. Practice stopping at a stop line, parking next to a sidewalk, and backing up to a curb. Spend some time finding and using your reference points, so you can position each vehicle exactly where you intend it to be.

Extra tip: If you're having a little trouble understanding how the car maneuvers in a tight space, there is a really easy and safe way to practice that might help. Go to a grocery store and practice pushing a shopping cart. The front wheel on the cart do just what the front wheels on a car do. Practice parking the cart in an angle space or a perpendicular spot. Then practice backing the cart out of those spaces. If you want to get a little creative, parallel park the cart between a couple other carts. The more you train your brain to understand the way your car turns at the front and pivots at the back, the easier you will get it from inside the car.

Self Reflection: The painted stop line at major intersections is positioned to protect pedestrians, but that means if you stop there, you often can't see cross traffic. How will you make sure you are stopping in the correct spot and never endanger a pedestrian?

Even when using reference points, the typical driver usually thinks their car is wider and longer than it really is. Does the size of your car intimidate you? Have you tried driving a smaller or larger vehicle and did that make you more or less comfortable?

Tips for Parents: Practicing reference points is a challenging task for most parents. If the learner gets it wrong, you can hit curbs, back into traffic, and all kinds of other bad stuff. The way we suggest reducing the risk is by picking safe locations to practice. For parking along a curb, find a neighborhood that has the new rolled style of curbing. When a tire hits those curbs, it can roll up onto the sidewalk without hitting the wheel or damaging the tire. When practicing backing to a specific spot, pick somewhere with really good visibility in both side directions. If you can see really far in both directions, you won't get as nervous when they back too far into the street. Remember, they can tell when you are stressed. They may think you don't trust them, and they may want to quit practicing.

PARKSIDE DRIVING SCHOOL

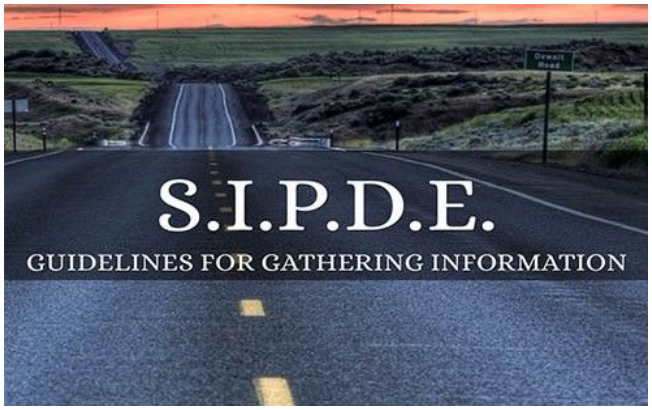
Class 7

Searching for Risk

Up to this point in the course, we've been covering how a driver physically controls a vehicle. There is much more to learn, though. Fundamentals are intended to prepare you for more complex things. If you have ever played any sport, your coach has had you practice fundamentals in practice, so you can try to apply those things during the game. When it comes to driving, navigating through traffic is the game, and the winners are the drivers who get to their destination without causing or being involved in a crash. Driving in traffic requires teamwork with other drivers around you. Mistakes will be made by drivers. You might make a mistake or maybe a mistake will be made by another driver nearby. If you apply your fundamental skills, you will find a way to stay safe.

Searching: You can't react to a risk you don't know about. The best way to identify a risk is to actively search. A risk can come from anywhere. Your job is to scan all around the vehicle searching for anything that you may hit or may hit you. If you see something that you have identified as a risk, then you need to predict what may happen, decide how to react, and then execute a change to avoid a crash. Remember, risks can come from any direction. You might be going straight, but other things could be moving towards you from the sides or from behind. If you might hit something, or get hit by something, you should see it and make a plan.

SIPDE: Searching while driving is such a critical task, there is a step-by-step process to help drivers be successful. Each letter in SIPDE stands for one of the steps and if you follow these steps, you will greatly improve your risk avoidance skills. The SIPDE process works for more things than driving. You can adapt these steps to help you through all kinds of risky situations. Let's go over each step individually.



S = Search: Look around your vehicle by looking straight, left, right, and into each of the mirrors every few seconds. Pay special attention to areas where risks may approach from the sides and rear. Your search area should be at least 5-7 seconds of travel time in each direction. Searching for problems 5-7 seconds away gives you time to do something about the risk.

I = Identify: Anything you see in your search area is a potential risk until you rule it out. A rock along the side of the road is a risk until you decide the rock is not in your path. A pedestrian walking on the sidewalk is a risk until you decide they will not cross into your path. You must identify as many risks as possible to prepare yourself for possible avoidance.

P = Predict: Each risk you identify must be evaluated and a prediction made about your future. Is the risk real and will you need to do something about it? Sometimes you may identify multiple risks, which means you may have to predict the future of multiple risks. Sometimes the risk doesn't do what you predicted it would. In that case, make a new prediction based on new information.

D = Decide: As your predictions come true about the risks you have identified you must decide how to react. You may have several options but you need to decide to do something. You may decide to slow, stop, accelerate, steer, or do nothing. Whatever you decide will cause an outcome, so try to use your best logic.

E = Execute: If you know what you need to do to avoid a crash, then do it! Many drivers report they saw the risks and knew what to do but fear caused them to freeze. If you freeze, then you are putting your future in the hands of someone else. Driving is an adult task and that means being responsible for your own actions, or lack of action. If you crash, or if you fail to avoid a crash you could have prevented, you may face consequences. When you encounter a risk, do something about it!

LOS Risks: If your view is blocked, making it so you cannot see well enough to scan, you are at risk. The thing blocking your view is referred to as a Line of Sight (LOS) risk. If you cannot see beyond the LOS risk, you cannot confidently know whether it is safe to proceed. The way you manage a LOS risk depends on whether it is moving or stationary.

Stationary LOS Risks: A stationary item is something that is not moving. A tree or shrub is a good example. Another good example is a parked car. Whatever it is, it is a LOS risk if it is within a 10 second traveling distance from you and you cannot see beyond it. To safely reduce this risk, after stopping, creep slowly forward until you can see beyond the obstacle. Once you are confident the path is clear, you may proceed.

One big mistake drivers make in their own neighborhoods is to get familiar with the stationary LOS risks they encounter every day and form bad habits to deal with them. For example, as you approach a stop sign intersection with a fence on your left, stop before the crosswalk area of the intersection even if the fence is blocking your view. Then, after making sure there are no pedestrians, creep forward to see better. Don't form a bad habit of stopping late or you might hit something unexpected.

Vehicle LOS Risks: Every part of your vehicle not made of glass is a potential LOS risk. If you can't see through it, you can't be sure there is nothing behind it. To reduce these risks, keep your head and eyes moving and move around in the seat to change your viewing angle. Use your reference points to know where your vehicle is in reference to things that may be blocked from view.

Moving LOS Risks: The most common moving LOS risk is a large truck or bus. You can't see through them and they are so large, they take up a large portion of your visual space. The only sure way to reduce a moving LOS risk is to wait for it to move out of the way. Once it has moved on, your view will be clear, and you can make a safe decision about your path of travel. Another example of a moving LOS risk is a train. Train tracks sometimes run alongside roadways. If there is a train travelling on a track next to the road you are on, it can be reallyhard to see what may be on the other side.

Weather Related LOS Risks: Fog, rain and snow can dramatically reduce the distance that you can see. You might also have to drive directly into bright sunlight. Strong winds can make clouds of dirt and debris fly across the road. No matter what is causing you to have difficulty seeing, the first thing to do is slow down. You must be able to control your vehicle at all times and avoid all hazards. If you can't see through it, it's a safe bet you shouldn't drive into it.

Distraction Related LOS Risks: If you are driving with your eyes looking anywhere other than where you want to go, then you are creating a LOS risk for yourself. You can't see risks around your vehicle if you are not looking for them. Keep your head up, your eyes looking where you want to go, and your brain engaged in the driving task. Keep this in mind when considering adding accessories like phone holders to your windshield or dash. Moving something distracting up into your primary field of vision can easily draw your mental focus away from driving.

POT Risks: In this case, we're not talking about drugs, we're talking about Path of Travel (POT) risks. A POT risk is anything that would be dangerous to hit on your path. They can be stationary, like a pothole in the road, or can be moving, like a bicyclist or motorcyclist. POT risks exist around drivers all the time. Every other thing on or near the roadway is a potential POT risk. The best way to reduce these risks is by scanning all around the vehicle at all times. If you use SIPDE, as we discussed above, you will have no problem solving for POT risks.

Pro-Tip: Drivers often ignore POT risks until it is too late to avoid them. When a driver sees a pedestrian walking along the side of the road, they might assume that pedestrian is going to keep walking in that direction. Suddenly, the pedestrian turns to cross the road and it's too late for the driver to react. Always try to predict the worst thing a POT risk may do and make a plan to safely react if it happens. As a driver, it is very dangerous to assume things will always happen the way you expect. Surprises are all around us on the roads.

Intersections: When you are talking to another person, you are having a conversation. You talk while they listen, then they talk while you listen. What happens if you both talk at the same time? A collision of words that makes the conversation very difficult. Think of roadway intersections as a place where vehicles talk to each other. They have to communicate clearly and then behave correctly in order to get through the intersection without a collision. Travelling through intersections is the most complex and often most dangerous driving task. All your driving skill is called upon to make sure you, and everyone else nearby, get through safe. One reason why an intersection is such a problem is because there are many different types and each of them require the driver to do different things. Let's go over the most common intersection types.

Uncontrolled intersection: This type of intersection is where two roads meet but there are no signs, lights, or paint directing the drivers what to do. This type of intersection is typically found in residential neighborhoods where traffic is light. One problem with this type of intersection is that drivers often get used to this intersection not having any traffic, so they are not prepared when another car happens to be there. To safely use an uncontrolled intersection, follow these steps.

1. Scan the intersection for oncoming and cross traffic as you approach. Look for pedestrians too. If you cannot scan the cross street, slow down to a speed slow enough to stop if a car suddenly appears in your path of travel.
2. Signal if you plan to turn at the intersection.
3. Proceed through the intersection when clear. You are not required to stop if your path is clear but it is ok to stop if you want to make sure.
4. If you get to an uncontrolled intersection at the same time as another car, you must yield if the other car is to your right. If it doesn't look like the other car is going to stop, even if they are supposed to, go ahead and do them a favor and stop.

Yield Sign intersections: Similar to uncontrolled intersections, you will find this type mostly in residential neighborhoods. You treat them the same way as an uncontrolled intersection, except if the street you are on has a yield sign, you must stop for any other traffic. The driver who has a yield sign must stop and wait for all traffic that does not have a yield sign to clear the intersection.

Stop Sign intersections: This is the most common type of intersection. They are the most common, because they are the easiest and safest way for cities to control the flow of traffic. The rules are simple. If your street has a stop sign, then you must make a complete stop before entering the intersection. Where you stop depends on how the intersection is marked. As you approach a stop sign intersection, always look for any painted markings on the road that will tell you where to stop. A wide solid white line across your lane is called a "Stop Line". You must completely stop before any part of your car crosses that line. A pair of wide solid white lines or wide dashed lines across the entire street is called a

"Crosswalk". If there was no stop line, then you must completely stop before any part of your car crosses the crosswalk. If there is no paint telling you where to stop then you must completely stop before any part of your car is in the intersection. Sometimes the stop sign itself is located in an odd location. Remember, you stop where the paint tells you to stop, not where the signpost is located.

You may proceed through a stop sign intersection only after making a complete stop at the correct spot and checking to make sure your intended path is clear (which may require you to ease forward and make a 2nd stop). If more than one vehicle arrives at a stop sign intersection at the same time, you yield to the vehicle to your right.

BIG MISTAKE: One very bad habit drivers form at stop sign intersections is stopping too late, or not completely stopping at all. This is a leading cause of crashes not only with other cars, but also with pedestrians. If you make a late stop on a crosswalk at the same time a pedestrian is trying to cross, you will very likely hurt or kill that pedestrian. It only takes one mistake to create an emotional scar you will carry for the rest of your life. Stop signs are there to protect you from others and others from you. They only work if the drivers obey them.

Never assume that other cars will stop simply because they have a stop sign. The presence of a stop sign at an intersection is intended to control the safe flow of traffic, but they only work when drivers do the right thing. When another driver makes a mistake and doesn't stop, you have the ability to avoid a crash by not entering the intersection. With practice and experience, you will be able to detect signs that other vehicles are slowing and stopping. Until you have developed this skill, it's a good idea to wait until you see the other vehicles make a complete stop. You might get honked at, but you are responsible for your actions. Do what you know is safe!

Traffic Signal Light intersections:

Traffic lights are used when the flow of traffic is heavy. The light is programmed to alternate the flow of traffic at a set interval, so traffic congestion is minimized as much as possible. Similar to a stop sign intersection, there are often painted lines indicating where a vehicle must stop. There are often painted crosswalk lines and timed lights for pedestrians to cross. There are also often multiple marked lanes which direct traffic planning to turn or go straight. When all the vehicles follow the rules, this type of intersection is fairly easy and safe. When the light is green, traffic controlled by that light is allowed to travel through the intersection. When the light is red, traffic controlled by that light must stop. When the light is yellow, traffic already in the intersection must clear the intersection immediately. Traffic approaching the intersection when the light turns yellow

must stop if they can do so safely. It is never allowed to increase your speed to get through a yellow light. If you are able to stop safely, you must stop. New drivers often struggle with this concept. How do you know if you can stop safely? How do you know when you should go through a yellow? Here are a few things to consider when making this decision.

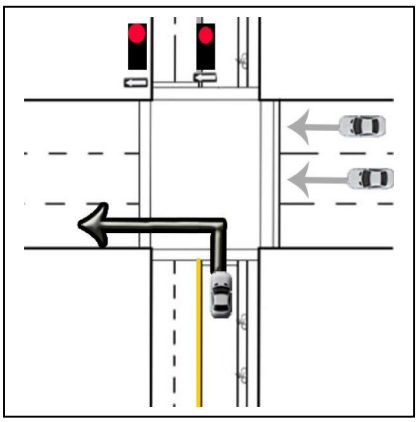
- Before pressing on the brake, look in your rearview mirror and check to see if anyone is following close behind you. If you brake hard for a yellow light, the vehicle behind you might run into you. In that case, it may be safer for you to proceed through the intersection on yellow.
- Check your speed and your distance from the intersection when the light turns yellow. You should be able to stop from 35mph in just a few moments. From higher speeds, it takes a longer time and distance to stop.
- Try to notice how long the light has been green as you approach the intersection. The longer the light has been green, the sooner it will be turning yellow. If you think the light might turn yellow soon, then reduce speed as you approach the intersection so that you will be able to stop safely.
- If you are approaching an intersection you plan to turn left or right at, traveling through on yellow is even more risky. You must consider your speed and determine if you can maintain control of the car as you try to clear the intersection while yellow. In most cases, your best decision is to stop for the yellow if making a turn at that intersection.

Pro Tip: Do you hate stopping for red lights? Does it seem like the lights are always out to get you? Try this simple trick. As you are driving towards a light, watch for it to turn red. As soon as it turns red, take your foot off the gas and start coasting slower and slower as you approach the light. By the time you get to the intersection it may turn green before you actually have to stop.

Green means What? When you are stopped at a traffic light intersection, there are some things you need to do before you begin moving again. Green means go, **if safe**. Don't just hit the gas when you see green appear. Doing a delayed start, just long enough to check for risks, is a great habit. Don't delay too long, though, or you'll upset the drivers waiting behind you. It only takes a brief moment to make sure your path is clear and safe. Here are some additional pointers.

- When your light turns green, always scan left and right before moving your vehicle. If a cross traffic vehicle fails to stop for their red light, there is a high risk of them crashing into the traffic that just received a green light.
- If the traffic signal light is constantly flashing yellow, proceed with caution, but be prepared to stop for risks.
- If the traffic signal light is constantly flashing red, or no lights are lit, treat the intersection as if it were an all-way stop sign intersection.

Right on Red: In Washington, and most other states, it is legal for a car turning right at an intersection to make the turn while the light is red. But you must do it safely and correctly. First, you must make a complete stop at the correct spot before entering the intersection. If, after stopping, you cannot see if the path is clear, then you can ease forward to see better. Completely stop and make sure there are no vehicles or pedestrians in your path. Then you may proceed to turn right while the light is red. If you see a sign that says no turn on red, then wait for green before you turn.



Left on Red: There are a couple situations where it is legal to turn left while a traffic light is solid red. You can turn left onto a one-way street after stopping, checking for traffic to the right, and checking for pedestrians. Turning left on red is not common. Many drivers do not think it is legal. The most common place to make a legal left on red is at a freeway on-ramp intersection. If you are the first car in line to turn left, and there are no risks coming from your right, you can turn left onto a one-way onramp.

Other types of Intersections: Everything that connects with or crosses a road is an intersection. Examples of these type of intersections include parking lot entrances, private driveways, bike paths, railroad crossings, pedestrian crosswalks, and many others. Traffic engineers are coming up with new types of intersections all the time. Your responsibility as a driver is always the same. Scan for risks and do what is necessary to keep yourself and others safe. Don't overthink it! Your job is to never crash into anything and never let anything crash into you.

Railroad crossing intersections: These are especially important to discuss. As we've discussed before, trains can't swerve to miss you. What makes things even worse is they also can't stop quickly. Major road crossings usually have gates and lights. Minor road crossings often have little more than a warning sign. When a vehicle gets hit by a train, the occupants of the vehicle rarely survive their injuries. Here are a few things to remember.

- Never drive through or under the crossing arms. Trains can be moving fast!
- Never try to beat the train to a crossing.

- Always look both ways before crossing the tracks. Trains can come from either direction, and sometimes there are multiple tracks
- Never get too close to the tracks. The train is wider than the tracks.
- Never park or stop on the tracks. If your vehicle breaks down while blocking the tracks, try to move it. If you can't move it, call 911 and move away from the vehicle.
- Never expect a train to stop. A fully loaded freight train can take a mile or more to stop.
- Train track crossings are often rough. Take your foot off the gas and coast across the tracks and make sure you have both hands on the wheel.

Overpasses and Underpasses: Sometimes roadways cross each other by using an overpass. This allows all traffic to move without crossing paths. You should still think of these as intersections, because they are still areas with increased risk. Things can fall from an overpass and land on the roadway below. Underpass traffic can encounter obstacles and varied surface conditions and lose control. For example, when it's raining, the underpass surface may stay dry for a while, which can create challenges with tire grip as you enter and exit. Use your scanning skills as you approach any overpass or underpass. Be ready for the unexpected, and you'll never get caught unprepared.

Bridges and Tunnels: Whenever a road requires the construction of a bridge or a tunnel, it is a complex and expensive task. A bridge must be constructed in a way that prevents things from falling over the side. This means they have to make the sides of the roadway very sturdy. If you crash into a bridge, the damage is often very severe, and injuries are common. Similarly, a tunnel is literally a hole through the ground. A crash inside a tunnel is a very dangerous event. Pay special attention when you approach these things. Another thing to remember when you're in a tunnel is that it gets dark in there. Remember to turn on your headlights before you enter the tunnel so you can see and so other drivers can see you.

Changing Lanes: A lane change occurs every time a vehicle moves its width or more to the left or right. Every time you drive to the side of the road to park, you make a lane change. Every time you move into a turn lane at an intersection, you make a lane change. Every time you merge to enter or exit the freeway, you make a lane change. Lane changes are so common, drivers often get sloppy in their risk searching process. Lane changes are a common cause of crashes and drivers involved in those crashes often try to blame it on other factors. The facts are clear, if you communicate your intention to make a lane change and then you visually check to make sure the area is clear, your chance of a crash is small. If you don't communicate well and you don't perform a good visual scan, your chance of a crash goes way up.

SMOG: The word Smog refers to air pollution that exists in large cities. It looks a little like fog that hovers over the city. We're not talking about that smog right now. The letters in SMOG stand for a set of steps to help drivers make a safe lane change. These steps work every time, if you follow them.

S = Signal: When you decide that you are going to be making a lane change within the next 5-7 seconds, turn on your turn signal in the direction you are about to move. Turning on your signal communicates your intentions. This allows others to react to you and avoid any conflicts. During this step, try to keep your speed constant. Slowing down while you prepare to make a lane change can make it more difficult.

M = Mirrors: Before you can make a lane change, you need to search for risks in the area you plan to move into. There are two mirrors that will give you some of the information you need. Your rear-view mirror will give you a view to the rear. You may see a vehicle behind you about to move in the same direction as you or you may see a faster moving vehicle approaching the area you plan to move into. The other mirror you need to check is the side mirror on the side you plan to move toward. This mirror may give you a better view of obstacles to that side.

O = Over the Shoulder: After you have checked your mirrors, you need to visually check your blind spot in the direction you plan to move. Turn your head to view around your a-pillar and then out the side of the car in the direction you plan to move. Remember, the blind spot is more beside you than behind you. Look through the rear side window, but not all the way around to see out the back window. This over the shoulder check should be a quick glance. Don't spend too much time with your head turned, or your hands may start to steer.

G = GO!: After making sure the path is clear, don't hesitate. In this case, go really does mean GO! Make the lane change before anything changes. Keep your speed constant, steer to your intended lane position, and get on to making a target down your path.

Pro-Tip: One of the best ways to make a safe lane change is to accelerate slightly as you make the lane change. As you signal and check your surroundings, keep your speed constant. Once you know it is safe to go, accelerate to a couple miles per hour faster and steer towards your new lane. It helps get the lane change complete quickly. It also helps focus your attention to where the vehicle is heading. It feels uncomfortable to accelerate without looking where the vehicle is heading, so training yourself to accelerate during a lane change is a really effective way to practice how to use your eyes effectively.

Two Big Mistakes: There are two mistakes a driver makes while performing a lane change that cause most of the collisions.

- Never change lanes in front of a vehicle and then immediately brake. The driver you just merged in front of will have very little time to react and may crash into you.
- Never cut another driver off. Always try to make a lane change leaving a 3-4 second gap behind your vehicle.

From the Washington Drivers Guide:

"Turn from the lane that is closest to the direction you want to go and turn into the lane closest to the one you came from."

"The law says who must yield the right-of-way, it does not give anyone the right-of-way."

"Pedestrians and bicyclists have the right-of-way at crosswalks and intersections, whether the crosswalk is marked or not."

"At an intersection where there is no stop sign, yield sign, or traffic signal, drivers must yield to vehicles in the intersection and to those coming from the right."

"At a four-way stop the driver reaching the intersection first, goes first (after coming to a complete stop). If more than one vehicle arrives at the same time, the vehicle on the right goes first."

"According to the National Highway Traffic Safety Administration (NHTSA), more than 80% of all crashes can be avoided if drivers have one additional second of time to react. The average driver looks only 3-5 seconds ahead of the car. If you scan at least 15 seconds ahead, you are able to gather critical information earlier and respond sooner to problems and hazards."

"You should actively scan every intersection and be ready to adjust speed, lane position or both before entering that space."

