

TEXAS 30-HOUR BEHIND-THE-WHEEL INSTRUCTION GUIDE

Texas Department of Licensing and Regulation
www.tdlr.texas.gov

Table of Contents

	Page
Young Drivers	3
Texas Graduated Driver License Program	4
Provisional License	5
Message from NHTSA.....	5
Suggestions to Enhance Your Experience.....	7
Suggestions Before Beginning Practice.....	7
Control of Vehicle	8
Commentary Driving	8
During ALL Practice Hours: Your Teenager	8
Sharing the Road Safely with Commercial Motor Vehicles and Large Trucks.....	9
Sharing the Road Safely with Motorcycles.....	9
Vehicle Safety Features and Maintenance	10
Driving in Adverse Conditions	12
Top Driving Errors	13
Getting Ready, Starting, Placing the Vehicle in Motion, and Stopping	13
Moving, Stopping, Steering, Knowing Where You Are.....	14
Backing	15
Turning, Lane Position, and Visual Skills.....	15
Searching Intended Path of Travel	17
Parking	18
Turnabouts	20
Multiple Lane Roadways	21
City Driving	23
Expressways/Freeways	24
Skid Recovery.....	25
Avoid Aggressive Drivers or Fatigued Drivers.....	25
Off-Roadway Recovery.....	26
Crossing Railroad Tracks	27
Braking Methods.....	27
Other Resources	28
30 Hour Behind-the-Wheel Practice Log.....	29

Young Drivers

Driving provides teenagers greater mobility. The knowledge, skills, judgment, behaviors, and understanding necessary to operate a vehicle safely take time to develop. Safe drivers are not just born. In the driver education course your young driver acquired new and important knowledge and skills about basic vehicle operation such as turning, backing, and parking. Usually, these skills are not difficult for young drivers to master. However, other skills, such as judgment and understanding, require more practice.

Driving is not a right; it is a *privilege* with obligations, responsibilities, and consequences.

In 2015, motor vehicle crashes were the leading cause of death for young people ages 15 to 24 years old with half not wearing a safety belt at the time of the fatal crash.

Texas Traffic Statistics may be located on the Texas Department of Transportation website: <http://www.txdot.gov/>

The U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) states that "parental involvement can mean the difference between life and death" during a teenager's driving experience. NHTSA asks parents to be involved in their young driver's driving instruction by supervising behind-the-wheel instruction and setting clear limits concerning wearing a safety belt, no texting or talking on a cell phone, no drinking alcohol, or drug use, limiting the number of passengers, and restricting nighttime driving.

In an effort to reduce teen crashes and to save lives in Texas, the 81st Texas legislature enacted the Less Tears More Years Act, which requires new drivers to have more driving experience prior to obtaining a license. Under this act, young drivers must receive an additional 30 hours of behind-the-wheel instruction to be certified by a parent or guardian before a teenager may progress to Phase 2 of Texas' Graduated Driver Licensing (GDL) program. The additional hours must include at least 10 hours that take place at nighttime.

These 30 hours of behind-the-wheel instruction must be completed in the presence of an adult who meets the requirements of Section 521.222(d)(2), Transportation Code before the young driver is eligible for a provisional license. Only one (1) hour of behind-the-wheel instruction per day will count towards the 30 hours regardless of the number of hours the young driver actually drives in a day.

Adult Qualifications: Section 521.222(d)(2), Transportation Code (d) A learner license entitles the holder to operate a type of motor vehicle on a highway while: (1) the license is in the holder's possession; and (2) the holder is accompanied by a person occupying the seat by the operator who: (A) holds a license that qualifies the operator to operate that type of vehicle; (B) is 21 years of age or older; and (C) has at least one year of driving experience.

(g) A person who occupies the seat in a vehicle by a holder of a learner license commits an offense if, while the holder is operating the vehicle, the person: (1) sleeps; (2) is intoxicated, as defined by Section 49.01, Penal Code; or (3) is engaged in an activity that prevents the person from observing and responding to the actions of the operator.

Daytime means the period beginning one-half hour before sunrise and ending one-half hour after sunset.

Nighttime means the period beginning one-half hour after sunset and ending one-half hour before sunrise.

Consider this document as a guide. It includes ideas that should become an important part of your young driver's instruction time. It describes basic skills required in everyday driving and where to practice these skills so that the needed additional behind-the-wheel instruction hours are conducted in a safe, supervised setting. As you and your teen become comfortable in simpler driving situations, look for more complex traffic environments.

Be aware that young drivers have more difficulty maintaining attention and understanding how, when, what, who, and where to watch. Their ability to judge distance also can be challenging.

Whether you live in a rural setting or a large community, allow your teenager to observe, explore, and drive in progressively larger, more complex settings. For instance, allow your teenager to practice when weather limits visibility or there is reduced traction, or to drive on busier streets.



Your teenager’s thought process, decision-making, and problem-solving skills will develop with appropriate guidance, encouragement, and feedback. Reinforce good habits such as longer following distances and

avoiding distractions. Take the time to discuss the goals, driver behaviors, and skills you practiced. The knowledge, skills, and behaviors your teen learns now can become part of safe driving and reduced risk driving practices that last a lifetime. This also can be an enjoyable and special time with your teenage driver.

Texas Graduated Driver License Program

Phase One

Applicants under age 18 must hold a learner license or hardship license for a minimum of six months prior to issuance of a provisional Class A, B, or C driver license. In addition, the minimum age of the person who must accompany any learner license holder during the operation of the vehicle is 21 years of age. Except for hardship licenses, a minor is not eligible to graduate to Phase Two (provisional license) for a Class A, B, or C driver license until they have completed this phase and met all other current licensing and age requirements.

The learner license must remain valid during the mandatory six-month period to meet this regulation. If a learner license is suspended/revoked during this period, upon the completion of the suspension period, the remaining six-month period must be completed to meet the GDL Phase One requirement.

Once the applicant has held a valid learner license or hardship license for a minimum of six months, has reached the age of 16 for a Class C

Under the GDL program, there is no minimum time that a person must hold a restricted motorcycle or moped license before they can apply for a Class M license.

license (17 years of age for a Class A or B non-CDL), and has completed both the classroom and laboratory (driving) portions of driver education, they are eligible to “graduate” to Phase Two.

Phase Two

Phase Two restricts the driving privileges of persons under 18 years of age during the twelve-month period following the issuance of an original Class A, B, or C driver license (Provisional License). These persons may not operate a motor vehicle with more than one passenger in the vehicle under the age of 21 who is not a family member. They may not operate a motor vehicle between midnight and 5:00 a.m. unless the operation of the vehicle is necessary for the operator to attend or participate in employment or a school-related activity or because of a medical emergency.

Under Phase Two, a person under 17 years of age who holds a restricted motorcycle license or moped license, during the twelve-month period following the issuance of an original motorcycle license or moped license, may not operate a motorcycle or moped between midnight and 5:00 a.m. unless the person is in sight of the person’s parent or guardian or the operation of the vehicle is necessary for the operator to attend or participate in employment or a school-related activity or because of a medical emergency.

A teenager under the age of eighteen may not operate a motor vehicle while using a wireless communication device, except in case of an emergency.

The license restriction will state, “**TRC 545.424** applies until MM/DD/YY” and will indicate the date in which the second phase of the graduated driver license expires for the person who holds that license. Upon completion of the twelve-month period, the above time and/or passenger restrictions no longer apply. The licensee may wish to apply for a duplicate license at a driver license office to remove this restriction. A fee is required to obtain a duplicate license. If not, this restriction will be removed at the time the applicant renews the license on their next birthday, provided the Phase Two 12-month time has lapsed.

Provisional License

All original licenses, other than a learner license, issued to persons under 18 years of age will be marked “Provisional.” The license will be vertical and will be dated to expire on the applicant’s 18th birthday. A fee is required to obtain this license. If the learner license or driver license is not due for renewal, a fee is required for a duplicate learner license or duplicate license.

Documentation to Department of Public Safety (DPS) for Provisional License (Unrestricted driver license): Once the applicant has held a valid learner license or hardship license for a minimum of six months, has reached the age of 16 for a Class C license (17 years of age for a Class A or B non-CDL), has completed both the classroom and laboratory (driving) portions of driver education and has completed the additional 30 hours of behind-the-wheel practice, they are eligible to apply for the provisional license. The teenager will be required to pass the Road Test at the DPS office before licensure. The items you will need to take to the DPS are as follows:

1. Valid Learner license
2. Verification of Enrollment and Attendance Form
3. **Form # DE-964** from school which provided the driver education course
4. **30 Hours Behind-the-Wheel Practice Log**
5. The vehicle used for the Road Test must be able to pass an inspection where everything works properly, have a valid inspection sticker, valid registration sticker, and current insurance
6. Proof of Residency
7. Money to pay for license

Message from NHTSA about Parent/Guardian’s Role in Teenage Driving

www.nhtsa.gov

It’s not just good parenting; it’s a matter of life and death. You need to talk to your teenager about traffic safety early and often – before they reach driving age. When your teenager begins driving, we recommend that you set rules and then clearly outline the consequences of breaking the rules. Remind your teenager that driving is a privilege – a privilege they will lose if they don’t drive by your rules. We know that getting through to your teen can be tough, but research tells us that teens listen to their parents, and that you influence your teenager’s driving habits.

Set the Standard

You need to teach safe driving behavior from the beginning. As the parent, you can start by modeling safe driving behavior anytime you drive your kids anywhere, even before they begin to drive.

Talk to your teen about safety issues and the rules you are setting. Explain each one of your rules and the consequences for breaking it. Write up a contract with your teen driver to make sure they drive by the rules and drive as safely as possible. Include the most important issues. Here’s how: Spell out the rules

1. **Absolutely No Alcohol or Drugs** - Teen drivers (ages 15-20) are at far greater risk of death in crashes where alcohol was present than the rest of us, even though they cannot legally purchase or possess alcohol, which includes your teen and others he/she may ride with.

These are staggering statistics - In 2016, almost one-third of teen drivers who were killed in crashes had a positive BAC of .01 or higher at the time of the crash, even though it is illegal in all states for anyone under the age of 21 to drive with any trace of alcohol in their system. On average over the last five years, one-fourth of the deaths in motor vehicle traffic crashes occurred when a teen driver had a BAC of .01 or higher.

The consequences are grim - If your teenager is lucky enough to survive a crash, they will have to face the consequences of breaking the law. That includes a trip to jail, the loss of their driver’s license, and dozens of other expenses including attorney fees, court costs, and other fines. They will also stand to lose academic eligibility, college acceptance, scholarship awards, and more.

2. **Seat belts: Always Buckle Up!** Teens buckle up far less frequently than adults do. The very first thing you can do is set the right example for your teenager by buckling yourself up every time you get in the car.

