## Pre- \& Post Drive Procedures

Objective:
The student will connect the importance of pre- and post-drive tasks to safe and reduced risk driving.

When does the driving task start?
Many people think the driving task starts when they start the car. This is false. The driving task starts as soon as you pick up your keys and decide to drive somewhere. Creating good habits will help you prepare yourself, your car, and your passengers for safe travel. There are several tasks that should be performed before you ever even start your vehicle. We call these pre-drive tasks and they should take place every time you get ready to enter your car.

LOOK!! Before approaching the car or entering the parking area, you should be concerned about the areas surrounding your car and its path of travel.

Are there pedestrians??
Are there other cars parked in the way??
Does my car have a flat tire??
Is my car in good working order??
Is there traffic that I must be aware of??


Are my tires inflated properly??
As many as $87 \%$ of first year drivers may have an accident during their first year of driving. Many of these accidents may occur in a parking lot. A first-year driver is often not concerned with what is around them but are instead, nervous and stressed about driving and tend to focus on the fact that they are about to drive a vehicle. Inexperienced drivers often enter the car, put the car in reverse, and start backing up without looking completely around them. This could result in a fender bender or possibly a devastating loss. What if your pet was sitting behind your car?? What if a younger sibling or another child was playing in the driveway behind your car?? What if your dad parked his brand-new car behind you?? Checking around your car before getting in is extremely important because of the many blind spots you have when sitting in the driver's seat. Many young teens do not consider these things when starting to drive.

Before getting in and driving, you should also make sure your car is in good driving condition. Many problems can be avoided if you simply look for trouble before getting on the road. You should check under the vehicle for possible fluid leaks such as oil, radiator fluid, etc. Remember, especially in Texas where we usually drive with the air conditioner on, water will
leak from under the passenger side front seat because of the air conditioner. Water leaking from this area is totally normal.

## Check Under the Hood

Consult your vehicle's owner's manual for location and inspection recommendations. Failure to inspect and monitor components under the hood can lead to unsafe driving conditions and expensive repairs. The following checks should be made at least once a month or as recommended by your owner's manual:

1. Engine-coolant reservoir (radiator fluid)
2. Windshield-washer fluid reservoir
3. Power-steering fluid reservoir
4. Drive belts (tension and wear)
5. Engine-oil filler cap
6. Engine-oil dipstick
7. Transmission-fluid dipstick (automatic transmission only)
8. Brake-fluid reservoir
9. Battery (clean and level charge)
10. Air-filter assembly


Starting from the front, approach the vehicle from the passenger side so that you can look and scan all around the vehicle. This might sound kind of silly, however many drivers approach the vehicle from the driver side and simply get in the car and take off with no idea of what may be on the other side or behind the car. On the opposite side of the vehicle, you may have a flat tire creating a dangerous situation. You should also look inside your vehicle, especially when parked in a public place, to protect against an intruder, possible carjacking, and other dangers.

Just as you should check certain things before beginning to drive, there are also things you should be aware of when you finish driving and park your car. When you exit the vehicle, check the backseat and trunk area for children, animals, and any other passengers that may still be in your vehicle. Recently we have heard terrible stories of children being accidentally left in vehicles and dying due to the extreme heat that develops inside an enclosed vehicle. You will also want to check your vehicle for any fluids leaking when you are a part, and pay attention to the smell of burning oil which will often appear when the vehicle is hot and has been running for some time.

If you are ever unsure of where to locate items on your particular vehicle, always refer to the vehicle owner's manual as a resource.

## Develop a Routine

After you have done your scan from outside the vehicle it is time to develop a routine to use when you get in the vehicle. Developing a routine and good habits will assure that you are ready
to drive every time no matter what your frame of mind is. Even when you are rushing and in a hurry, good habits and a solid routine will allow you to be ready and safe every time you drive.