"Over 30% of all the crashes that take place in the United States each year occur at intersections."

Your Homework: Do a scavenger hunt drive. Tell your parent or guardian that you need to go for a drive and find at least 2 of each examples of each intersection covered in this lesson. Try to drive to places you have not been before. Learn to scan the upcoming intersections for risks as you get to them. The more you do this, the more confident you will become as a driver, and the less nervous your passengers will be.

Self-Reflection: Safely driving a car requires a lot of patience. Are you a patient person? Do you find yourself always in a hurry? What can you do to reduce your impatience with others?

What does it mean to you to completely stop? Do you think making complete stops is important?

Are you going to let fear of busy intersections control you? What about intersections causes you fear? How can you overcome the fear and replace it with confidence?

Tips for parents: By now, you've probably had a few instances where you and your new driver have had problems at an intersection. Maybe they waited past a long gap in traffic that you would have entered. Or, maybe they entered a gap that was too tight. Our advice is always the same. Repeat the practice until they are confidently performing it correctly. And please watch your own bad habits. They learn to roll through stop signs and stop late for right-on-red because they watch experienced drivers do it. They won't follow the rules if they see you breaking them all the time.

PARKSIDE DRIVING SCHOOL

Class 8

Speed and Momentum

How fast is your phone? Can it load apps quickly or do you have to wait a while? While you're thinking about that question ask yourself this one. How long does the battery last? Can you make it all day or are you hunting for an outlet at lunch? You know that you can set your performance settings to help the phone load apps faster but then your battery runs down quickly. You can also set your performance settings low to get maximum battery life, but your phone will run slowly. You have to decide what is best. The two priorities you are balancing are speed (how quickly your phone operates) vs. momentum (how long your phone can perform). The task of balancing these two priorities exists in almost every life task. You can do things really fast, but only for a short time, like sprinting. You can do things for a long time, but not progress far, like moving a huge rock. Rarely can you do both at the same time.

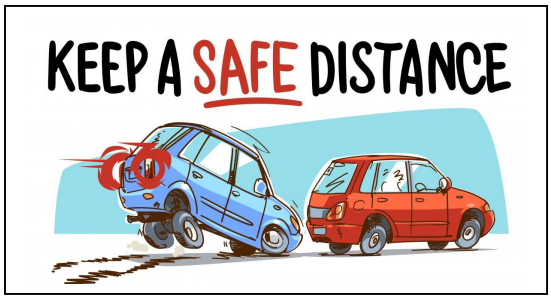
Driving is a task which requires you to balance speed and momentum in many ways. Sometimes it's a mechanical task like pressing on the gas or brake to control the vehicle speed. Sometimes it's a mental task like resisting emotional pressures to drive dangerously. Regardless of the reason, a driver is constantly balancing the forces of speed and momentum. This lesson is going to look at several situations that require special attention to that balance.

Speed: Most of the time, when people think of the word speed, they think of it to mean fast. This makes sense. Afterall, you can get a "speeding" ticket for going too fast, right? Unfortunately, that is too simplified of an understanding. Speed is a measure of distance over time. In the United States, driving speed is measured in miles travelled in an hour, or MPH. The higher the number, the more distance can be travelled in an hour. If you want to break it down even further, you can think of it this way. At 60 MPH, you will travel 1 mile in 1 minute. At 30 MPH, you will travel 1mile in 2 minutes. At 20 MPH, you will travel 1 mile in 3 minutes. So, if your school is 4 miles from your house and the speed limits are mostly 25MPH and 35 MPH, you can roughly estimate your travel time to be 8 minutes plus a couple stop signs and red lights. So, 10 minutes will probably get you there on time. If you think of speed as a way to estimate travel time, it no longer feels like a "fast" or "slow" thing. It becomes a "time management" thing.

Momentum: Momentum is not a word or concept you probably think about very often. In the most simple of terms, momentum is what makes a car crash. The physics that explain momentum get very complex. Momentum is affected by how fast you are travelling, whether you are accelerating or decelerating, whether you are turning, and many other factors. For now, let's keep it simple. Momentum is the force always trying to take control away from you as the driver. It is your biggest enemy and it never goes away, but you always have the ability to control it through making good and safe driving decisions.

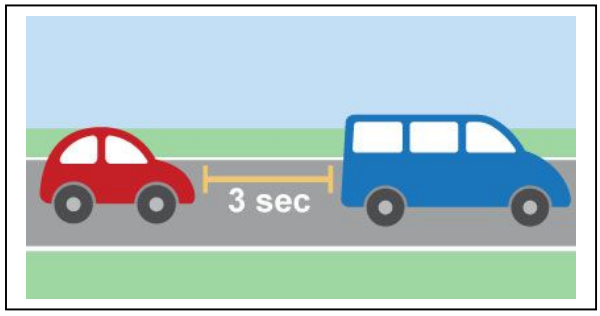
As you become an experienced driver, you will learn to use momentum to make the driving task easier. You'll learn how to accelerate up to speed and then release a little bit of pressure from the gas and let momentum help maintain your speed. But like I just said, momentum is always secretly trying to cause trouble. For example, as you are approaching a stop sign you press the brake pedal but not quite hard enough. You eventually come to a stop, but momentum pushed the front of your car out into the intersection before you stopped moving. For every way that momentum can make driving easier, there are ways it can ruin your day.

Slowing and Stopping: If your vehicle is moving, eventually it will need to slow down and stop. One important thing to remember is that a vehicle can slow without stopping, but it cannot stop without slowing. Let's think about that. Let's say you are driving down a street at 25MPH and you stomp the brake pedal as hard as you can. Your car will come to a stop in a very short distance, right? Yes, but it will not have stopped instantly. There will be some distance between where the car was when you stomped on the brake pedal and where the car is when it has completely stopped. That distance is referred to as the minimum stopping distance. Every vehicle has a different minimum stopping distance. There are many things that are factored into a vehicles ability to stop quickly. The most influential factor is speed. The faster a vehicle is moving, the longer the required distance is to stop and it's not simple math. When a vehicle's speed doubles, it's minimum stopping distance is increased by about 4 times. In addition to speed, the weight of the vehicle is a major factor. Weight in motion creates momentum. A small, lightweight, car can typically stop in a much shorter distance than an SUV or pickup because of the weight difference. The 3rd most important factor in stopping distance is the tires. When a driver presses the brake pedal, hydraulic forces slow the turning of the wheels. The tires grip the roadway surface, which creates resistance and slows the vehicle until stopped. If your tires are worn, or old, they cannot provide as much resistance and the minimum stopping distance will be affected. There are many other factors that affect stopping distance, but speed, weight, and tires are the big 3.



Following Distance: One common cause of crashes is when a vehicle hits another vehicle from behind. This is called a rear end collision and it's common whenever traffic slows down. As often as possible, always try to maintain a following distance of 3-4 seconds. Simply count in seconds when the car in front of you passes an object, until you pass the same object. If you have 3-4 seconds between you and the vehicle in front of you, you will have time to SIPDE (from class 7). If you follow closer than 3 seconds, in many cases, you will not have enough time to react to risks, because you will not have enough time to go through the entire SIPDE process. Following too close takes away your ability to react to hazards. It's as if you are giving over control to the driver in the vehicle ahead. The closer you follow, the more that drivers actions effect you.

Tailgating: Another common cause of rear end collision is when a driver follows another car very closely, like 1 second or less. This is referred to as tailgating. This is extremely common at high speeds on highways and freeways. The human brain has a hard time measuring speed and distance. Drivers must learn to measure speed in seconds and never follow less than 3 seconds behind something. Otherwise, the mental and physical process of slowing or stopping the vehicle may take longer than the time it takes to collide into another object. Tailgating is also a characteristic of aggressive driving. Aggressive drivers act as bullies on the road trying to force other drivers to do their will. You wouldn't shove a stranger out of your way in a hallway, don't do it on the roads either.



Being Tailgated: Drivers who get hit from behind often claim, "There was nothing I could do!" This is false, there is always something you can do to reduce your risk. Some collisions are very difficult to avoid, but by paying attention and making good decisions, you can greatly improve your outcome. If there is another driver following you dangerously closely, the first thing to do is make sure you have a lot of safe distance in front of you. The car behind you will probably not run into you if you don't slow down suddenly. Next, ease your foot off the accelerator and slow down a little. Tailgaters are often in a hurry. If slowing down frustrates them, then they will find a way to pass you, which means they will no longer be tailgating you. Don't be a jerk and force the other driver into a dangerous situation. Simply drive in a way that encourages them to change their tailgating behavior near you.

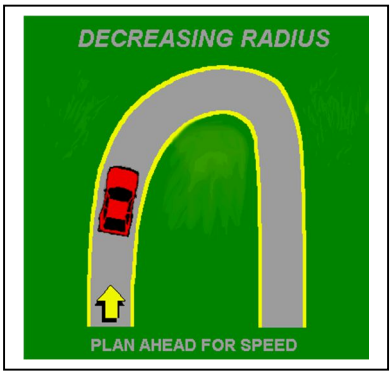
Driving through Curves: If every road you travel on were straight, driving would be a much simpler task. Unfortunately, you must drive through curves from time to time. A curve is defined as any direction change of the roadway. Some curves are tight, like turning right at an intersection. Some curves are soft like a bend on the freeway. Every curve demands special attention to make sure you get through it safely and in complete control. Targeting and Tracking through curves is a challenge because the driver's sight distance is often reduced.

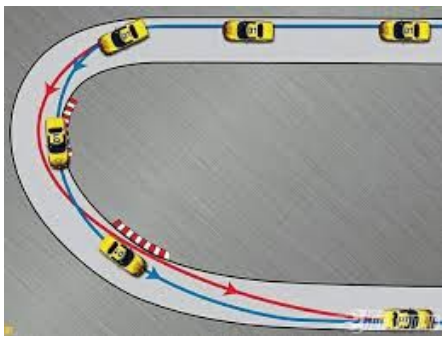
Curve types: Every curve you drive thru is different. Sometimes each time you drive thru the same curve it's different because of the weather, the vehicle you are driving, or any number of other reasons. As a driver, you need to understand the different types of curves, so you know what to expect and how to drive through them.

Curve Speed: Before we talk about the types of curves, we have to mention speed. Drivers usually lose control in curves because they are travelling too fast through the curve. Always slow down before you start to turn the steering wheel. If you slow down too much, you can always speed up a little once you know you are in control.

Constant Radius Curve: Curves are described by their radius. It refers to how sharp the turn is thru the curve. A constant radius curve means the curve is the same sharpness from beginning to end. A great example of a constant radius curve is a typical traffic circle. A driver can enter from any location on a traffic circle and the amount of steering required will be the same around the circle until they exit. Constant radius curves are the safest because they are the most predictable. Unfortunately, constant radius curves are not very common on roadways other than at traffic circles.

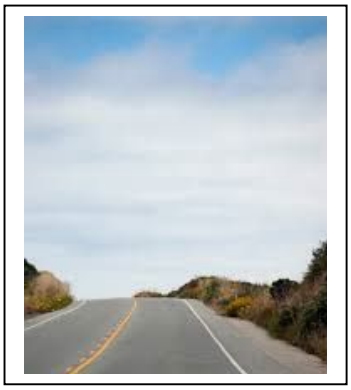
Decreasing Radius Curve: This type of curve starts out as a soft bend and becomes sharper as you go through it. These curves are very common and are considered relatively safe because the driver has time to slow down as the curve gets sharper. This is true if the driver can see the curve getting sharper ahead. If the driver speeds into this type of curve and doesn't slow down, they may lose control as the curve tightens, resulting in a crash.





Increasing Radius Curve:
This type of curve is the most dangerous, because it starts out very sharp, and then gets softer and softer as you drive through it. The reason this curve is considered the most dangerous is because the driver has very little time to slow down if they enter the turn too fast. The driver can lose control at the very beginning of this curve when they are still driving the fastest.

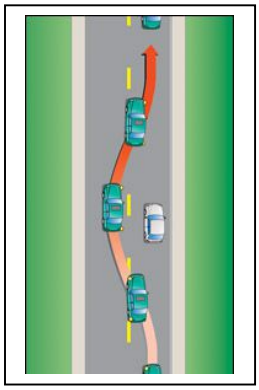
Hill Crest: People don't typically think of going over the top of a hill as a curve, but it is. You may not need to steer left or right as you go over the crest, but it is still a curve because you vision of the road ahead may be reduced by the angle of your car. If you are travelling uphill, your eyes will be pointed toward the sky which means you can't see down the road as well. If you are travelling downhill, your eyes will be pointed toward the ground, and you may not be able to see the road as well in that case either.



Dips: A dip is a sudden sunken area of the roadway. The car will follow the depression down, and then back up again, usually over a relatively short distance. Dips can be very unsettling to the vehicle and make it difficult for the driver to maintain good steering control. Dips are especially dangerous when they occur during a curve to the left or right.

Humps: A hump in the road is when the road rises quickly and then lowers again. A speed bump in a parking lot is an example of a tiny hump. Larger humps on roadways may be a car length or longer. Humps are dangerous if you cross them quickly, it can cause the car to shift its weight upward. If you cross a hump really fast, the tires can leave the ground. If the tires aren't touching the ground, you're not in control at all, you're just along for the ride.

Roadway Camber: Camber is just a fancy word for tilt. A road is said to have "Positive Camber" when the curves are tilted higher along the outside edge of the curve. A road is said to have "Negative Camber" when the curves are tilted lower along the outside edge of the curve. You can imagine that a negative camber curve is the most dangerous, because gravity tries to pull you down, while centrifugal force tries to push you out. Both those forces together make it much easier for the driver to lose control. The opposite is true in the image to the left. The driver of the bus can maintain control thru that curve at a high speed because the positive camber of the curve is preventing the bus from tipping over.



Passing: Going around another vehicle can be a simple task, or an extremely dangerous task. It all depends on the circumstances. The most dangerous passing task is when you are required to travel into an oncoming lane at a high rate of speed to complete the pass. You must manage visual risks like other cars and roadway features. You must also manage the forces of inertia. Some driving tasks, like passing, have a very small margin for error. If you make a mistake, your risk of a bad crash is high. To simplify the passing task into a set of easier steps, let's break down what a driver must do to pass another vehicle.

- Decide if you need to pass. Just because you have gained on a slower moving vehicle may not be enough reason to pass. Maybe they are driving slow for a good reason and you should slow down also. A good rule of thumb is, if you will have to follow slowly for a minute or more, then consider passing the slow vehicle when safe.
- Determine if it is legal to pass. Once you have decided you need to pass, you need to choose a legal location to perform the pass. If the center of the road is painted, then you must only pass when the yellow line is painted in a dash pattern. You may never cross a solid yellow line to pass, unless there is a dashed yellow line to your side of the solid yellow. Also, never pass on a bridge, in a tunnel, or on a curve sharp enough that you cannot see the entire distance you will need to perform the pass. And, never pass an emergency vehicle in motion with its emergency lights or siren on.
- Estimate the distance needed to complete the pass. The driver must be certain they have more than enough distance to complete the pass before encountering any new risks. From the moment you decide to enter an oncoming lane, until the moment you are completely back in your lane, you are at a high risk of death from a crash. Before you start to pass, you must be absolutely sure you can safely complete the pass.
- When you have completed each of the above steps, then the pass is easy. Complete a legal lane change to the left. Pass the slower moving vehicle. Complete a legal lane change to the right. Done!

Notice how this set of steps didn't mention anything about speeding up to make a pass? Under normal pass conditions, you should not need to speed up, since the vehicle you are passing is going slower than you. The only reason to speed up is if you misjudged one of the previous steps and you are now in danger. In that case, you may need to accelerate to get out of the way. If it doesn't look like you have space to accelerate, then maybe braking, and tucking back in behind the slow vehicle is necessary. If you have to do either of these things, you should not have tried to pass and need to be more careful in the future.

Being Passed: Sometimes you might be the driver that is being passed by other vehicles. Whenever this happens, you have the responsibility to help them pass you safely. It doesn't matter why a vehicle is passing you, just that they complete the pass without harming you or themselves. Here are a few guidelines to help you know what to do.

- Move your vehicle into lane position 3, so you are as far to the right of the lane as is safe.
- Maintain a steady speed and be ready to apply the brake if it becomes necessary.
- Dim your headlights to low beam to avoid blinding the driver that is passing you.
- Adjust your following distance to 3-4 seconds behind the vehicle that just passed you.
- If you see a fast-moving vehicle approaching from behind, don't do anything to distract them. You may be tempted to tap your brakes, but in many cases that can distract or confuse the other driver and increase your risk.

There is one instance when the law requires you allow your vehicle to be passed by other vehicles. Any time you are travelling on a roadway and a line of 5 or more vehicles forms behind you, they must be allowed to pass. If you are the driver at the front of this line, you must find a safe place to pull over and allow the other vehicles to pass. If there is no safe place for you to pull over, then continue driving until you reach a safe place, or until the following vehicles have found a way to pass. Similarly, when you are travelling on a multi-lane road, you must move out of the left most lane when you are not passing, so faster moving vehicles are able to pass.

Being passed can sometimes cause a driver to have a negative emotional reaction towards the other driver. Try to remember that each driver has their own set of driving skills, tolerance for risk, and other pressures. Don't let other drivers' actions lead to you making a bad decision. Let them go on their way and continue driving in as safe a way as you are able.

Freeway Driving: New drivers are often fearful of driving on the freeway. They are afraid of the speed and the associated risks. Once you get a bit more comfortable with the speed, then the fear tends to go away. In truth, the freeway system is the safest set of roads for drivers to travel on. The freeways are designed with long straight sections, big sweeping curves, and limited access via entry and exit ramps. This was done to make it safe for a large number of vehicles to travel long distances at high speeds without crashing. What would happen if the speed limit passing your school was 70MPH? There would be horrible crashes. The freeway is designed for safety at high speeds. In fact, some of the most dangerous challenges faced by freeway drivers come from vehicles travelling too slowly.

Pro Tip: If you're having trouble feeling comfortable at freeway speeds, try to extend your gaze as far as you can see down the road, beyond the back of the car in front of you. When you do this, the sensation of speed will slow down, and you will gain confidence that you can deal with any risks that develop in front of you. A highly skilled freeway driver will often scan over 60 seconds of travel time down the road.

Velocitization: This term comes up from time to time when we're talking about speed. Our brains are good at adapting to things it experiences. It's a defense mechanism to avoid over-exertion. For example, after a period of time driving on a freeway at 70MPH, you exit the freeway and turn onto a road with a speed limit of 35MPH. Often, the driver will have a sensation that the vehicle is moving much slower than reality. This phenomenon is called velocitization. It happens when the brain is adapting from a high-speed task to a low speed task. Drivers feeling the effects of velocitization have a tendency to speed up faster than the speed limit. This can be a dangerous mistake and one that can lead to a speeding ticket. Trust your speedometer. The gauge does not get effected by velocitization.

Freeway rules: Since travel speeds are high on the freeway, it is important that all drivers follow the same set of rules. Here are a few of the most important rules:

- Only enter or exit a freeway by using a marked ramp.
- Never make a U-turn on the freeway, even if there is a place available.
- Never stop or park in a freeway lane, or on the shoulder unless in an emergency. Making a phone call, or getting directions are not emergencies. Proceed to an exit for such things.
- Always merge with traffic at the speed it is moving. Use the ramp for all speed adjustments.
- Always yield to the traffic already on the freeway. Freeway traffic is not required to yield.

Washington Keep Right except to Pass Law: Never travel in the left most lane unless passing. Move out of the left lane after passing. This sounds easy, but it's a very misunderstood law. The easy part to understand is that you may not drive in the far left lane unless you are passing. The difficult part of this law is understanding when and how to move out of the left lane. Once you have passed the slower moving vehicle, you need to move out of the left lane once there is a safe gap between you and the vehicle you just passed. Don't cut them off! Also, don't move out of the left lane into a gap that requires you to follow too closely. In other words, you are allowed to stay in the left lane until you can SAFELY change lanes to the right. And contrary to what many drivers think, you are not allowed to travel faster than the posted speed limit in the left lane. The speed limit is for the entire road and you are not allowed to speed up to pass on the freeway.

Washington Move over or Slow Down Law: Any time you approach an emergency vehicle stopped on the shoulder of the road, you are required to change lanes so that you pass the emergency vehicle with an empty lane between you and them. If you are unable to leave an empty lane as you pass, then you are required to slow to 10mph below the posted speed limit or a maximum of 50mph. This law is most commonly enforced on the freeway, but it applies to

any multi-lane roadway. Treat any vehicle with flashing lights as an emergency vehicle. Leave an empty lane as you pass any of them.

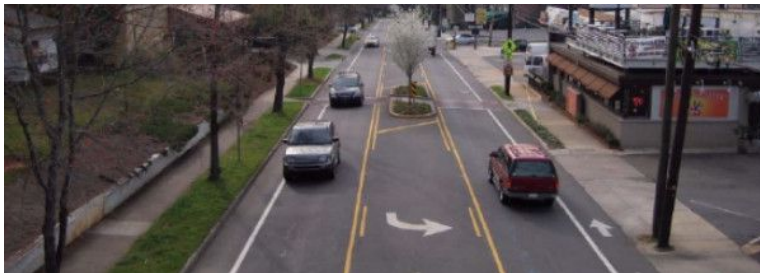
HOV, Toll, & Reversible Lanes: Since we're talking about freeway driving, let's touch on some of the special things drivers encounter in major city areas. Cities have a lot of challenges with traffic congestion. These challenges are made worse at a couple times each workday, referred to as "rush hour". No one knows why we call it that. No one is rushing, they're all sitting in gridlock… Regardless, cities have come up with several ways to keep traffic moving.

HOV Lanes: HOV stands for High Occupancy Vehicle. In most states, this includes any vehicle with 2 or more passengers. If a lane is marked for the use of HOV vehicles only, then you must change out of that lane if you do not meet the passenger requirement. Some areas have HOV3+ which means the vehicle must have 3 or more passengers in it. Drivers breaking the HOV lane rules can be cited. Cities often enforce these rules with traffic cameras and mail the ticket to the address registered to the vehicle.

Toll Lanes: Sometimes a single lane, a single part of a road (like a bridge), or even an entire stretch of the freeway has a charge to drive on them. These are called toll lanes, toll bridges, and toll roads. A toll is a fee that each driver must pay to drive on that thing. Sometimes the toll is charged every time you drive on it. Sometimes you can pay for a daily, weekly, monthly, or yearly pass. If you drive on a toll road without paying the toll, you will probably get a bill in the mail for the portion of toll you owe.

Reversible Lanes: When it comes to rush hour, there is one thing that is fairly common. In the morning, the heaviest traffic flows toward the city. In the afternoon, the heaviest traffic flows away from the city. To assist traffic flow, some cities create lanes which can be controlled by lights and signs to allow traffic to travel different directions during the day. This can be a great assistance to drivers who commute in and out of the city every day, but reversible lanes can be very confusing for travelers who only visit the city occasionally. Always watch the signs and lights carefully, and if confused, try to follow the flow of traffic. If a lane is empty, and no one else is

moving into it, there is probably a good reason. Be cautious driving in major cities until you are familiar with the road systems of the area.