Wearing a seat belt is free, but not wearing it could cost a life

When your teen is ready to drive, remind them that whether they are driving across town or just around the neighborhood,

wearing seat belts is the absolute best way to protect themselves and their passengers from severe injury or even death in the event of a crash.

Despite efforts aimed at increasing belt use among teens, observed seat belt use among teens (16 to 20 years old) stood at 48.5 percent in 2016. Among those, 58 percent of all fatalities of 15 to 18-year-old passengers were unrestrained.

In 2016 alone, 3,114 teenagers aged 16 to 20 years old were killed in motor vehicle crashes, and more than half were not wearing their seat belts at the time of the crash.

We don't know what the outcome would have been for those teens had they buckled up, but statistics tell us that in that same year, 72 percent of the passenger vehicle occupants involved in fatal crashes who were wearing their seat belts survived the crash.

3. **Cell phone/texting:** No talking or texting while driving. Talking on a cell phone while driving slows down the reaction time of even the most experienced driver – making it the same as that of a 70-year-old. Can you imagine the impact it will have on your teenager? And texting while driving is a serious risk for teen drivers as well, forcing them to take their eyes and at least one hand off the steering wheel.

Talk to your teen drivers about the risks of talking, texting, and other distractions, and set clear expectations about driving habits.

Distracted drivers can kill or be killed. Driving distractions like talking on a cell phone or texting while driving are an even greater threat for teens than for

others. In 2016, among drivers 15 and older involved in fatal crashes, 15- to 17-year-olds had the highest percentage of distracted drivers.

4. **Curfew:** Have the car in the driveway by curfew. Talk to your teen driver about when you expect them to have the car back in the driveway. The reason for setting a “home-by” rule is to protect your kids by keeping them from driving during the high-risk nighttime hours. In 2016 male drivers 16-19 were 4 times more likely to be in a fatal car crash from 6pm to midnight and female drivers of the same age were 3 times more likely to be in a fatal crash than adult drivers ages 30-59 during these driving hours. Of all fatal car crashes for teens in 2016, 34% occurred between the hours of 6pm to midnight.

5. **Passengers:** No more than one at all times. Most teens are susceptible to peer pressure, which can lead to risk-taking and distractions. In a survey completed by the Allstate Foundation, almost half of the teens polled said they had been distracted by their passengers. And almost half also said they drive more safely without their friends in the car.

Most of the deaths in crashes involving young drivers are the young drivers themselves and their passengers.

The more, the scarier - Research shows that the risk of a fatal crash goes up in direct relation to the number of teenagers in the car.

6. **Graduated Drivers License (GDL):** Follow the state's GDL law. Texas is one of the states including the District of Columbia that has adopted a Graduated Driver's License law. Make sure you and your teenage driver know and understand the law, before they get behind the wheel.

Young, inexperienced drivers, particularly 16 to 17-year-olds, die too often in fatal crashes, in large part because of immaturity and inexperience. GDL laws reduce these factors by reducing high-risk exposure for young drivers. Analysis shows GDL laws have helped reduce crashes for this age group anywhere between 20 and 40 percent. Keep your teenager alive by insisting they follow the GDL rules.

7. **Parental Responsibility:** Set your house rules and consequences. Never forget that many young drivers (15 – 20 years old) are killed in crashes on our roadways every year. Talk to your young drivers about their driving before and after they have their license. Set the rules for driving and explain the consequences of breaking the rules. In fact, your house rules can be tougher than the GDL laws, based on your assessment of your teen.

Be supportive and positive; this will promote success.

Be accountable, make them accountable – Write up an agreement that spells it out. Sign it and have your teen driver sign. Remind them that driving is a privilege that can be easily revoked. Review the agreement often.

You can have an agreement with your teen without writing it down; however, writing it down makes it more enforceable and meaningful. Keep an open dialog with your young driver and make your rules and consequences crystal clear. Talk often and stick to your own rules and consequences.

Suggestions to Enhance Your Experience

- Set aside time for practice.
- Be relaxed and keep your voice calm.
- Give clear feedback immediately and precisely.
- Plan your route before you start; rush hour traffic may not be the best time to practice.
- Know when to talk; a complicated maneuver may require lots of concentration.
- Reinforce the skills taught by the driver education course and have the Texas Driver Handbook available for reference.
- Make this time enjoyable and focus on the driving task, leaving other issues for later.
- Reinforce good decision-making that leads to reduced risk driving practices that will last a lifetime.
- Be a role model by wearing your safety belt and using correct driving procedures such as making a complete stop at stop signs, slowing to a stop at yellow lights, and obeying the speed limit, etc.
- Be patient, calm, and alert at all times, making positive remarks frequently.

While instructing, allow your young driver to work on his/her safe driving decision-making skills. In the beginning, you may want to take them through every procedural step; however, as the sessions progress, you may want to talk less and less.

When necessary, provide immediate and clear-cut feedback. If incorrect maneuvers are made, repeat the maneuver taking the teenager step by step through the process, and then allow practice without assistance.

Suggestions Before Beginning Practice

- If possible, instruction should begin in a car with automatic transmission so that your teenager can focus on mastering basic vehicle control maneuvers.
- Select traffic environments that complement the lesson objectives and the teenager's abilities.
- Begin in a low-risk environment, which includes parking lots and progress to less traveled residential streets.
- Review previous lessons and explain what the next lesson will be before proceeding.
- Keep instructions simple and concise. First direct where to go, and then state the action to take (e.g., "At the next intersection, turn right.")
- Check mirrors, and the space to all sides and ahead of the vehicle before giving directions.
- Remind the young driver not to panic when approached by an emergency vehicle and to focus on looking for a safe area to pull over.
- Discuss the rules for sharing the roadway with other users including pedestrians, bicycles, motorcycles school buses, trains, trucks, animals, etc. and explain the risk each one presents.
- Encourage your teenager to change their route to avoid making a difficult left turn.

Control of Vehicle

To provide you with some control of the vehicle you may want to practice steering from the passenger seat. If the parking brake is located in the console between the driver and passenger front seats, you may want to see if it will slow or stop the vehicle. To prepare yourself to regain speed control in the event your teenager panics and accelerates too much, practice shifting the transmission from drive to neutral from the passenger seat. You may want to adjust the mirror on the passenger sun visor so you can use it as a rearview mirror. Also, you may want to use the right outside mirror.



Commentary Driving

Encourage the use of commentary driving. This tool will allow you to check how your teenager is mentally processing driving skills and evaluating the environment. Ask your teenager to “read the traffic picture aloud,” describing anything that may affect the roadway ahead or behind. For example, when your teenager changes speed, your teenager may say: “red light, check mirror, ease foot off accelerator, and brake.” You should frequently hear “check mirror and ease off accelerator!” Emphasize driving with a large anticipation zone by looking at least 15-20 seconds ahead. Play the “what if game;” what if a car suddenly changes lanes, stops, turns, etc. Ask questions, such as “Where were you looking,” or “What are the steps for this maneuver?”

During ALL Practice Hours: Your Teenager

- Possesses a valid learner license or driver license.
- Is mentally, emotionally, and physically prepared to drive. Do not drive fatigued, aggressively, or distracted.
- Completes pre-drive checks.
- Uses and require passengers to use safety belts / teenager safety restraints.
- Performs proper starting tasks.
- Identifies and properly responds to alert and warning lights on the instrument panel.
- Obeys all traffic laws.
- Is watchful and attentive to the traffic scene by looking ahead and to the sides and checking mirrors to the sides and rear.
- Searches from the vehicle to at least 15 seconds ahead when driving in residential/city traffic and 20 to 30 seconds ahead during freeway/expressway driving.
- Checks blind spots prior to changing lanes or making a lateral maneuver.
- Understands that a green light means one must scan the intersection before proceeding.
- Searches/scans to continuously identify hazards.
- Uses a space management system (safe space around the vehicle) to establish and maintain proper vehicle operating space and lane position.
- Performs speed and position changes in response to traffic flow and volume.
- Positions the vehicle to maintain an open line of sight and path of travel.
- Maintains an adequate following distance between vehicles in front and behind (recommended at least 4 seconds for teenagers).
- Maintains adequate side space.
- Communicates with other roadway users (signal lights, hand signals, horn if necessary, lane placement, eye contact).
- Brakes smoothly, gradually slowing to a stop (taps brakes and checks rearview before slowing or stopping to warn other roadway users).
- Accelerates smoothly, steadily increasing to safe speed within posted limit and maintains appropriate speed.
- Uses accelerator and brake pedals properly to manage vehicle balance.
- Identifies and responds appropriately to all traffic signals, signs, and roadway markings.
- Gives or accepts the right-of-way properly and safely.

Texas laws requires children under 8 years of age or less than 4 ft. 9 in. be in a child passenger restraint system (infant seat, or booster seat).

Remember to review your vehicles owner’s manual and the Texas Driver Handbook.

- Recognizes where the front, sides, corners, and rear of the vehicle are in relation to the roadway.
- Shares the road with and yields appropriately to other roadway users including identifying bicyclists, pedestrians, motorcycles, work zone and construction workers, trucks, and school buses, etc.
- Yields properly to emergency vehicles.
- Turns from and into proper lanes and properly uses turning lanes.
- Makes speed adjustments accordingly by performing speed and position changes in response to traffic flow and traffic volume.
- Anticipates the actions of other roadway users.
- Is courteous to other roadway users who may be trying to pass or change lanes.
- Drives to conserve fuel and protects the environment while driving (such as do not litter).
- Uses headlights (including bright lights), windshield wipers, defroster, and other vehicle devices appropriately.
- Avoids other roadway users who are not mentally, emotionally, and physically prepared to drive including fatigued drivers, aggressive drivers, and distracted drivers.
- Avoids driving in another vehicle's blindspot, especially around and behind large trucks.
- Recognizes adverse conditions and applies countermeasures to drive safely including increasing following distance.
- Performs post-drive tasks properly, including ensuring all passengers and animals are safely out of vehicle before locking.

Sharing the Road Safely with Commercial Motor Vehicles and Large Trucks

Procedures



1. Learn to read the language of trucks
2. Weight (loaded or unloaded) will cause the truck to act differently
3. Weather conditions may result in less reaction time
4. Spray coming off the truck's wheels can reduce your visibility
5. Trucks may not be able to stop on snow or ice
6. Use turn signals and brake lights to communicate your intention sooner than you would in normal traffic
7. Stay visible in the truck drivers' mirrors
8. Know the truck driver can't see directly in front of the tractor's hood
9. Be alert to trucks turning right, they need space to make wide right turns

Common Mistakes

1. Following too closely
2. Pacing alongside a truck on multiple lane highways
3. Not reading a truck's need for room to maneuver
4. Failing to merge smoothly onto a freeway with trucks
5. Cutting across several lanes to exit a roadway, creating high risk for everyone
6. Hanging out in the No Zone

Sharing the Road Safely with Motorcycles

Most motorcycle crashes occur when another driver turns in front of them. When you drive, you have an automobile wrapped around you specifically designed to help you survive a crash. Motorcyclists may only have a helmet and the clothes on their back.