1. Put your key in the ignition. This should be done so that the key will never be lost. Many times a driver enters the vehicle, places their keys down and then don't remember where they put them. If your car has a push button start feature, get in the habit of putting your keys in the same place when you get ready to drive.
2. Make sure that all the doors are closed tightly and locked. Studies show that in the event of an accident the driver is much more likely to stay in the vehicle with the doors locked. Drivers that are ejected from the vehicle have a much greater chance of sustaining a severe injury or possibly even death.
3. Check all the windows to make sure that they are clean. Dirty windows could reduce visibility by over $30 \%$. This could result in a dangerous situation.
4. All loose items lying around on the floorboard or seat should be restrained or put up. These items could potentially be flying objects in the event of a crash or sudden stop.
5. The driver's seat, steering wheel, accelerator or brake pedals, should all be adjusted to fit the driver. Every car is different and you may not always drive the same car or someone else may drive your car, changing the way it fits you.
6. The inside and outside mirrors should all be adjusted.
7. Fasten your seat belt and require that all passengers fasten theirs.
8. Adjust all air, windows and temperature controls before you start driving so that you will not be distracted.
9. Finally, all drivers and especially a new driver, should avoid all distractions especially the radio. Set your radio or phone to something you like and then leave it alone. Or better yet, leave it off. Young, novice drivers should focus all of their attention on the driving task. Changing the station causes you to take your eyes off the road and even though it's only for a few seconds...could
 result in disaster.

## Adjusting the Vehicle to Your Preferences

You never know what car you will end up driving or who may have driven the car before you. It is important for the driver to adjust the vehicle to his or her preferences. The position of your body, the seat, the steering wheel, and other items effect the driving task and comfort and safety of your vehicle. The following items should be set or reset each time you drive:

1. Seat position
2. Steering wheel
3. Mirrors
4. Head restraint.


The position of the driver's body in relation to the vehicle controls is very important. Your body should be in an upright position, shoulders square to the steering wheel, so that you feel comfortable and, in a position, to remain seated for an extended period of time. Position the seat forward or back, up or down, so that you can easily reach and operate the accelerator, brake and clutch pedal keeping your heel on the floor. These pedals should be controlled with the ball of your foot. Many people position the seat back too far back causing them to slouch and lose visibility over the steering wheel and out the front windshield.

Most late model vehicles are now equipped with the driver side and passenger side airbags. Sitting too close, less than 10 inches, to the steering wheel interferes with steering limiting your arm and hand movement, may be dangerous in the event of an accident and air bag deployment, increases fatigue and causes stress. You can help position yourself properly by stretching your arms in front of you and then moving the seat forward or backward until your arms are slightly bent at the elbow and hang comfortably by your side. In addition to the airbags, many vehicles today have the ability to adjust the distance of the petals to the driver.

## Blind Spots Around Your Vehicle

When seated in the driver's seat, there is a large area around your car that you cannot see. We call these blind spots. One of those blind spots is the area between the vehicle and the nearest point where you can see the ground in front of your car when seated behind the steering wheel. When your seat is in the right place, you should be able to see the ground within 12 to 15 feet to the front of the vehicle.

In the proper sitting position, you should be able to see about $1 / 2$ a car length to the left side of your vehicle and about $11 / 2$ car lengths to the right side. In some vehicles' the design of the trunk and rear window make it hard to see to the rear of your car. In some cases, you might not be able to see the ground for up to 40 feet.

It cannot be said often enough! With all this space that you cannot see, it is so important for you to make your pre-drive scan completely around your vehicle to check for objects, children, and pets. It is very important for a new driver to learn the danger zones around a vehicle to help prevent collisions. Properly adjusting each vehicle you drive to your preferences will help you get the best view around your vehicle in all directions.

## Steering Wheel/Steering Column Position

In most cars today, the angle of the steering wheel can be changed to increase the comfort level of the driver. Adjusting the steering wheel up or down gives you better visibility both inside and outside of the vehicle. You should make sure that you can see all instruments and gauges on your dashboard and also make sure that the wheel is not too high where it blocks your view of the hood or road.

## Hand Position

Your hand position on the steering wheel will depend in large part on the design of the steering wheel in your particular vehicle. If your steering wheel spokes allow it, rest your left hand at 9 o'clock on the steering wheel and the right hand at 3 o'clock. Some drivers prefer an 8 o'clock and 4 o'clock hand position on the wheel. This is also acceptable and may give the driver a bit more control over steering and may protect the hands and wrists from injury in the event the air bags were to go off.


