



Parent/Teen

Driving Handbook



Drive For Life

Preface

As parents, we are always concerned over the health and safety of our children. As they grow into young adults (teenagers) the concern over their well being never leaves. As teenagers, our teens begin to look at the freedom having a driver license will provide, we on the other hand feel a moment of anxiety and ask ourselves "What can we do to keep them safe?".



What can a Parent do to HELP?

One of the best ways for a parent to influence his/her teen's driving habits is to sit in the vehicle with their teenager and help them to become a safe driver. Only quality instruction and hours of practice will put teenagers on the path to becoming safe drivers. The time you spend with your teenager behind the wheel will help give them this very important additional experience.

Remember: Formal driver training programs do a great service, but the hours needed to make your teen a safe driver can only come from hours of actual driving practice.

- Driver education is one of our most important tools in ensuring highway safety, but safe driving only comes from hours of driving experience.
- Parental involvement is an essential part of educating our teens in traffic safety.
- Crash rates for teenagers are four times greater than adults. parental involvement can help reduce these statistics.
- Teenage drivers will benefit from the additional practical experience they will receive by driving with a parent in the vehicle.

We hope the information provided in this handbook can be a valuable resource for parents in teaching their teenager(s) to become safe driver(s).

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DISCLAIMER:

In the preparation of this parent/teen driving handbook, a diligent effort was made to provide true, factual and complete information. This handbook suggests many safe and defensive driving techniques, while also pointing out important motor vehicle laws. However, the publisher, authors and distributor make no warranty, or representation of any kind regarding the effectiveness, suitability or validity of the suggestions and information contained therein. This handbook and its contents have been designed solely to help parents/guardians instruct their teens on safe and defensive driving techniques. It is not meant to be all inclusive and may not answer all of your questions on safe driving. Please contact your nearest driver license office if you have additional questions.

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Dear Parent/Guardian:

According to the National Highway Traffic Safety Administration, motor vehicles, accidents are the number one killer of teenagers. That is more deaths than alcohol, drugs and suicides combined. Because so many teenagers are being injured or killed in motor vehicle crashes, a partnership of driver educators and parents is vital in the all-important task of making our teenagers safer drivers.

The North Carolina Graduated Drivers Licensing Law has brought with it more responsibility on the part of parents to continue the practice of skills learned in driver education classes. As part of our commitment to help both students and parents in this endeavor, we offer this driving guide to help provide parents and teens with practical advice and tips on how to make your practice driving sessions as productive as possible. By taking a few minutes to review this manual and then use it as a guide for your practice sessions you will see how each activity begins with objectives to be practiced, followed by specific instructions on how to practice these skills.

By becoming partners during the driver education process, you are giving your son or daughter the full attention he or she deserves to become a responsible member of the driving population.

A Note To Parent/Guardian

As you are probably aware, teenage drivers get more tickets, are hurt and/or killed in greater numbers than older drivers. The reason is simple; EXPERIENCE. As a young driver gains more experience and matures, he/she will make better decisions which leads to becoming a safer driver.

As part of our commitment to help both students and parents in this endeavor, we offer this driving guide to help provide parents and teens with practical advice and tips on how to make your practice driving sessions as productive as possible.

Table of Contents

CHECKLIST		Page
Unit 1	Driving Activities Checklists	12
Lesson 1:	“The Pre-trip Inspection”	13
	Activity 1: <i>Checking the outside of the vehicle</i> Reference	13 34
	Activity 2: PRE-DRIVING HABITS Reference	14 35
	Activity 3: PRE-IGNITION Reference	15 36
	Activity 4: STARTING THE ENGINE Reference	15 37
Lesson 2:	“Putting the Vehicle in Motion”	16
	Activity 5: <i>Putting The Car Into Motion</i> Reference	16 38
	Activity 6: <i>Stopping</i> Reference	16 38
	Activity 7: Backing in a Straight Line Reference	17 40
	Activity 8: Stopping and Securing the Vehicle Reference	17 41
	Activity 9: Leaving the Vehicle Reference	17 41
Lesson 3:	“Basic Vehicle Operation”	18
	Activity 10: Proper Steering Technique Reference	18 42
	Activity 11: Right Turn Reference	18 43
	Activity 12: Left Turn Reference	19 43
	Activity 13: Where to Stop at a Stop Sign Reference	19 44
	Activity 14: Four-Way Stop Reference	19 44
	Activity 15: Right Turn On Red Reference	20 45

CHECKLIST		Page
	Activity 16: Uncontrolled Intersections Reference	20 45
	Activity 17: School Zones and Crossings Reference	20 45
Lesson 4:	“Urban and City Driving”	21
	Activity 18: City Driving Reference	21 46
	Activity 19: Entering a Roadway Reference	21 47
	Activity 20: Making a Lane Change Reference	22 48
	Activity 21: Passing Reference	22 49
Lesson 5:	“Expressway Driving”	23
	Activity 22: Entering the Expressway Reference	23 51
	Activity 23: Cruising on the Expressway Reference	23 53
	Activity 24: Lane Change Reference	24 54
	Activity 25: Approaching an Entrance on the Ex- pressway Reference	24 55
	Activity 26: Exiting an Expressway Reference	24 55
Lesson 6:	“Turn-about”	25
	Activity 27: Three-Point Turn Reference	25 57
	Activity 28: Midblock U-Turn Reference	25 58
	Activity 29: Intersection U-turn Reference	26 58
	Activity 30: Two-Point Turn to the Right Reference	26 59
	Activity 31: Two-Point Turn to the Left Reference	26 59

CHECKLIST		Page
Lesson 7:	“Parking”	25
	Activity 32: Angle Parking Reference	27 60
	Activity 33: Angle Parking (Leaving) Reference	27 60
	Activity 34: Perpendicular Parking Reference	28 61
	Activity 35: Perpendicular Space (Leaving) Reference	28 61
	Activity 36: Parking Without A Curb Reference	29 62
	Activity 37: Parking Downgrade With a Curb Reference	29 62
	Activity 38: Parking Up-grade With a Curb Reference	29 62
	Activity 39: Parallel Parking Reference	30 63
	Activity 40: Parallel Parking (Leaving) Reference	30 63
Lesson 8:	“Night Driving” Reference	31 64
Lesson 9:	“Bad Weather Driving” Reference	32 67
Unit 2	Reference and Study Guide Page numbers are listed with each Activity for easy reference to study guide.	33
Unit 3	Emergencies	71
	Tire Blowout	72
	Brake Failure	73
	The Gas Pedal Sticks	74
	The Engine Stops Running	74
	The Engine Is Overheating	75
	Power Steering Fails	75
	The Car Catches on Fire	76
Unit 4	Driving Log	77

HOW TO USE THIS HANDBOOK

1. The parent should read this booklet before beginning practice with his/her teenager.
2. A suggested activity plan covering the driving skills is included within this manual.
3. We suggest the following method to assist you (the parent) preparing your teen driver for the different driving activities presented in this handbook.