- Look longer for motorcycles, **especially when turning left**
- Look for riders when pulling out on the road
- Anticipate a motorcyclist's maneuvers
- Give motorcycles their full lane
- Use signals when appropriate
- Treat riders with courtesy and respect
- Allow plenty of space when following a motorcycle
- Watch for motorcycles in your blind spot
- Maintain safe following and stopping distances
- Slow down in poor driving conditions



Learn more about
Motorcycle Awareness at

www.looklearnlive.com

Vehicle Safety Features and Maintenance

Improvements in auto and highway design also have increased highway safety. Many new cars are equipped with safety features that dictate basic vehicle control procedures. Drivers must understand these new technologies and the need for basic vehicle maintenance. Tires, wheels, brakes, shock absorbers, drive train, steering, and suspension systems function together to provide a safe, comfortable ride and good gas mileage.

Tires

Properly inflated tires are critical to vehicle control and good gas mileage. Tires should be inflated to the vehicle manufacturer's recommended pressure printed on the vehicle's door placard or in the owner's manual, not the maximum limit listed on the tire sidewall. Under-inflated tires flex too much and build up heat, which can lead to blowouts or the tread separating and peeling off. The actual size of the tire patch in contact with the road is about the size of a dollar bill. These four dollar bill size patches of rubber in contact with the road surface allow the vehicle to respond to acceleration, braking, and steering. With this narrow margin of safety, it is important to check tire pressure at least once a month. Proper tire tread reduces traction loss on wet surfaces by channeling water through the tread. Tire tread depth can be measured by placing a penny in the tread, and if the tread does not reach the top of Lincoln's head, driving in wet weather is very dangerous.



Steering Control

Due to changes in steering ratios and effort needed to turn the wheel, steering control requires a balanced hand position on the lower half of the steering wheel to avoid sudden movements. Modern vehicles require very little steering to turn. This affects how we use the steering wheel. Most of us learned to steer using the hand-over-hand method because we needed to turn the wheel many times to turn the vehicle. Modern vehicles require much less steering to turn; for normal turns, push-pull (described below) works best. Air bags affect where we should sit and also how we use the steering wheel. Look at the steering wheel as though it were a clock. Place the hands at 9 o'clock and 3 o'clock, or slightly lower to 8 and 4 o'clock. This position provides the desired balanced hand position and reduces the possibility of turning the wheel too much resulting in loss of lane position, or worse, having to deal with a dangerous off-road recovery.

Hand position

Placing the left hand at the 9 o'clock position and the right hand at the 3 o'clock position improves stability by lowering the body's center of gravity and reduces unintended and excessive steering wheel movement which is a primary cause of young driver fatalities. This more natural seating position also helps the driver to keep both hands on the wheel and reduces back pain often associated with long distance driving.



Adjust Wheel Tilt

If you have an adjustable steering wheel, tilt it down so that the top of the wheel is no higher than the top of the shoulders.

Steering—Hand-to-hand/push-pull-slide steering

This steering technique keeps both hands on the wheel at all times and reduces excessive steering wheel movement. In the event of a frontal crash with a vehicle equipped with an air bag, this steering method also reduces the chance of injury because the arms do not cross over the steering wheel where the air bag is housed.

To push/pull steer:

- the right hand begins at 3 o'clock or below;
- the left hand begins at 9 o'clock or below;
- the right hand moves between the 5 and 2 o'clock position; and
- the left hand moves between the 7 and 10 o'clock positions.

To reverse the push-pull-slide process, allow the steering wheel to slide through the hands until the vehicle's wheels move to the straight-ahead position.

Hand-over-hand steering

In modern cars, this steering technique is used only when the vehicle is moving very slowly or is stopped, and the vehicle needs to be turned in a very sharp angle. For hand-over-hand steering:

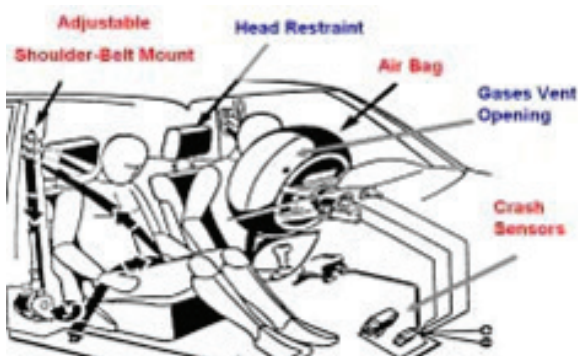
- one hand grasps the wheel and pushes the wheel up, over, and down;
- at the same time the other hand releases the wheel and passes across the forearm to grip the wheel on the far side;
- this hand then pulls the side of the wheel up, over the top, and down; and
- these movements continue as long as necessary to turn the wheel as much as needed.

Brakes

Brake pads or shoes last about 30,000 miles, depending on the driving conditions.

Anti-lock Braking System (ABS)

Cars with anti-lock braking systems automatically check the system when the car is started. In order to stop suddenly in an ABS equipped vehicle, one must use firm brake pressure and maintain this pressure on the brake pedal even if you feel it pulsing or hear a grinding noise. The ABS system pulses the brake 15 times a second to avoid lockup and allows your wheels to keep rolling. Rolling wheels allow you to steer—you cannot change direction if your wheels are sliding. You and your teenager should practice applying the hard braking mode in a vacant parking lot before having to use this crash-avoidance technology in a real emergency.



Driver and Front Passenger Air Bags are designed to inflate in a frontal impact. Drivers should sit at least 10 inches from the air bag because it inflates to six or seven inches in size at speeds up to 200 mph. Tilt the steering wheel as far down as comfortable to point at your chest, not at your face. Always wear a seat belt and

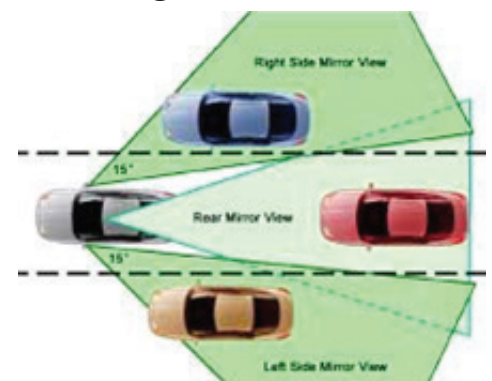
secure children in the rear seat. To reduce forearm and hand injuries, hands should be placed on the lower half of the steering wheel, with knuckles on the outside and thumbs stretched along the rim of the wheel.

Side Impact Air Bags are designed to protect the torso and head in side impact collisions. Care should be taken not to sit too close to the door or to lean towards the air bag.

Traction Control Systems monitor any difference in rotational speed between the front and rear wheels. This differential in wheel rotation may occur on uneven or slippery surfaces. When the system is activated, an automated combination of brake and/or engine control comes into play to provide controlled acceleration and tire traction.

Contemporary mirror setting

Adjust the inside mirror so that it frames the entire rear window and becomes the primary mirror for viewing what's behind the vehicle. Adjust side mirrors to reduce the blind



spot and headlight glare from the rear. Adjust the left side mirror by leaning your head towards the left-side window and set the left mirror so that the driver can barely see the side of the car. To adjust the right-side mirror, lean to the right over the center console, and set the right mirror so the driver can barely see this side of the car. These adjustments provide a 15 degree viewing area to each side of the vehicle. This mirror setting reduces the overlap between the inside and side-view mirrors and **allows the driver to monitor the adjacent lane**. While some vehicles may have blind-spot monitoring or warning systems to help identify potential hazards within the driver's blind-spot, they should not be solely relied upon and correct use and positioning of mirrors is still required.

Traditional settings overlap with the rearview mirror view and should only be used if the view of the highway from the inside rear-view mirror is blocked.

Driving in Adverse Conditions

Driver inattention - is a primary cause of crashes. Distractions, such as interacting with passengers, talking on the phone, or adjusting the stereo system, are especially dangerous for young drivers. Limit distractions by pulling off the road to perform activities not related to the driving task.

Fatigue - severely limits your reaction time and decision-making ability, and is caused by lack of sleep, the body's circadian rhythm, and driving for long periods of time. Circadian rhythm is the body's natural "downtime," which for most people is between 1 and 5 p.m. and around your normal bedtime. To avoid fatigue, take breaks, keep the vehicle cool, and be aware of your "downtime."

Glare - Sources of glare include headlights of oncoming or following vehicles, misaligned headlights, improperly loaded vehicles, a dirty windshield, paper on the dashboard, facing the sun at dusk or dawn, snow-covered landscapes, and traditional versus contemporary side mirror settings. To combat glare, wear sunglasses during the day only, adjust sun visor as needed, keep windows clean, reduce speed, and look to the right-hand side of the road when meeting a vehicle with high beam headlights on.

Fog - During foggy conditions, reduce speed, use low beams, windshield wipers, and defroster/defogger and flashers if needed, and look for a safe area to pull off the road.

Heavy smoke, rain, or snow - Reduce speed, turn on low-beam headlights, emergency flashers, and windshield wipers; make gentle steering, accelerating, or braking actions; be alert for stopped vehicles on the highway, and be prepared for wind gusts or strong steady crosswinds; turn on the radio to monitor weather and road conditions, and if possible, leave the highway.

Low water crossing - Nearly half of all flash flood fatalities are vehicle related. In severe rainstorms watch for flooding at bridges and low areas. Driving too fast



through low water will cause the vehicle to hydroplane and lose contact with the road surface (Don't Drown, Turn Around).

The best driving practice for all these conditions is NOT to drive unless you are able to see and have traction. If you must drive, SLOW DOWN AND INCREASE FOLLOWING DISTANCE!

Hot or cold temperatures - place demands on tires, radiator coolant, hoses, connections, and drive belts and increase driving risks. Check these items prior to and after driving during these conditions.

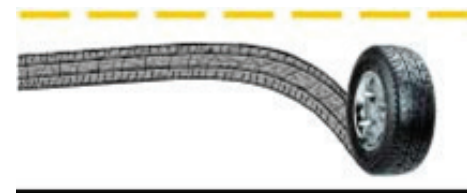
Strong wind conditions - create a problem called buffeting. This condition occurs on bridges, through mountain passes and ravines, and when being passed by large trucks. Reduce speed, check traffic, be prepared to steer windward, and countersteer in the direction you want the vehicle to go.