Two-Way Left Turn Lane: Many of the streets crossing through medium to large cities have a yellow lane in the middle of the road designed to allow traffic to turn left onto side streets and into parking lots. This is referred to as the two-way left turn lane or sometimes called the shared center lane. Traffic travelling in either direction can use this lane and drivers must yield to any other vehicle already in the lane. To help with congestion, drivers are restricted from travelling in the two-way lane for a distance greater than 300 feet (about 5 seconds). Drivers trying to merge onto a road with a two-way lane may also use it, if safe, to divide the road into two halves. Turn left into the two-way lane when traffic allows and then make a lane change into the driving lane when safe. You can enter the lane from any parking lot, driveway, or side street, unless there is a center median, or if the lane is painted closed with a double yellow line.

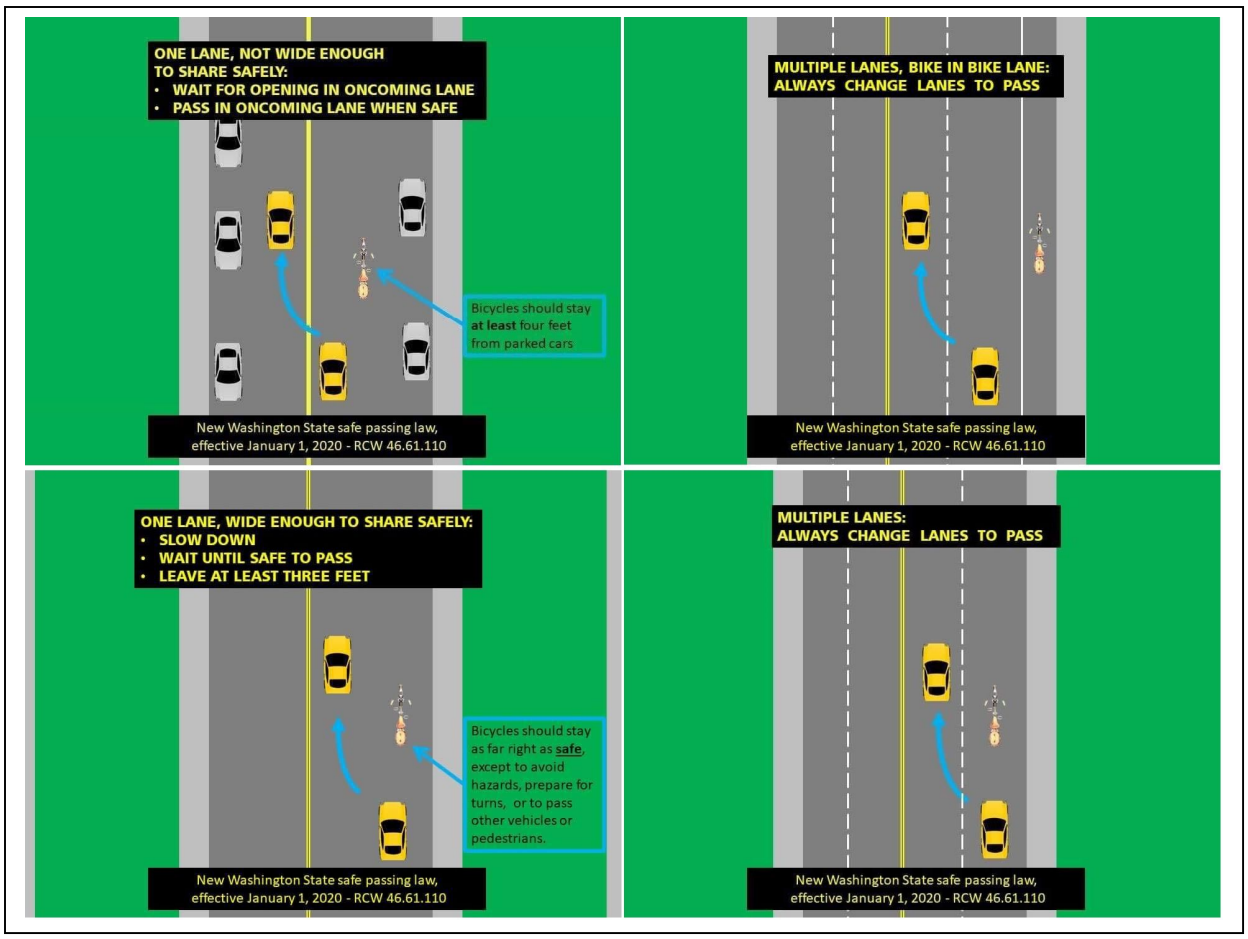
Sharing the Road: News Flash! There are more than just cars on the roads. The roadways are used by a wide range of users and every one of them has an equal right to use the roadway. Sometimes vehicle drivers get the idea that roadway users like pedestrians and bicyclists are just in the way and should get off the road. It's true that pedestrians, bicyclists, and other slow-moving users have an obligation to avoid congesting traffic flow, but only if they can do so safely. If the only safe way for a bicyclist to turn left at an intersection is by getting in the path of traffic and waiting in the left turn lane, then the bicyclist has a legal right to be there. Vehicle drivers must share the road with everyone else.

Pedestrians on the Roadway: When a pedestrian needs to walk on, or alongside the roadway, they are at a significant risk. They are expected to walk as far to the left of the road as possible, which allows them to walk in the opposite direction as traffic. This allows a pedestrian to see oncoming traffic approaching and move out of the way of any problems that develop.

Bicycles: Ok, so we just ranted about how bicyclists have a right to use the roads, but they also have things they must do if they are going to share the road with other vehicles. In most cases, a bicycle is considered a vehicle. If a bicyclist gets stopped by law enforcement for breaking a law, they can be ticketed just like any other driver. Make sure you review the bicycle section of the driver guide before you take any license tests. Here are some of the most important bicycle rules.

- Always ride in the same direction as traffic and along the right most edge of the lane.
- If riding at night, always use a white headlight which can be seen at a distance of at least 500 feet and a red rear reflector visible for at least 600 feet.
- When riding on roadways, bicyclists should be wearing a protective helmet.
- Bicyclists are required to obey posted speed limits. Experienced cyclists are sometimes capable of travelling at very high speeds and may receive speeding citations.
- Bicyclists are not allowed to travel between moving or stopped vehicles on the roadway. This is called lane splitting and is not allowed for any vehicle in Washington State.
- Bicyclists may have trouble maintaining control on rough, uneven, or wet surfaces. Drivers should give the rider more space in these conditions.
- If you see a young child riding a bicycle on or near the roadway, assume they are not aware of the bicycle laws. Also assume they may not be watching out for other cars.
- When parked along the side of a roadway, always check for bicycles before opening your door. Many cyclists get injured by riding into the edge of an opening car door.

Passing Bicyclists: One very important thing for drivers to consider is how to safely pass bicyclists travelling on the road. Washington State has very specific laws regarding how to pass a bicyclist on a roadway.



As you can see from the above illustrations, you can only pass a bicycle in the same lane if the lane is wide enough to allow you to pass with at least 3 feet between your vehicle and the bicycle. Otherwise, you are required to make a lane change, or cross into the oncoming lane, to make the pass. Remember, it is never legal to cross a painted double yellow line. If you cannot legally pass the bicycle without crossing a double yellow, you may need to slow down and follow the bicycle until you reach a safe and legal spot to pass.

Motorcycles: Riding a motorcycle on the public roads is a task enjoyed by many people and highly valued by those who choose to travel the road on two wheels. Motorcyclists are at a disadvantage in a few ways, though. First, there is very little structure around the rider to protect them during a crash. In Washington, and most states, wearing a helmet is required, but there is no requirement to wear other protective gear or clothing. The rider is vulnerable to serious injury or death during a crash. Another major disadvantage for motorcycles is the small contact patch their tires have with the road surface. This small patch means it is easy for the motorcycle to skid and lose control while braking or

cornering. Motorcycles are nimble and lightweight, but pound for pound, they are much more difficult to control than a 4 wheeled vehicle.

In traffic, the problems motorcyclists face are many. First, they take up a smaller visual space than a car, so they are harder to see. A driver may pull out in front of a motorcycle simply because they did not identify the small item among a view of larger vehicles. The small size also creates a challenge for other drivers to judge speed and distance. A driver may mistake a motorcycle to be a long distance away, or travelling slow, when in fact it is close and moving fast. Always scan for motorcycles to avoid a very serious crash.

Motorcycles do not have any different laws to follow than cars on the road. It is not legal to ride between slow moving cars between lanes (called lane-splitting), or pass vehicles by using the shoulder of the road, or do anything that you are not allowed to do in any other vehicle. The smaller size does not make it exempt from the laws of the road.

Commercial Trucks: Really large vehicles travel on the roads every day. Most of these vehicles are being driven by highly skilled drivers with a lot of extra driver training. Commercial truck drivers often travel thousands of miles each week and manage to make it safely to their destinations each day. The challenge large trucks pose in traffic is due to their weight and size. Commercial trucks often weigh up to 25 times more than a typical car. The extra weight makes a truck more difficult to slow or stop quickly. The other challenge comes from their large size. A long vehicle has a long blind spot, which is easy to lose track of other vehicles in. Always expect a large vehicle to use more than one lane when making a turn at an intersection. Especially when they are making a right turn. Long vehicles often make wide turns. Never drive up along the right side of a truck or bus at an intersection unless you are sure they are continuing straight. Also, never enter a round-about beside a truck or bus. Part of the truck or bus may use more than one lane in a round-about.

Electric Mobility Devices: There are all kinds of personal mobility devices that are legal to be used on the roads under certain circumstances. There are rules around who can operate them, their maximum speed, and how many passengers they can carry. We can't begin to cover all the various details. Take our advice and make sure you look up the local and state laws before you operate anything on a public street. Don't assume you'll be okay. Always research the laws and follow the rules.

What happens when we crash: Most of drivers ed is focused on giving you information about how to avoid crashes, but we have to talk a little about what happens when a crash does occur. Unfortunately, the typical teenager is involved in 2 crashes in the first few years of driving. Even once drivers get more experience, they still tend to get in collisions once every 5-6 years. Most of these crashes are minor with no injuries, but some of them are very serious and deadly. Before we can talk about the actual collision, we have to back up a few steps to what happens before. There are two basic types of collisions. Collision with a stationary object and collision with a moving object. We don't have time to get into all the physics involved in a crash, so let's simplify things into understandable bits.

Collision with a stationary object: When a vehicle crashes into something that is sitting still, the crash energy is mostly absorbed by the moving vehicle. An example of this type of crash would be hitting a big old tree. When a vehicle hits a tree, the tree does not move, so it cannot absorb very much crash energy. This means the vehicle must absorb most of the crash energy, resulting in damage to the vehicle. All of the remaining crash after the vehicle has taken the damage gets absorbed by the passengers. If the passengers bodies get overwhelmed with too much crash energy they get injured or killed as a result. All the crash energy must be absorbed by something.

Collision with a moving object: When a vehicle crashes into something that is moving, the crash energy is affected by the combined force of both moving objects. If a vehicle crashes into something moving in the same direction, the crash energy will be reduced. If a vehicle crashes into something travelling in the opposite direction, the crash energy will be increased. Any collision is extremely dangerous, but a head on collision with another vehicle is among the most dangerous things any driver can experience. Imagine you and your best friend running as fast as you can into each other. That collision would hurt. You might even get injured. The same thing happens on a much bigger scale when two vehicles hit each other head on. Both vehicles have to absorb a lot of crash energy, and often the energy left over is too much for the occupants to survive.

Force of impact: The force your body absorbs in a crash will determine whether you survive or not. Crash force is determined by 3 things.

- The **Speed** of the moving things involved in the collision.
    - The faster the things that collide are moving, the greater the force of impact.
    - The safest speed to be travelling in a crash is zero.

- The **Weight** of all things involved in the collision.
    - The heavier the things that collide are, the greater the force of impact.
    - Some people feel safer driving large heavy vehicles, because they think they will be better protected in a crash. This is partially true, but the safety benefits are not as significant as they might assume. Even very heavy vehicles can absorb fatal levels of crash energy in a common crash.
- The **Distance** travelled between the initial point of collision and the final stopping spot.
    - The shorter the distance from collision to complete stop, the greater the force of impact.
    - If you see that you are about to be hit by another vehicle, remove your foot from the brake pedal, so your car can roll when it is hit. This little bit of movement can improve your safety a lot.

Three collisions in every crash: When a vehicle is involved in a collision, there are actually three separate collisions experienced by the occupants inside the vehicle.

- First: The vehicle hits an object. This collision starts the chain of events which will influence the severity of the next two collisions.
- Second: The occupants collide with the vehicle restraints or other hard objects. As the occupant's bodies are affected by the crash force, they move toward the point of collision. The seat belts, air bags, and other vehicle restraints work to protect the body from hard impact. During this collision, the occupants may experience bruising, scrapes, broken bones, and severe lacerations. This second collision is especially harmful to occupants not properly wearing a seat belt.
- Third: The occupant's brain and other internal organs collide with their internal bone structure. If the internal collision between organs and bone is severe, then bruising or tearing can occur resulting in internal bleeding. The severity of these injuries often determines whether the occupant survives the crash or succumbs to the injuries.

From the Washington Driver Guide:

"On roads with more than two lanes traveling in the same direction, use the right lane for slower speeds, the middle lanes for higher speeds, and the left-hand lane for passing only."

"Never pass on the shoulder, whether it is paved or not."

"If you operate any vehicle without having the required endorsement, the vehicle may be impounded."

"It is a parking infraction with a minimum penalty of $124 to park a vehicle in an electric vehicle charging station if the vehicle is not connected to the charging equipment."

“Whenever signs or road markings permit you to pass, you will have to judge whether you have enough room to pass safely.”

“Large trucks, buses, and vehicles pulling trailers swing wide and sometimes must cross the centerline to make turns.”

“All bicyclists have the same rights, duties, and responsibilities of a motor vehicle driver. Motorists and riders who do not obey traffic laws can be ticketed.”

“Every year, over 38,000 bicyclists are killed or injured in the United States.”

“Bicyclists have the choice to ride on the roadway, on the shoulder of a road, in a bicycle lane, or on a sidewalk where it is legal to do so.”

“Motorcycle riders have the same rights and responsibilities as other highway users and they must obey the same traffic laws.”

“Approximately one-half of all motorcycle crashes involve another motor vehicle.”

“Most motorcycles do not have turn signals that turn off automatically.”

“If you are following a large vehicle and you cannot see the driver’s mirrors, then the driver cannot see you either.”

“When turning right, large vehicle drivers may angle into the left lane so they can make the right turn without running over the curb or hitting something. Do not try to squeeze by on the right side when a large vehicle is making a turn.”

Your Homework: Your assignment after this lesson is to start practicing driving on busy streets and roadways that have other roadway users. Be careful. We want you to get experience sharing the road with other users, and we want you getting comfortable on faster moving roads, but you should only do this if you feel safe and in control.

Self-Reflection: Following too closely is such a major problem, some people think there is nothing that can be done. Are you a tailgater? Do you notice when someone is tailgating you? How does it make you feel when another driver puts you at risk? Do you make other drivers feel that way sometimes?

Sharing the road with motorcycles and bicyclists can be a challenge. Do you feel safe when you are riding a bike in traffic? As a driver, do you put bicyclists and motorcyclists at risk by your driving behavior?

Tips for parents: Teens tend to react to risk in a couple ways. Some teens will melt under the pressure and simply not be able to function. Others will become numb to risk and just continue to drive without adjusting to the increased risk. As a parent, your job is to identify how your new driver is judging and reacting to increased risk. If they are not handling the situation correctly, our advice is to find a safe place to park and talk about your concerns. Expect them to feel defeated at times. Also expect them to be defensive at times. Regardless how they react, you need to take control of the situation when things get sketchy. You simply can't afford a crash to become the consequence of their inexperience. Let them make small mistakes they can learn from but protect them from errors than can ruin the learning experience.

If you ever get that "hold your breath" feeling, take that moment to stop practicing and talk. The reason you felt that way was because you didn't feel like they were in control and you weren't able to do anything about it. That is when big mistakes happen. You, as a parent, are wired to keep your kids safe. Trust your feelings. If things aren't going well, take command. Your kid might not like it at the time, but they'll get over it, and you might be avoiding something terrible. Driving instructors have these moments with students too, but we have extra safety equipment. We have a brake on our side of the car, and we're trained to take over steering control from the passenger seat. Your best safety equipment is your gut instincts. Use them!

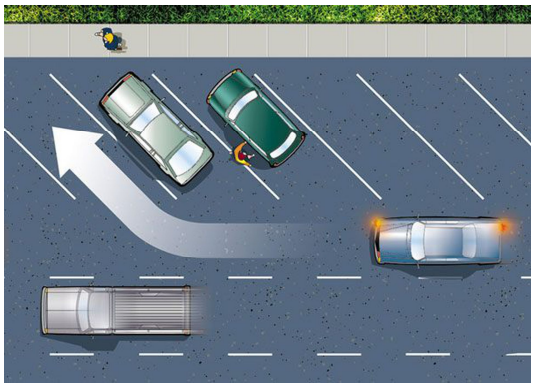
PARKSIDE DRIVING SCHOOL

Class 9

Precision Movements

Pretend you are a pirate and you've plundered a big chest of treasure. You have buried it in a secret location, but it may be a while before you can dig it back up. You need to create a map, or directions to help you find your loot when the time is right. How important is it that the map be correct? It has to be exactly correct, right? Otherwise, you may never find the treasure again. Some things in life just need to be precise. Surgeons performing operations need to be precise. Computer programmers writing code for the next big game need to be precise. A baseball pitcher trying to throw the ball to the lower left corner of the strike zone needs to be precise. Precision is very important in some task and some parts of driving are like that.

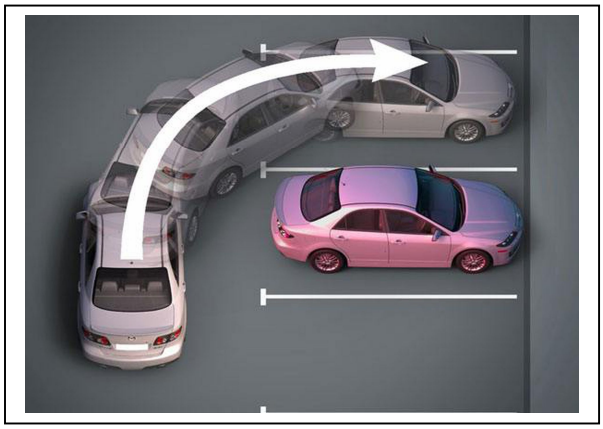
Most of the driving task does not require an extreme amount of precision. You need to stay in your lane, stop at the correct spots, turn to the correct locations, and stuff like that, but if you are off by a foot, it's not usually a big deal. A few tasks, however, like parking and backing require a high level of precision to do safely. Today's lesson is about those times when you have to be a precision driver.



Angle Parking: Most large shopping areas, like Malls and big box stores, have huge parking lots. They paint lines on the ground for cars to park in while they are shopping. The painted lines are spaced in such a way that vehicles can come and go without hitting each other. Whenever there is enough space, the lines are painted at an angle to the driving lane. Angled parking spots are the easiest for drivers to navigate into and out of. As you approach an angle spot, target the end of the

painted line closest to you, and steer toward it. As your car turns toward that line, change your target to the center of the parking spot and make steering adjustments to place the car in the center of the spot. After you have put the car in park and set the parking brake, open the doors on each side of the car and compare how centered you are in the space. The goal is for every door to be able to open without hitting the vehicle next to you. Also check to make sure you are all the way in the space. You don't want the back of your car sticking out into the driving lane, or some other car might hit it.

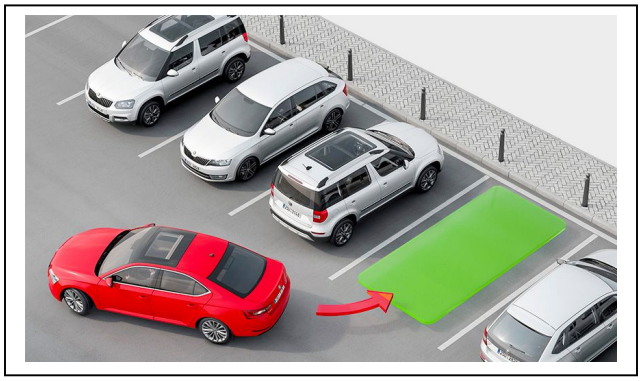
When leaving an angled space, the biggest risk is caused by LOS blockages to each side. Back slowly while looking over the shoulder in the direction you will be turning. Don't start turning the steering wheel until the front of your vehicle is sure to miss the cars to each side. This is referred to the "Front Swing". Until you have developed a reference point for your vehicle front swing, use the painted lines. When you have backed straight until your shoulders are even with the end of the painted lines of your space, then you can turn the wheel.



Perpendicular Parking: Similar to angle parking, Perpendicular parking is when the painted lines are at a 90-degree angle to the driving lane. The turn required to position your vehicle into a perpendicular space is sharp, so you have to start your turn just before the space you want to park in. Do this maneuver very slow. Speed makes this task much more difficult. As you approach the space you want to park in, work your vehicle as far to the opposite side of the driving lane as possible from the space. Then, when the front of your car is one space before your space, turn sharp towards the space and target the center. Once parked, check to see that you are centered and that you are fully in the space.

When you first start practicing perpendicular parking, you will have the most trouble with getting centered in the space and being straight in the space. If you recognize that you are way out of center, or way off straight, you can fix it. Look back and to each side to make sure it is safe to back up. When safe, back straight out of the space about half a car length. Then, Target the center of the space, and drive forward towards the target. This will get you centered and much straighter.

When exiting a perpendicular spot, the front swing is a major concern. Back up straight until your shoulders line up with the back bumper of the cars beside you. Then, turn sharp into the driving lane. Back slowly, and scan for risks in all directions. Some of the directions vehicles may be coming from are hard to see, so be careful.