Keep your directions simple and short.

- Read or state the directions for the particular skill just prior to practice and give instructions well in advance.
- Demonstrate the skill (example: backing).
- Have your teen execute the skill (example: backing).
- Discuss if needed.

<p>Tips:</p> <ul style="list-style-type: none">• Let your teen driver explain to you what he/she are seeing and doing.• Remember that you are a role model and everything that you are doing is being emulated by your teen driver.• You should vary your routes from skill-to-skill and from session to session.	<p>Do:</p> <ul style="list-style-type: none">• keep your voice calm• remain focused• give compliments periodically for confidence building <p>Don't:</p> <ul style="list-style-type: none">• give complicated instructions during driving—pull over• show your frustration• show panic or excitement
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Remember, everyone commits driver errors at one time or another. When your teen begin to drive don't expect him/her to be perfect, both you and your teen need to avoid being judgmental. The important thing is to recognize potential problems and avoid making wrong decisions. If you are unsure, go back and review that driving procedure together and practice it again.

Parent Tips for In-Car Guided Practice Session

Before Starting:

There should be a clear understanding with the teenager about the route, the skills, and the goals for the activity. Your teen should be prepared to explain how to perform the skills he or she will be practicing.

Get in the Mood

Practice only when you are both ready. This means that you and your teen should be in a good mood and have plenty of time.

Start Simple

Remember, when your teen sits in the driver seat of a vehicle for the first time, it can be a little overwhelming. Don't rush him/her, let them enjoy the experience. When he/she is comfortable begin with the basics.

Start on a Sunny Day

- Practice the driving lesson during the day, in good weather. As your teen improves, gradually start driving during different driving conditions, including a variety of times of day, weather and types of roads.
- **Don't rush into "rush hour."** Start with safe, low-risk driving conditions, such as empty parking lots and quiet rural roads. Gradually progress to neighborhood streets with little traffic, then busier roads and highways.

While The Teenager is Driving:

Use simple and clear instructions such as:

- brake;
- slow-down,
- accelerate, etc.

Keep the lines of communication open so your teen feels comfortable talking with you. A calm tone of voice should be used. Have your teen talk (commentary driving) about what he or she is thinking, doing, and seeing during the lesson.

When The Teenage Driver Does Something Incorrectly:

REMAIN CALM! First, have your teen safely move the car off the road and then discuss the mistake calmly. Communicate exactly what went wrong and how to correct the problem.

After The Practice Session: (Sessions are recorded in a driving log.)

Evaluate the session together. First, let your teen evaluate his/her own performance. Then review the practice session log with your teen. Praise them for what he or she did correctly, along with remarks on how to improve on problem areas.

Planning your Lesson in Advance

Before you begin any driving practice with your teen, please read all pages for the Activity lesson you will be doing.

When both you and your teen have completed reading the lesson, take a few minutes and discuss the procedures together before attempting the lesson in a vehicle.

Map your route. Give careful consideration to where and when you will conduct this lesson.

Show your teenager. When your teen first attempts a maneuver or has failed to do it correctly after several attempts, we recommended you demonstrate how to do the skill correctly.

Practice; complete all the steps when practicing a maneuver. Check the procedures in the activity being completed and be sure the skill is done correctly. **Be patient.** Your son or daughter may need to practice a maneuver several times to complete it correctly.

LESSON TIP

Consider beginning the first Activity in a vacant parking lot. Here, procedures for entering the car, pre-ignition, ignition, starting the car, stopping the car, turns and backing can be practiced in a safe controlled environment. You (the parent) can then evaluate your teenager's understanding and ability. If you believe their performance to be at an acceptable level, then move forward from that point.

Observing and Recording Teen Activities

As you observe the teenager complete the different tasks presented in each activity use the checkboxes. Check any item or items missed as a task is completed. By recording what your teenager has failed to complete, you will be better equipped to help in the future.

- Review the lesson activity log with your teenager before their next lesson and focus on where adjustments may be required to show improvement or forgotten items.
- It is best to use a pencil when checking a missed item or task. This will allow you to adjust the list as improvements are made.

Emergency Takeover of Vehicle

There is always an element of risk when driving a vehicle and this risk increases with new drivers. Be prepared when giving your teen a driving lesson. Be aware of traffic patterns surrounding your vehicle. If an emergency situation occurs that requires you to take control of the vehicle, you could use any of the following suggestions:

(These suggestions are not in any particular order or sequence; the situation will determine what you may have to do.)

- Practice controlling the car with the left hand on the steering wheel.



1. Place your hand under your teen's right arm/wrist.



2. Lift your teen's right hand off steering-wheel.



3. Place your hand and grip the steering-wheel to take control.

- Disengage power by shifting the gear out of "DRIVE" into "NEUTRAL".



Push Drive
into
Neutral



- Use parking brake for emergency stopping. If the parking brake is accessible to the passenger side, you may practice stopping the car by applying the parking brake.



Pull
on
Hand Brake



Unit 1

Driving Activities Checklists

The information included in this section is for use while you are conducting driving activities with you teen. Each lesson has a series of check boxes to indicate areas of the lesson teen needs to attain proficiency. The checklists will also include a reference page for that activity if needed.

If you are doing this lesson for the first time, please review the study material located in the Reference section before going out for the first time.

HINT:

While observing your teenager complete a checklist:

- *Use a pencil to check the items your teen missed while engaged in the activity.*
- *Review this list in future to help your teen remember all the steps needed. Adjust the list as improvements are made.*

For example:

Very Good	(0-1 checked item)
Good	(2 checked items)
Average	(3 checked items)
Needs Improvement	(4 or more checked items)

Lesson 1 CHECKLIST

“The Pre-trip Inspection”

Grading:

Very Good	(0-1 checked item)
Good	(2 checked items)
Average	(3 checked items)
Needs Improvement	(4 or more checked items)

Activity 1: Checking the outside of the vehicle

Need Help!

Refer to page ... 34

The tasks are not listed in any order of importance. With experience however, your teen will develop a preferred sequence or procedure that works best.

- 1. Underneath and rear of vehicle — Check for leaks (coolant, brake fluid, motor oil, transmission fluid).
- 2. Lights
 - Brake lights
 - Taillights
 - Backup lights
 - Parking lights
 - Flashers
 - License plate light
 - Headlights
 - Low beam
 - High beam
 - Turn signals
 - Left and right
 - Front and rear
- 3. Tires
 - Air pressure
 - Tread
- 4. Wiper blades
- 5. Shocks and springs
- 6. Windows
- 7. Tailpipe (secure, free of objects). **Do Not Touch!**

LESSON TIP

If doing Activities 1—2 is inconvenient in your drive-way, you may wish to consider using a vacant parking lot.