Head-on collisions - The possibility of serious injury or death is great. This type of collision is more likely to occur on two-lane highways, narrow lanes or curved roads, and in construction zones.

Rear-end collisions - are one of the most common types of multiple-vehicle collisions. Tailgaters are especially at risk. Adverse conditions such as dense fog or smoke, heavy rain, and snow also increase risks to motorists because some drivers stop their vehicles while still on the highway.

Side-impact collisions - Most vehicles are not well-equipped to withstand a side impact. If your vehicle is in danger of being hit, your best option is to accelerate rather than apply brakes if the way ahead is clear.

Changing traction conditions - Traction or adhesion is the grip the tires have on the road surface, which allows the vehicle to start, stop, and/or change directions.



As speed increases, traction between the tires and the road decreases. Three kinds of traction influence motor vehicle control: static, rolling (dynamic), and sliding. Road surface conditions that decrease the level of traction are ice, snow or frost, wet surfaces or standing water, mud or wet leaves, uneven surfaces, sand, gravel, and curves. Speed should be reduced in such conditions.

Top Driving Errors

Before you begin instruction, make sure you know common young driver driving error and ways you can help your young driver be a safer driver.

- Not attending to the path of travel.
- Driving five or more miles per hour too fast for conditions.
- Driving too fast through a curve.
- Inadequate search at an intersection and failing to yield to cross traffic.

- Lack of attention at an intersection and being struck by another driver.
- Improper evasive action – quick turn not executed properly
- Failure to maintain visual lead.
- Failure to see action developing at side of the roadway.
- Following too closely.
- Willfully taking right-of-way.
- Distracted (including cell phones and texting)

Getting Ready, Starting, Placing the Vehicle in Motion, and Stopping

These practice sessions introduce your teenager to the instrument panel, vehicle controls, and mirror blind spots. Please review the vehicle owner's manual before and during these practice sessions.

Begin in a large, level parking lot free of obstacles.

- Prior to entering the vehicle, the teenager should check for fluid leaks, broken glass, etc.
- Check tire pressure, engine oil, radiator, and other fluid levels.
- Enter the vehicle and review interior controls; turn on the ignition switch to discuss functions of lights, gauges, and accessories. Ask your teenager to operate and explain all controls and to simulate monitoring the path ahead while operating the controls.
- Discuss how the proper seating position is essential for control of the vehicle. The driver should sit with his or her back firmly against the seat with at least 10 inches between the steering wheel and the driver's chest. The air bag should point towards the driver's chest. The top of the steering wheel should be no higher than the top of the driver's shoulders. Adjust the seat to maintain heel contact with the floor to pivot the foot between the brake and accelerator pedals. Short drivers may need a seat cushion or pedal extenders to sit in a safe position at least 10 inches from the airbag.
- Adjust the head restraint to align with the center of the back of the driver's head.
- Adjust the inside mirror so that it frames the



entire rear window and is the primary mirror for viewing traffic behind the vehicle. Adjust side mirrors to reduce side mirror blind spot and headlight glare from the rear (see page 11).

- Practice starting the vehicle and adjusting accessories.
- With the right foot firmly on the brake, have your teenager shift through the gears and explain when each gear is used.
- If the vehicle does not have daylight running lights, turn on the low-beam headlights.
- Press the brake pedal and shift to drive.
- Ask the new driver to move the vehicle to different points in the parking lot using little to no acceleration.
- Have your teenager stop at designated lines. Focus on smooth acceleration and stopping.
- Ask your teenager to drive around the perimeter of the lot and focus on steering.

Teach your teenager by saying “slow” until the vehicle comes to a stop. Once you have developed that skill into a habit, progress to saying “slow to a stop.” Use the command “stop” only when you need your teenager to make a hard, emergency stop. Treat these maneuvers to simulate stopping and turning at an intersection. Using commentary driving, ask your teenager to say, “clear left, clear right, clear left, clear ahead” from a stop and “clear left, clear right, clear ahead” while moving. Even though you are in a parking lot, make sure your teenager signals and checks mirrors and blind spots prior to changing speed, position or direction.

When the new driver identifies a hazard, teach the driver to cover the brake to be prepared to stop or slow suddenly. Covering the brake involves taking your foot off the accelerator and holding it over the brake pedal. Remind your teenager not to rest the foot on the brake pedal. This is called riding the brake and will both confuse other drivers and add unnecessary wear to the brakes.

Focus on continuous and smooth steering wheel movements into the turn and returning (sliding) the wheel through the hands using the same smooth continuous movements until the vehicle is in the proper position in the lane. Discuss the vehicle's forward pivot point, which on most cars is even with the driver's body. Teach your teenager to focus on looking at and steering towards a target in the center of your intended path of travel.

Moving, Stopping, Steering, Knowing Where You Are

Focus on learning the correct procedures for moving, stopping, using reference points, and steering the vehicle at different speeds. Begin in a large, level parking lot that is free of obstacles. The teenager should practice driving around the perimeter of the lot at 10 and 15 mph.

Using commentary driving, have your teenager focus on smooth push-pull-slide hand-to-hand steering and stops. Your teenager should be taught to ease off the accelerator or use the brake to reduce speed before entering a curve and use slight acceleration to overcome inertia and pull the vehicle out of the curve. Young drivers have a tendency to overuse the brake and under use the accelerator to control speed.

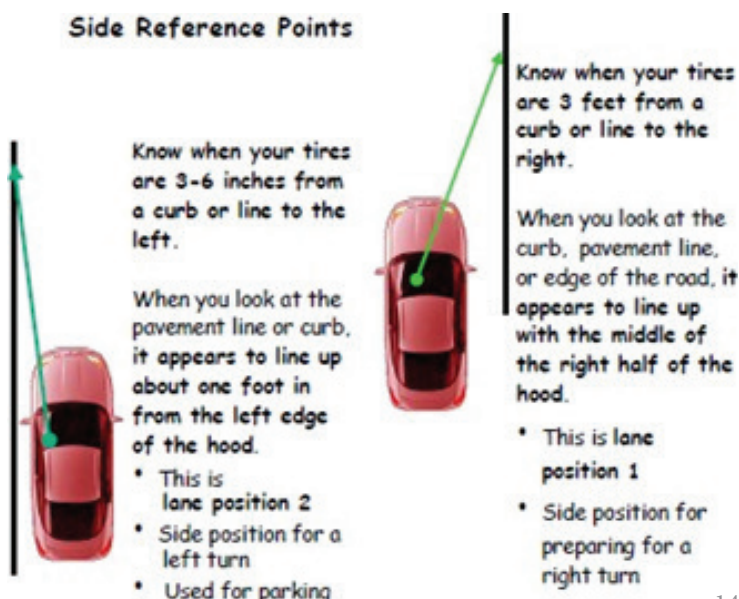
Ask the teenager to move the vehicle to specified targets in the parking lot at 10 and 15 mph. Focus on smooth acceleration, proper speed, and smooth stops. Explain to your teenager that "curling" the toes back to ease pressure off the brake just before stopping results in smoother stops. Practice normal smooth stops and hard smooth stops which are done at a slightly higher speed.

Forward Reference Point. Know when your front bumper is even with the curb line. When you look at the curb line, **it appears to line up with the passenger side mirror.** This is the point when you start turning the steering wheel for a right turn or it is used as a safety stop to get a clear view of the intersection



Know when your rear bumper is 0-6 inches from a left rear line. When you look back, at the curb or line, **it appears to be in the middle of the left rear window.**

- Used when backing to know where your rear bumper is



Selecting a gap in traffic is a very difficult skill for most young drivers and requires a lot of practice!

Backing

Repeat the tasks listed in sessions **Moving, Stopping, Steering, Knowing Where You Are** with the vehicle in reverse gear at idle or slow speeds.

Backing from one target to another allows your teenager to practice seeing, steering, and speed control skills with the vehicle in reverse gear. Switch places with your teenager to demonstrate each backing task.

One-hand steering. Movement of the steering wheel with one hand is recommended only for backing maneuvers that do not require full left or right turns.

Backing and steering with one hand requires shifting one's hips and seating position so the driver's head can be turned to see beyond the head restraint. One loses depth perception when using the mirrors to guide the vehicle when backing it. To improve balance, the driver's right arm can be draped over the back of the seat.

The left hand grips the steering wheel near the top and turns it in the direction the driver wants the vehicle to go. Sharp turns while backing may require use of both hands. Since it is more difficult to maintain steering control and vehicle balance when the vehicle is in reverse, emphasize backing at slow speeds.

To practice backing the vehicle in a straight line, have your teenager:

- check all areas behind the vehicle prior to and while backing;
- pivot the heel, place the right foot on the brake, and shift to reverse;
- grasp the steering wheel at 12 o'clock with the left hand;
- look over right shoulder through the back window;
- use the brake and accelerator effectively for speed control; and
- make frequent quick checks to the front and stop at a designated line.

Paper lunch sack filled with a little play sand can be positioned in the parking lot to use as markers. Several in a row, 2 or 3 lengths apart can be used to practice steering by going to the left and the right of each one, or stopping at each one, etc

To practice backing and turning the vehicle, have your teenager:

- grasp the steering wheel at 12 o'clock with the right hand if turning to the left, or with the left hand if turning to the right;
- look in the direction you are moving through the rear side windows;
- keep speed slow using brake and accelerator effectively for speed control; and
- make quick checks to the front and sides.

Turning, Lane Position, and Visual Skills

Parents and teens should review the Texas Driver Handbook. Focus on signs, signals, pavement markings, yielding laws, speed laws, and right-of-way laws. If possible, begin integrating night driving into these sessions.

During the next practice sessions practice 10-15 right and left turns from stopped and moving positions in a parking lot. Left turns should be "squared" and right turns should be "rounded."

Emphasize proper signals, mirror checks, side-position reference points, speed and steering control, and the need to look ahead of the vehicle at a selected target in the center of the path of travel. Warn young drivers not to fixate on any one thing. Prior to progressing to driving in a quiet neighborhood, your teenager should be able to demonstrate the ability to move and stop the car smoothly, maintain a given speed, and steer with reasonable precision. If your teenager is ready, practice right and left turns in a residential area.

Texas Driver Handbook <http://www.dps.texas.gov/internetforms/Forms/DL-7.pdf>

When turning out of a parking lot, help the new driver maintain proper lane position by asking him or her to identify a target 15 and 20 seconds ahead of the vehicle (approximately one block), and using commentary driving, explain what he or she sees and the proper reaction to it. Ask the new driver to verbalize the need to change speed or position, and to identify potential risks in the path of travel. This will enhance awareness of signs and pavement markings, and help your teenager develop visual scanning and risk identification skills. If the road has pavement markings, discourage the young driver from looking at the lines to try to “center the vehicle.” Any eye motion away from the target in the center of the path of travel should be quick; delayed eye movement or looking at the pavement directly in front of the vehicle will often cause the vehicle to drift in the lane. Teach your teenager to scan and not focus on anything at the sides of the path of travel. Drivers have the tendency to steer in the direction they look, especially young drivers. Relaxing the grip on the steering wheel also helps prevent over steering.