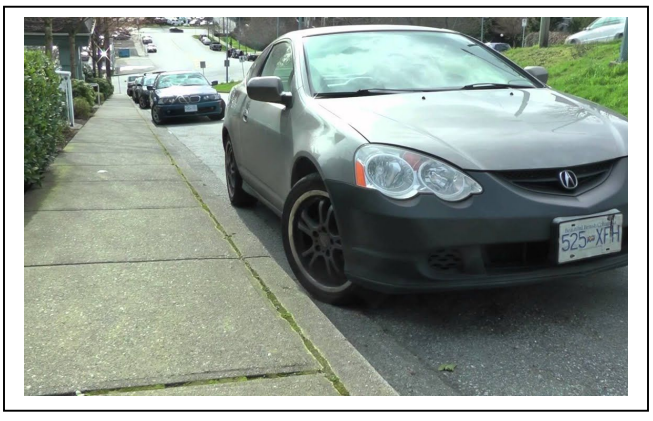
Reverse Perpendicular Parking: Drivers sometimes choose to back into a perpendicular parking space so it will be easier and safer for them when they want to exit the space. There are a couple reasons why this might be a good idea. If the parking lot is somewhat empty when you arrive, but will be full when you leave, then reverse parking will make it easier to leave safely. Same thing if you are parking in a place like a parking garage with lots of visual blockages. Facing out when you're ready to leave a space has significant advantages. To reverse park, you must:

1. Drive forward beyond the space you intend to park in. Stop when you have passed the space and can see the closest painted line at your rear pivot reference point.
2. Back slowly while turning until you can see the painted line in your side mirror.
3. Target the center of the space by looking out your rear window and then make glances in both side mirrors to make sure you are a safe distance from anything to either side.
4. When you have secured the vehicle in the parking space, check to make sure you are centered and that you are completely in the space. Always remember that moving in reverse is much higher risk than moving forward because you just can't see as well.

Pick the safest way to park based on risk. If it's safer to park forward in, then do that. If it is safer to park reverse in, then do that.

Hill Parking: Anytime you park your vehicle on a slope, you must secure it to be sure it will not roll on its own. How you secure it depends on what type of slope you are on. What you need to remember is that you want the front tires to roll against something like a curb. If there is nothing for the car to roll against, then you want the entire car to roll away from the road. So, here are the specific scenarios.

Parking uphill next to a curb: Park the vehicle with both side tires within 12" of the curb. If an automatic transmission, put it in the parking gear and set the parking brake firmly. If a manual transmission, put the transmission in 1st gear and set the parking brake firmly. Finally, turn the steering wheel all the way to the left. If the vehicle starts to roll, it will roll backwards



until the front tire hits the curb and stops the motion.

Remember the goal of hill parking. If the vehicle starts to roll on its own, you always want the front tires to roll against the curb. If you are un an uphill grade, the car will roll backwards. Turning the wheels left, towards the street, will allow the front tires to roll backwards into the curb. Another really important thing to remember is to be within 12" of the curb. If you allow the vehicle to roll more than 12" before the tires contact the curb, the vehicle may hop up on the curb and keep rolling. Park as close to the curb as you can without hitting it.

Parking downhill next to a curb: Park the vehicle with both side tires within 12" of the curb. Secure the vehicle in Park and set the parking brake firmly. Finally, turn the wheels all the way to the right. If the vehicle starts to roll, it will roll forward until the front tire hits the curb and stops the motion.

Parking without a curb: If there is no curb to park along, it doesn't matter if you are parking uphill or downhill. You always secure the vehicle so it will roll away from the roadway. Park the vehicle to the right side of the driving lane in a safe location. Secure the vehicle in Park and with the parking brake set firmly. Finally, turn the steering wheel all the way to the right. If the vehicle starts to roll, it will roll forward or backwards away from the road until it comes to a stop.

Parallel Parking: Oh no, we said the words that make every new driver cringe. Parallel Parking! Some people complain they should not have to learn this, because they will rarely have to do it. This may be true for many drivers, but it's still a very valuable set of skills to practice. If you can parallel park, then you can precisely position a vehicle safely in a tight space. Drivers maneuver in tight spaces all the time. We can't begin to teach you all the situations you will need to use while parallel parking. Don't get stuck on the task itself. Think of this as a skill building practice

that will help you in many ways. Yes, this task is difficult, but to be honest, part of the reason it's difficult is because you get all nervous about it. As with anything else, if you get anxious and start thinking you're going to fail, it gets harder to succeed. To remove some of the anxiety, there are steps you can follow to perform a good parallel park every time. Follow these steps, and you'll see it's pretty easy.

1. Drive forward beyond the parking space until your rear bumper is just at the end of the space. If you are parking behind another car, or some other obstacle, try to be close beside it (about 18").
2. Put the vehicle in reverse and before moving, turn the steering wheel all the way to the right.
3. Look back while backing the car to the right into the space. Stop the vehicle when you are at roughly a 45-degree angle to the space. Your angle is good when you can just begin to see the curb in your driver side mirror.
4. Turn the steering wheel until the tires are straight. Look back and back straight into the space and stop when your front swing will miss the vehicle or obstacle in front of the space. Your front swing will miss the vehicle in front when your passenger side mirror has passed the corner of that vehicle.
5. Turn the steering wheel all the way to the left. Look back and proceed backing to the left until your front tires are within 12" of the curb.
6. Check in your side mirror to see if both tires are within 12" of the curb. If not, make a small forward and back adjustment without leaving the space to move further right.
7. Check to ensure you are centered in the space. If not, make a small forward or back adjustment to center yourself in the space. If you don't center yourself and the car in front or behind leaves, you may get trapped in a space too tight to exit.
8. When exiting a parallel spot, consider it a lane change. SMOG! Also consider that your turn signal lights may be blocked by the vehicle behind you. You may need to roll down your window and show a left turn hand signal.

Parallel Parking Mistakes: There are two major mistakes that occur with parallel parking. The driver either ends up too far from the curb, or they bump into the curb. If this happens, in most cases you can still finish the parking maneuver without pulling completely out of the space. Don't give up and pull completely out to retry. Keep working to position the car without getting in the way of others. If you keep making the same mistake each time you try to parallel park, go back to the steps above and figure out which one you're missing. Don't give up! Steps 3 and 4 are the toughest.

Pro Tip: You want to practice parallel parking in a stress-free way? Next time you are at a grocery store, practice parallel parking the shopping cart alongside the shelves of goods. As you back, the front wheels will pivot just like a car. It will help you grasp the concept without being in the big scary car. When you are ready to practice in the car, try practicing on garbage day by parking between two garbage cans. Work your way up to practicing between real cars.

Restricted Parking Zones: There are a few places a driver cannot legally park a vehicle. The vehicle can be ticketed, towed, and in some cases damaged if it is parked in a restricted spot. Let's go over the common restricted parking zones.

Accessible Parking Spaces: Every parking lot is required to have a certain number of parking spaces reserved for people who have accessibility limitations. The spots must be clearly marked with a sign and/or have the signs image painted on the ground inside the space. Any vehicle parked in an accessible space must display a qualifying placard or license plate. A car displaying a placard may park in the space if the eligible occupant is in the vehicle or will be accessing the vehicle when it leaves the parking space. Just because the car is displaying a placard does not mean anyone else can use it. The placard is only to be used for the benefit of the eligible occupant. Any car illegally parked in an accessible space may be ticketed and may be towed if the vehicle is not moved promptly.

Fire Hydrant Zones: Fire hydrants are positioned along streets throughout a city. They are used to provide water to the fire trucks when trying to put out a fire nearby. The fire truck must be able to access the hydrant, so there is a restricted parking zone. No vehicle can park within 15 feet of a fire hydrant. 15 feet might be a little hard to measure in your mind, so to make it simple, just park at least one car length from the hydrant. If your vehicle is really small, maybe a little more than 1 length. Any vehicle found blocking a hydrant may be ticketed. If a fire truck cannot get to a hydrant because it's blocked by a vehicle, the fire department can use any means necessary to access the hydrant. There are some crazy stories of things being done to cars because they were blocking a hydrant. Don't risk it.

Fire Lane Zones: Most large shopping centers have zones of red paint near the entrance of the shopping center. These zones are reserved for fire and emergency vehicle to be able to get close to the emergency they are responding to. Never park in a zone painted yellow or red, or anywhere with fire lane signs.

Intersection Zones: You cannot park within 30 feet of any intersection. Parking near an intersection causes LOS and POT risks for all drivers approaching that intersection. Stay at least 30 feet back when parking.

No Parking Sign Zones: Sometimes a road has too much traffic flow to allow for safe parking along the edge. Cities put up signs along roads like this to restrict parking. Don't park anywhere posted with a no parking sign.

Other Restricted Parking Zones: There are a number of other places you are not allowed to park. Take a look at the driver guide section below for a list of other common no parking areas.

Precision Backing: There is a maneuver in drivers ed we refer to as "Backing Around a Corner". It is a skill that is included on the Washington Skills Exam, so we teach it in our course. New drivers often ask us when they will need to do this maneuver in real life. The honest answer is, you probably won't have to do this exact maneuver in real life, but you will have to do a lot of maneuvers very much like this. Let's face it, backing and turning with precision is a skill every driver must possess. Backing around the corner is one really good way we can build your fundamental backing skills to a high level. Similar to parallel parking, there are steps to follow.

1. Pull into a parking lot or driveway and stop a car length or so from the sidewalk.
2. Put the vehicle in reverse. Look back and slowly back until your rear bumper is at the sidewalk, but no part of your vehicle is blocking the sidewalk. Stop and search for any pedestrians or vehicles approaching the area. Yield to anything nearby.
3. Before moving the vehicle, turn the steering wheel one full turn to the right. Look back and slowly back until the rear tire on the driver side gets to the bottom of the sidewalk slope. You should feel a slight bump. Stop immediately at the bump.

4. Before moving again, turn the steering wheel completely to the right. Look back and proceed to back slowly until you are parallel with the curb and within 18" of the curb. Stop when parallel.
5. Before moving, straighten the steering wheel. Look back and slowly back straight along the curb for a car length or so.

Backing Around the Corner Mistakes: The most common mistake a driver makes is backing too wide. This is almost always caused by the driver not stopping before the sidewalk. If you remember to stop before the sidewalk and start your turn from there, you will stay close to the curb. Keep working on it until you can do it with confidence.

Pro Tip: When practicing backing around the corner, do it in a really quiet area where you won't be bothered by other cars. Perform step 2 (above), and when you stop, put the car in park and get out to see if you are stopped in the correct place. Work on step two until you can stop in the correct spot. From there, the rest of the steps work reliably well.

From the Washington Driver Guide:

"No parking zones – There are many areas where you cannot park. Check for signs that may prohibit or limit parking. Some parking restrictions are indicated by colored curb markings. Do not park:

- in an intersection.
- on a crosswalk or sidewalk.
- in a bicycle lane.
- in a construction area if your vehicle will block traffic.
- within 30 feet of a traffic signal, stop sign, or yield sign.
- within 20 feet of a pedestrian safety zone.
- within 15 feet of a fire hydrant.
- within 50 feet of a railroad crossing.
- more than 12 inches from the curb.
- within 20 feet of a fire station driveway on the same side of the street or within 75 feet of the fire station driveway on the other side of the street.
- within 5 feet of a driveway, alley, private road, or area of the curb removed or lowered for access to the sidewalk.
- on a bridge or overpass or in a tunnel or underpass.
- on the wrong side of the street.
- in a space marked for the disabled unless you have a disabled license plate or placard.
- on the roadside of a parked vehicle (double parking).
- on railroad tracks.
- on the shoulder of the freeway unless you have an emergency.
- wherever there is a sign that says you cannot park."

Your Homework: You can probably guess what your homework is this time. You need to spend some serious time practicing the various parking and precision placement maneuvers we discussed in this lesson. Start with entering and exiting an angled parking spot. Move on to more difficult tasks like perpendicular parking, then parallel parking and backing to the right.

Self-Reflection: When you are alone in the car, and there is no one else around, will you still drive as precisely as possible?

When driving on narrow residential streets, it is important that you drive on the right side of the road. Why does it matter?

Driving in parking lots can be a dangerous task. How will you make sure you never crash into another car, or hit a pedestrian? Do you follow the parking lot lanes, or do you drive across empty spots?

Tips for parents: News flash! Teenagers will resist practicing difficult things. Parallel parking and backing around a corner are the most difficult tasks we work on in drivers ed, and they also show up on the state driving test. It is very common for students to tell us on the test that they have not practiced those things since their driving lessons with Parkside. Try not to think of those tasks as something they will (or won't) do in the future. We know most people don't parallel park often. Instead think of all the instances when a driver needs to navigate the car in a tight space. Learning to parallel park and turn while backing are fundamentals that will help them drive precisely in many other ways.

PARKSIDE DRIVING SCHOOL

Class 10

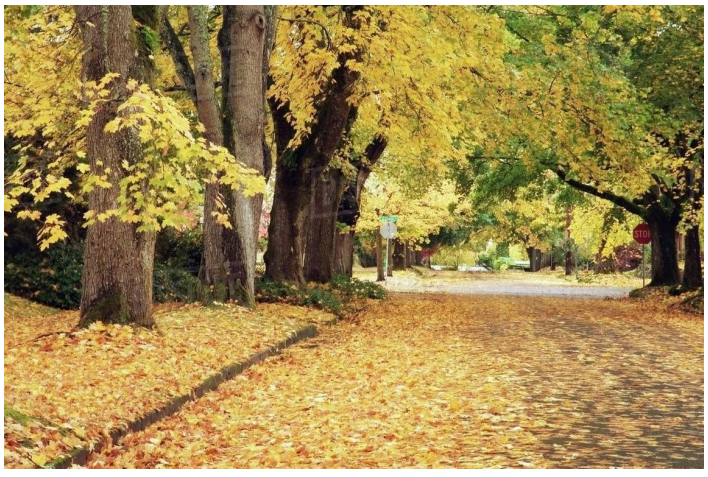
Weather & Trip Planning

Do you have a favorite time of year? Some people love the summer for the long sunny days and warm weather. Some people like the spring, when the flowers are in bloom. Some people look forward to the fall, when the leaves on the trees all change to bright colors. Some people love the winter, when the snow covers the ground and makes everything bright and white. Almost everyone has a favorite time of year for one reason or another. When it comes to driving, cars need to be driven and cared for differently at different times of the year as well. Cars may not have a favorite time of year, but if you neglect them, your car may make sure you suffer the weather broken down on the side of the road. This lesson is going to go over the various weather issues drivers face, and also give you some helpful tips on planning for the various driving trips you might make.

Spring Driving: Let's start off with the challenges that come from driving in the springtime. Spring driving can have a few issues to overcome. First, let's consider the temperatures. During the daytime, temperatures are usually ok, but early spring mornings can still dip down into freezing temperatures coating the ground with a thin layer of ice. A good habit to get into each morning is to scuff your shoe on your driveway as you approach your car. If your shoe slips, then you know the ground is a little icy. Having that information can help you drive safely. There is another challenge drivers face on spring mornings and evenings. Sunrise and sunset occur during times when there are lots of vehicles on the road. The glare from the sun just after it rises and just before it sets can greatly reduce a drivers' visibility. Be sure to use your vehicle visor and increase the distance between your vehicle and others around you. The last thing we'll mention about springtime is wind and rain. Spring showers can turn creeks and rivers into

flood zones capable of wreaking havoc on drivers. Never drive into standing water on a roadway if you think it might get deeper than about 6 inches. If you do enter, travel very slowly so the water does not splash up and flood the engine. If there is water moving across a roadway surface, do not enter. Swift moving water as shallow as an inch is capable of pushing a car off the road and into serious peril. The wind that often accompanies these storms can also make car control a bit more challenging as the driver has to steer slightly against the wind to maintain the tracking path. Springtime can be very nice, but it can catch drivers unprepared for occasional trouble.

Summer Driving: From a weather perspective, summer is usually the best season for driving. The sun travels high in the sky during normal driving hours, and except for occasional rains, the roads are generally dry and clear. The biggest challenge summer creates is high temperatures. A vehicle engine produces power by generating thousands of small controlled explosions as it runs. This creates heat which must be cooled by fluid running through the engine and into a cooling area called a radiator. If the engine gets too hot, damage can occur quickly. Pay attention to the engine temperature gauge and stop driving if it gets very high. You should inspect the engine coolant every week or so, to make sure you have the right amount of coolant before driving in hot weather. In addition to the engine getting hot, the summer sun tends to heat up the passenger area of cars as well, making it uncomfortable to ride in the car. Air conditioning systems pump cooled area into the car making the area more comfortable, but these systems cause additional heat in the engine area. Summer heat can turn a fun drive into a miserable experience. Remember not to leave anything heat sensitive inside a closed car in the summer. Small children and pets can experience serious health problems if they get left in a hot car. Also remember that things like candy bars and gum can melt into sticky messes inside your car as well. What a mess!



Fall Driving: Most of the challenges fall creates for drivers are the same as we discussed in the spring driving section. Make sure you review that section above. One fairly unique challenge that fall creates is from the leaves that drop from the trees and onto the ground. Leaves have a fair amount of oily moisture in them. When a layer of leaves covers a road surface, they can slide around under a vehicle's tires and make it easier for the vehicle to slide out of control. Treat driving on leaves similar to driving in the rain. Expect the road to be a little slicker than normal. Drive a bit slower and create larger safe spaces around your car.

Winter Driving: When thinking about driving in bad weather, no season has it worse than winter. Winter storms can bring intense rain and wind, and when the temps drop, the rain turns to snow and ice, making driving treacherous. Driving on roads which are covered in snow and ice adds a level of difficulty unlike anything most drivers experience. The problem is the road surface is much more slick than normal. The slickness makes the vehicle behave differently and it is easier to lose control. It would be great if we could just avoid driving on snow and ice covered roads, but that is not always an option. People still need to get to school, work, grocery stores, and everywhere else. Driving on wintery roads is sometimes unavoidable. In that case, let's go over some things that can help you drive safely in the winter.

Drive Slower: Whenever the road is slick from rain, snow, ice, or whatever, the first and best thing you need to do is slow down. As we have said before, there is no such thing as a "minimum speed". You must drive slow enough to maintain control of your vehicle in all conditions. If the speed limit of the road you are on is 35MPH, but it's only safe to drive 15MPH, then 15 it is. Sometimes drivers get influenced by other traffic traveling faster. Don't let other drivers influence you into driving faster than you feel in control. Maybe they have better tires than yours. Maybe their vehicle is better suited for bad roads. Or maybe you will pass them crashed in the ditch a mile down the road. You need to be in control of your vehicle and that is all that matters.

Keep more Safe Space around you: No matter how cautious and careful you are when driving on slick roads, there will be times when your vehicle slips or slides a bit. This is especially common as you approach intersections where the ice has become polished smooth from other traffic. The best way to stay safe and avoid a crash is to keep a large space between your vehicle and the other cars nearby. Plan your stop to leave a full car length between you and the car ahead. On multi-lane roads, stagger your vehicle so there are no vehicles beside you. Create some space for your vehicle to slide into that will not hit anything. Then, if it happens, it's not a big deal.

Winter Tires: Without a doubt, the tires you have on your car make a big difference on winter roads. Most of you are probably driving cars equipped with "all season" tires. All season tires are designed to be able to handle rain, mud, and maybe a little snow. When an all-season tire gets really cold (below freezing) the rubber gets hard and it can lose grip and slide more easily. If you're going to drive on roads below freezing a lot, you need to get a set of "winter" tires. They are designed with a softer rubber than can grip cold roads much better. You still have to drive carefully on the ice and snow, but a winter tire will make a huge difference.

Some winter tires have little metal spikes added to the surface. These are called “studded tires”. Studded tires are only legal to be on your car during winter. The studs do damage to the road, so you can only use them when there might be snow and ice on the road (November 1 – March 31). Unless you are going to be driving on ice covered roads a lot, a studless winter tire is a much better choice.

Once the temperatures get back up above 40 degrees, make sure you take the winter tires off and put the all-season tires back on. You can store them in a cool, dry place and use them for several winters. If you drive them in warm weather, however, they will wear out really fast, because the tire rubber will melt in warm conditions.

Add Weight: This is not the “best” way to deal with slick roads, but it might help a little. Some vehicles like pick-ups and other vehicles benefit from adding a little weight inside the vehicle. This compresses the springs a little and allows the tires to grip a slick surface a little better. Adding a sand bag or two in the bed of a pickup or the trunk of a car may help the vehicle feel more stable. Don’t add too much weight, though. Remember, the heavier your vehicle is, the more distance it needs to slow down or stop.

Let a little air out: The air pressure inside your tires maintains the shape of your tire. Every car has a recommended air pressure listed on a sticker inside the driver side door. If you are having trouble controlling the car in deep snow or mud, try lowering the tire pressure a few pounds. This will allow the tire to “squirm” more and may help you maintain control. Once you’re driving on solid ground, find an air compressor and air them back up to the recommended pressure.

Don’t “White Knuckle” the steering wheel: A common tendency of drivers when the roads get slick is to grip the wheel more tightly. Squeezing the wheel firmly may give you a sense of safety, but it often works against you in an emergency. If you sense your grip getting tight, try to take a deep breath and relax your grip so you are in control and the blood flows normally through your hands and fingers. Your reaction time will be faster if your muscles are not exhausted from squeezing the wheel.

Tire Chains: When the snow is deep on the road, it can fill all the grooves on your tires and keep them from getting any traction. By putting chains on your tires, you are adding something that can dig into the snow and create better grip. At times, the Department of Transportation will determine that a road is too dangerous to travel on without chains, and they will require all vehicles to put them on. By law, every vehicle travelling over a mountain pass in the winter must have chains they can put on, if required. When driving with chains, keep your speed very slow and don’t make any sudden steering movements. If you hear the chains rattling or banging on things, find a safe place to stop and adjust them.

Prepare for Trouble Areas: There are some higher risk areas a driver must watch for in the winter. These areas are known to freeze first and thaw last, meaning the rest of the road may trick a driver into being unprepared for these high-risk locations.

Bridges: Ice usually appears on bridges first and melts on bridges last. Few other roadway surfaces are as risky as a bridge in the winter. It doesn't matter if the bridge is long and high up over a canyon, or low and covering a ditch. A bridge is susceptible to a harder freeze because it allows cold air under the bridge surface. The rest of the road has ground under it and ground holds heat from the sun for long periods of time. Bridges are exposed, and therefore can freeze much more quickly, and thaw much more slowly. Always expect a bridge to be slick in the winter.

Tunnels: A tunnel gets very little sunlight. Any moisture that gets into a tunnel will be insulated like it's in your refrigerator at home. Ice and snow will melt more slowly inside a tunnel. Be prepared for unexpected conditions any time you enter a tunnel. Especially in the winter.

Shaded areas: Any portion of the roadway that is shaded from direct sunlight will thaw more slowly than the rest of the roadway. There may be trees causing the shade, or it may be a steep hill blocking the sun. This can be especially dangerous when the shade is on a curve in the road. Never drive quickly into a sharp curve during the winter. If the area of the curve you can't see is shaded, it may be much slicker than you can adjust for.

Look Where You Want To Go: We've mentioned this before, but it's especially true when driving on snow and ice. If your vehicle begins to skid, look where you want the car to go, and steer where you are looking. If you look in the direction you are skidding, you may help the car go the wrong way. Keep your eyes on target and try to keep the car heading towards target.

Climate control, Defrost, and Wiper Blades: Just because it's cold outside doesn't mean you need to be uncomfortable inside the car. Make sure the heater is set to keep you comfortable. You want your muscles and joints to be warm enough that they are not shivering and locking up.