This hand position on the steering wheel allows the driver to have optimum control when turning the steering. In past years, hand positions at 10 o'clock and 2 o'clock where preferred however with the addition of airbags it is much safer to place the hands at 9 o'clock and 3 o'clock. At these positions, if you were in an accident and the airbags were set off, the hands would be pushed away from the body. Before airbags became a standard feature on most cars, a hand position of "10 and 2 " was usually recommended. You may hear your parents tell you "hands at 10 and $2 "$ but this method has been updated in recent years. Hands at 10 am and 2 pm could be sent directly into your face and can cause injury. Remember that hand position is somewhat determined by the shape of your steering wheel, height of your seat, and the length or your arms. When driving you should always try to keep both hands on the steering wheel at all times.

You should grip the steering wheel with your arms bent slightly at the elbows. Your arms should be relaxed and hang naturally to the sides of the wheel. Your grip should be firm but not too tight as to cause fatigue and "white knuckles". You should grip the steering wheel on the outside and always avoid placing your hands inside the steering wheel. When gripping the steering wheel, it is important that your thumbs point up toward the top of the steering wheel. If you were to be in an accident and hit from the front, the front tires of your vehicle could rotate suddenly causing harm to your thumbs if they are tucked under.

## Adjusting Your Mirrors

When driving, you must be able to see other cars, people, and other objects around your car. In order to get the best view possible, you need to position and use all of the mirrors both inside and
outside your car. Bear in mind that mirrors should be used to help you gauge what is there and nothing can replace a real, physical look around. Blind spots occur all around your vehicle. These places are places where the vehicle itself blocks your view of objects and other vehicles. These areas to the left and right back of your car are particularly dangerous when changing lanes. Your mirrors will not detect an object in these areas. The only way to ensure that nothing is there is to take a quick glance over your shoulder. You cannot however take a long look. It should be quick and just enough to detect an object is there. Even experienced drivers are often surprised when they take that glance and see a vehicle in their blind spot that they had no idea was there. As a driver, it is also important that you are aware of other driver's blind spots and try not to maneuver your car into those areas for long periods of time. Slow down if necessary or get by a vehicle as safely and
 quickly as possible in order to avoid hanging out in the blind spot of another motorist.

The inside mirror, also called the rear-view mirror, should be positioned so that you can see the entire rear window. You should only have to move your eyes in order to see behind his vehicle. Turning your head to see out of the rear-view mirror may cause you to take your eyes off the road. The diagram below shows the blind area behind a variety of vehicles. The blind area is directly influenced by the size and height of your vehicle. Get to know the blind area of the vehicle you will drive.


There are two main techniques used when setting the outside mirrors of a vehicle:
The traditional method and the Blind Spot Glare elimination method, commonly known as the BGE method. These two methods are very similar, however when used correctly, the BGE method eliminates more of a driver's blind spot.


To adjust the driver's side mirror using the BGE method, the driver will lean until his/her head makes contact with the driver's side window. In a car with 4 doors, set the driver side mirror so you can see the back door handle in the bottom right corner of the driver's side mirror. When you return to normal in front of the steering wheel, you should not see any part of the car in the mirror. In this position the blind spots have been greatly reduced. The only difference between the traditional method and BGE method, is the driver will not lean to the left side before setting the mirror. This means you will always see the rear door handle in the bottom left corner of the mirror. Many drivers prefer the traditional method because they always see a small portion of their car in the left driver side mirror.

To adjust the passenger side mirror using the BGE method, the driver will lean to the middle of the car and set the passenger side mirror to where he/she can see the back door handle on the bottom inside corner of the right-side mirror. Once again, when you go back to your normal seated position, you will no longer see any portion of the car however this technique eliminates more of the passenger side blind spots. Just like the left side, the traditional method will not call for leaning to the middle of the car, but instead positions the mirror so that the driver can see the back door handle on the bottom inside corner of the passenger side mirror.