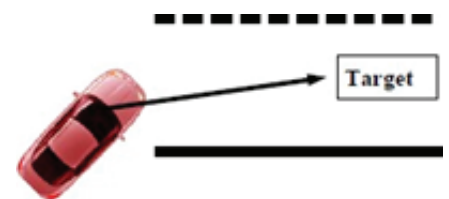
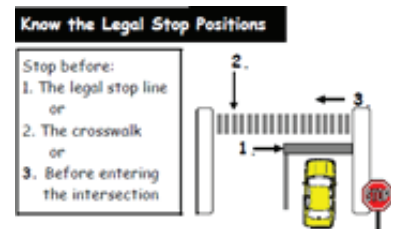
Using commentary driving while approaching an intersection, your teenager should:

- search all corners of the intersection for vehicles, pedestrians, traffic controls, etc.;
- flash brake lights, check traffic to the rear, put on turn signal 4 seconds before turning;
- at a signal-controlled intersection, identify who has the green light; and select the best lane and lane position and yield to pedestrians and other vehicles.

Right turns from a stop

The steps are the same whether turning onto a one-way or two-way street.

- Position the vehicle 3 feet from the curb (any closer the rear tire may hit curb).
- Stop with the front bumper even with the curb line, wheels angled slightly to the right.
- Yield and search intersection to the left, front, right, and back to the left.
- Select a gap in traffic, avoid hesitation, and look at the target in the center of the path of travel.
- Using hand-to-hand steering, begin to turn the steering wheel when the vehicle’s right-side corner post is aligned with curb and target the center of the closest open lane.
- Allow the steering wheel to recover by letting it slide through the hands. The steering recovery point is when your wheels are straight and your vehicle is still at an angle. Be sure to say “recovery point.”
- Select a target 15-20 seconds ahead and accelerate gradually.



Left turns on two-way streets from a stop

- Position the vehicle 3-6 inches from the yellow line in the middle of the road.
- Stop with wheels pointed straight ahead behind the stop line, pedestrian crosswalk, or before entering an intersection.
- Search the intersection to the left, front, right, and back to the left.
- Select a gap, avoid hesitation, pull straight forward towards the middle of the intersection.
- Use the yellow line as the turning target, select gap and turn into the travel lane closest to the yellow line.
- At the steering recovery point, allow the steering wheel to slide through the hands.
- Select a new target 15-20 seconds ahead in the center of the path of travel and accelerate gradually.



Searching Intended Path of Travel

In a residential area, or, if ready, on roads with light traffic, continue working on basic visual skills, negotiating curves, and right and left turns. Practice judging space in seconds, identifying a target, and searching the target area and target path. Ask your teenager to comment prior to changing speed or position. Young drivers have the tendency to monitor the road immediately in front of the vehicle.

Hand Signals
Included on the
State's Road Test



Left: Your arm and hand extended straight out the window
Right: Your arm and hand extended upward out the window
Stop: Your arm and hand extended downward out the window

The target is a fixed object that is located 12-20 seconds ahead of the vehicle, in the center of the path of travel, and is what the driver steers toward. It can be a car a block ahead, a traffic signal, the crest of a hill, etc. To practice this skill, use commentary driving for two to three minutes, and have your teenager identify targets. Having a target helps the new driver to:

The “SEEiT” system: Search, Evaluate, and Execute in Time, is a simple space management system your teenager can use to minimize or control driving risks.

- visualize the space the vehicle will be occupying;
- look far ahead of the vehicle and begin a search to identify risks;
- improve steering accuracy.

When **Searching** the path of travel, the new driver should look for open, changing, and closed areas. Examples of a closed area would be a stop sign, stopped traffic, red light, etc. Examples of changing area would be a car pulling out of a driveway, a left- turning vehicle, a bicyclist, etc.

Ask your teenager to use commentary driving to identify and **Evaluate** changing or closed space when approaching intersections, and then **Execute** a speed or position change in **Time** to reduce risk.

The need for adjustments in **following time** occurs when speed or road conditions change. The distance for steering is much shorter than the distance for stopping. Teach the new driver to look for open space, or an “escape route,” not at what he or she is trying to avoid. We tend to steer in the direction we look.

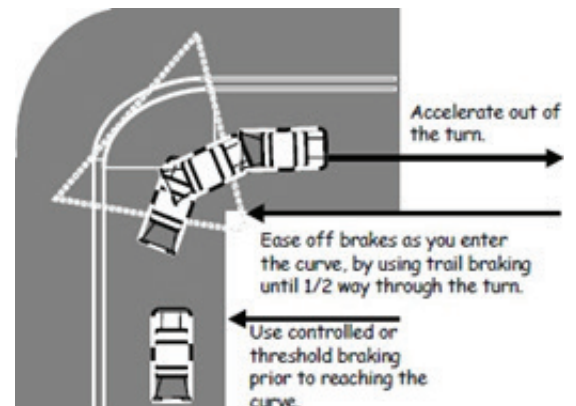
You can steer around the risk in much less time than you can brake and stop to avoid colliding with the risk.

A **two-second interval** provides the driver time to steer out of problem situations at posted speeds on a dry surface and brake out of problems at speeds under 35 mph. A **three-second interval** provides the driver time to steer out of problem areas and to brake out of problems at speeds under 45 mph on a dry surface. A **four-second interval** provides the driver time to steer or brake out of problems at speeds under 65 mph on a dry surface.

Judging Space in Seconds—When traveling at 25 to 30 mph, looking 12 to 15 seconds ahead translates into about one city block. This is the targeting area the driver must monitor. Stopping zones are 4 to 8 seconds ahead, and following distance is 3 to 4 seconds. To calculate space in seconds, have the new driver select a fixed target, count one-one thousand, two-one thousand, etc. Ask your teenager to practice judging space in seconds at different speeds.

Teaching your teenager to control a vehicle through a curve.

- On approach, position the vehicle in the lane to try to establish a sightline to the apex and exit of the curve, and reduce speed (observe warning sign speed which is calculated on the angle and bank of the curve).
- Reduce speed before entering the curve, and slowly lighten the pressure on the brake until reaching the apex point (where the car is closest to the inside of the curve line). At the apex or exit point, teach the new driver to apply light acceleration to pull the car out of the curve.



The vehicle's speed and load, and the sharpness and bank of the curve effect vehicle control. Traction loss when entering a curve is often caused by excessive speed, braking, or steering. Front tire traction loss is referred to as "under-steer," and is more likely to occur in front-wheel drive vehicles. "Over-steer" is when there is traction loss by the rear tires and occurs more often in vehicles with rear-wheel drive.

Vehicle balance refers to the distribution of the vehicle's weight on all four tires. Ideal balance and tire patch size is only reached when the vehicle is motionless. As soon as acceleration, deceleration, cornering, or combinations of these actions occur, vehicle balance and weight on the tires change. However, if the vehicle is traveling at a constant speed, and the suspension is set on center, steering and traction control is considered to be in balance.



Changing vehicle balance from side to side (roll). Sudden steering, accelerating, braking, or road elevation can affect a vehicle's side-to-side balance.

Changing vehicle balance from front to rear (backward pitch). When acceleration is applied, weight or center of mass is transferred toward the rear of the vehicle. More rapid acceleration results in greater weight transfer.

Changing vehicle balance from rear to front (forward pitch). When brakes are applied, weight or center of mass is transferred toward the front of the vehicle. If braking is hard, there is a noticeable drop of the hood and reduced rear tire traction.

Changing the vehicle's rear load to the right or left (yaw). Sudden steering, braking, or a right or left elevation of the highway can affect rear vehicle balance and result in the loss of tire traction. If a rear tire has less traction than the corresponding front tire, that tire will begin to slide sideways towards the front tire. This spinning action is called vehicle yaw.

Parking

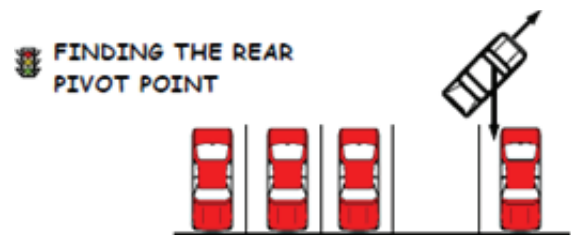
(Begin in vacant parking lot and progress to real life situation when skills are learned)

Angle Parking Steps

- Signal intention and position the vehicle 3-4 feet from the space in which the vehicle will be parked.
- Move forward until the steering wheel is aligned with the first pavement line.
- Visually locate the middle of the parking space and turn the wheel sharply at a slow controlled speed.
- Steer toward the target in the center of the space to straighten the wheels and stop when the front bumper is 3-6 inches from the curb or end of the space.
- If you have a choice, parking on the left gives you more room to maneuver and a better view of traffic if you have to back out of the space.

Exiting an Angle Parking Space

- Place foot on brake, signal intention, shift to reverse, and scan path of travel.
- Back until your vehicle's front seat is even with the bumper of the vehicle located on the turning side and begin turning the steering wheel in the direction you want the rear to go.
- Monitor your front bumper on the opposite side of the direction you are turning.
- When your front bumper clears the back of the vehicle by several feet, stop, and shift to Drive.



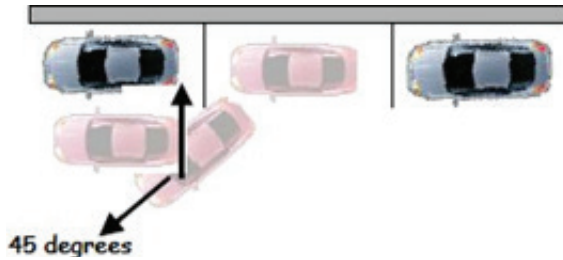
Perpendicular Parking Steps

(parking at a 90-degree angle)

- Signal intention and position the vehicle 5-6 feet away from the space.
- Move forward until the driver's body is aligned with the first pavement line.
- Turn the wheel rapidly left or right controlling speed.
- Steer towards the target in center of space and straighten the wheels.
- Position the front bumper 3-6 inches from the curb or end of the space.

Exiting a Perpendicular Space

- Place foot on brake, signal intention, shift to reverse, and look through the rear window.
- Back until your windshield is even with the bumper of the vehicle located on the turning side and begin turning the steering wheel in the direction you want to go.
- Monitor your front bumper on the opposite side of the direction you are turning.
- When your front bumper clears the back of the vehicle by several feet, stop, and shift to Drive.