Anytime the temperature inside the car is much different from the temperature outside the car, your window surfaces may start to fog up. Make sure you know how to turn on your front and rear defrosters. The front defroster works by blowing air on the windshield. The rear defroster usually works by heating up small wires in the glass.

Windshield wipers are a critical safety tool when anything is falling from the sky. They clear your vision so you can drive despite the bad weather. In the winter, the ice can build up on your wipers and damage the wiper system. To prevent damage, stand the wiper arm up off the glass when you are parking for a while, and replace your windshield washer fluid with a winter version that has anti-freeze in it. This will ensure your wipers will work when you need them.

Driving During and After Rain: Rainy weather car vary from a minor inconvenience to a major safety concern. Rain hits the windshield and interferes with visibility. Make sure you have windshield wipers that work well and turn them on at the first sign of rain. If the rain is light, you may want to use the intermittent wiper settings. Otherwise, the wiper blades may make an annoying squeal sound wiping dry glass. When driving in heavy rainfall, visibility can be very bad. Sometimes it can get so bad that the best choice is to park somewhere safe and wait it out. There are a couple things about driving in the rain that are especially bad.

Infrequent rain: If there has not been a rain shower in several weeks, there can be a dangerous situation where the oils and tars in the road create a film on the road. When the rain comes, those oils rise to the top of the water and make the road very slick until enough rain has washed the oils away.

Hydroplaning: When a vehicle skids on a watery surface, that's called hydroplaning. The vehicle isn't really skidding, it's actually floating. The water, or oil, forms a layer between the tires and the road. As a result, the car floats in the direction it was travelling when it started floating. Steering and braking will have little effect, since the tires are not touching the road. The only way to regain control is to slow down. Release pressure from the gas pedal and keep your wheels pointed in the direction the vehicle is headed. When the tires regain contact with the road, you will be able to brake and steer again.

Driving in Fog: Fog is basically a really low flying cloud. Fog is common late at night, and early in the morning as the temperatures begin to change, though it can happen at any time. Fog consists of a lot of tiny droplets of water. Water is a reflective surface, so not only is it hard to see through, it also reflects the light of your headlights back into your eyes. Always use your low beam headlight setting when driving in fog. High beams make your visibility much worse. If your car is equipped with fog lights, use them. Fog lights are lights positioned down low in the front of your vehicle designed to help light up the roadway in front of your car. They also help when driving in snow. Think of driving in fog the same as driving in rain. The roadway may be slick and moisture may build-up on your windshield requiring the use of wipers.

Whenever you drive in fog, or any other weather that reduces your visibility, you need to adjust your speed. Remember way back in an early lesson when we talked about targeting and tracking? We said you should always target something about 15 seconds ahead of you. That is still true in fog. Slow down to a speed you can see 15 seconds ahead. The denser the fog, the slower you need to drive to stay safe. If you are following other traffic in fog, increase your following distance. 4-5 seconds of following distance will give you more time to identify changes in traffic ahead and react before it becomes an emergency.

Weather and Traffic Advisories: When a dangerous weather event is forecast, or if an area is experiencing a sustained period of heavy traffic, the Washington State Department of Transportation will send out advisories to notify the public. They post these advisories on the DOT website, via roadside radio broadcasts, and send them to news agencies. If the advisory states that a specific road is affected, they will generally include an estimated duration of time, and provide alternate route suggestions for travelers.

Trip Planning: Every time you drive your vehicle, you are making a trip. You may drive a few blocks to a store. That would be a short trip. You may drive 4 hours to Seattle. That would be a long trip. Every trip requires a certain amount of planning to make sure you get to your destination safely and at the right time. Every year, many drivers find themselves in emergency situations simply because they did not prepare properly for the trip they were making. Always prepare for the unexpected. That's why it's called the unexpected! Here are some good preparation tips.

Food, Water, and Medications: Always have enough drinking water, light snacks, and necessary medications in the vehicle for all the passengers. A good habit to get in is to have enough water for a full tank of gas. That's about a 4-5 hour trip. If possible, make sure these things are accessible in the passenger area. If you become trapped inside the vehicle, you will need to survive on these items until help arrives.

Warm clothing: You should always travel with at least one article of warm clothing available for each passenger. Even when travelling during the summer, it can get dangerously cold at night. If you are forced to spend the night in a car, you may need that extra layer of protection from the cold. Extra clothing can also be very helpful for other reasons. It can be adapted to create shade from the sun, and it can be used as tinder to start a fire. A little extra clothing is always a good item to pack.

Fill the Tank: Running out of gas a mile away from home is embarrassing and may make you late to somewhere you were heading, but it will probably not be an emergency. Running out of gas 20 miles, or 100 miles, from the nearest gas station is a completely different problem and can be very dangerous. A good rule of thumb is to never leave town with less than ½ of a tank of gas. If you're going on a long trip, make sure you fill up before leaving your hometown. Never try to stretch a few more miles out of the bottom of a tank. This behavior often leads to the driver and passengers getting anxious and making other driving errors. Another reason to always have more gas than you need is for warmth. The engine needs to be running for the heater in your car to work. If you run out of gas, and have to shelter overnight in the vehicle, you will not have any source of heat. But, if you have extra gas, and get stuck overnight, you can occasionally start the engine for heat, and wait for help to arrive.

Charge up your Tech: Your phone is an amazing device and can be a lifesaving tool in an emergency. When you are leaving on a trip, have it charged full. If possible, travel with it plugged in so it stays fully charged during the trip. If you find yourself stranded, the phone can be a lifeline to reach help. It also can help in many other ways, like as a flashlight, and as a camera to document things. If you're going to have the phone with you anyway, you might as well have it charged and ready.

Travel During the Day: Have you ever heard the phrase, "there is safety in numbers"? When it comes to driving, usually it is a risky thing to be driving with a lot of other vehicles around, but when it comes to trip planning, it is safer to be on the roads when others are out there too. If you crash, or become stranded in bad weather, often the best source of help is another driver in the area. If you need help, wave someone down without getting directly in their path of travel. If you see another driver in a dangerous situation, and you can help without putting yourself in danger, try to give them a hand. We all need a little extra help sometimes.

Stop for Breaks: Drivers sometimes don't give themselves enough time to travel long distances safely. If you find yourself running behind schedule, try to avoid making it worse by pushing through fatigue or other issues. Call the place you are heading to and let them know you're running late. Stop for a nap, or a bathroom stop, if necessary. Don't make a bad situation worse, by trying to push yourself past your safe limits.

Tell someone your plans: Yes, it's annoying to feel like you have to report your every move to someone else. Almost every parent has asked their child to "let us know when you get there." And almost every child wishes they didn't have to do that. The reasoning behind this is solid. If something unexpected happens while you are traveling, you really want someone to notice. If someone knows where you were headed, and when you would get there, they become very helpful if you need to be found. Don't think of it as treating you like a child. Think of it as someone caring so much about you, they want to help you be safe.

From the Washington Driver Guide:

"If you turn on your wipers, turn on your headlights."

"On cold, wet days, shady spots can be icy. These areas freeze first and dry out last."

"The pavement on bridges can be icy even when other pavement is not. This is because bridges do not have earth underneath them to help insulate against the cold."

Your Homework: This lesson has a homework assignment that will take you most of a year to complete. You need to get experience driving in all four seasons. Most new drivers get nervous about driving in bad weather. That is ok at first, but as soon as possible, you need to push through that anxiety and start driving when the weather is not so good. Drive in the wind and rain. Drive at sunset. Drive in the snow. It is riskier, but it's also a great opportunity for you to learn how to reduce your risk. If you don't practice in bad weather, you will be setting yourself up for trouble in the future.

Self-Reflection: Driving in bad weather requires planning ahead for the risks. Are you always running late? Do you check the weather forecast each night before going to bed? Are you a trip planner or a risk taker?

Some drivers get nervous about driving in bad weather. Others get excited to go out and goof off on slick roads. Can you manage driving on high risk roads? Are you going to drive in ways that endanger others?

Tips for Parents: Parents struggle with the question, "Is my child ready to drive in this weather?". The answer is never clear. Our advice is to go for several short drives with them in adverse weather. Not just snow, but all the types of bad weather. Build up their confidence bit by bit and do what you can to prevent them from getting overconfident. Driver overconfidence is a generations long problem, especially regarding winter driving. Some drivers consider sliding around on the roads as entertaining. The problem comes from when the sliding gets severe and a crash happens. New drivers benefit more from learning how to drive to prevent sliding as opposed to learning how to recover from a skid. Skid recovery practice is far more valuable to a driver with more experience.

PARKSIDE DRIVING SCHOOL

Class 11

Distraction and Emotion

What is your favorite song right now? Some people may be able to answer that quickly, but for most of us, we have to go through a little process of elimination. When asked a question like that, people typically come up with a short list of finalists, and then through a process of elimination decide on the answer. What your brain is doing during that time is accessing several areas of the brain to make the decision. It has to access the memory storage areas of the brain to recall songs you like. Then, the brain begins to use its processing areas to rank the songs in the order of your liking. Then, after the brain has ranked the songs, it uses the communication areas of the brain to speak the answer, or write it down, or type it, or whatever. The reason we're telling you this is to describe how the brain functions. The brain is like a very powerful supercomputer. It follows a set of commands to complete a task. It can perform tasks very quickly, but it cannot do more than one task at the same time. The human brain is not capable of multi-tasking. For example, while you are trying to decide your favorite song, your best friend walks up to say "hi". You will get distracted and it may take longer for you to decide what your favorite song is.

The problem with getting distracted while driving is that time and distance are risk factors in driving. While you are driving down the road, there is distance traveled and there is time lapsed. Both of these things are risks. Every obstacle, LOS risk, and POT risk exist because drivers encounter them over distance and time. Distraction causes the brain to ignore distance and time and instead concentrate on some other mental process.

Let's think of it another way. Imagine you and a friend are tossing a ball back and forth to each other. If both of you are concentrating on throwing and catching the ball you can do it pretty easily. Now, let's add an excited dog to the mix. You and your friend are passing the ball back and forth while the dog is trying to get the ball from you. If you concentrate on throwing and catching the ball, you can still do the task, but if you start paying attention to the dog, eventually you will probably miss the ball and the dog will get it. The dog is a distraction.

Inattentional Blindness: This is the technical term for distraction. It means you are so distracted by your inner thoughts that you are not paying attention to the things your eyes are seeing. Distractions make a physical task (like sports and driving) more difficult to perform, because they distract your ability to process distance and time. Let's go over some of the most distracting things drivers struggle with. It is important to know what challenges drivers face, so we can plan on how to face those challenges in real life. Simply saying, "I'll never drive distracted" isn't good enough. You need to have a plan for how to deal with distraction, or just like the excited dog, distraction will eventually beat you.

Environmental Distractions: These distractions come from the world outside the vehicle. The sun in your eyes can be a distraction. Seeing a herd of animals in a field next to the road can be a distraction. Driving around town during the holidays to see the decorated houses can be a distraction. Environmental distractions can be tricky to counter. It is very important that you scan the roadway at all times to identify risks, but you also need to not become distracted by some of the interesting things you see while scanning. One good way to reduce your risk from environmental distractions is to slow down. By slowing down the speed of your vehicle, you are giving your brain more time to process through the driving task, while still managing a few distractions along the way.

Social Distractions: This type of distraction can pose itself to drivers in many ways. The most common social distractions come from other passengers in the vehicle and from pedestrians and other roadway users nearby. Any time the driver is engaging in conversation with another passenger in the vehicle they are at least a little distracted from the driving task. The more intense the conversation becomes the more distracting it is. Things like arguments, or emotional outbursts, are among the most distracting things that a driver can face. Social distractions from outside the vehicle can also cause significant distraction. Trying to get the attention of another driver, or pedestrian, can

distract a driver from other risks for an extended time. People tend to become increasingly socially distracted until they complete that mental task. For example, if you honk your horn to say “hi” to a pedestrian. If they turn in your direction and say “hi” back, you may no longer be distracted. If they don’t hear your horn, or ignore it, you may decide to honk again, and again, until they turn and respond. During this time, you may be more and more distracted from driving because you are focused on seeing their reaction. A great way to reduce your risk to social distraction is to reduce your social interaction while driving. Consider spending a few minutes chatting with your friends before you all jump in the car together. If you become emotional while driving, find a place to park safely so you can process through those issues. When you see friends in other cars, or along the road, consider not communicating in that moment, but instead find another way to say “hi” at a better time.

Electronic Distractions: Tech is all around us. Every aspect of our daily life can involve some electronics. Audio electronics like radio or streaming services allow us to experience our favorite tunes. Video electronics like TV, movies, and Youtube allow us to watch anything we can imagine. Social platforms like Facebook, Twitter, Snapchat, Instagram, TikTok, and many others allow us to make friends and share experiences with people across the world in real time. And then, of course, you can still use your phone to make calls and texts. There has never been a time in history where people have had access to so much information and entertainment immediately available. The vehicles of today also come equipped with several electronic features intended to make the vehicle safer, easier to operate, and more entertaining. Literally everywhere you look, there is an electronic device trying to help you enjoy life. The problem is not the device, it’s the user. If you use electronics to enhance your life, you can benefit from them. If you use electronics to escape from the responsibilities of real life, then you can be harmed by them. Driving distracted by electronics is a perfect example of the consequence of bad decisions.

The time it takes to text with another person is a great example. A person may be able to type a text message and send it in 1 or 2 seconds. That isn’t much time. The problem is bigger than that, though. The typical person takes several seconds to decide what to text, before they type it. Let’s say you’re quick and it only takes 5 seconds to do this. You’re up to 7 seconds so far, but you’re not done. After a person sends a text, they try to anticipate what the person they

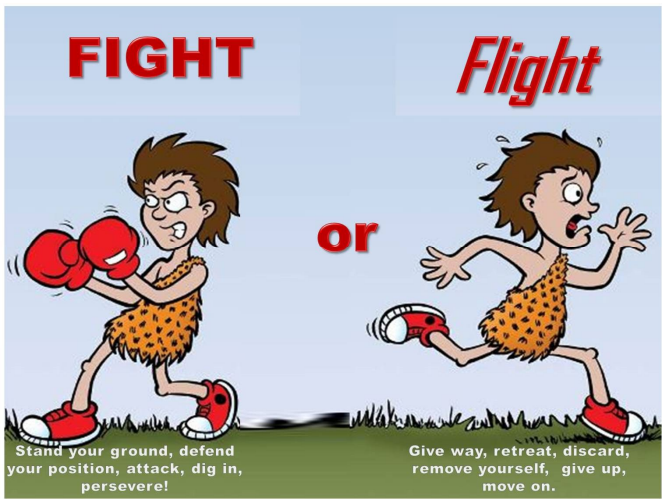
sent it to will think and respond. Studies have shown this usually distracts a person at least 10 seconds and often much longer. We're up to a combined total of at least 17 seconds of distraction from one text message. You might remember that we have told you to always scan ahead at least 15 seconds of travel time when driving. The text we just described just distracted you for more than the distance you should be looking. This is why electronic distraction is so deadly. Drivers can become distracted for much longer than they realize and all that time, distance and time have continued to happen.

The Washington State electronic distraction law: Drivers in Washington are not allowed to use any electronic device which requires more that "minimal single finger use" while driving. In practical terms, you can be pulled over and ticketed if an officer observes you using an electronic device for any reason while driving. Law enforcement has been instructed to take this law very seriously and enforce it. What makes this law even more expensive is that this ticket gets reported to your insurance company and can be used to increase your rates. This law is no joke!

There is no doubt that electronic distraction kills. The question is, what can be done about it? There are many groups working on this problem. Many of these groups have focused their efforts on the idea that drivers should put their electronic devices away while driving. Put it in the glove compartment, or even in the trunk, so the driver is not tempted to use it while driving. This can be an effective technique, but many drivers feel that is an impractical solution. There are apps and phone settings which disable the phone while travelling in a vehicle. This solution is more practical, since it allows the user to access the device for responsible use, like emergencies and navigation, while blocking it from irresponsible use. The blunt truth is that it's up to you. Each time you drive, you must make the decision to drive without distraction and you must find a way to achieve it. There is no solution that works for everyone and no one can drive safely and distracted at the same time. Unless you're an alien from another galaxy, your brain works the same as everyone else. It does one thing at a time and gets distracted by more than one task at a time.

Audio Distraction: Electronic distraction is not limited to visual distractions. Audio distraction is also a major problem. You are not allowed to drive with ear buds or headphones covering your ears. Your ears provide a lot of risk identification information to you as a driver. You must have open ears while driving. It's also a good idea to keep the radio volume down to a level that allows you to hear things like car horns and other sounds. The other problem driving around with your stereo blaring at a high volume is that it can annoy other drivers around you. People don't all like the same music and some people become upset by hearing loud or offensive lyrics coming from other cars. In some cities, you can get a ticket for any loud sounds coming from your car. You don't need that kind of attention.

Emotions: Distractions and emotions go together in the same conversation because they are basically the same thing. Emotions are a reaction to something the brain is trying to process. No matter what type of emotion you are feeling, there is a level of distraction caused by it. Emotions can be a simple response like becoming happy when you taste a piece of candy. Emotions can also be very complex like becoming confused and frustrated trying to communicate with someone who speaks a different language. Emotion is always a response to the brain processing or struggling to process information. When it comes to driving, all emotions can create risk, but emotions considered negative cause the greatest concern. It's true, people can get in a crash because they were "too happy", but most often, drivers experience challenges on the road from moments of anger and frustration.



Angry Driving: To understand why anger and frustration are so dangerous for drivers, we must explain how the brain produces those emotions. These emotions are closely tied to a psychological response we all have, referred to as "fight or flight". Humans are conditioned to evaluate a risk and decide whether to attack it (Fight!) or run away (Flight!). The emotions of anger and frustration are designed to focus the mind on success. If you choose FIGHT, anger and frustration help the brain focus on the biggest risk and attack it. If you choose FLIGHT, anger and frustration intensify the fear emotion to help the brain find the best escape.

When learning to drive, we teach the SIPDE technique to identify risk and react to it. SIPDE is basically an expansion of Fight or Flight. First, you identify the risk, then you figure out how to deal with the risk, then you act. The primary advantage to the SIPDE technique is that it helps

the driver avoid developing an emotional response. When an emotional response is allowed to enter into the situation, then fight or flight begins to take over.

In short, here is a good rule. If you see someone driving near you that appears to be having an emotional reaction to something, try to distance yourself from that driver. If you find yourself driving emotionally, try to calm yourself down while staying focused on the driving task.

Here's an example: Imagine you're driving down the road, approaching an intersection. You notice another vehicle at that intersection preparing to turn onto your road. Just before you reach the intersection, the other driver turns onto your road, cutting you off. You brake quickly, and no crash happens. If the story ends there, you probably followed the steps of SIPDE. You "Searched" the intersection. You "Identified" the vehicle as a risk. You "Predicted" their path as they began to move. You "Decided" to apply the brakes. You "Executed" a motion of your foot onto the brake pedal. Success! No crash! But that's not the end of the story is it? You become angry at that other driver for endangering you and almost causing a crash. If you allow that anger to build inside you, then Fight or Flight begins to take over. In this case, Fight is winning. You tailgate the other driver. Maybe you honk your horn, flash your lights, and make aggressive hand gestures at them. Maybe you pass the other vehicle and then cut them off as an act of retribution for their mistake. Now you have become the aggressor, endangering their safety and increasing your risk of a crash. Let's take this story all the way to its most tragic ending. You and the other driver continue to act out in anger towards each other until a crash occurs and both of you are killed in the crash. Maybe an innocent pedestrian is killed in the crash as well. At that point, does it matter who made the first mistake, or who got angry first?

Negative emotions cloud the rational judgement processes of the brain. As a driver, you can never allow that part of your brain to get clouded. "Road Rage" is a serious problem and can turn any driver into a raging bully, intent on imposing their will on every other driver around. When you start to feel negative emotions creeping into your thoughts, ask yourself this question. "Who is in control of me?" You control You! No one else can make you do something you refuse to do. No one can "make" you happy, and no one can "make" you sad.

From the Washington Driver Guide:

“Distracted Driving is any activity that takes a person’s attention away from the primary task of driving, sometimes referred to as “inattentional blindness.”

“While some distractions aren’t against the law on their own, you should still recognize how these behaviors may impact your driving and could cause you to violate a traffic law.”

“A law enforcement officer may stop and ticket you for violating the distracted driving law. The minimum fine for violating one or more of these restrictions is $124 and can be more if you cause a crash. Second and all subsequent violations are subject to have the fine doubled.”

“A law enforcement officer may also include a violation for Dangerously Distracted Driving as secondary action when a driver of a motor vehicle has been stopped for a suspected violation for a separate traffic infraction.”

“Personal electronic devices includes, but is not limited to, a cell phone, tablet, laptop, two-way messaging device, or electronic game. Using a personal electronic device in your hand, both hands, or held to your ear to compose, send, read, view, access, browse, transmit, save, or retrieve email, text messages, instant messages, photographs, or other electronic data while operating a motor vehicle is against the law.”

“No person is allowed to operate a motor vehicle with equipment capable of receiving a television broadcast when the moving images are visible to the driver while the motor vehicle is on a public road.”

“If you are angry or excited, give yourself time to cool off. If necessary, take a short walk, but stay off the road until you have calmed down.”

“If you are impatient, allow extra time for your trip. By leaving a few minutes early, instead of speeding to your destination, you may avoid a speeding ticket and reduce your chances of a collision.”

“When you see other drivers around you acting or reacting in anger, distance yourself from the situation, physically and mentally.”

Your Homework: The purpose of this entire lesson has been to give you information that will help you decide how to manage the distractions of life. Unfortunately, this homework assignment will never be done. You must practice safe, distraction and emotion free driving every day for the rest of your life. If you never crash from a distraction or emotion caused incident, you will get an "A" on this assignment.

Self-Reflection: As a human being, your life is already full of distraction. How do you eliminate distraction in your regular life now? How can you adapt those techniques into your driving?

What will you do when another driver makes a mistake near you? Are you the type of person that likes to get even with people? Will you be that way as a driver?

When you know who you are, you can make plans to adapt to your tendencies. What is your biggest emotional weakness? Everyone has something, what is yours? Are you too excitable, too energetic, too easily frightened, too gloomy?

Tips for parents: Ok parents, the problem with distracted driving is partly your fault. I know that statement is a little harsh, but we adults need to know that we've helped create the problem. Most new drivers have had a smartphone for a while now and when you gave them their first phone, you probably told them something like, "When I call or text you, I want you to answer or text back." What you were trying to do was establish a level of responsible behavior from them and that was good. What they also heard, however, is that this device is very important and they need to check it every time it beeps. That becomes a confusing message when they start driving. On one hand, they are supposed to ignore their phone while driving. On the other hand, they are supposed to notice when it is you calling or texting and respond timely. The best way to help them is by having a conversation and update your expectations of them. Explain to them that it's ok for them to wait until they get somewhere before they read and respond on electronics. Help them establish new habits that help them manage the social pressures they face.