While proper mirror adjustment is important and necessary for safe driving, there is never an excuse for not double checking before changing lanes or making any other move with your vehicle. We will talk more about this important aspect of driving later in the course. It is your responsibility to make sure there is not a car, motorcycle, or other object there before making a move with your vehicle. Incorrect or failure to position mirrors before driving could result in a possible collision.

Objective:
The student will identify the use of a vehicle's safety features and relate that use to minimized risk of all people in the vehicle.
"The majority of teenagers involved in fatal crashes are unbuckled. In 2016, a total of 818 teen (15- to 18-year-old) drivers and 569 passengers died in passenger vehicles driven by teen drivers, and 58 percent of those passengers were NOT wearing their seat belts at the time of the fatal crash. As teens start driving and gradually gain independence, they don't always make the smartest decisions regarding their safety. They may think they are invincible, that they don't need seat belts. They may have a false notion that they have the right to choose whether or not to buckle up." (nhtsa.gov)

## 3 IMPACTS CAN OCCUR DURING A COLLISION

1. Vehicle hits another vehicle or object.
2. People in the car collide with the interior of the vehicle.
3. Internal organs smash into the inside of the body cavity causing serious internal damage.


Car companies have researched and engineered safety devices to keep you as safe as possible and free of injury if involved in an accident. Without these devices, the impact of an accident would be much worse. It is hard to imagine the impact a sudden and violent stop can have on the interior of your body.

## Active Restraints

Active restraints require the occupants of a vehicle to engage in their own safety. Lap and shoulder belts, when used, and used properly, are among the most important safety features in your motor vehicle. Statistics show that serious injury can be reduced by as much as $50 \%$ when seat belts are worn. Safety belts, also called seat belts, are designed to help slow your rate of deceleration if you were suddenly in an accident involving the front of your car. Seat belts can help keep you from hitting the steering wheel, dashboard, and minimize other people riding in the car with you from becoming projectiles and causing injury to the driver and other passengers. Safety belts also help keep all people in the car securely in place, with the driver firmly behind the steering wheel and in control in case of a collision or during an emergency. Studies have shown that remaining inside the vehicle during a crash greatly increases your chances of survival.

The safety belt provides the best protection and comfort when you're sitting up straight with your back firmly against the back of the seat. A lap portion of the belt should fit snugly across your hips and not be allowed to ride up on your stomach. After fasting the belt, be sure to take up any slack and make sure the shoulder part is resting firmly across your chest. When the belt is uncomfortable, the tendency is for people to place the shoulder portion under their arm. Avoid this and encourage your passengers to wear the seat belt correctly. Never share your seatbelt with another person. Seat belts are meant for one, not two. As a passenger, especially on long trips, it is tempting to ride in the front seat with the back of the seat in a reclining position. In the event of a crash, this reclined position may allow your body to slide forward, increasing the chance of both neck and abdominal injury.

Head restraints are another example of active restraints inside your vehicle. They must be adjusted properly with the top of the restraint positioned above your ears. You should not rest your head against the restraint or lean too far forward while driving. Remember seat position is very important to maintain good driving posture. Head restraints are especially useful when involved in a rear end collision. These restraints can help decrease whiplash and other spinal and neck injuries in the event of an accident involving the rear or front of your vehicle, however, if not if not positioned well, they may cause more harm than good.


## Passive Restraints

Passive restraints do not require the occupants to fasten or buckle any device to take advantage of the safety feature. Air bags are an example of passive restraints. The placement and number of air bags depends on the year, make and model of your vehicle. You should familiarize yourself with what air bags your car has in it and where they are located. Statistics have shown that contact with the steering wheel during a collision is a major cause of serious injury and death. Air bags are intended to be used along side safety belts and work by sensing the severity of a collision and automatically inflating and deflating to spread out the force of impact.