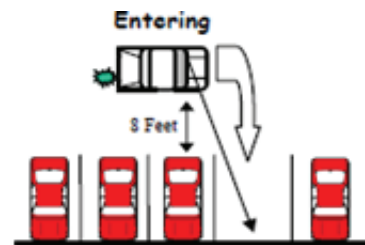
Parallel Parking Steps

- Signal stopping and turning.
- Stop 2-3 feet parallel to the car in front.
- Shift to Reverse. Check traffic and path of travel, and back slowly steering sharply left or right as appropriate; stop when the steering wheel is in line with the rear bumper.
- Continue backing slowly while steering rapidly in the opposite direction using quick glances to the front and the rear of the vehicle until you straighten the vehicle's wheels.
- Center vehicle in space.
- Wheels should be 6-12 inches from the curb.

Exiting a Parallel Parking Space

- Brake, shift to Reverse, and back as near as possible to the vehicle behind you.
- Check traffic, signal, and shift to Drive.
- Move forward slowly while steering rapidly out of the space.
- Begin straightening wheels when your vehicle's front seat is even with the back bumper of the car in front and look at the target in the center of your path of travel.

Turn when you can see to the center of the parking space



Exiting

Turn when your front bumper is even with the rear bumper of the vehicle on the left



Parking on a Hill

When parking uphill or downhill, make sure your teenager places the vehicle in REVERSE or FIRST gear for manual transmissions, and PARK for automatic transmissions, and that the parking brake is properly engaged. To further ensure that the vehicle does not roll into traffic, turn the front wheels:

- towards the curb **when parking downhill;**
- towards the curb **when parking uphill without a curb;** and
- away from the curb **when parking uphill with a curb.**



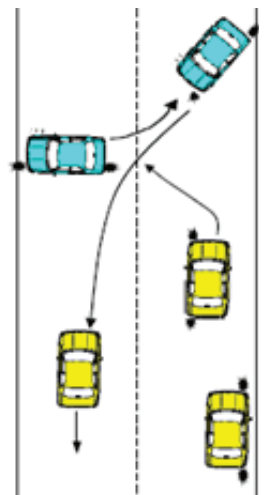
Turnabouts

(Please do not skip these turning sessions, Turnabouts help increase the young driver’s steering ability and understanding of the vehicle’s reference points for better vehicle control.) Focus on recognizing the different types of turnabouts and selecting the appropriate type of turnabout for a given situation. Begin in a large, level parking lot free of obstacles. Practice 2-point, 3-point, and U-turns in a parking lot. Progress to a lightly traveled residential area, and practice visual search skills, turns and each turnabout at least 10 times.

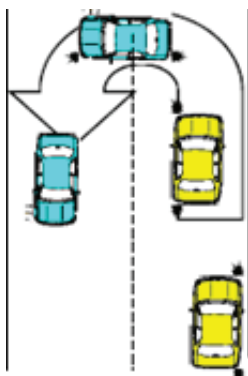
The easiest and safest way to change directions is to drive around the block. The 2-point turnabout to the right rear is the next best option. **Two-point turns** require the driver to head into, or back into, a driveway on the same side or on the other side of the roadway to reverse direction. It is safest to execute a 2-point turnabout by backing into a driveway on the same side of the street.



Three- or five-point turns are an option if no driveway is available, traffic is light, you cannot drive around the block, or the available space prevents a U- turn. To begin a 3-point turn, pull over next to the curb on the right. When safe, move while turning the wheel sharply to the left towards the opposite side of the road. Stop a foot from the curb. Shift to Reverse. Check traffic and back slowly turning the wheel to the right until your front bumper is in the center of the road. Shift to Drive and target the center of your path of travel. A 5-point turn is needed on very narrow roads.



U-turns are very dangerous. On a two-way multiple-lane highway, the driver begins the U-turn in the left lane closest to the center line or median. The driver completes the turn in the lane furthest to the right in the opposite flow of traffic and accelerates to the appropriate speed.



Multiple Lane Roadways

Focus on **lane position**, **lane changing**, **following distance**, and **mirror blind spots**. If possible, choose a time when the four-lane roadway on which you select to practice has minimal traffic, such as during early morning hours on Saturday or Sunday. There are several **lane position choices** a driver can make without changing lanes, which allows them to react to roadway dangers without moving completely out of their lane or off the roadway. In addition, it communicates to other drivers of a possible hazard or danger ahead. Practice driving in lane position 1, 2, and 3 for several miles during each session.

Position 1: The vehicle is centered in the lane and is the lane position most often used.

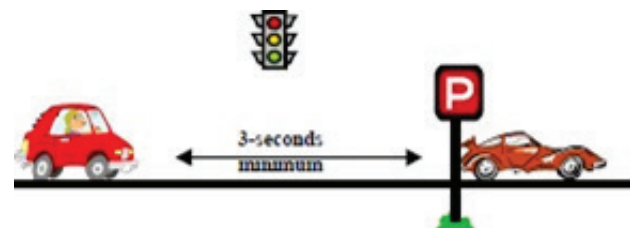
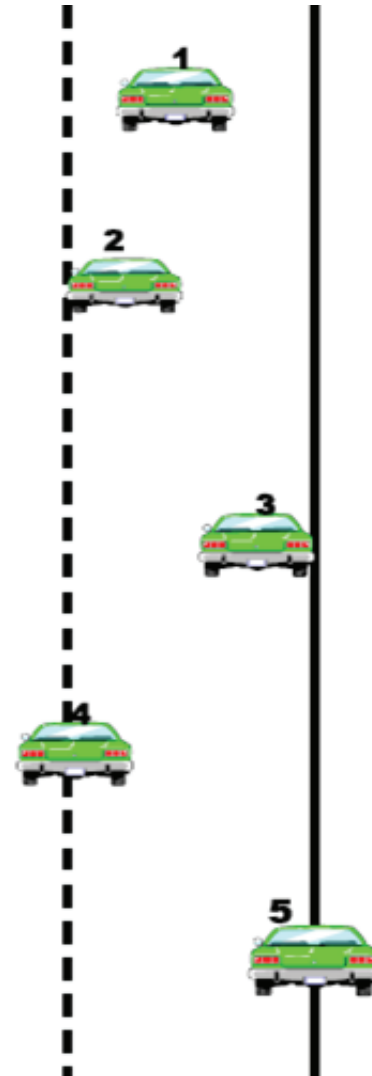
Position 2: The vehicle is 3-6 inches from the lane line on the driver's side, is the lane position for a left turn, and allows for a margin of safety on the right side of the vehicle.

Position 3: The vehicle is 3-6 inches from the passenger side pavement line or curb and is the best position to approach a hill or curve.

Positions 4 and 5: The vehicle straddles either lane line due to an obstruction in the path of travel.

Your most important safety margin, and the one over which you have the most control, is the space in front of the vehicle. Maintaining at least a 3-second space margin from the vehicle ahead provides the driver with visibility, time, and space to avoid frontal crashes, and allows the driver to steer or brake out of danger at moderate speeds. Teach your teenager to accelerate or decelerate as the 3-second gap widens or decreases. This will also help the teenager travel at the speed of the flow of the traffic.

When stopping behind another vehicle, teach your teenager to stop in a position that the driver can see the back tires of the car in front for an adequate space margin.



Mirror blind spot - As a bike rider, before making a turn or changing lanes, your teenager was taught to check over the shoulder in the area next to and behind the bike to make sure there were no cars. As a driver, teach your teenager to monitor the area to the rear with the inside mirror, to the sides with the side view mirrors, and to make a blind spot check in the area slightly beyond the driver's peripheral field of vision. Teach the driver to look out of the front side windows, not the rear side windows, when checking the mirror blind spot areas. New drivers have a tendency to move the steering wheel in the direction they move their head. Before the head check, teach your teenager to focus on not moving the wheel. Loosening the grip on the steering wheel helps.

Changing lanes should not be done too often or unnecessarily. Ask your teenager why one would need to change lanes. Answers may include: to avoid an obstacle in your lane; to make a turn; exit the road; park; or to pass another vehicle. Emphasize that passing another vehicle on a two-lane, two-way roadway with limited line of sight is extremely dangerous. Practice changing lanes 15-20 times during the next three sessions. Lane change steps are:

- check traffic flow to rear and sides for appropriate gap;
- signal intentions by placing gentle pressure on the turn signal lever;
- recheck traffic flow to the rear and sides;
- steady hands and make a quick glance in the mirror blind spot area;
- maintain speed or accelerate slightly before and during the lane change;
- make a gradual move into the lane (front and rear tires should glide almost simultaneously across
- 3-5 broken pavement lines);
- regain space around the vehicle and adjust following distance as needed.



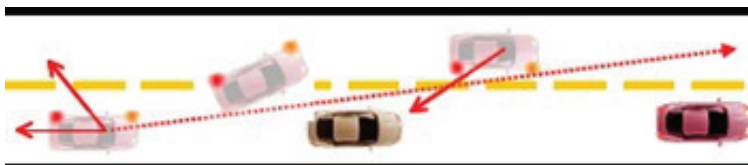
Right turns are always made from the travel lane farthest to the right to the first open lane.

Left turns can be one of the most hazardous maneuvers your teenager will perform. To judge which lane a vehicle is in, tell your teenager to look down at the vehicle's tires in contact with the road, not at the body of the car. When making a left turn from a two-way four-lane street, begin and end the turn in the lane closest to the yellow line. The yellow line should serve as your teenager's target. A protected left turn is one made from a turn lane marked with an arrow, accompanied by a traffic signal arrow. A semi protected or unprotected left turn is made from a center or shared turn lane or from the through lane. New drivers have difficulty judging the speed and distance of multiple lanes of oncoming traffic. Practice judging oncoming vehicles' space in seconds.

Passing and being passed - Review the legal responsibilities placed on the passing driver and the driver being passed. Using commentary driving, practice the following passing steps with your teenager:

- position your vehicle 2-3 seconds behind the vehicle to be passed;
- check mirrors and oncoming traffic;
- check ahead making sure there is plenty of space before you try to pass;
- signal intentions and accelerate quickly to an appropriate speed in the passing lane;
- monitor front and rear space and check the rear-view mirror for the front of the car being passed;
- signal intentions; and when you see the front of the car, change lanes, cancel signal, and maintain speed.

If someone is trying to pass you, help him. This is not an appropriate time to become competitive!



City Driving

Focus on driving on crowded urban roadways. During these practice sessions have your teenager examine the importance of scanning ahead, lane position, covering the brake, and the hazards associated with parked cars, traffic congestion, and distractions.