Safety Tips

We suggest that the parent do a demonstration drive to a vacant parking lot to complete Activities 3—?. This will keep your teen from having to drive in live traffic until they have experienced basic starting and stopping.

Activity 2: PRE-DRIVING HABITS

Need Help!

Refer to page ... 35

1. Check for loose objects.



2. Lock all doors.



3. Adjust seat.



Safety Tips

Allow for a minimum distance of 10 inches to the chest to help reduce the chance of injury in the event of air bag inflation.

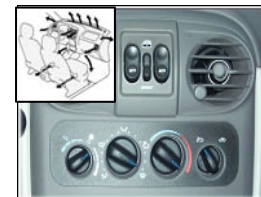
4. Adjust mirrors.



5. Adjust headrest.



6. Adjust ventilation.



7. Fasten safety belts.



LESSON TIP

To maximize visual field, your teen needs to sit high enough to see over the steering wheel and have a proper view from all mirrors before he/she begins to drive.

Safety Tips

We suggest that the parent do a demonstration drive to a vacant parking lot to complete Activities 3—8. This will keep your teen from having to drive in live traffic until they have experienced basic starting and stopping.

Activity 3: PRE-IGNITION

Need Help!

Refer to page ... 36

1. Lock all doors.
2. Put key in ignition.
3. Adjust seat and head restraint.
4. Adjust side and rear-view mirrors.
5. Fasten seatbelt.
6. Make sure the parking brake is set.
7. Put foot on brake.

LESSON TIP

Consider doing Activities 3—10 in a vacant parking lot. Here, procedures for entering the car, pre-ignition, ignition, starting the car, stopping the car, turns and backing can be practiced in a safe controlled environment. You (the parent) can then evaluate your teenager's understanding and ability. If you believe their performance to be at an acceptable level, then move forward from that point.

Activity 4: STARTING THE ENGINE

Need Help!

Refer to page ... 37

8. Make sure the gear lever is in park.
 - When starting the vehicle from a stall, place the lever in neutral.
 - For fuel injection engines and when the engine is cold, keep your foot off the accelerator.
9. Turn the ignition switch to "ON". Continue turning the key to start the engine. Release the key as soon as the engine starts.
10. Check gauges and warning lights.
 - Oil pressure
 - Temperature
 - Alternator
 - Fuel
11. Make sure all the warning lights are off.
12. Check brake (should go no closer than 2 inches from floor).
13. Check steering (no more than 2 inches of play).
14. Check horn.
15. Check wipers.
16. Adjust ventilation.

Safety Tips

- Listen for sounds indicating a leak in the exhaust system.
- Do not let engine idle too long.
- Do not run engine in a closed area, even if the doors are open. (carbon monoxide)

Lesson 2 CHECKLIST

“Putting the Vehicle in Motion”

Grading:

Very Good	(0-1 checked item)
Good	(2 checked items)
Average	(3 checked items)
Needs Improvement	(4 or more checked items)

Activity 5: Putting The Car Into Motion

Need Help!

Refer to page ... 38

1. Place right foot on brake.
2. Move the gear selector lever to DRIVE.
3. Release parking brake.
4. Check mirrors.
5. Signal.
6. Check blind spots.
7. Release foot brake and gently press accelerator
8. Increase speed smoothly
9. Cancel signal

Activity 6: Stopping

Need Help!

Refer to page ... 38

1. Check traffic in both mirrors before slowing down.
2. Release accelerator.
3. Gently apply brakes.
4. Feather brakes just before stopping. (Ease up slightly and then re-apply.)
5. When stopped behind a vehicle, see its rear tires where they touch the ground.
6. Where there is a stop sign, stop with front bumper before the stop sign; if a sidewalk is before stop sign, stop before sidewalk. If there is a white line (stop line), stop with front bumper on white line.
7. Leave the selector gear in DRIVE

LESSON TIP

When there is a stop sign, stop with bumper at stop sign. If the sidewalk is before stop sign, stop before sidewalk. If there is a white line (stop line), stop with bumper on white line.

Activity 7: Backing in a Straight Line

Need Help!

Refer to page ... 40

NOTE: Backing the car might feel strange when exercised for the first time. Before backing, look back to make sure the path is clear. Do not rely on the rear-view mirrors. Follow these steps to back correctly. The parent should continually give instructions during the procedures.

1. Keep right foot on brake.
2. Shift into REVERSE
3. Turn on hazard lights.
4. Check traffic.
5. Place right arm on back of seat.
6. Sound horn.
7. Hold steering wheel with left hand at 12 o'clock.
8. Back slowly. Continue looking to rear until coming to a complete stop.

LESSON TIP

Your teen needs to listen to your voice command of STOP.

When stopping, your teen should not be looking for or at the brake pedal.

While backing, cover the brake with the right foot, unless you need to accelerate slightly.

Activity 8: Stopping and Securing the Vehicle

Need Help!

Refer to page ... 41

1. Once you have stopped, continue pressing the foot brake.
2. Shift to PARK in an automatic or to REVERSE in a manual shift vehicle.
3. Set the parking brake. Turn off all accessories. Close all windows.
4. Turn off the ignition switch. Remove the key.
5. Unfasten your safety belt.

Activity 9: Leaving the Vehicle

Need Help!

Refer to page ... 41

1. Check inside and outside mirrors.
2. Keep your key in hand.
3. Glance over your left shoulder before opening the door.
4. When it is safe, open the door and get out quickly.
5. Lock doors.

LESSON TIP

At this point, you can make the decision to skip to Lesson 7 on page 27 to teach the different types of parking. You will then need to return to Lesson 3.

Lesson 3 CHECKLIST

“Basic Vehicle Operation”

Grading:

Very Good	(0-1 checked item)
Good	(2 checked items)
Average	(3 checked items)
Needs Improvement	(4 or more checked items)

Activity 10: Proper Steering Technique

Need Help!

Refer to page ... 42

1. Use both hands on the steering wheel in a balanced position.
2. You must make sure the teen driver does not hold the steering wheel too tightly. Gentle, smooth and tiny steering corrections are necessary for turning maneuvers and driving straight ahead.
3. Keeps muscles of the arms and wrists relaxed. Proper steering is aided by looking far ahead and keeping the car on its intended path.

LESSON TIP

Consider practicing Activities 11—14 in a low risk environment such as a residential area that you are familiar with, which includes a school zone.