PARKSIDE DRIVING SCHOOL

Class 12

Drugs and Drowsiness

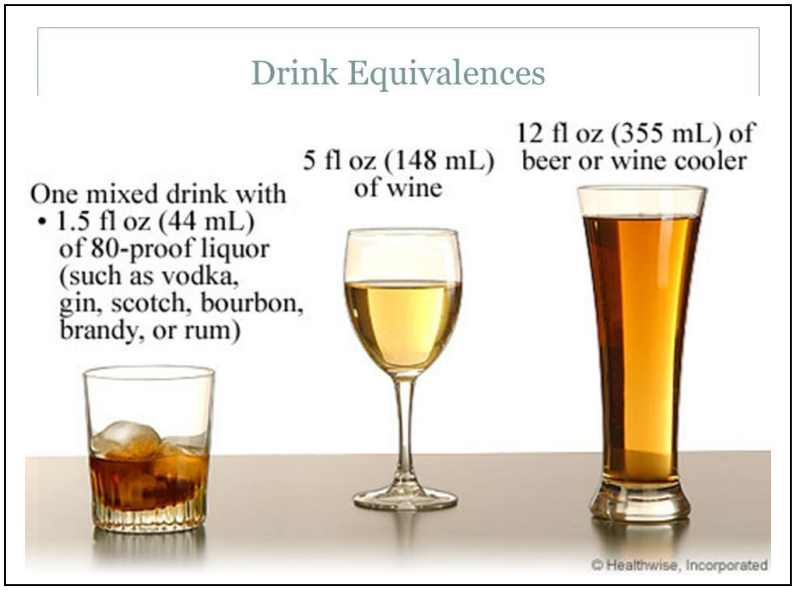
Do you remember when you were a little kid doing a craft project and the adults told you not to run with scissors? I'm sure someone told you that at least a few times. Why would they say that? Are the hospitals full of kids with scissor stab wounds? Of course not. The reason you were told not to run with scissors was because if you did and you tripped and fell on the scissors, it could be really bad and may have a negative consequence on the rest of your life. The risk of running with scissors simply wasn't worth the potential consequence. Drugs and Alcohol are a little like scissors for adults. Some drugs, when taken as directed, may help a person recover from an illness or injury. Some consumption of alcohol, when handled responsibly, may help people enjoy a special occasion. Like scissors, though, drugs and alcohol can be used in dangerous ways that can make for lifelong consequences.

If we're going to talk about drugs and alcohol, we must deal with one thing up front. Almost everyone who takes a drivers ed course is a teenager. It is illegal for teenagers to use illicit drugs or to consume alcohol. Many students often ask why we must discuss this subject since they are never going to do drugs or drink alcohol. The answer is it's the same as running with scissors. You don't know all the decisions you will make when you are an adult. We need to have these discussions with you when you are teenagers so you will have the necessary knowledge to make informed decisions as adults.

Drugs and alcohol are dangerous substances, especially when used or consumed in large amounts. They become even more dangerous when consumed in conjunction with driving. Driving is a difficult task when your body is working at its best. When you add drugs or alcohol your body is affected, and you cannot control a vehicle as well. Your reaction time can slow, your perception of risk may become impaired, and in many cases, you may not be able to recognize these problems as they develop.

Alcohol: To understand how alcohol effects your ability to drive, you need to understand how it effects your body. Alcohol is a depressant drug. That means it effects the body by slowing or blocking certain body functions. You may have heard of someone "passing out" because they drank too much. That is one of the things depressants do. If you consume a large amount of a depressant, your body may fall asleep as a defense mechanism to stop you from consuming more. If you drink a very large amount of alcohol in a very short amount of time it is possible to pass out and then die before your body can cleanse itself of the substance. Another serious effect of depressants, like alcohol, is they slow down the area of the brain that makes judgement decisions. This is why impaired people often do crazy things they would not do normally. The part of their brain that would normally identify something as "too risky" is impaired by the alcohol.

Types of Alcohol: There are several ways to make alcohol. Pretty much every fruit, starch, or grain can be made into alcohol given enough time and equipment. In the end, the only difference is the flavor and the percentage of alcohol per shot, glass, or can. In the photo to the right you see three typical types of alcoholic beverage. Each has about the same amount of alcohol. Consuming one of any of these will have the same effect on your body. Some people claim that certain alcoholic beverages make them feel different than others. This is usually a result of the digestion process. The stomach breaks down substances differently, which may allow alcohol to be absorbed into the blood differently. No matter how a drink makes a person feel the effects of alcohol on the body is the same.



Alcohol Elimination: The only way to get alcohol out of your blood is by allowing the body enough time to filter it out. The human liver is basically a giant blood filter that removes impurities and sends them out of the body. The liver is only able to filter blood at a certain speed. It can take several hours for the body to be completely clean again. For most people with healthy livers the alcohol elimination rate is about 1 drink per hour. This can be affected, though, by other things like drugs or food in your system. Think of it this way. If you are at a party and you drink 6 beers around midnight, you may still be impaired the next morning at 6 AM.

Drunk Driving Kills: Driving while impaired by alcohol is a factor in 40% of all fatal traffic collisions. There are several reasons why alcohol has such a dangerous impact on driving. Like we said before alcohol is a depressant. Every part of your body can be affected by a depressant. Your brain gets effected first. Your ability to make judgement decisions becomes depressed. You may decide to do things you otherwise would not do because the alcohol is affecting that part of your brain. Then, the nerves and muscles of your body may be affected and cause you to lose coordination. Your eyes have a bunch of muscles in them that make them focus. Alcohol can make them not work as well. Your arms and legs receive nerve impulses to turn the steering wheel or push the pedals. Alcohol can slow down how quickly those nerves send and receive messages. Now you can imagine why alcohol leads to so many fatal crashes. Some of the crashes are caused by the drunk driver running into stuff and some of the crashes are caused by the drunk driver not being able to avoid a crash. In the end, the alcohol was the most influential factor that could have been avoided, which may have prevented the crash from happening.

No matter what decision you make about alcohol for yourself, this fact is the bottom line. Alcohol is not the problem. An impaired human is the problem. If you get drunk and do something stupid, you will be held responsible and face the consequences. No exceptions!

Drugs: When discussing drugs, there is a misconception that must be handled first. Legal drugs are not necessarily safe. Illegal drugs are not necessarily more dangerous that legal drugs. Most drugs, if used under the correct supervision for the right reason can be considered safe. All drugs, when used incorrectly must be considered unsafe. Many of the drugs you can purchase over the counter at a local drug store can kill a person if consumed in high quantities. The fact that you can buy them legally and without a prescription, does not make them safe to abuse. In addition, many things you may not think of as a drug are, in fact, drugs to the body. Chemicals, like those found in glues and cleaners act as drugs to the body. Some berries, mushrooms, and other natural substances act as drugs to the body. There are even some animals and plants that simply by touching, can affect you. Think of it this way, if drinking, smelling, or touching something makes your body feel strange in any way, it was a drug, and it might be dangerous.

Drug Classifications: Some drugs, like alcohol and Marijuana are depressants. They slow your body down like discussed above. Some drugs, like magic mushrooms and LSD are hallucinogens. They effect the areas of the brain that process the things you see, hear, and think. Hallucinogens can trick the brain into believing it sees, hears, feels, or tastes something not real. Still other drugs, like Cocaine and Methamphetamine are stimulants. Stimulants attempts to make the functions of your body work harder and faster. They make you breathe faster, your heart rate increases, and you tend to have trouble sleeping. All drug types are dangerous because they make your body change its normal activity in some way. If the body cannot safely respond to what the drug is making it do, damage to the effected organs and body systems can occur, and sometimes lead to death. Can you think of a stimulant drug many people consume legally every day? That's right, Caffeine, which is found in coffee, tea, and soda, among other things. Caffeine is a stimulant drug, which if you consume large amounts can affect your ability to concentrate and may make your body feel twitchy. Fortunately, caffeine is very difficult to consume in lethal doses, so it probably won't kill you, but you should still avoid consuming it to the point where you feel it's negative effects.

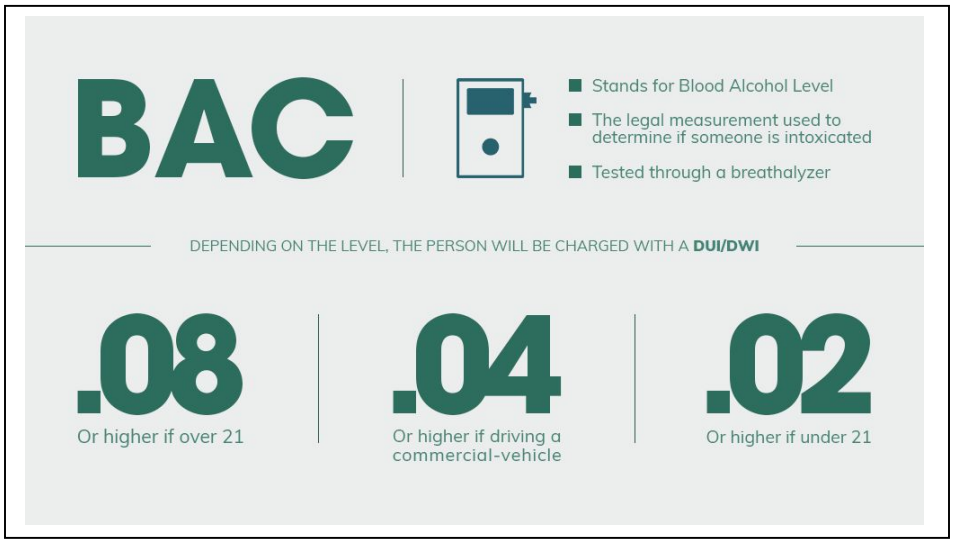
How do you think the various drug classes mix with the driving task? Depressant drugs make the body want to sleep. As it effects the body your vision narrows, you can't process thoughts quickly, you can't effectively evaluate risk, and your brain can't send signals to your arms and legs quickly. Hallucinogens can have very unpredictable effects. As your brain struggles to make sense of the things it thinks it is seeing and hearing, it may react in very strange ways. Some people may become aggressive under these influences and harm someone or even themselves. Stimulants can also make a person act out more aggressively that they normally would. They may follow other cars too close, cut people off, or get involved in road rage incidents more easily because of a stimulant in their system. Stimulants can make a person feel invincible. That is never a good thing to combine with driving.

Marijuana: Marijuana is the most common "recreational" drug. It has become so popular that it has been legalized for adult consumption in Washington and some other states. Marijuana is a depressant and can have all the same negative effects on the body as any other depressant. When a driver is impaired by marijuana, they will be subject to similar effects felt by alcohol. Blurry vision, difficulty concentrating, slower reaction times, poor judgement, and other impairments are likely.

One unique risk associated with marijuana is its ability to be infused into food items. Unlike alcohol which evaporates out of cooked items when heated, marijuana can be infused into foods and keep its effects. Marijuana infused foods effect the body differently. They get ingested into the blood stream through the digestive process, which happens slowly over a long period of time. This means a person can become increasingly affected by the drug for several hours.

Drug Mixing: There is a myth out there that you can mix drugs to counter their effects. This is not true. Mixing drugs can only have a "compounding effect". This means that if you mix drugs, you may experience much more severe effects which your body may not be able to tolerate. One common example of drug mixing is smoking marijuana while consuming alcohol. Both of these drugs are depressants and effect the brains ability to make judgements. Mixing both can make a person think they are not impaired, when in fact they are very impaired.

Legal limits: As a person consumes more alcohol or drugs, its negative effects become stronger. To protect everyone, laws have been written to limit the legality of these substances. Most street drugs are illegal in any amount, no matter the age of the user. Alcohol can be legally consumed by people age 21 and over up to a legal limit of .08% concentration of alcohol in their blood. Minors under the age of 21 have a legal limit of .02%. That doesn't mean that minors can legally consume alcohol. It means there are some legal things that have small amounts of alcohol in them, like cough syrup and some flavoring syrups. These things can not typically cause a BAC reading above .02%, so they are not considered illegal for minors to consume. Adults who drive commercial vehicles are required to stay below a BAC of .04% because large vehicles are harder to control and crashes involving large vehicles are often much worse.



There are also legal limits for adult consumption of Marijuana. The legal limit for people 18 and older is 5 nanograms or more of THC per milliliter of blood. There is no legal limit for marijuana in minors. Any amount is illegal, unless the minor has a medical prescription.

Implied Consent: If you are driving with a permit or license issued in Washington you have voluntarily agreed to the implied consent law. This law states that if a law enforcement officer requests you to be tested for alcohol or drug influence, you will allow the test. If you refuse the test your driving license will be suspended for 1 year.

While you have a permit: You are allowed to drive while you have a permit if there is a person in the passenger seat with 5 or more years of licensed driving experience and they accept responsibility for your driving. A passenger who is impaired cannot accept responsibility for your driving so you are not allowed to drive in this case. You can have your permit revoked and the passenger can still be arrested for DUI.

The Consequences: The biggest consequence of driving while impaired by alcohol or drugs is you might kill yourself or someone else. That consequence alone should be enough to make sure you never drive impaired. Unfortunately, some people need other consequences to help them do the right thing. For this reason, there are laws in place to punish drivers who drive impaired.

DUI: Driving under the influence is the most common citation received for drug and alcohol offenses. It doesn't matter what you are under the influence of or how much of it you consumed or used. That's right, you can get a DUI for being impaired from legal substances like cold medication. If you are under the influence while driving, you are illegal. Most people lose their license for 90 days and have the DUI on their record for the rest of their life. There are also lots of other fines and fees that have to get paid. A DUI can often cost upwards of $10,000. A DUI can also prevent a person from getting certain professional licenses or hired for certain jobs. A mistake like a DUI can really haunt you for the rest of your life. It's just not worth it.

Open Container Law: A driver can get a ticket for driving with an open container of alcohol in the passenger area of the vehicle even if the driver is not drinking. If you are driving and there is alcohol in the vehicle, make sure it is in the trunk or other concealed area away from the passenger compartment. Don't let an older passenger get you in trouble for transporting their alcohol illegally.

Assault, Manslaughter, and Murder laws: There are several laws used to punish the people who commit serious crimes on other people. Drugs and alcohol are often involved. Drugs and alcohol react very strangely in the body and sometimes lead people to do very bad things. In these cases, though, it's not the drugs fault. The person who does the bad thing must be punished for it. You don't get off the hook just because you were drunk or high.

Drowsy Driving: Admit it, when you are sleepy, all you want to do is sleep. Driving while your body is trying to rest is a recipe for disaster. Drowsy driving is a leading cause of crashes and it's totally preventable. Despite being preventable, drowsy driving happens because drivers don't always manage time well. Let's consider a typical school day. You wake up as late as possible, do your morning routine, get dressed, eat something, and then drive to school. Sometimes you oversleep, throw clothes on, skip eating, and drive to school. In those cases, you may still be drowsy from waking up minutes earlier. After school, you have a practice, or a game, or a thingamabob to do, and then you hang out with friends and drive home. After a full day of activities, you may be driving home drowsy as well.

Drowsy driving is a serious problem. It can be as dangerous as driving with a BAC of .08. As a safe and responsible driver, you need to learn to recognize when you are drowsy and realize when you are not safe to be driving. Get a friend to take you home. Call a parent to come get you. Take a ride share service. Just don't drive drowsy. It only takes one time falling asleep behind the wheel to make a tragedy. You are responsible to be a safe driver. No exceptions!

From the Washington Driver Guide:

"It takes about one hour for your body to get rid of each drink."

"Marijuana has been shown to impair performance on driving tasks and on driving courses for up to 5 hours."

"If you are arrested or convicted of driving under the influence of drugs, the penalties are the same as for any alcohol violation."

"Driving under the influence (DUI) refers to operating a motor vehicle while affected by alcohol, drugs, or both. This includes both legal and illegal drugs, including prescription medication and over-the-counter drugs."

"Blood alcohol content (BAC) is the percentage of alcohol in your blood and is usually determined by a breath, or blood test."

"(If you are of legal age) You can be arrested for DUI with BAC and THC/marijuana levels lower than the legal limit if you are driving and impaired due to alcohol and/or drugs."

"The Implied Consent Law means that when you operate a motor vehicle, you have agreed to take a breath test to determine the alcohol content of your blood. If a police or traffic officer asks you to take a BAC breath test, you must do so. You will lose your driver license for at least one year if you refuse to take a BAC breath test."

"Alcohol/Drug-related offenses appear on your driving record for life."

Your Homework: We'll never know if you do this homework assignment, but you will. You need to spend some time alone thinking about how you are going to handle the adult decisions in your life. You may have already been faced with some of these decisions, but you need to constantly reconsider these things. Your path towards adulthood has begun. Some of the decisions you make now may follow you for the rest of your life.

Self-Reflection: Peer pressure is a major challenge when it comes to alcohol and drugs. How susceptible are you to peer pressure? Are you willing to stand by good decisions that are right or you? What can you do if friends or family are attempting to drive under the influence?

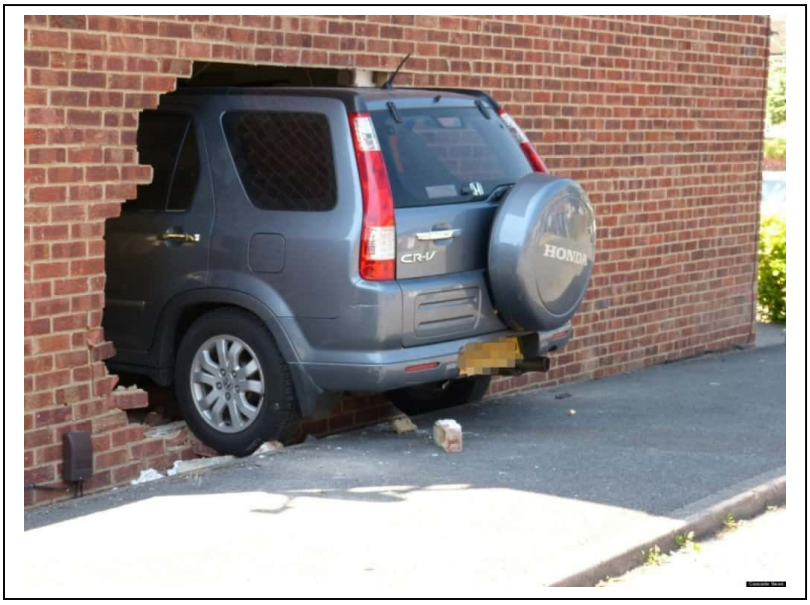
Drowsy Driving is a serious challenge for drivers. When are usually tired? What are the signs that you are beginning to get drowsy? What can you do to stay safe if you feel too drowsy to drive?

Tips for Parents: We have good news, and we have bad news. The good news is that underage alcohol consumption is on the decline along with underage tobacco use. For some good reason, teens seem to be losing interest in those substances. This doesn't mean you shouldn't have conversations with your children about these things. It just means those conversations may be a little easier than for previous generations of parents. Now for the bad news. Underage Marijuana use and nicotine from vaping are increasing among teens. It appears the legalization of recreational marijuana has made some teens think it is safe for them. As for vaping, the sale of nicotine products in sweet flavors has tempted many. One other area of concern is the increasing levels of caffeine consumed by minors. Sweet coffee drinks and regular consumption of energy drinks is causing some concern among researchers. The advice to parents is the same. Talk to them. Make sure they know the risks. Help them make decisions they won't regret later in life.

PARKSIDE DRIVING SCHOOL

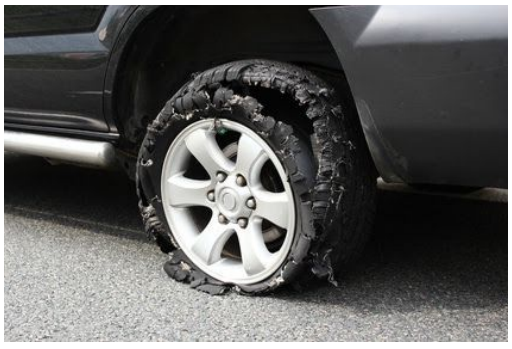
Class 13

Emergencies and Insurance



We've spent the majority of our time together in this course helping you realize that all traffic emergencies are preventable. If you follow the rules, pay attention to the driving scene, and keep your vehicle well maintained, you can make it your whole life without a traffic crash. That is the goal! However, we would be doing you a disservice if we didn't give you information about what to do if something bad happens. There is an old saying that says, "Hope for the best, but plan for the worst". That is a very good piece of advice when it comes to driving. Do your best to stay safe when driving but be ready in case something goes wrong.

Emergency Reactions: Most of the emergencies we discuss here happen due to some kind of mechanical breakdown. After all, you've already learned how to keep yourself out of driving emergencies like collision avoidance. Let's go over a few of the common mechanical emergencies you may encounter.



Tire Blowout: A tire has a tough life. Every time you feel a bump in the road, your tire felt it a lot more. Each time you run over a piece of debris, or bump a curb, it may damage a tire a little bit. The tire can take a lot of punishment but eventually it will fail. If you are driving when the tire fails, you need to recognize what happened, and then react correctly. If you have never changed a tire it would be a good idea to look in your car and find where the spare tire is stowed, and where the tools are located to change it. Instructions on how to remove and install the wheel are in your vehicle user manual. Keep in mind, some newer cars don't have a spare tire, and instead have a bottle of tire repair fluid and a small compressor. If the blowout is minor this can usually get you to a tire repair shop. If the blowout is major you'll need to call a tow truck.

If you experience a rear tire blowout you will probably hear a thud sound and then feel the car not wanting to maintain speed, like you're driving in mud. When this happens, slow down gradually, ease as far off the road as you can safely, turn on your emergency (4-way) flashers and go about changing the tire.

If you experience a front tire blowout, this is much more dangerous. You will probably hear a thud sound and then you will feel the steering wheel being pulled in the direction of the blown tire. The higher speed you are travelling the stronger the steering pull may be. Keep a firm grip on the steering wheel and gradually slow the car down. Ease the vehicle as far to the side of the road as you can safely, turn on your emergency flashers and go about changing the tire. Many serious crashes are caused when drivers are travelling on high speed roadways with cruise control set and with minimal grip on the steering wheel. The blowout is so sudden, and the steering is so severe that the driver can not react quickly enough to avoid a crash.

Brake Failure: Brakes fail due to 3 primary reasons. The brake pads can wear out and stop functioning. The brake lines can leak fluid and cause the brakes to not function. Or, the brakes can overheat and stop functioning. Fortunately, a lot of advancements in technology have helped braking systems become much more durable. In most cases, if you replace the brake pads before they wear out, the system will be pretty reliable.

If you do experience a brake failure while driving, here is a list of steps to manage the emergency.