As mentioned earlier, positioning of the steering wheel and seat must be done correctly to help make the air bag feature as effective as possible. To avoid injury from the air bag itself, passengers, especially smaller or frail passengers, should try to sit as far back away from the passenger side dash as possible. Children under age thirteen should always be in the back seat. If the air bags deploy and the steering wheel is in the incorrect position, you may be injured by the air bag itself. The air bag should be directed at your chest and not your face. Hand position on the wheel is also important to avoid hand and wrist injury if the air bags were to be needed. Air bags explode with such tremendous force that they can ram your hands and arms into your face if the hands are in the old 10 and 2 position on the car's steering wheel. The exploding bags can damage your face by turning your hands, wrists and forearms into missiles that slam into your eyes and break your nose and cheeks.

The newer your vehicle, the more air bag technology it may have. Advanced frontal air bags and side air bags have been designed to reduce head injury due to impact with the front and sides of the vehicle. Researchers are always trying to make cars as safe as possible but there are risks involved with air bags and other safety devices. You as the occupant and driver of a motor vehicle must take responsibility for your own safety and the safety of your passengers. Most cars are equipped with safety warnings but it is up to you to know how your car works and what features it has. Children and smaller sized adults can be seriously injured by air bag technology if it is not used properly. The user manual is always a good place to start.

## Texas Law

Texas laws requires all occupants to be secured by a safety belt anytime a vehicle is in motion. The driver of the vehicle is responsible for any unlicensed occupants and all licensed occupants are responsible for themselves.

## Infants and Young Children

Parents have a few options for child safety seats. Infant only, convertible, and all in one seats should all be used rear facing for the first few months of a child's life. The seat should be secured firmly using either the safety belt or a latch system if the vehicle has one. Child safety seats are designed to be padded on all sides to protect and support a child' s head in the event of a collision. An infant child under the age of one should be restrained facing to the rear in the
middle of the backseat. Rear facing seats are recommended until the child is at least 22 pounds. Rear facing is the safest for infants and should be used as long as possible and until they reach the upper limits in height and weight. While inconvenient at times, the safest and only place for an infant is in the back seat. NEVER place a child in the front seat. NEVER place a rear facing child set in the front seat with the air bag feature activated. If a child needs something, pull over first and then care for the child. It is not worth the risk to you, the child, and other motorists.

Forward facing child safety seats. https://www.texaschildrens.org
Safety seats are recommended and, in most states, required for older children. Once the child becomes taller, heavier and more active, the seat may be turned facing forward. The seat should be fastened securely with the safety belt or latch system and the child should be buckled into a five point harness at all times up until 40 pounds. Children should be taught from a young age that the use of their car seat is not a choice. Eventually a child will grow out of the forward facing car seat and will be ready for a booster type seat. These seats may be used once the child is large enough to make the safety belt safe to wear. The shoulder portion should rest comfortably across the collarbone and sternum and should not ride up onto the neck area. The lap portion should rest low across the hips. Children should not be allowed to place the shoulder portion under their arm. If seated comfortably with the booster in place, the seat belt should not be a bother for the child. Children under the age of 8 (less than 4 ' 9 ' in height) must be restrained in an approved child safety seat. It is recommended that all children under the age of 13 be seated in the backseat. Please note: while all states have child restraint laws, Texas is one of the toughest states regarding children in child safety seats.
AGE (YEARS)
Birth

## Getting to Know Your Vehicle

Objective:
The student will examine the information devices, symbols, and procedures that are useful to the safe and successful operation of a motor vehicle.

The dashboard in your vehicle has a wealth of information and is a constant source of data to the driver. Not every car is the exactly the same, however all cars have the same features on the dashboard area although placement of these features will vary. As part of the steering wheel in most cars, you should examine and locate the following features in the vehicle you will drive:
--HORN—Pressing on the middle or to the areas to side of air bag usually works the horn.
--TURN SIGNALS-Most often found on the left side of the steering column, the turn signal lever is moved (movement to the right) and down (movement to the left). Will turn itself off after a full turn but may need to be shut off manually after a slight turn such as a lane change.
--HAZARD FLASHERS-Used to signal a hazard or problem in the road way or with your vehicle, when operated both the right and left, rear and front, flash simultaneously.
--WINDSHIELD WIPERS \& WASHER-The controls for these vary widely, may be found on the lever on the right side of steering column, on the dashboard itself, or sometimes even on the same lever as the turn signals.