Activity 11: Right Turn

Need Help!

Refer to page ... 43

1. Be in the right lane and about four feet from the curb if there are no parked cars.
2. Signal and begin braking at least half a block before the intersection but be sure not to mislead other drivers that might be waiting to exit a parking lot.
3. Check mirrors and scan for pedestrians and other traffic.
4. Slow to ten (10) mph just before the crosswalk.
5. Make a final traffic check to the left (head check).
6. Release pressure on brake pedal.
7. Begin turning when front wheels are even with the bend of the curb.
8. Halfway around the turn, accelerate gently and allow the steering wheel to unwind to straight-ahead position.
9. When completing turn, stay close to the curb and scan for pedestrians and traffic.

Activity 12: Left Turn

Need Help!

Refer to page ... 43

1. Be near the center line as you approach the corner.
2. Signal and begin braking at least half a block before the intersection.
3. Check mirrors and scan for pedestrians and other traffic - be sure to make head check.
4. Slow to ten (10) mph just before the crosswalk.
5. Make a final traffic check to the right.
6. Begin turning just before the center of the intersection.
7. Halfway around the turn, accelerate gently and allow the steering wheel to unwind to straight-ahead position.
8. When completing turn, stay close to center line and scan for pedestrians and traffic.

Activity 13: Where to Stop at a Stop Sign

Need Help!

Refer to page ... 44

1. When there is only a stop sign, stop with front bumper even with sign.
2. Always check rear when braking for a stop.
3. If there is a crosswalk, ease up to the crosswalk and stop just before the crosswalk.
4. If there is a stop line, stop with the front bumper at the stop line.
5. If you cannot get a clear view of traffic on the through street from where you have stopped, carefully move ahead. Stop again where you can see down the through street. Avoid edging out so far that the front of your car is in the way of traffic.

Activity 14: Four-Way Stop

Need Help!

Refer to page ... 44

1. Drivers must make a full stop.
2. When stopped behind another car you should see the rear tires of that car. This will allow you to still steer out, if the vehicle ahead is stalled and cannot move.
3. The driver who stopped first should go first.
4. When cars at right angles stop at the same time, the driver on the right has the right-of-way.
5. By releasing the brake pedal and moving slowly forward before proceeding through the intersection, a driver who is moving can communicate an intent to go.
6. A driver should continue to glance left and right while moving into intersection.

Activity 15: Right Turn On Red

Need Help!

Refer to page ... 45

- 1. The car must come to a full stop at the red light.
- 2. Yield to traffic and pedestrians.
- 3. If clear from left, complete turn into right lane.

Activity 16: Uncontrolled Intersections

Need Help!

Refer to page ... 45

- 1. Identify whether the intersection is controlled or uncontrolled.
- 2. Predict what actions other drivers or pedestrians might take.
- 3. Glance left first, then right. Look for movement from intersections and driveways.
- 4. Slow down and cover the brake as you approach an intersection, then accelerate to go through it.
- 5. Yield to oncoming traffic when you both arrive at the same time, or to vehicle that has already entered the intersection.

Activity 17: School Zones and Crossings

Need Help!

Refer to page ... 45

- 1. Watch for the warning signs and check your speedometer after passing school speed sign.
- 2. Look for school children.
- 3. If crossing guard is there, follow directions he or she gives.
- 4. Most states require traffic going both ways on two-way streets to stop when a school bus with its red lights flashing stops to load or unload passengers. In most states, if the roadway is divided by a median strip, the vehicles approaching the bus on the other side of the median need not stop.

LESSON TIP

At this point, you could make the decision to skip to Lesson 6 on turn-arounds and return to Lesson 4 at a later time.

Lesson 4 CHECKLIST

“Urban and City Driving”

Grading:

Very Good	(0-1 checked item)
Good	(2 checked items)
Average	(3 checked items)
Needs Improvement	(4 or more checked items)

Activity 18: City Driving

Need Help!

Refer to page ... 46

- Adjust speed as traffic situations dictate.
- Scan at least one (1) block ahead of your car for cross streets, pedestrians, bicycles and parked vehicles.
- Reduce risk by leaving enough following distance to see, maneuver and stop.
- Keep your car centered in your lane, frequently glance far ahead at the center of your lane.
- Avoid driving in another driver's blind spot.
- Avoid driving side by side with another vehicle.
- Stay out of bunches, if possible. Blend smoothly with the flow of traffic.
- Be aware and obey all traffic signals.
- Where there are two lanes, stay in the right lane unless you are going to need to pass or turn left soon. If there are more lanes, travel in the center lanes.

Safety Tips

Make sure that your teen is ready for this due to the number of situations that will be presented. Such as heavy traffic, pedestrians, parked vehicle, delivery vehicles, etc.

Activity 19: Entering (Driving on Two-Lane Roadways)

Need Help!

Refer to page ... 47

1. Check traffic before entering.
2. Allow at least two (2) blocks to join fast-moving traffic.
3. Accelerate quickly, adjust speed and position to the flow of the traffic.
4. Establish a three-second following distance.

LESSON TIP

A 3-second interval between moving cars ahead should be maintained under normal traffic and road conditions. Steer with very slight turns of the wheel, stay in your lane and maintain car position in the lane by looking far ahead. Check the traffic situation as far as visibility allows (front and rear).

Safety Tips

When in doubt, play it SAFE.

Whenever you are unsure, take the time to be safe and wait until you feel you have enough space and time to enter or cross a roadway safely.

Activity 20: Making a Lane Change.

Need Help!

Refer to page ... 48

1. When a lane change is necessary, plan for it well ahead of time.
2. Check for traffic to the side, rear, and blind spot by making a quick shoulder check in the direction you plan to move.
3. If clear, give signal.
4. Change lanes smoothly; maintain speed or accelerate slightly.
5. Establish position in the new lane and cancel signal.

Activity 21: Passing

Need Help!

Refer to page ... 49

1. Check for safe, legal passing space ahead.
2. Stay a good distance behind the car to be passed, so you can pick up speed quickly.
3. Check both mirrors.
4. Signal for a lane change to the left.
5. Recheck path ahead, sound horn and/or flash headlights to warn the driver ahead.
6. Check blind spot over left shoulder, speed up and ease into passing lane; try to attain 10 mph speed advantage.
7. Recheck conditions ahead; if space looks too short, brake and drop back.
8. Stay in left lane until both headlights of passed car can be seen in your inside mirror.
9. Give right turn signal for returning to the right lane; check inside mirror again and blind spot over right shoulder.
10. Return to right lane.
11. Turn off signal, check speedometer and create space for car just passed.

Safety Tips

Ask yourself,

“Is it necessary to Pass?”