- Pump the brake pedal multiple times quickly. You are hoping to feel pressure build in the pedal and the vehicle to begin to slow down. If you are successful in building brake pressure, park the vehicle and have it towed to a repair shop.
- Shift the transmission to a lower gear. Every transmission, manual and automatic, have lower gears which the driver can shift the car into. Shift into the next available lower gear and give the engine time to slow the car down, then shift again into the next lower gear and repeat as many times as you have lower gears.
- While you are doing the downshifting method above, you can try to use the parking brake to help slow the car down. Don't let the brake click! To use the parking brake in an emergency, always hold the release button in, or pull on the release lever while applying the parking brake.
- If none of these things work, stay calm and look for the safest escape path that will allow for the car to stop as softly as possible. Driving into a field and getting stuck in mud is far better than driving into a tree. Even when a crash is certain, you can always find a way to make it less severe.

Stuck Throttle: When you press down on the accelerator pedal your engine receives more fuel and it speeds the car up. When you lift your foot off the accelerator pedal your engine receives less fuel and it slows the car down. Very rarely, the accelerator pedal can get stuck down and continue speeding up the car while you want to be slowing down. If this happens, there are a couple things you can do to try to fix it.

- Slip your toe under the accelerator pedal and try to pry it up. The most common cause of a stuck throttle is that a loose floor mat has jammed up against the pedal and trapped it. Using your foot to clear the obstruction will allow the pedal to move freely again.
- If trying to free the pedal doesn't solve the problem, then shift to neutral. Once the transmission has been shifted to neutral, the car cannot speed up anymore. It can only coast. Once coasting, find a safe place to park as far off the road as is safe. Then call for a tow truck to come transport your car to a repair shop.

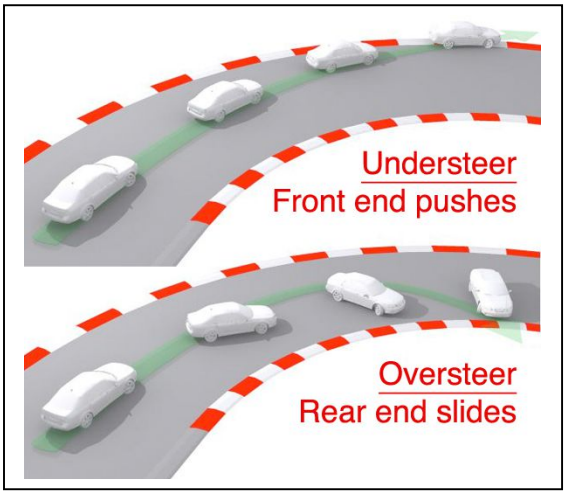
Loss of Engine Power: There are times when an engine can stop running suddenly. The most common reason is you let it run out of gas. In that case, there is nothing you can do other than fill the tank. If you still have gas in the tank and the engine still dies, there are a couple things you can do before you call a tow truck.

- If you are moving on a roadway when the engine dies, don't stop immediately. Try to restart the engine. To do this while you are in motion, you need to shift the transmission to Neutral. The car will only try to start in Park and Neutral and putting a moving car in Park is a really bad idea. Shift to Neutral and turn the key (or push the button). If it starts, shift to drive and head for a repair shop to figure out why the engine died.
- If the engine will not restart, shift the transmission to neutral and try to coast to a location as far off the road as is safe. Then, turn off your lights and turn on your emergency (4-way) flashers and call for a tow truck.

Running off the road: Despite what you may have seen in movies, it is very difficult to roll a modern vehicle over on its top. The most common cause of rollover crashes involves the vehicle leaving the paved road and sliding into the unpaved areas next to the road. There are not many good reasons to let your car run off the road, but there may be times when you have to swerve to avoid a collision and in the process find yourself off the road needing to re-enter. When you're avoiding a crash, you do what you must. The most common reason drives drift off the pavement, however, is due to distracted driving when the driver is looking away for too long. That is unacceptable and should never happen.

- If you have driven off the side of the road with 2 tires still on a paved surface and 2 tires on an unpaved surface, slow down gradually to a very slow speed, steer firmly back onto the paved surface, and be prepared to correct your steering to stay in your driving lane if you skid. The reason you might skid is because the edge of the pavement may resist letting your tires up and onto the surface. If that happens, you might skid, but if you're going slow, you'll be able to handle it.
- If you have driven all 4 tires off the paved surface, slow down gradually to a very slow speed, steer firmly to get 2 tires back onto the paved surface, wait for the vehicle to stabilize with 2 tires up, then steer firmly again to get the other 2 wheels up onto the paved surface. If you try to return all 4 tires to the road at once, it's likely you will veer across the center line into oncoming traffic. Take it 2 tires at a time so you can maintain control.

Skid Recovery: If your car is skidding you do not have complete control. There are no exceptions to that statement. Even the most highly skilled professional drift car drivers will admit they are only partially in control of the vehicle while it is sliding. There are ways that you can try to recover from a skid, though. But first, you must understand how your car is skidding.



Front Tire Skid (Understeer): This is the most common type of skid. It is caused by the driver trying to steer left or right while the vehicle is traveling too fast for the steering input. If you are experiencing a front tire skid, you will feel the steering wheel vibrate, you will hear the tires squeal, and the car will turn much less than the steering angle.

To recover from a front tire skid, you must get the front tires to stop skidding and grip the road again. Ease your foot off the gas and very softly onto the brake. While the car is slowing down, turn the steering wheel to a lesser angle until the tires grip the road. When the skidding stops, you will probably be outside of your lane, or on the wrong side of the road. Don't increase speed until you are safely back in your lane and under complete control.

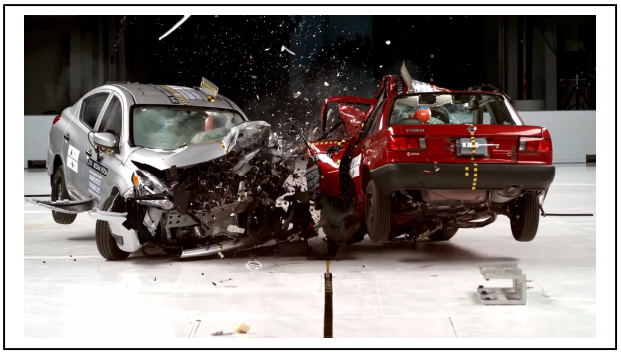
Rear Tire Skid (Oversteer): This kind of skid happens when the rear tires lose grip while the driver is steering the car left or right. It is usually caused by accelerating too quickly while steering. If you are experiencing a rear tire skid, the steering wheel will feel normal, you will hear the tires squeal, and you will feel a spinning sensation as the back of the car tries to swap ends with the front.

To recover from a rear tire skid, you must stop the rotation being caused by the rear. Ease your foot off the gas, but don't apply brake. Steer to keep the front of the vehicle pointed where you want the car to go. As the vehicle slows down the skidding will also slow down, and you can regain complete control.

All-Wheel Skid: An all-wheel skid happens for the same reason as a front wheel skid. The driver enters a turn too fast and for some reason all 4 tires lose grip making the car to slide sideways as it tries to turn. The recovery method is a mix of both front and rear tire skids. Slow down gradually, but don't brake. Steer a little less but be ready for the car to start to only rear wheel skid. If it does that, steer to keep the front pointed where you want to go.

Pro Tip: Competitive drivers spend a fair amount of time on the racetrack skidding and recovering from skids. The most important thing they practice is to control where their eyes are looking. In a skid, it is very common for the driver to look at a scary thing they don't want to hit. Looking at the scary thing will not help you miss it. Look for the safest place you can get your car to go and work to get your car there. Always look where you want the car to go and steer to where you are looking.

Avoiding a Crash: As a responsible driver, you are expected to do everything possible to avoid a crash. In some cases, using the brake may be your safest option. Other times, steering towards a safe path or accelerating may be the best choice. The only thing that is always wrong is doing nothing. Most crashes are avoidable if the driver does the right thing at the right time.



Crash Force: When a vehicle collides with something else, the amount of damage sustained by the vehicle and occupants is influenced by the crash force. Crash force is how hard things hit each other. The force can be minor, like when a car rolls into a bush and stops with only a few light scratches in the paint. The force can be major, like when a car gets struck by a train. The higher the crash force, the less survivable the crash may be to the occupants. The most important factor that effects force is speed of impact. If you hit an object that is not moving, then you will hit it at a crash force speed of your vehicle. If you hit a something moving in the same direction as you, the crash force speed will be your speed minus the speed of the thing you hit. If you hit something travelling toward you, the crash force speed will be the speed you are travelling plus the travelling speed of the thing coming toward you. When this type of collision occurs, the outcome is often catastrophic. Two vehicles colliding head on at highway speeds often create so much damage, it's hard to recognize the aftermath as a vehicle.

What Kills People in Crashes: In some cases when a vehicle gets in a crash, it can often sustain a lot of damage and still protect the people inside. In other cases, a vehicle can appear almost undamaged and the occupants are killed. To understand why this happens, you need to understand the effects of a crash on the human body. When a car crash occurs, that is the beginning of a series of collisions. First, the vehicle hits something. Second, the bodies of the passengers move against the seatbelts, into the airbags, and towards the point of impact. Third, when the bodies are stopped by the seatbelts, their internal organs continue to move until they are stopped by body structure like bones and muscle. If the organs collide into the body with too much force, they sustain damage and bleed. This is the most common cause of death. Our bodies are simply not designed to sustain that type of damage.

Crash Force Reducers: Even when a driver is involved in a crash, there are certain ways that the effects of crash forces can be reduced on the body. Wearing a seat belt correctly is the biggest reducer. The seat belt holds the body in place to protect it from hitting hard surfaces inside the vehicle. In modern vehicles, air bags may also deploy to protect the body from hard collisions inside the vehicle. The vehicle itself is designed to absorb some of the crash energy by crumpling at certain spots. The less crash force the occupant's bodies absorb, the more survivable the crash may be.

Pro Tip: If you are in a situation where you cannot fully avoid a crash, you may still be able to reduce the crash risk to yourself and others. If possible, direct your vehicle so the front passenger side headlight hits first. By hitting the front corner first, it places the structure of the car between the driver and the crash point. This protects the driver a great deal. In addition, hitting just a corner of the vehicle first creates an opportunity for the car to glance off the other object and become removed from any additional collision. When a crash is going to happen, don't just freeze. Try to improve your situation any way you can.

Traffic Collisions: A traffic collision can only happen if you, or someone near you screws up. There may be a few examples of collisions that are completely unavoidable, but those are very rare. Meteors falling from the sky, or Godzilla. Stuff like that. Otherwise, you can keep yourself out of collisions by following the stuff in this course that we've been telling you. If you are involved in a collision, though, there are things you will need to do.

Get calm: Getting into a collision is a very stressful moment. A lot of things will fill your mind. What happened? Whose fault was it? Are my parents going to be mad at me? Am I going to get arrested? Etc… The first thing you need to do is take a deep breath and try to calm down.

Check yourself: It is very common for someone to get injured in a collision, but not realize it. Adrenaline is pumping through your body and that can mask the pain of an injury. Take a moment to see if you are hurt from the collision before you do anything else.

Check everyone else: Once you have determined that you are ok enough to be moving around, you need to check on everyone else involved. The other passengers in your car, anyone in the other cars involved, and any pedestrians. You may not be able to help them with their injuries, but you might be the best person to call 911 and get help coming.

Check your vehicle: Whenever a driver is involved in a collision, they always need to look at the damage and determine whether the vehicle can be safely driven, or if it will need to be towed. You should also look around your vehicle for any leaking fluids or other hazards. Some of the vehicle fluids are flammable. If you think the vehicle is at risk of catching fire you need to get everyone away from the vehicle as quickly as possible. If the damage is minor and the vehicle can be safely driven, then look for a safe place nearby to move it, so you are no longer blocking traffic.

When Emergency Services Arrive: If the collision is serious, the police, fire, and ambulance will probably respond. When they get to the scene, you need to stay out of the way. It's good to point out the injured people to them and any other safety concerns that are present but let them do their jobs. Emergency staff are trained to handle crash scenes. They will come to you once they have handled the things they see as more important in that moment. Be patient and remain as calm as possible. You do not want to make the situation worse for yourself or anyone else involved.

Exchange Information: Every driver or property owner involved in a collision must share certain information with the other drivers and any investigators. You must share the information listed on your driver's license (number, name, address), and you must share your insurance information. Even if you do not think the collision was your fault, or that you will file an insurance claim, you must share that information with the other people involved. If the police respond to the collision, they will also collect additional information from you to assist them in their report. If they are able to determine fault at the scene, they may issue tickets to drivers, and if necessary, arrest people.

Collisions with unoccupied property or vehicles: If you are involved in a collision with an empty, parked car, a house, or someone else's property, you must make a reasonable attempt to contact them. At the very least, you must leave a note in a conspicuous place with your name and contact information for them to reach you. If you leave a crash scene without trying to communicate with the other affected parties, you can be charged with hit and run and possibly other criminal charges.

Insurance: Car insurance is a complicated topic. There are several different types of insurance. Some types are required for all drivers. Some types are required if you have a car loan. Some types are not required but may be very helpful if you have a breakdown or get in a wreck. We're going to go over each type of insurance, so you understand them.

Bodily Injury Liability (Required for all drivers): This type of coverage protects anyone who gets injured by you while driving. This insurance pays their medical bills and related expenses and protects you from being sued for those expenses up to your policy limit. If you drive without this insurance, you can get a big ticket, get your license suspended, and even get your car impounded. Washington State law requires that you carry at least $25,000 coverage for the injury or death of 1 person, and at least $50,000 coverage for the injury or death of 2 or more people. The higher you select your coverage to be, the more it will cost. The correct amount of this coverage may be different from driver to driver, but most experts recommend at least $100,000 per person injured.

Property Damage Liability (Required for all drivers): This type of coverage protects the owner of anything you damage while driving. If you cause damage to another car, this coverage pays for the repairs to the car. If you cause damage to someone's lawn or house, this coverage pays for the repairs to that as well. Washington State law requires that you carry at least $10,000 coverage for this. Most experts recommend you carry enough of this insurance to fully replace the average cost of a new vehicle. Currently, that average is about $40,000.

Collision Coverage (Required if you have a car loan): This type of coverage pays for the repairs to your car and other things you own that are damaged as a result of your collision. When a bank lends you money to buy a car, they require you to carry collision insurance high enough to repair or replace your vehicle while you are paying on the loan. If you do not purchase collision insurance, the bank will purchase it for you and add it to your loan at a very expensive price. If you do not have a car loan, you are not required to carry collision insurance, but then if you crash, you will have to pay for the repairs without any insurance assistance. For Collision insurance, you pay for what is called a deductible. A deductible is the amount you agree to pay before your insurance gets involved. $1000 deductible means you agree to pay for any repairs up to $1000. Then, any repairs above $1000 up to the value of your vehicle will be covered by your collision policy. The lower your deductible, the more the insurance will cost.

Comprehensive Coverage (Required if you have a car loan): This type of coverage protects you from things that cause damage to your car, but it's no one's fault. When a rock flies off another vehicles tire and cracks your windshield, a comprehensive policy will pay for that repair. If your car is sitting in your driveway and a tree branch falls on it, or a major rainstorm floods your car, your comprehensive policy will pay for that repair as well. Again, this coverage is purchased by choosing a deductible. The higher the deductible, the more you pay before your insurance kicks in. The lower the deductible, the more you pay for the insurance.

Personal Injury Protection (Optional): This insurance pays the medical bills and related expenses for you, and any other passengers in your vehicle. This type of coverage is not required, but most experts recommend you carry at least $100,000 of this coverage.

Uninsured Motorist Protection (Optional): This insurance protects you from the expenses if the person who crashes into you does not have insurance. Just because all drivers are required by law to carry liability insurance does not mean they all follow the law. If someone crashes into you without insurance, Uninsured Motorist Protection will pay your bills up to your policy limit and will sue the uninsured driver for compensation of those expenses.

Underinsured Motorist Protection (Optional): If someone crashes into you and the damages are very large, the bills may exceed that drivers' insurance limit. In that case, Underinsured Motorist Protection would kick in to pay the rest of your bills until your limit has been reached. Your insurance company will then sue the other driver for compensation of those expenses.

Proof of Insurance: No matter what types of insurance you have you must carry proof of insurance with you every time you drive. If you are involved in a collision, whether it is your fault or not, you will need to show proof of insurance to the police, and you may need to exchange insurance information with the other drivers involved in the collision. You can keep a printed insurance card in your vehicle, or you can choose to use an app on a tablet or smartphone. It doesn't matter how you present proof of insurance, only that you can present it, and that the information is current and correct. In some states, the insurance company reports to the license agency when a person lets their insurance lapse. If you don't pay your insurance bill each month, you don't have coverage, even if your documents show otherwise.

Vehicle Maintenance: Just about everything we've covered in this lesson has had to do with something going wrong. Either your vehicle malfunctioned, or the driver made an error. Either way, something went wrong. When it comes to the vehicle malfunctioning, there is something you can do to reduce that risk. The most common cause of a vehicle malfunction is poor vehicle maintenance. A well-maintained vehicle that undergoes regular inspections and repairs will tend to be very reliable. About 35% of the vehicles on the road are not properly maintained. If you skip doing routine maintenance and you just ignore signs of the car having trouble, then you are asking for trouble. Follow these steps to reduce your risk of a break down.

Look: Every time you are walking near your vehicle look for any signs that something may be wrong. Check each tire for cracks, bulges, lack of tread, or poor inflation. Look for leaks of fluid under the engine. Look for chips or cracks in the glass surfaces and lights. Look for dented metal and rust. If you look for problems on a regular basis, you will notice them when they are still small problems that can be fixed. Remember, just because the car got you home safely the last time you drove it doesn't mean it is safe to drive again. If you ran over a nail, for example, it can sometimes take hours or days for the tire to go flat.

Listen: Your car will talk to you when it is unhappy. You just need to learn its language. Doors creak when the hinges need inspection. The suspension makes straining sounds when you have loaded the

vehicle too heavily. The engine will crank slower and may have difficulty starting when your battery is about to die. Your exhaust may get loud when your muffler wears out. Your engine may just sound different, which should tell you something needs to get checked out. Our point is that the vehicle will try to tell you there is something wrong, but you must listen and understand the language. Here's a tip… Never turn on music, or other background noise until you have started the car and let it warm up a couple minutes. This gives you a moment to give the car your undivided attention for anything that may be going wrong.

Smell: Smelling your car may sound a little weird. Some drivers seem to use their car like a giant garbage can and can get smelling pretty rank. That kind of smell may not be bad for the car, but you might notice no one wants to ride with you. The smells you should pay attention to will come from the engine area, tires, brakes, and exhaust. If your car is producing a smell that you have never noticed before, try to find where the smell is coming from. If the smell is really strong, or if there is also steam or smoke, get away from the car and watch it from a distance until you know it is not on fire. Once the car has cooled down, try to find the thing that was making the smell so you can tell the repair shop what happened.

Learn: Every vehicle comes from the manufacturer with an owner's manual. The manual is written to inform you about the vehicle systems, how to maintain it, and what to do when things go wrong. Review the manual of a car you haven't driven before. Before doing any work on a car yourself, make sure you learn how to do the work. YouTube is a great resource of short videos by people doing the work you need to do. Just be careful. Sometimes, just because you see it, doesn't make it true.

Your Homework: You need to have a conversation with your parents about insurance. When you get a license, your family will have to make choices about how you get insured. Adding a new teen driver to an existing policy is an option, but sometimes is very expensive. Sometimes it makes more sense to create a new policy just for you and assigning only one of the family cars to you. Whatever decision is correct for your family, the point is it starts with a conversation. Make a plan for your insurance, and then talk to an agent to get it in place when the time comes.

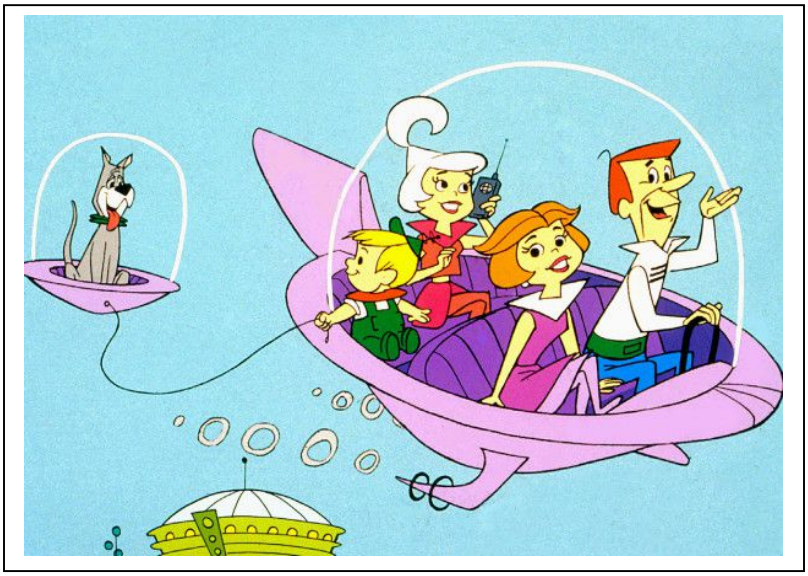
Self-Reflection: Think ahead to a time when you will be paying all your own bills. Rent, food, clothing, internet, and everything else. With all those financial pressures in place, how will you choose how much insurance protection to purchase? When every dollar counts, how much insurance is the right amount?

Tips for Parents: At this point in life, most teens are only beginning to think about independent life. For some of them, however, it's only a few short years away. When we ask them questions like "what will happen if you speed?", they often answer with "I'll get a ticket". In most cases, parents are in the best position to change this mindset. Help them learn to think of risks through the perspective of responsibility to do the right thing, rather than consequence avoidance. You're creating a new adult right now. What kind of adult do you want him or her to become?

PARKSIDE DRIVING SCHOOL

Class 14

Tech and Emergency Services



Do you like Science-Fiction movies? What really makes them different from action movies? Usually, the difference is the tech. An action movie will typically feature technology that exists today. A Sci-Fi movie usually has technology that the viewer is supposed to think is coming in the future. There are lots of examples of this. When the Star Trek TV series ran in the 1960's, they used a small handheld device to communicate, scan, and even use as a weapon. That device now very closely resembles a smartphone. In the 1980's, there was a very popular TV series called Night Rider. It featured a fully autonomous car named Kit, who helped the driver solve crimes. Books, television, and movies have been credited for inspiring countless advancements in our real life. As we talk about the technology that has come to vehicles, remember that it is only good if we use it safely. As has been said by many superheroes, "With great power comes great responsibility."

Driver Assistance Features: As we have mentioned before, driving is the most dangerous task you will do over the span of your lifetime. Also, as we've mentioned before, about 94% of all vehicle crashes are due to human error. Given those two facts, it seems logical that vehicle manufacturers should develop some features that can work to reduce human error, or at least reduce the consequences of those errors.