Decision-making is the most important skill used in driving. A driver operating in city traffic flow makes 50-60 decisions per mile. Drivers need visibility, space, time, and adequate traction to perform all maneuvers in city traffic whether crossing, turning, passing, or adjusting speed and/or position. During these sessions ask your teenager to focus on controlling space to the front and speed to enhance visibility, space, time, and traction. Driving on congested roadways allows a very small margin for driver error. Effective searching skills and driver alertness are both essential. Every second counts in this driving environment.

Have your teenager identify city driving hazards. Examples of **city driving hazards** include:

- parked cars; cars entering or exiting parking places; doors opening, etc.;
- delivery trucks; drivers racing to and from the trucks, stopping suddenly, etc.;
- buses; loading and unloading passengers;
- blind alleys; cars or bicyclists darting out of alleys;
- pedestrians; moving to and from office buildings, stores, crossing streets illegally, etc.;
- limited sight distance and intersections spaced at shorter intervals;
- aggressive, impatient drivers competing for lane space or a parking place; and
- stop and go traffic flow.

Lane position - have your teenager position the vehicle in the lane to provide the greatest amount of space between your vehicle and a potential hazard. Ask your teenager to identify the least congested lane. On a three-lane roadway, the middle lane usually has the smoothest flow of traffic. Hazards in the right lane include stopped buses, parked cars, bicyclists, etc. Hazards in the left lane include vehicles waiting to make a left turn, vehicles crossing over the center line, etc. Several times during each session, ask the driver to use commentary driving and identify potential risks 15 seconds ahead of the vehicle.

The dangers of passing in city traffic include:

- intersections are spaced at shorter intervals;
- cars may pull into or out of parking spaces;
- traffic flow is irregular;
- oncoming drivers may drift over the center line.

Distractions while driving can be deadly, especially for young drivers. Ask your teenager to give examples of driving distractions. Typical driving distractions include:

- changing the radio, CD, or tape;
- dialing or talking on the phone (not allowed until age 18 while driving);
- passengers or pets;
- eating, drinking, smoking or reading a road map;
- searching for an item in a purse, glove compartment, backpack, etc.;
- having books slide off the front seat or carrying other unstable items in your car;
- engaging in intense or emotional conversations;
- putting on makeup or looking at yourself in the mirror;
- driving an unfamiliar vehicle without first adjusting the mirrors and seat, selecting entertainment options, locating the lights, windshield wipers, or other vehicle controls.

In heavy traffic, teach your teenager to avoid distracting activities, to search the traffic scene and not fixate on any one thing, and to focus on keeping as much space as possible around the vehicle at all times.

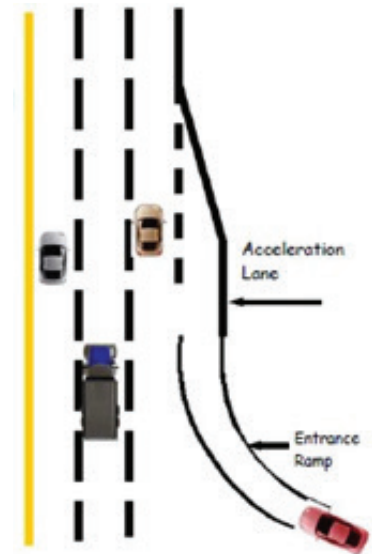
Expressways/Freeways

Focus on complex risk driving environments at speeds up to 70 mph. Traffic flow on expressways can be heavy and at times unpredictable. They are called limited access highways because there are only certain locations, called interchanges, where a driver can enter and exit the expressway. Expressways have a low frequency of collisions, but often have high injury severity rates when a collision does occur because of the higher speeds. Review the expressway information in the Texas Driver Handbook. Make sure your teenager understands the different kinds of expressway interchanges, expressway signs, signals, lane markings, speed limits, and the importance of maintaining a 20-30 second visual lead.

Entering an expressway - expressway entrances include three areas: the entrance ramp, the acceleration lane, and the merge area. The entrance ramp allows the driver time to search the expressway and evaluate speed and available space before entering. Entrance ramps may be uphill, downhill, or level with the expressway. Each of these roadway conditions presents a different challenge when trying to search the traffic flow on the expressway. Using commentary driving, practice entering and exiting the expressway 10 times during each session.

Steps for entering the expressway:

- Check for ramp speed signs;
- On the entrance ramp, search for vehicles ahead and behind on the expressway using quick glances while searching for gaps or open spaces in the traffic flow;
- In the acceleration lane, use the signal to indicate your desire to enter the expressway, and adjust speed to the flow of traffic;
- From the merge lane enter the flow of traffic;
- Release lane changer device;
- Establish a new target area.

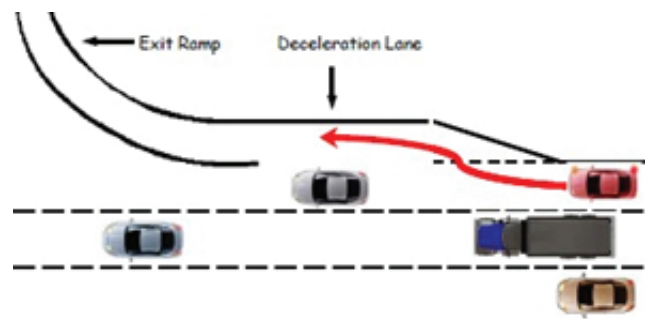


Expressway driving tips

- Adjust the vehicle's position and speed to road and weather conditions.
- Maintain a minimum 4 second following interval when merging onto the expressway, changing lanes, and exiting the expressway.
- Minimal steering inputs are needed at higher speeds to change lanes, enter, or exit the expressway; excessive steering can easily lead to a loss of control at higher speeds.
- Make room for vehicles entering the expressway from an entrance ramp by moving out of the lane next to the merging area.
- Always move over one lane at a time when moving across multiple lanes.
- Be alert for crosswinds when driving on bridges or through open mountain passes.
- When another driver tailgates, increase your 4-second following interval and, if possible, change lanes.
- When driving over a long period of time, be aware of a condition known as "highway hypnosis." This results in driving in a dulled, drowsy, trance-like condition.

Steps for exiting the expressway:

- Identify the exit well in advance;
- Move into the lane closest to the exit;
- Check traffic to the rear; do not reduce speed on the expressway;
- Signal intentions 4-6 seconds in advance of the ramp;
- Enter the exit ramp, tap brakes and rapidly begin reducing speed;
- Continue decelerating to the posted speed before entering the curve on the ramp.



Common Mistakes for Expressway/Freeway Driving

- Speed too slow
- Fails to signal
- Fails to yield to oncoming vehicles
- Fails to check traffic to front and rear
- Drifts while checking traffic
- Poor gap judgment
- Turns steering wheel too sharply
- Fails to cancel signal
- It is illegal to back up on a freeway.

Route Numbering. Most routes are one- and two-digit numbers.

- North-south routes have odd numbers.
- East-west routes have even numbers.
- The greater the even number, the farther north the road is in the United States.
- The greater the odd number, the farther east the road is in the United States.
- Exit numbers correlate with mile marker numbers.

Alternate routes are usually three-digit numbers, with the last two numbers designating the main one- or two-digit route.

- If the first digit is even, the alternate route is a loop that goes around a city.
- If the first digit is odd, the alternate route goes into a city.

Skid Recovery

Skidding can happen on any surface, during braking, accelerating or steering. Early detection can turn a heart thumping experience into calm control. Your mind needs to act quickly so you can take the car where you want it to go. Many parents were taught to “steer in the direction of the skid, which is confusing. Now we teach to “steer to the target.” That puts our thought process to the front of the vehicle, rather than the rear of the vehicle. In the event this occurs during your practice, follow these steps:

- Early Detection: Keep your eyes on the target area (at least 12-15 seconds ahead)
- The instant you detect the vehicle going off target, turn the steering wheel back on target
- It’s important to get the vehicle back on target before it gets 15-25° off target. That’s your point of no return; once the skid reaches that angle, it’s going to keep on in the direction of the skid



Avoid Aggressive Drivers or Fatigued Drivers

Aggressive driving behaviors most common among Texans and teen drivers are:

- Failure to yield the right-of-way
- Running stop signs
- Speeding
- Driving too fast for conditions
- Following too close
- Disregarding traffic signals

Single vehicle rollovers cause more than 2/3 of all fatal injuries. Rollovers usually occur when a vehicle leaves the road, and the driver over-corrects. Most of these errors are caused by inattention. In the agreement with your young driver include a rule that establishes guidelines for their driving after they complete the minimum of six-month practice period. Together families can help reduce the tragic deaths of teens on our streets and highways.

Share the Roadway

- Don't respond
- Don't make eye contact
- Don't up the ante
- Swallow your pride
- Choose the road "less traveled"

Avoiding Conflicts - Steps of Aggression that Lead to Road Rage

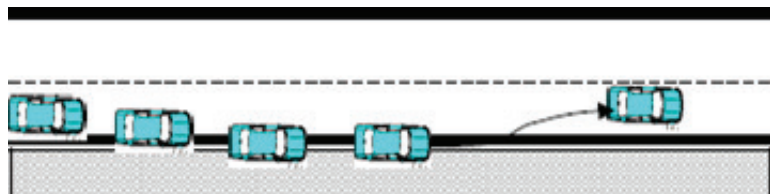
- Constantly rushing and lane jumping
- Thinking others are just in your way; and that you need to get ahead
- Ignore road signs and regulations
- Driving with distraction, low alertness, inattention
- Constantly ridiculing and criticizing other drivers to self or passengers
- Closing gap to deny entry into your lane
- Giving the "look" to show your disapproval
- Speeding past another car, revving engine
- Preventing others from passing you
- Tailgating to pressure a driver to go faster or get out of your way
- Fantasizing physical violence
- Honking, yelling through the window
- Making visible insulting gestures
- Carrying a weapon just in case. . .
- Deliberately bumping or ramming
- Trying to run a car off the road to punish
- Getting out of the car, beating or battering someone
- Trying to run someone down
- Shooting at another car
- Killing someone

Off-Roadway Recovery

Off-roadway recovery demonstrates the ability to get the vehicle safely back on the roadway after a vehicle leaves the roadway. The driving environment should be hard-surfaced, two-lane country road with good shoulder maintenance, clear of obstacles, and traffic, but with occasional edge drops of 2-4 inches. Begin at 10 mph, gradually increase speed to 20 mph as the driver gains more confidence.