Safety Tips

When being passed; It is illegal to speed up when being passed; continue at the same speed or reduce your speed slightly.

- Help other drivers to pass safely.
- Move to the right side of your lane to give the driver more room and a better view ahead.
- Show the passing driver the same courtesy and cooperation that you would expect.

Lesson 5 CHECKLIST

“Expressway Driving”

Grading:

Very Good	(0-1 checked item)
Good	(2 checked items)
Average	(3 checked items)
Needs Improvement	(4 or more checked items)

Activity 22: Entering the Expressway

Need Help!

Refer to page ... 51

1. Enter correct ramp; drive within posted ramp speed.
2. Check traffic ahead and to the rear.
3. Begin taking quick glances over your shoulder.
4. Turn on correct turn signal.
5. Keep checking for a gap as you enter the acceleration lane.
6. On the acceleration lane, accelerate to adjust your speed to enter gap.
7. Merge smoothly into expressway traffic.
8. Cancel signal and adjust to speed of expressway traffic; establish the two or three second rule for following distance.

Safety Tips



NEVER ENTER a ramp area marked with “**DO NOT ENTER**” and/or “**WRONG WAY**” signs, it is an exit ramp.

If you ever accidentally enter, **immediately pull over to the edge of the road**, when the way is clear, turn around and get off the ramp.

Activity 23: Cruising on the Expressway

Need Help!

Refer to page ... 53

1. Drive in the appropriate lane for traffic conditions and continually scan all around.
2. Adjust speed and steering with tiny movements of accelerator and steering wheel.
3. Look farther ahead and to the rear when driving at a higher speed.
4. Avoid making any sudden or abrupt moves.
5. Identify overhead signs for directions and lane information.
6. Drive on the right and pass on the left.
7. A good rule is to drive so that faster traffic passes on the left. If you are being passed frequently on the right, change lanes to the right.
8. Change lanes one at a time, using proper lane change procedure.

LESSON TIP

Your teen will be driving at higher speeds (maybe for the first time), openings in traffic will appear and disappear in seconds, and your teen may become nervous.

Observe what your teen is doing and be aware of his/her actions. Watch your teen's search techniques, ask him/her what they are seeing.

Activity 24: Lane Change

Need Help!

Refer to page ... 54

1. Check the rear-view mirror for fast approaching traffic. Delay the lane change if a driver is about to pass you.
2. Be sure the lane you plan to use is clear and there is no slow-moving traffic.
3. Check for traffic to the side and in the blind spot by making a quick shoulder check in the direction you plan to move. (*Hold the car straight*)
4. If clear, give signal.
5. Change lanes smoothly; maintain speed or accelerate slightly.
6. Establish position in the new lane and cancel signal.
7. When a lane change is necessary, plan for it well ahead of time.

LESSON TIP

When changing lanes, change one lane at a time. **Do not cross several lanes at once**. Adjust your speed to the flow of traffic once in the new lane.

Safety Tips

Keep alert, when there are more than two lanes going in the same direction, several vehicles may want to move into the same lane at the same time.

Activity 25: Approaching an Expressway Entrance

Need Help!

Refer to page ... 55

You are driving on the expressway and approaching an entrance where other vehicles may be merging.

- Observe in advance twelve (12) second sight distance and maintain speed so that the merging driver can adjust his/her speed to yours.
- Be ready to make a decision on whether the merging vehicle will enter (either in front or behind you) by adjusting your speed.
- If there is a possible conflict at the merge point, change lanes.

Activity 26: Exiting an Expressway

Need Help!

Refer to page ... 55

1. About one-half mile before the exit, signal and move into the lane that leads to the deceleration lane.
2. If you plan to exit at the second ramp of an interchange, do not signal until you pass first ramp.
3. In the deceleration lane, cancel signal and begin to brake; slow down gradually to keep a space cushion to the front and rear.
4. Do not decelerate until you are out of the flow of expressway traffic.
5. When you see the exit ramp speed sign, adjust to that speed.
6. Once off the expressway, adjust quickly to slower street traffic.

Safety Tips

Use **“CAUTION”**. Ramps may be level or sharply curved uphill or downhill.

Lesson 6 CHECKLIST

“Turnabouts”

Grading:

Very Good	(0-1 checked item)
Good	(2 checked items)
Average	(3 checked items)
Needs Improvement	(4 or more checked items)

Activity 27: Three-Point Turn

Need Help!

Refer to page ... 57

1. Check mirrors. Signal right. Check right blind spot.
2. Pull to right curb, stop and check traffic.
3. Signal left and check left blind spot.
4. If clear, move slowly towards the left curb using hand-over-hand steering. (Avoid steering when the car is not moving.)
5. Make sure your wheels are completely turned before the center of the road.
6. Brake and counter-steer just before reaching the curb on the left side of road.
7. Stop and shift into REVERSE.
8. Check traffic and if clear, back slowly, steering sharply to the right. Counter-steer just before stopping.
9. Stop and shift into DRIVE.
10. Check traffic and, if clear, proceed.

LESSON TIP

Choose a location that will allow good visibility and the most uninterrupted time.

Our suggestion is to use a dead-end street in your neighborhood or one that you are familiar with.

Activity 28: Midblock U-Turn

Need Help!

Refer to page ... 58

1. Evaluate risk and select best location.
2. Move vehicle to 3"-6" from right curb.
3. Apply left-turn signal, stop, check for approaching traffic.
4. Creep and turn wheel rapidly to the left.
5. Complete turn, proceed into the outside or right-hand lane

Safety Tips

U-turns should only be used when absolutely necessary, because they are very dangerous and risky requiring you to cross several lanes of traffic to execute.

Before you attempt to make a U-turn, look for any prohibiting signs. (A NO U-turn sign and No Left Turn sign prohibit you from making a U-turn.)

Remember,

Activity 29: Intersection U-Turn

Need Help!

Refer to page ... 58

1. Begin the U-turn in the left lane closest the center line or median.
2. Complete the turn in the lane farthest to the right in the opposite flow of traffic and accelerate to the appropriate speed.

Activity 30: Two-Point Turn

Need Help!

Refer to page ... 59

Backing into an alley or driveway on right side

1. Check traffic flow.
2. Signal, and position yourself 2-3 feet from curb.
3. Drive beyond the driveway and stop.
4. Reverse, monitor intended path.
5. Back slowly, turning steering wheel rapidly to the right as you enter driveway.
6. Straighten wheels, centering car in driveway and stop with the wheels straight.
7. Signal left and exit driveway when the way is clear.

Activity 31: Two-Point Turn

Need Help!