--HEADLIGHTS-Location also varies greatly from vehicle to vehicle, may be located on turn signal lever, to the left side of the instrument panel, or on a completely separate lever, this function will operate the parking lights, taillights, side marker lights and the light on your license plate, dome and interior lights are usually controlled by a separate switch.
--HOOD RELEASE-Usually located on the left side of the driver compartment under the instrument panel along the driver side door, there is also another latch just under the hood to keep the hood from flying open while the vehicle is moving.
--TRUNK/HATCH RELEASE-Location varies but can usually be found to the left or right side of the driver seat or on the driver's side door panel or even in the center console, some vehicles even hide the release in the glovebox.
--FUEL DOOR RELEASE-not all vehicles have this feature but it is nice in order to prevent theft and to stop anyone from putting unwanted items and substances into your gas tank, usually located near the trunk latch release.

You should get into your vehicle and while at a standstill, practice using all of the functions located in and around your dash and instrument panel. Many of these should not require you to take your eyes off the road. Practice until you can locate and activate them without looking. Try to locate the following in the vehicle you will be driving:
A. Rheostat: regulates the brightness of the back lighting on the instrument panel.
B. Multi-function lever: may contain turn signal, headlights low/high beam selector.
C. Horn
D. Steering wheel
E. Air bag
F. Windshield wiper/washer
G. Ignition switch
H. Comfort control buttons/knobs that control AC and heat
I. Hazard indicator
J. Rear-window defogger

## Instrument Panel/Dashboard

This area located just behind the steering wheel in front of the driver gives you information about how your vehicle is performing at any given moment. You will see a variety of gauges and indicators which help you to gain information with just a quick look. You should never take your eyes off the road for a long period of time. If you think you have a problem, pull over and then study the gauges to detect a problem. Remember, not all cars are exactly the same. Take the time to study your vehicle's instrument panel and also the manual for your vehicle. The following gives a general idea of what gauges most vehicles have although their location may vary.

In the picture below you will see an example of a typical instrument panel or dashboard. Remember this is an example and your car may be slightly different but this will give you a general idea. Try to locate all of these in the car you will be driving.

1.Temperature: gauge and alert light when/if there is a problem and your car is too hot
2. Tachometer: indicates the engine revolutions per minute or RPM
3. Turn signals: flashes left or right when your blinker is on or both flash when you have activated your hazard lights.(not pictured)
4. Odometer: Shows total mileage since the vehicle was first manufactured.

5. High beam (not pictured)
6. Trip odometer: shows mileage for a particular trip, can be reset as needed. (not pictured)
7. Speedometer: shows how fast you are traveling, miles per hour MPH
8. Fuel gauge
9. Oil pressure (not pictured)

10. Battery/alternator (not pictured)

11. Brake light: indicates that you have activated the parking brake
12. Air bag light
13. Safety belt
14. Selector lever for automatic transmission: shows what gear the vehicle is in
15. Tire Pressure
16. Service engine soon
17. Anti-lock brakes ABS
18. Traction/Stability Control
19. Compass/Direction

## Controlling the Vehicle

The pedals found on the floorboard under the steering wheel are what control the car. Depending on if your car has automatic transmission or manual, you will have some sort of gear selector handle usually located in the middle to the right of the driver. In an automatic transmission vehicle, the car itself changes gears and all you have to do is select drive. In a manual transmission vehicle, you, the driver, must change the gear as the car accelerates.

## Gear selector lever:

Depending on the type of vehicle you are driving the placement of the gear selector lever, or gearshift., will vary. In vehicles with automatic transmission, the selector is usually located on the right side of the steering column or on a console between the front seats. The gear selector usually has a knob on top for easy gripping. In vehicles with manual transmission, the gearshift is usually on the center console or on the floor to the right of the driver.

Accelerator pedal: Controls the speed of the car. Located on the floorboard in the right corner of the driver's foot area. Operated with the right foot, heel on the floor so that you push only with the ball of your foot. Some cars are equipped with cruise/speed control. This feature allows your vehicle to maintain a certain speed automatically. This feature is especially useful on long trips.