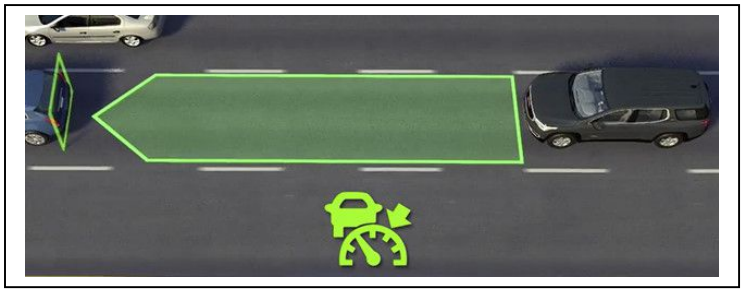
Back-up Detectors and Camera: All vehicles manufactured in 2018 and beyond are required to have a camera facing backwards that can display that image to the driver when the car is in reverse. Most vehicles also have detectors that sound an alarm when the rear of the vehicle gets close to an object. Some vehicles as old as 2006 may have this tech, but all new vehicles are now required to have it. The benefits of a rear facing camera are clear. The camera allows the driver an unobstructed view directly behind the car, where it is difficult for

the driver to see with their eyes. This technology continues to improve and provide more useful information to the driver, but it is not a suitable replacement for a driver scanning with their eyes. The eyes provide space and distance information to the brain at a much higher level than can be discerned by viewing a camera screen. The camera tech can help a driver but should never be relied on as the only rear view source.

Blind Spot Monitors: This tech was designed to assist the driver in detecting risks beside the vehicle. It uses sensors to detect objects in the drivers blind spot and sends a warning to the driver. The warning usually comes in the form of a light, either on the dash, or near the side view mirror. This tech has been credited with allowing drivers to avoid many crashes, however it has also been credited with drivers failing to turn their head and check their blind spot before moving sideways. Blind spot monitors are constantly being improved to detect things better. The early versions had difficulty detecting motorcycles and bicycles. Current versions are getting better, but still have trouble with non-metallic items and pedestrians. Most new vehicles come equipped with these monitors, but each manufacturer is free to design their own systems for communicating to the driver.

Forward Collision Monitoring: Similar to blind spot monitoring, this tech uses sensors positioned in the front of the vehicle detecting objects ahead. If the sensors detect something in front of the vehicle, it will alert the driver. These alerts usually appear somewhere on the dash, or within the line of sight of the driver. This technology is basically an attempt to reduce the human errors associated with distraction and tailgating. A distracted driver may be alerted of a risk ahead and be able to react to it. A tailgating driver may be alerted to their close following distance and choose to increase that distance. While this tech does provide useful information to the driver, it is only beneficial if the driver correctly modifies their behavior as a result. The sensors simply tell the driver a risk is present. The driver must use that information to improve the situation.

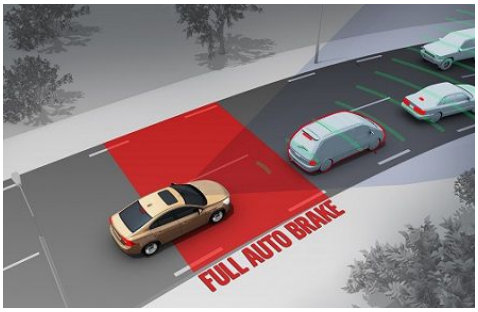
Semi-Autonomous Features: Many vehicles are currently being equipped with features the vehicle can do for the driver. Some of these technologies have been in vehicles for decades and some of them are very new.



Cruise Control & Adaptive Cruise Control: Cruise control has existed in vehicles for a very long time. It allows the driver to set a speed and then the vehicle automatically maintains that speed the best it can until the driver presses the brake or turns off the control. Adaptive Cruise Control brings in the sensor data from the forward-facing sensors. With Adaptive Cruise, the vehicle will sense when it is approaching a slower vehicle ahead and it will adjust itself down to the speed of that vehicle. This tech has been designed to prevent a driver from running into the back of a vehicle at high speed. The risk of this technology is that the driver may feel safe enough to allow some distraction, since the vehicle will manage the speed-based risks. Adaptive Cruise Control cannot currently detect all risks and may not be able to react quickly enough to some risks. This tech is never a suitable replacement for the driver paying attention to the roadway ahead.

Lane Departure Assistance: If the vehicle is equipped with Lane Departure Assistance, it uses the front and side sensors to detect when the vehicle is leaving a lane without the turn signals being active. In other words, the driver is wandering out of the lane without communicating. In this case, the tech will alert the driver and may also attempt to steer the vehicle back into the original lane. This tech has been designed to address human errors from distraction as well as from drowsy driving. Currently, there are many challenges to this tech doing its job. It has trouble identifying the edge of a lane if there is no paint. It has a hard time on unpaved roads and it also can be confused by construction zones and repairs done to the road. There is little doubt that this technology will continue to improve and become more reliable, but for now, it should only act as a last resort when a driver fails to maintain proper lane control.

Front Collision Avoidance: This is a fancy term for emergency braking. This tech uses the front facing sensors to identify a risk ahead and engages the brakes in an attempt to stop the vehicle before impact. This is intended to engage only at the last possible moment. The driver should have always applied brake before this system activates. The system is designed to help with human errors caused by distraction and tailgating. There are a few major problems with this tech. First, it is only using data from the front facing sensors. If it activates while your vehicle is being tailgated, it is highly likely you will get hit from behind. Second, this system only activates the brakes and can perform no steering. If activating the brakes causes the vehicle to spin or slide sideways, the system can do nothing to maintain control. In a perfect world, a driver should never know whether this system works on their vehicle. The driver should always manage their surroundings in a way that a system like this never engages.



Automated Parking Assistance: Since many modern vehicles are being equipped with sensors facing in every direction, the vehicle is collecting all the necessary data to identify a safe place to park. With the additional ability for the vehicle to accelerate, brake, and steer, it can be programmed to park itself. Many vehicles are being equipped with these features, which allow the vehicle to perpendicular park, reverse perpendicular park, and even parallel park without any action by the driver. Since these features activate at very slow speeds, they have shown to be quite safe, however they do have an unintended downside. Human drivers benefit from repeated practice of difficult driving tasks. As the vehicles take away these tasks from the driver our own skills diminish. Over time, a driver can begin to have difficulty with relatively simple driving tasks because they have begun to rely on the car to do things for them.

Fully Autonomous Vehicles: You have probably been led to believe that autonomous cars are on the roads now. That is false. There are vehicles which can perform some driving functions while the driver is monitoring things, but for a car to be autonomous, it needs to be able to drive itself around with no human at all. Or imagine this, your mom doesn't have time to take your little sister to soccer practice, so she just buckles her into the car, and tells the car to deliver her on its own. No moms are quite ready to do that just yet… These cars probably won't even have a steering wheel or pedals. No human controls will be necessary. The truth is that there are countless technological advancements which need to occur

before we have fully autonomous vehicles. Most experts are predicting this tech to become available around the years 2035-2040. Part of the challenge has to do with how autonomous cars will interact with human driven vehicles. Other challenges have to do with legal concerns around what happens when an autonomous car crashes. Who is liable? Our advice is simple. Learn to drive with your eyes, hands, and feet. If a future comes where you can rely on computers to do the driving task for you, great! Between now and then you're going to have to get around and you're going to need a strong set of skills to do that task safely on your own.

Emergency Services: There are times when drivers must interact with emergency service professionals. These interactions can be simple, or they may be very intense. How you act during these encounters is very important.

Sirens and Lights: There are several vehicles equipped with sirens and lights. Each of them has a specific purpose in emergency situations. The siren and lights are designed to get the attention of everyone nearby. All drivers, pedestrians, and bicyclists are required to yield to any emergency vehicle using its siren and/or lights. The light colors will be red and white and may occasionally include blue, yellow, or green depending on the type of emergency vehicle. Whenever you see an emergency vehicle on the same road as you with its lights and sirens on, always pull over to the right edge of the road and stop until the emergency vehicle has passed. The only exception to this rule is while driving on a multi-lane freeway. When an emergency vehicle is approaching from behind on a freeway you must move to the right lane and stay there until the emergency vehicle has passed. You are not required to stop on the freeway unless directed to do so by the emergency vehicle.

Passing Emergency Vehicles: You should never pass an emergency vehicle in motion on the same road as you. Even if they are moving very slow, stay behind them a safe distance and wait for instructions. You can never be sure you know why the emergency vehicle is there, so always give them plenty space to do their job.

If you approach an emergency vehicle parked along the side of the road with its lights flashing, you can pass them, but there are rules about how you pass. If you are travelling on a multi-lane road, you are required to change lanes to leave an empty lane between you and the emergency vehicle as you pass. If you are travelling on a single lane road, or it is not safe to change lanes, you must slow down to a speed at least 10mph below the posted speed limit or 50mph maximum. You want to pass slow enough to react safely to any hazards that may appear and give as much safe room to the emergency vehicle as is safe. If passing requires you to cross the center of the road into an oncoming lane, you must yield to any oncoming traffic.

Traffic Stops: Law enforcement has a responsibility to enforce the traffic laws. When they observe a vehicle in violation of a law, or in an emergency condition, they respond by pulling the driver over. You may have been driving faster than the speed limit, or maybe one of your lights is not working. Regardless of why you are being pulled over, there are things you need to do to make the stop go as smoothly as possible.

Being pulled over: When you see an emergency vehicle pull up behind you with its lights and/or siren on, you need to pull over and stop as far to the right edge of the road as is safe. If you are being pulled over the emergency vehicle will stop behind your vehicle. If you do not feel that the right edge of the roadway is safe to stop, then you may continue driving slowly a short distance to a safe location to pull over.

While stopped: The officer may not approach your vehicle right away. Often, they look up information about your vehicle first and they may also radio other officers their location. They do these things to protect themselves from unknown risks. They don't know you, so they proceed with caution. While you are waiting for the officer to approach, your responsibility is to remain still and keep your hands on the steering wheel. Any motions you make inside the vehicle can be concerning to an officer.

When approached: When the officer approaches the vehicle, they will usually come to the passenger side and ask you to roll down the window. They are aware that you may be nervous, so they will ask simple questions and make simple requests. Whatever they ask, try to answer as simply as possible. They don't need you to tell them your life story. Just answer their questions directly. If they ask you to produce documents like your license, registration, and insurance, tell them where those items are located so they can understand your movements. Once you have answered their questions and provided the documents they requested, they will usually return to their vehicle to do the necessary paperwork. At this point, you may or may not be issued a ticket. Try to remain calm and wait for the officer to return.

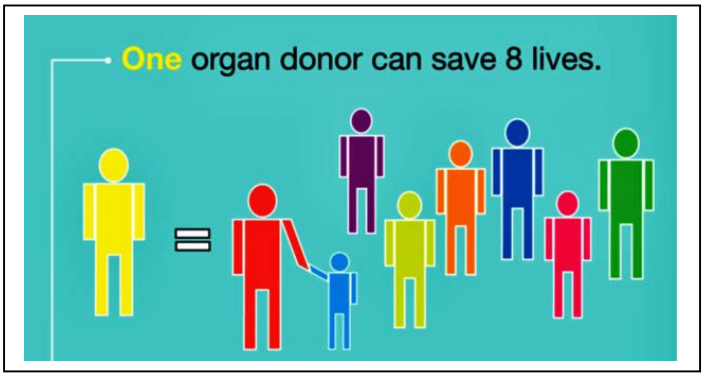
Tickets and Warnings: When the officer returns the final time, they will inform you that you have been given a ticket, a written warning, or a verbal warning. You need to listen carefully to what the officer says, because it will determine what you must do next. If the officer gives you a verbal warning, they will inform you about what was wrong and advise you on how to avoid the issue in the future. If the officer gives you a written warning, then there will be a record of the stop in the police system. If you get pulled over for the same issue in the future, the officers will know you have been warned before, and may be more likely to give you a ticket.

If you are issued a ticket: A ticket is a citation that will remain on your driving record for a period of time. When you are issued a ticket, you need to listen to the officer explain the ticket and how to resolve it. There are several types of citations, but there are two which are most common.

- **Citation to repair:** If you have a broken light, or an illegal tire, or something else wrong with the vehicle mechanically, the officer may choose to issue you a ticket that requires repair of the vehicle before it can be driven further. This type of ticket usually has a fee, but the fee will be waived if the repairs are made within a given time period, and the repair passes an inspection by law enforcement.
- **Citation for cause:** If your driving behavior was the reason you were pulled over, then the ticket you receive will be a fee for that behavior. The fee issued will depend on which law was violated. The officer will inform you of the law that was broken. On the back of the ticket you receive there will be a list of options for how to resolve the ticket. You may choose to submit payment, or you may choose to appear before a judge to argue or explain the ticket.
- **Getting arrested:** Only in extreme circumstances will an officer arrest a person for a traffic violation. To be arrested, you must have seriously endangered the safety of yourself or others, or you are in violation of an offense that is likely to endanger yourself or others. Driving impaired is a good example. Speeding to the point of reckless driving is another example. Another way to get arrested during a traffic stop is to be argumentative or disruptive with the officer to the point that the officer is concerned for your safety or that of others. If the mistake you made to get pulled over is minor, and you remain calm, you are unlikely to get arrested.

Pro-Tips: There are certain things you can do to reduce your chances of getting pulled over by law enforcement. All drivers make mistakes while driving. Law enforcement could choose to pull almost any driver over if they followed them looking for a reason. You can do a few common things to improve your odds.

- **Drive a clean, well-maintained vehicle:** A large number of stops made by law enforcement are due to a light not working or something on the car being broken. If your car is relatively clean inside and out, and all of it's parts work, then law enforcement is likely to consider you a responsible driver and may overlook some minor mistakes.
- **Communicate your intentions:** If law enforcement observes you turning or changing lanes without signaling, especially if you cut someone off, that is going to draw their attention, because they just watched you almost crash. Use your signals and brake lights to communicate to other drivers and law enforcement will think better of you too.
- **Don't speed or tailgate:** Speeding and tailgating are two of the most common reasons drivers crash. Law enforcement spends a lot of time responding to crashes because of these things. When they see an opportunity to change a driver's behavior by issuing a warning or a ticket, they will do so.
- **Keep your head and eyes up:** A driver paying attention to the road will have their head up and their eyes looking ahead. If law enforcement observes a driver with their head down and their eyes looking down, they will assume that driver is distracted and may choose to pull them over before a crash occurs. Even if you are not driving distracted, always keep your head and eyes up so you are in the best position to control the vehicle.



Organ Donation: When you are issued a driver license, you are asked whether you choose to become an organ donor in the event of your death. The cause of your death may or may not have anything to do with a car crash. States have simply found the license process to be a suitable opportunity to pose this question to citizens and promote the lifesaving practice. The decision to be, or not be, an organ donor is a personal decision everyone should make for themselves. People are encouraged to discuss this decision with family, friends, and other sources of guidance and mentorship. The most important advice we have to share about this is to know the facts and don't believe the myths.

- An organ donor will never be given lessor treatment for their injuries. Organ donation can only occur after all reasonable life-saving efforts have failed.
- Organ donation will not mangle or disfigure your body. If your family or culture values viewings as a part of mourning and respect, an organ donor body will still be useable for that purpose.
- Organ donation is not considered a violation of any major religious value system. All the major world religions consider organ donation to be an act of personal generosity.
- Organ donors do not pass on personal memories or emotions. Despite what you may have seen on a horror movie, a recipient of your organs will not become you in any way. They will simply continue to live because you were no longer able to live.

Parkside Final Exam: Class 15 is coming next. To be complete with the classroom phase of this course, you must pass the final exam. A lot of people often claim to have test anxiety. In most cases, the anxiety comes from not really knowing the material well enough to be tested on it. To help you out, we've made sure that every question on the test has been asked on one of these class worksheets. Go back and review the worksheets. If you have misplaced one, go on the resources page of our website and download a new copy. We've provided you everything you need to be successful in this course. You got this!

The Extra Credit Question:
The Parkside final has over 100 questions. Most of them are multiple choice, with a few true / false. You need an 80% or better to pass. There is 1 question worth up to 4 points. Here it is.

List the top 4 negative driving actions that lead to all types of motor vehicle crashes:

Speeding **Following Too Closely** **Failure to Yield** **Distraction**

Your Homework: The homework from this lesson is to learn what assistance features your home vehicles have and then practice using them responsibly. If you have already begun to use these features, spend some time figuring out if you have developed any bad habits you need to fix. Your other homework assignment is to study the questions in this and previous lessons to prepare for the Parkside Final Exam.

Self-Reflection: Teenagers often have a hard time thinking about death, whether it be their own or a family member. Considering to be an organ donor forces you to think of these things. How will you make this decision? And how will you be sure you've made the correct decision for yourself?

Tips for Parents: This lesson can be a challenge for many parents. Many of the family cars simply don't have these assistance features yet. Our advice in that case is simple. Help them develop a responsible level of caution around driving technology. We don't want this generation scared of the cars in the future, but we also don't want them reliant on tech to do the entire task. Try to manage your own perspectives about the future, so they can make informed decisions when the time comes. When it comes to the conversation about organ donation, our advice is to talk to them as if they are mature enough to have a real conversation about death. Our experience is that they react better to that.

PARKSIDE DRIVING SCHOOL

Class 15

Course Wrap-up

For most students, this is the end of the classroom phase of drivers ed. If you have any missed classes to make-up, though, you still need to get those done. Just because you are taking the Parkside final doesn't mean you don't have to complete all the classes. Make sure you get your make-ups scheduled, and remember to attend them. Don't Forget!

If you don't pass the Parkside final, that's ok. Don't beat yourself up. Use the same link to take the final again. Email info@parksidedriving.com if you need the link sent to you. If you can remember some of the questions you weren't sure about, take some time to look over these textbook chapters and grab a copy of the Washington Driver Guide to review some of the areas you feel weak on. **DON'T TAKE ONLINE PRACTICE TESTS!** Many students use practice tests they find online to study for the final and the state knowledge test. Most of those tests are garbage, put on the web by companies that just want your page clicks and don't care if you get the correct information. The **ONLY** good study resources are the Parkside Textbook and the Washington Driver Guide.

Driving Lessons: You probably also have driving lessons still to complete. If you don't have your next driving lesson scheduled, make sure you do that as soon as possible. You can't move on to taking the state tests until all your classes **AND** all your driving lessons are done.

State Knowledge Exam: Once you complete all the classes, pass the final and complete your 6th driving lesson, we will tell the state that you have completed the course. We need about a week to do that. Then, you will be eligible to take the Knowledge Exam. We do that exam by appointment on computer at our offices. Schedule a day and time that works for you and remember to bring your permit. **You will need to login to your Department of Licensing "License Express" account to take the test.** You probably made that account when you were getting ready to get a permit. Make sure you can login before you come to the test appointment. We can't give you the test if you can't get in your account. As a Parkside student, you get 2 free attempts at the knowledge test, but after that it's $20 per attempt. Take some time to study and come to the test prepared for success.

I'm going to say it one more time. STUDY for the knowledge exam! The passing rate among trained students in Washington is still really low. The test is hard. LIKE REALLY HARD!!!

State Skills Exam: After you pass the knowledge exam, you will be eligible to schedule the skills exam. That test is very similar to drive lesson 6, but much quicker. Practice the stuff you did with us on drive 6, and you'll be ready to test. As a Parkside student, you get 2 free attempts at the skills test too. After that, the test costs $50 per attempt. We prefer to do the test in a Parkside vehicle. If for some reason you really need to test in your own vehicle, let us know and we'll try to accommodate.

Getting your license: When all your testing is complete, you will become eligible for a license when:

- you are at least 16 years old
- have had your permit for at least 6 months
- have completed at least 50 hours of driving practice at home

If you have completed all those things, you can go to the DOL office, pay the fees, and obtain an intermediate license. Remember to review the intermediate license requirements below. You don't want to lose your license after working so hard to get it!

And one other thing… You are likely going to be moving several times over the next few years. Each time you move, you have 10 days to change your address. You can file an address change with the DOL online by using your License Express account. Just make sure you do it.

An intermediate license comes with these driving restrictions:

• you cannot drive between 1 a.m. and 5 a.m. unless you are with a parent, a guardian, or a licensed driver who is at least 25 years old.

• for the first six months, no passenger under the age of 20 may be with you while you drive unless that person is a member of your immediate family.

• for the remaining time, no more than three passengers under the age of 20 may be with you while you drive unless they are members of your immediate family.

• may not use a cell phone or other wireless communication device while operating a motor vehicle unless the holder is using the device to report illegal activity, summon medical or other emergency help, or prevent injury to a person or property.

There are tough penalties in the first year:

• First violation – the passenger and nighttime restrictions are extended until age 18 and a warning letter is sent to you and your parent or guardian if you receive a ticket for violating the restrictions or any other traffic law or you are involved in a collision.

• Second violation – you are suspended for six months (or until age 18 if that comes first).

• Third violation – you are suspended until age 18. You and your parent, or guardian, are notified before any suspension action is taken. On your 18th birthday, your license will become a standard driver license without the intermediate license restrictions. You do not need to visit a driver licensing office to make this change.

The intermediate license restrictions fully expire when you turn 18. Then, when you turn 21, you become eligible for a horizontally oriented license that makes it easier for store clerks and wait staff to recognize that you are legally allowed to purchase and consume alcohol.

Give us your review: Parkside relies heavily on your referral of friends and family members. We are continually changing our course to make sure it is the best it can be. Visit one of the various review sites (Google, etc…) and tell us how we did. If you're completely happy, we'll love to see that. If there are areas we could have served you better, we want to hear that too.

Your Homework: Study for the Washington State Knowledge Exam and keep practicing your driving skills. Your driving skills will continue to improve over the next several years. Never stop trying to be a better and safer driver!!!

Self Relection: You've had your permit for a little while now, and you've taken a driver education course. There is little doubt you had some assumptions and expectations when you started driving that have changed over this time. How are you better prepared to drive now, and how will you continue to improve in the future?

Tips for Parents: I hate to say this, but your work as parent driving instructors isn't done. At this point, they have a lot of knowledge about driving, but much of it is not yet practical understanding. That means they know stuff they don't know how to apply to real life. As parents, you are the last line of defense between them becoming a very safe and responsible driver, or something else. Get familiar with the passenger seat for a good long while. Have them drive as often as possible. The remaining time from now until they get a license is likely the most critical time in their learning. Don't take your foot off the gas now, you're almost to the finish line! Please also consider giving us a review as well. We really appreciate hearing feedback from a parent perspective.

Last Pro Tip: For some drivers, the public roads just aren't enough to satisfy the driving passion they have inside. Unfortunately, too many of those drivers don't get introduced to safe and legal forms of motorsport, so they take their thrill seeking to the streets. This is dangerous for them and others, totally illegal, and it leaves a very bad impression of them as members of our community.

Most communities have a car culture filled with responsible people who share in their passion for driving and can help them find safe and legal ways to express it. Seek that out! Find your people! If Autocross racing is your thing, come find me! I will take any of you under my wing and turn you into the highest precision driver you can be. Just don't become a statistic by killing yourself or others on the side of the road. You're too important for anything less than the greatness you're capable of. Go Find It!!!