Refer to page ... 59

Pulling into an alley or driveway on left side

1. Check traffic flow.
2. Signal, and position your vehicle to 3-6 inches from center yellow line.
3. When traffic is clear, drive into the driveway and stop.
4. Reverse, monitor intended path.
5. Back slowly, turning steering wheel rapidly to the right as you exit driveway.
6. Straighten wheels, centering car in roadway. When fully around the corner and facing the new direction stop with your wheels straight.
7. Shift into drive. Check traffic and accelerate to normal speed.

Lesson 7 CHECKLIST

“Parking”

Grading:

Very Good	(0-1 checked item)
Good	(2 checked items)
Average	(3 checked items)
Needs Improvement	(4 or more checked items)

Activity 32: Angle Parking (60°)

Need Help!

Refer to page ... 60

1. Check rear traffic, signal right and begin to brake.
2. Flash brake lights to warn drivers behind.
3. When you can see straight down right stall line, turn wheels sharply right and slowly enter stall.
4. Straighten wheels when centered in the space and stop with front bumper even with the curb.

Activity 33: Leaving an Angle Parking Space

Need Help!

Refer to page ... 60

1. Check rear traffic as you creep straight back.
2. Control speed on an automatic shift car with your foot brake.
3. When your front bumper is even with the rear bumper of the left car, begin turning right.
4. Back into nearest lane, straighten wheels and stop; shift forward and proceed.

Activity 34: Perpendicular Parking (90°)

Need Help!

Refer to page ... 61

1. Check traffic; slow. Stay 7 to 15 feet from the cars on your right.
2. Signal right.
3. Check right blind spot.
4. When you can see into the parking space, turn sharp right using hand-over-hand steering. (Control speed with your brakes.)
5. Watch left front fender and right rear fender.
6. Move slowly into the space, straightening the wheels to center the vehicle. Slow and stop just as front bumper comes even with the curb.
7. Set parking brake, shift into PARK and turn off all switches and the ignition.

Activity 35: Leaving a Perpendicular Parking Space

Need Help!

Refer to page ... 61

1. Keep right foot on brake.
2. Shift into REVERSE.
3. Turn on hazard lights, if necessary.
4. Release the parking brake.
5. Check mirrors and sound horn.
6. Back slowly with right foot covering the brake.
7. When the steering wheel is even with the rear bumper of the vehicle on the right, turn sharp right using hand-over-hand steering.
8. Look to check clearance on all vehicles.
9. Back into the travel lane.
10. Stop and cancel hazard lights.
11. Shift into DRIVE. Check traffic and proceed forward.

Activity 36: Uphill Parking with a Curb

Need Help!

Refer to page ... 62

1. Signal right and stop close to curb.
2. Just as you stop, turn wheels sharply left.
3. Shift into NEUTRAL and let car creep back slowly.
4. Let back of right front tire rest gently against curb.
5. Shift into PARK and set the parking brake.
6. When leaving parking space, shift into DRIVE, release parking brake, signal left, shoulder check left and accelerate.

Activity 37: Uphill Parking without a Curb

Need Help!

Refer to page ... 62

1. Signal right, pull to side of road.
2. Just before stopping, turn wheels sharply right.
3. Shift into PARK and set the parking brake.
4. When leaving parking space, shift into DRIVE, release the parking brake, signal left, shoulder check left, accelerate and steer sharply left.

Activity 38: Downhill Parking with or without a Curb

Need Help!

Refer to page ... 62

1. Check mirrors and traffic.
2. Signal right.
3. Check right blind spot.
4. Move right and stop parallel about 6" from curb.
5. Steer hard right as you roll slowly forward. (Avoid steering when the car is not moving.)
6. Stop when the tire touches the curb.
7. Set the parking brake, shift into PARK and turn off all switches and the ignition.
8. When leaving, signal left, check left blind spot.
9. Shift into REVERSE.
10. Back away from curb as you steer left.
11. Shift into DRIVE. (Make sure left turn signal is on.) Check left blind spot. If clear, pull out.

Activity 39: Parallel Parking

Need Help!

Refer to page ... 63

1. Select a space that is at least five feet longer than your vehicle. Flash your brake lights and put on your turn signal as you approach the space, and monitor traffic to the rear.
2. Place your vehicle approximately three feet from the vehicle you want to park behind, aligning your rear tires with the other vehicle's rear wheels.
3. Put the vehicle into reverse and turn the wheels all the way to the right.
4. Slowly back up until you are at a 45-degree angle. In your side view mirror, target the headlight closest to the curb of the vehicle behind to establish the 45-degree angle.
5. Turn the wheels all the way to the left.
6. Slowly back up until you are parallel with the curb. If this is done correctly, you should be less than 12 inches from the curb. (Practice will improve your space awareness.)

Activity 40: Exiting Parallel Parking Space

Need Help!

Refer to page ... 63

1. Keep right foot on brake. Shift into "Reverse."
2. Check traffic, sound horn and back slowly with right foot covering the brake, steering to the right.
3. Counter-steer and stop just before reaching the front bumper of the car behind.
4. Shift into "Drive," signal left and check traffic, including your blind spot and make sure your right fender has enough room to clear the vehicle in front of you.
5. Move slowly forward, steering sharp to the left, as you clear the bumper of the car in front steer to the right.

Lesson 8 CHECKLIST

Need Help!

Refer to page ... 64

“Night Driving”

It is recommended that no less than six (6) to ten (10) hours of night driving be a part of the parent/teenager driving experience.

Night driving should be scheduled only after your teen has gained confidence in his/her basic car control skills and has demonstrated adequate skill levels while driving during daylight hours.

All the skills practiced in this handbook should be reviewed during darkness.

Precautionary measures for night driving.

1. **Turn headlights on.** The law requires you to have your headlights on from sunset to sunrise and when visibility is 400 feet or less.
2. **Headlight switch and dimmer switch.** It is important that you know where and how to use your vehicle’s high-low beam dimmer switch so you can easily switch between high and low beams when needed.
3. **Reduce speed.** Darkness reduces your seeing ability and response time. Drive at a speed which allows you to stop in the distance illuminated by your headlights.
3. **Keep alert.** Judging speed and distances of other vehicles and objects is difficult because of reduced visibility.
4. **Increase following distance.** Stay 4-6 seconds behind the car ahead.
5. **Use HIGH beam headlights** when driving on open roads unless an approaching vehicle is within 500 feet or you are following another vehicle less than 200 feet.
6. **Use LOW beam headlights** for city streets, meeting on-coming cars, following cars, and under adverse conditions in daylight driving. (*North Carolina law requires you to turn your headlights anytime you activate your windshield wipers.*)
7. **Look away from on-coming headlights.** Look toward the right edge of roadway until the approaching car has passed.
8. **Keep windshield and headlights clear and clean.** 50 to 90 percent loss of headlight efficiency is due to road grime on the lens
9. **Adjust inside day/night mirror to night position.** This will prevent headlight glare from vehicles travelling behind you.
10. **If you wear glasses,** wear them at all times while driving. Do not use tinted or sun glasses while driving at night.