Skills

1. Check traffic
2. Reduce speed to 10 mph without using the brakes
3. Move the vehicle so that it straddles the roadway edge
4. If it is necessary to brake, brake lightly
5. Check traffic
6. Signal to return to the roadway
7. Select a level location for returning to the road
8. With hands at 9 and 3, turn the wheel no more than 1/8 turn back onto the road
9. Return to lane position one, check rear, cancel signal



Common Mistakes

- Fails to hold the wheel firmly
- Hands placed too high on the steering wheel
- Brakes hard on the shoulder
- Steers too sharply when returning to the road
- Forgets to check traffic before returning to the road
- Fails to “target” the new path of travel before driving back onto the road
- When traveling at higher speeds, quickly jerks the wheel resulting in an over-correction, thereby setting up the potential for a rollover or head-on collision

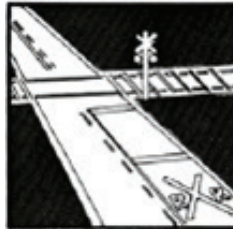
Crossing Railroad Tracks

1. Slow down. Check rearview mirror
2. **LOOK! Always expect a train at any time**
3. Check tracks both ways
4. See the number of tracks
5. **LISTEN!** Turn off radio, air conditioner, heater fan. Open window if necessary.
6. If a train is approaching, **STOP** no less than 15 feet from the tracks or at the stop line
7. When safe to cross, increase speed



Common Mistakes

- Fails to identify railroad tracks
- Fails to **LOOK** for oncoming train
- Fails to **LISTEN**
- Fails to ensure all tracks are clear
- Stops too close to the tracks
- Fails to **STOP** when a train is coming



Advance Warning Sign - <http://www.oli.org/>

Braking Methods

Controlled Braking

Used to control vehicle speed and balance through smooth and consistent application of pressure (squeeze action) to the brake pedal. **Benefits:** Nice smooth, non-jerky stops.

Procedures for Controlled Braking

1. Check rearview mirror
2. Stabilize foot on the floor
3. Place left foot on “dead pedal” or floorboard for balance
4. Use forces of the ankle and foot, not the leg
5. Squeeze brake, smooth, consistent pressure
6. Release pressure smoothly, avoid forward pitch action on the vehicle

Common Mistakes

- Fails to check rearview mirror for following vehicles
- Uses leg force for braking
- Squeezes and releases the brake while braking
- Hard braking
- Insufficient braking
- Maintains hard brake pressure until stopped

Braking Methods

Threshold Braking

Used to provide maximized traction. Keep the heel on the floor, apply steady pressure just short of lockup – the point at which the wheels stop turning. Benefits: Keeps the vehicle balanced while in a turn and provides more traction for steering.

Trail Braking

Used at the end of controlled or threshold braking when turning at an intersection or in a curve. As you enter the turn, ease off the brake and maintain slight braking pressure until 1/2 way through the turn, then accelerate. Benefits: Helps maintain vehicle balance and traction control when entering a turn without stopping. Ease off brakes as you enter the curve, by using trail braking until 1/2 way through the turn. Accelerate out of the turn. Use controlled or threshold braking prior to reaching the curve.

Other Resources

National Highway Transportation Safety Administration www.nhtsa.gov

Motorcycle Awareness <http://www.looklearnlive.org>

Teens in the Drivers Seat <http://t-driver.com/>

Texas Alcoholic Beverage Commission www.tabc.texas.gov

Texas Department of Motor Vehicles www.txdmv.gov

Texas Department of Public Safety www.dps.texas.gov

Texas Department of Transportation www.txdot.gov

Texas Department of Licensing and Regulation www.tdlr.texas.gov

Texas Transportation Institute <http://tti.tamu.edu/>

Behind-the-Wheel Practice Log — 30 Hours

The 30 hours of behind-the-wheel practice must be completed in the presence of an adult who is 21 years of age or older and has been licensed for a minimum of one year (TRC 521.222) before the student is eligible for a provisional license. Only 1 hour of behind-the-wheel practice per day will count towards the 30 hours regardless of the number of hours the student drives in a day. When the student is eligible for the provisional license you may be asked to present this log to the Department of Public Safety.

Student's Name: _____

DL#: _____

Practice Session	Date		Day-time	Night-time	Adult Initials and DL#
<i>Sample: Parking (Recommended 1 hour)</i>	<i>1/1/1999</i>	<i>3:30pm</i>	<i>1</i>	<i>0</i>	<i>AAA -- DL#00000000</i>
<i>Getting Ready, Starting, Placing Vehicle in Motion, and Stopping (Recommended 2 hours)</i>					
<i>Moving, Stopping, Steering, Knowing Where You Are (Recommended 3 hours)</i>					
<i>Backing (Recommended 1 hour)</i>					
<i>Turning, Lane Position, and Visual Skills (Recommended 4 hours)</i>					
<i>Searching Intended Path of Travel (Recommended 3 hours)</i>					
<i>Parking (Recommended 1 hour)</i>					
<i>Turnabouts (Recommended 2 hours)</i>					
<i>Multiple Lane Roadways (Recommended 4 hours)</i>					
<i>City Driving (Recommended 5 hours)</i>					
<i>Expressway/ Freeway Driving (Recommended 5 hours)</i>					

I certify and endorse that the above record is true and correct and my student has completed 30 hours of guided practice which includes at least 10 at nighttime.

Instructor's Signature _____

Date _____

BEHIND THE WHEEL INSTRUCTION LOG 30 HOURS

Behind-the-Wheel Instruction Guide may be downloaded or printed from
www.tdlr.texas.gov/driver/drivereduforms.htm

The 30 hours of behind-the-wheel practice must be completed in the presence of an adult who meets the requirements of Section 521.222 (d)(2), Transportation Code before the young driver is eligible for a provisional license. **Only one (1) hour of behind-the-wheel instruction per day will count towards the 30 hours** regardless of the number of hours the student actually drives in a day.

Getting Ready, Starting, Placing the Vehicle in Motion, and Stopping (p. 13) Recommended 2 hours – These practice sessions introduce your teenager to the instrument panel, vehicle controls, and mirror blind spots. The young driver should get ready to drive, start the vehicle, place the vehicle in motion, stop, and secure the vehicle. Please review the vehicle owner’s manual before and during these practice sessions.

Moving, Stopping, Steering, Knowing Where You Are (p. 14) Recommended 3 hours – Focus on learning the correct procedures for moving, stopping, using reference points, and steering the vehicle at different speeds. Begin in a large, level parking lot that is free of obstacles. The teenager should practice driving around the perimeter of the lot at 10 and 15 mph. Using commentary driving, have your teenager focus on smooth push-pull-slide hand-to-hand steering and stops. Your teenager should be taught to ease off the accelerator or use the brake to reduce speed before entering a curve and use slight acceleration to overcome inertia and pull the vehicle out of the curve. Ask the teenager to move the vehicle to specified targets in the parking lot at 10 and 15 mph. **The target** is a fixed object that is located 12-20 seconds ahead of the vehicle, in the center of the path of travel, and is what the driver steers toward. It can be a car a block ahead, a traffic signal, the crest of a hill, etc. Having a target helps the new driver to: visualize the space the vehicle will be occupying; look far ahead of the vehicle and begin a search to identify risks; improve steering accuracy. Focus on smooth acceleration, proper speed, and smooth stops. Explain to your

teenager that “curling” the toes back to ease pressure off the brake just before stopping results in smoother stops. Practice normal smooth stops and hard smooth stops which are done at a slightly higher speed.

Backing (p. 15) Recommended 1 hour – Repeat the tasks listed in sessions **Moving, Stopping, Steering, Knowing Where You Are** with the vehicle in reverse gear at idle or slow speeds. Backing from one target to another allows your teenager to practice seeing, steering, and speed control skills with the vehicle in reverse gear.

Turning, Lane Position, and Visual Skills (p. 15) Recommended 4 hours – During the next practice sessions practice 10-15 right and left turns from stopped and moving positions in a parking lot. Left turns should be “squared” and right turns should be “rounded.” Emphasize proper signals, mirror checks, side- position reference points, speed and steering control, and the need to look ahead of the vehicle at a selected target in the center of the path of travel. Warn young drivers not to fixate on any one thing. Prior to progressing to driving in a quiet neighborhood, your teenager should be able to demonstrate the ability to move and stop the car smoothly, maintain a given speed, and steer with reasonable precision. If your teenager is ready, practice right and left turns in a residential area.

Searching Intended Path of Travel (p. 17) Recommended 3 hours – In a residential area, or, if ready, on roads with light traffic, continue working on basic visual skills, negotiating curves, and right

and left turns. Practice judging space in seconds, identifying a target, and searching the target area and target path. Ask your teenager to comment prior to changing speed or position. Young drivers have the tendency to monitor the road immediately in front of the vehicle.

Parking (p. 18) Recommended 1 hour – Angle Parking, Perpendicular Parking, Parallel Parking, Curb Parking, Parking Uphill, Parking Downhill

Turnabouts (p. 20) Recommended 2 hours – Focus on recognizing the different types of turnabouts and selecting the appropriate type of turnabout for a given situation. Begin in a large, level parking lot free of obstacles. Practice 2-point, 3-point, and U-turns in a parking lot. Progress to a lightly traveled residential area, and practice visual search skills, turns, and each turnabout at least 10 times. **The easiest and safest way to change directions is to drive around the block.**

Multiple Lane Roadways (p. 21) Recommended 4 hours – Focus on **lane position, lane changing, following distance, and mirror blind spots.** If possible, choose a time when the four-lane roadway on which you select to practice has minimal traffic, such as during early morning hours on Saturday or Sunday. There are several **lane position choices** a driver can make without changing lanes. Practice driving in lane position 1, 2, and 3 for several miles during each session.

City Driving (p. 23) Recommended 5 hours – Focus on driving on crowded urban roadways. During these practice sessions have your teenager examine the importance of scanning ahead, lane position, covering the brake, and the hazards associated with parked cars, traffic congestion, and distractions. **Decision-making** is the most important skill used in driving. A driver operating in city traffic flow makes 50-60 decisions per mile. Drivers need visibility, space, time, and adequate traction to perform all maneuvers in city traffic whether crossing, turning, passing, or adjusting speed and/or position. During these sessions ask your teenager to focus on controlling space to the front and speed to enhance visibility, space, time, and traction. Driving on congested roadways allows a very small margin for driver error. Effective searching skills and driver alertness are both essential. Every second counts in this driving environment.

Expressway/Freeway Driving (p. 24) Recommended 5 hours – Focus on complex risk driving environments at speeds up to 70 mph. Traffic flow on expressways can be heavy and at times unpredictable. They are called limited access highways because there are only certain locations, called interchanges, where a driver can enter and exit the expressway. Expressways have a low frequency of collisions, but often have high injury severity rates when a collision does occur because of the higher speeds. Review the expressway information in the Texas Driver Handbook. Make sure your teenager understands the different kinds of expressway interchanges, expressway signs, signals, lane markings, speed limits, and the importance of maintaining a 20-30 second visual lead.



Texas Department of Licensing and Regulation
www.tdlr.texas.gov