Brake pedal: Controls the slowing and stopping of a vehicle. Located to the left of the accelerator pedal. Operated with your right foot, heel on the floor if at all possible, pushing again with the ball of your foot. Vehicles vary greatly as to how much pressure is needed on the brake pedal. At first you may need a little time to adjust to a vehicle and may brake too firmly. Soon your foot will get the hang of it and you won't feel like you are going to hit the windshield each time you brake.

Clutch pedal: Found only on cars with manual transmission. Located to the left of the brake pedal. Operate this pedal with your left foot using only the ball of your foot to push it completely to the floor. This pedal disengages the motor from the transmission so that you can use the gear shifter to change the gear when accelerating or stopping.

Parking or Emergency brake: Used when parking, after stopping, to prevent movement of the vehicle. Sometimes in the middle of the car near the gear shifter and applied by hand. Other makes and models have the parking brake on the floorboard on the left side and is applied with the left foot. To release the emergency/parking brake, there is either a hand lever to the left above the foot pedal that when pulled up release the parking brake. On other vehicles, it may be a hand brake which is activated by pulling up firmly and release by pushing a button with your thumb and then releasing the brake in a downward motion.

Note: Cruise control is great for sunny days when traffic is light and you are traveling a long distance. It should not be used in rainy, snowy, icy or any other weather that reduces traction on the roadway or when traffic is heavy.

## Communication is Key

When you are on the road, it is important that you let other drivers know what your intention is before you make a move with your car. It is also important to make sure that other roadway users know what you are communicating. You as the receiver of information must also be sure that you understand the true meaning of the communication you are getting. Do not ever assume that another driver knows what you are communicating. There are many ways to communicate your intentions using the items we have discussed in this section.

HEADLIGHTS: turn them on to make your car visible and flash them to let other drivers know you are there, flash them on and off, switch from low to high beams

TURN SIGNALS: activate them early to warn other motorists of lane changes or turns
HAZARD LIGHTS: use to warn others of risk or abnormal conditions

BRAKE LIGHTS: tap the brake pedal before fully engaging brake pedal
HORN: tap or sound quickly to alert other road users or get their attention, give a sharp blast to indicate a drastic need for attention, a long blast to try to avoid an impending dangerous situation

HAND SIGNALS: used to warn others or direct your intentions, communicate the right of way, let other drivers know you see them or are aware of their movements, can also include nodding, smiling, a wave or a puzzled confused look

## Minimizing Risk

The primary goal of every driver should be to avoid crashes and injuries. Sometimes this goal is not always possible and accidents occur. As drivers we must minimize the consequences of an accident. In this section we have spent time on the importance of using your vehicle safely by being aware of and using all of its safety features. By doing so you can greatly reduce the risk of accident, injury, or even death. A motorized vehicle is a deadly weapon when not operated safely and cautiously. In addition to ensuring everyone in your vehicle is safe, it is also your responsibility to keep the safety of other road users in mind every time you drive. Using the devices on your car will help you to let other drivers know what you intend to do with your vehicle before you do it. It is important that you are clear in what you are trying to communicate. For example, if you intend to turn or park after an intersection, do not engage your turn signal too early. Another driver may expect you to be turning earlier than you intended and turn into your path of travel. Wait and engage you signal after the intersection to avoid confusion. Being aware of other driver's actions and making them aware of yours will help reduce risk of being in an accident.

Things to remember:

1. Protect yourself-Treat yourself as you would a fragile object easily broken. Use the safety equipment provided in your vehicle and lower the chance of injury to yourself in the event of a crash.
2. Protect your passengers-Everyone! Every time! Buckle up yourself and all of you passengers. They are at higher risk, as are you, when they do not wear their safety belts.
3. Be responsible for others - No one rides in car without a seatbelt fastened. No one rides in the bed of a pickup truck. No one rides in the cargo area of an SUV. Pets and objects are secured.
4. Remember that air bags and safety belts work best when used together. At least $70 \%$ of all vehicle-occupant deaths are the driver of the car. About $70 \%$ of the deaths were caused by injury to the chest, head, neck and face.

## Day 4 Make Up Day Quiz