LESSON TIP

If an approaching vehicle does not dim its headlights:

- Remind the driver by blinking your high-beams once.
- Keep your lights on low-beam.
- If the approaching driver does not dim his/her lights, Stay on the right side of the road and use the edge of the road as a guide.
- Reduce speed and watch the road as far ahead as possible, looking slightly to the right so you will not be looking directly into the headlights of oncoming vehicle.

Safety Tips

When parking on or along a highway at night:

- Turn on your emergency flashers.
- Never leave your headlights on when you park at night — they can blind the drivers of oncoming vehicles.

Lesson 9 CHECKLIST

“Driving in Bad Weather”

Need Help!

Refer to page ... 67

The best advice for driving in bad weather conditions is to stay off the road and avoid driving.

Unfortunately, driving conditions are not always ideal. There are times when you may have to drive in undesirable conditions. Bad weather produces many challenges for drivers. The major ones are the loss of traction and reduced visibility.

If you do choose to give your teen driving practice in bad weather conditions, driving should be scheduled only after your teen has mastered basic car control skills and has demonstrated adequate skill levels while driving during good weather.

In all bad weather conditions drive with caution:

- **Keep Alert.** A driver must keep his mind alert, the condition of the road can change very quickly.
- **Turn headlights to low beam.**
- **Turn on windshield wipers.**
- **Drive slowly and increase your following distance.** Continue to reduce speed to limits imposed by visibility and turn on emergency flashers, but do not stop in the travel lane or on the shoulder.
- **Slow down when approaching curves and intersections.** When approaching a bend, slow down gradually before you take the bend to limit the chances of skidding.
- **Maintain position in center of lane.** Be alert for vehicles stopped in the roadway.
- **Avoid quick stops.** When you need to accelerate or brake, do so gradually (rather than in one sharp action). “Pump” the brakes to slow down **unless you have “ABS”**.
- **Avoid fast turns.** Sudden movements can cause your vehicle to skid, slow down and prepare for turns well in advance.
- **Shift to a low gear before going down a steep hill.** Steep grades will cause your vehicle to increase speed, shifting to a lower gear will allow your vehicle engine to help keep your speed from increasing.
- **If brakes get wet,** you can help dry your brakes by driving a short distance while applying light pressure to the brake pedal. The heat generated by friction on the brakes will evaporate the water.
- **Especially avoid slippery areas,** such as: ice patches, wet leaves, oil, and deep puddles.

Safety Tips



In severe rainstorms, watch for flooding at highway dips, bridges, and low areas.

LESSON TIP

North Carolina law requires you to turn on and use your headlights anytime you activate your windshield wipers.

Unit 2

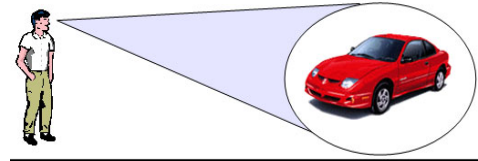
Reference and Study Guide

Lesson 1:

“The Pre-trip Inspection”

Activity 1: *Checking the outside of the vehicle*

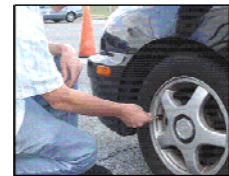
The following is a list of tasks to help check the outside of the vehicle. The tasks are not listed in any order of importance. With experience however, your teen will develop a preferred sequence or procedure that works best.



Step 1: *Observation (pre-enter check)*

Check:

- 1) For leaks (coolant, brake fluid, motor oil, transmission fluid).
- 2) Tires (inflation, wear) including spare.
- 3) Windows, lights, and mirrors (cleanliness, damage).
- 4) Wiper blades (condition).
- 5) Tailpipe (secure, free of objects). **Do Not Touch!**



Step 2: *Checking the outside*

1. Look inside the vehicle to make sure you do not have any unwanted passengers
2. With keys in your hand, walk around your vehicle looking for any objects that may be in the path you intend to take. Check for water or oil marks under the vehicle.
3. Observe tires to see if they are inflated properly.
4. Observe the direction in which your front wheels are turned. Be aware that the vehicle will move in the direction the wheels are turned when the vehicle is started and put into gear.
5. Check to make sure the windshield, windows, headlights and taillights are clean.
6. Remove any loose objects from the back window area.

Step 3: *Getting in the vehicle from the street*

1. Have keys in hand ready to unlock the door prior to reaching your vehicle. If a remote-control device is used, unlock the vehicle before reaching the car.
2. Walk around the front of the vehicle toward the back allowing for oncoming traffic to be seen. Do not open the door if an oncoming vehicle is near.
3. Get in quickly, close the door and lock it. Put the key in the ignition.

LESSON TIP

The routine care you give your vehicle is called preventive maintenance. It includes items such as changing your engine oil, filling the tires with air, checking fluid levels, etc. Although these are very important tasks, they do not need to be done every time you use your vehicle. Refer to your vehicle's owner manual for additional information.

Activity 2: PRE-DRIVING HABITS

1. **Check for loose objects.** Emphasize to your teen the importance of separating loose objects from the passenger area by placing them in the vehicle's trunk.

Never leave loose items on the dashboard, over the sun visor, or on the floor where they could interfere with the driver or cause injury by becoming projectiles in the event of a crash.



2. **Lock all doors.** Locking your vehicle doors will help to prevent any unauthorized entry by others.



3. **Adjust seat.**

- *Adjust for proper access to foot pedals.* With the seat positioned correctly, your right foot should be able to easily operate the controls without lifting your heel from the floor. Your legs should be slightly bent, to allow you to easily pivot your right foot from the gas pedal to the brake pedal.
- *Adjust for proper steering wheel reach and hand position.* A good way for your teen to judge the correct position is to lay their arm straight out over the wheel with their shoulders in their normal position. Sit with their back firmly against the back of the seat. When this is done, look at the point at which the top of the wheel touches their arm. If in the correct position, your teen's wrist area will be resting on the steering wheel.
- *Adjust to maximize driver's visual field.* Sit high enough to see over the steering wheel and maximize your visual field.



Safety Tips

Allow for a minimum distance of 10 inches to the chest to help reduce the chance of injury in the event of air bag inflation. Your arms should be slightly bent, allowing you to firmly but gently grip the lower section of the steering wheel in a comfortable position.

4. **Adjust mirrors.** Have your teen check and adjust the mirrors before he/she begins to drive. The rear view mirror should show what is directly behind the vehicle. The side mirrors should be adjusted to barely reflect the side of the vehicle. This will allow the driver to see the adjacent lanes along the sides of his/her vehicle.



Safety Tips

But always beware of blind spot areas!

Blind Spots are areas that do not reflect in your mirrors and are not visible in your peripheral vision.

Quickly glance over your shoulder to check this area before changing lanes.

- Adjust headrest.** Padded head restraints on the top of vehicle seats are designed to protect against whiplash neck injuries by protecting your head in a crash from extending too far back over the seat.

To function properly, the head restraint must be positioned above the ear level, centered in the back of your head.



- Adjust ventilation.** When your teen is first learning to drive, safety is our first concern. Turn on or adjust ventilation and accessories, this will allow your teen to concentrate on the driving task and not be distracted.



- Fasten safety belts.** After fastening the belt, the lap part of the belt should be worn low and snug on the hips, barely touching the thighs and the shoulder part of the belt should go over the shoulder, across the chest and rest against the body.

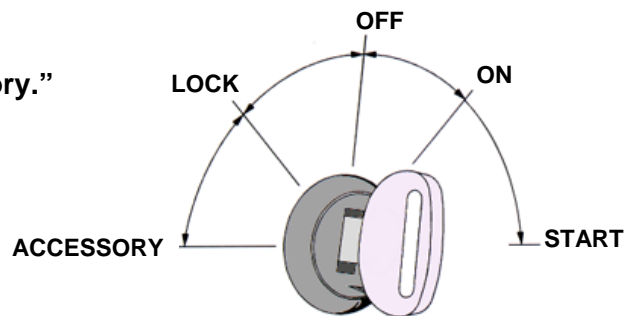
To make sure the lap belt is snug, pull down on the buckle end of the belt as you pull up on the shoulder belt.

Make sure that all passengers are properly buckled.



Activity 3: PRE-IGNITION

- Switch ignition key to "Accessory."



- Check operation of:

- Headlights (high/low beam).
- Taillights.
- Parking lights.
- Turn signals.
- Hazard lights.
- License plate light.
- Brake lights.
- Backup lights.



Activity 4: STARTING THE ENGINE

1. Make sure the parking brake is set.
2. Make sure the gear lever is in park. When starting the vehicle from a stall, place the lever in neutral. *(For fuel injection engines and when the engine is cold, keep your foot off the accelerator.)*
3. Turn the ignition switch to "ON". Continue turning the key to start the engine. Release the key as soon as the engine starts.
4. Check gauges and/or warning lights.
 - Oil pressure
 - Temperature
 - Alternator
 - Fuel
5. Make sure all the warning lights are off.
6. Listen for sounds indicating a leak in the exhaust system.
7. Check brake (should go no closer than 2 inches from floor).
8. Check steering (no more than 2 inches of play).
9. Check horn.
10. Check wipers.
11. Adjust ventilation.
12. Do not let engine idle too long.
13. Do not run engine in a closed area, even if the doors are open. (carbon monoxide)

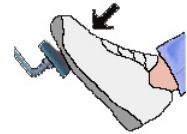


Lesson 2:

“Putting the Vehicle in Motion”

Activity 5: Putting The Car Into Motion

1. Place right foot on brake and press firmly.
2. Move the gear selector lever to DRIVE.
3. Release parking brake.
4. Check mirrors.
5. Signal.
6. Check blind spots.
7. Release foot brake and gently press accelerator to move forward.
8. Increase speed smoothly.
9. Cancel signal.



Note: On an up-grade be ready to use the parking brake, if necessary.

Activity 6: Stopping

1. Check traffic in both mirrors before slowing down.
2. Release accelerator.
3. Gently apply brakes.
4. Feather brakes just before stopping. (Ease up slightly and then re-apply.)
5. When stopped behind a vehicle, you should see its rear tires where they touch the ground. (This gives the driver space to maneuver out in case of an emergency.)
6. When there is just a stop sign, stop before entering the intersection (imaginary point where the road connect). Where there is a cross-walk side-walk, or stop line you must stop your bumper before those lines.
7. Leave the selector gear in DRIVE if you plan to immediately move again. Otherwise put it into



LESSON TIP

When there is a stop sign, stop with bumper at stop sign. If the sidewalk is before stop sign, stop before sidewalk. If there is a white line (stop line), stop with bumper on white line.

RULES FOR STOPPING

When stopping behind a vehicle, the driver should be able to see the vehicle's rear tires at the point where they touch the ground. This allows the driver to steer out if the vehicle ahead stalls and cannot start again. When driving a flat nose van, more room is required. Stop behind the vehicle about one-half the length of the vehicle you are driving.

Where there is a stop sign, stop with bumper at stop sign. If the sidewalk is before stop sign, stop before sidewalk. If there is a white line (stop line), stop with bumper on white line.

BRAKING

Parents should instruct their teenager to be aware that there are two different braking procedures: One for vehicles with anti-lock brakes (ABS) and one for vehicles without ABS. Becoming familiar with the vehicle is very important. Does it have ABS (Anti-Lock Brakes) or not? If so, the indicator shown below should be found in the area where the gauges are located.

Braking with ABS brakes.

Don't pump the brakes, if you try to pump ABS brakes, they will not work. Pumping ABS brakes defeats the computer's efforts to sense a wheel skid. Just hold the brake pedal down firmly and let the anti-lock braking system do the work for you.

If your vehicle has ABS brakes, you must use firm brake pressure and maintain this pressure on the brake pedal even if you feel it vibrating or hear a grinding noise (this is normal). The ABS system pulses the brake 15 times a second to avoid lockup.



Braking without ABS brakes.

If your vehicle does not have ABS brakes or your ABS brakes are not functioning, controlled braking should be used to reduce speed as quickly as possible while maintaining control of the car. Controlled braking is a technique of applying brakes to stop or slow quickly without locking the brakes. When the brakes lock, the car is more prone to go into a skid. Application:

- The right foot should be secured by keeping the heel anchored on the floor becoming a pivot point. The ball of the right foot should press the brake pedal. It must be pressed hard enough to slow the vehicle rapidly without locking the wheels.
- If the wheels do lock and the vehicle starts into a skid, ease up on the brake pedal just enough to let the wheels start rolling.
- Continue using the press-relax-a-little-press process until the vehicle stops.

Activity 7: Backing in a Straight Line

When driving in reverse or backing from one target to another, your teen will need to practice visual, steering, and speed control skills in reverse gear.

Usually when driving in reverse gear, you will be backing into or out of a driveway, alley, or parking space. If you are leaving any of these areas you are required to **STOP** before entering a public roadway.

REMEMBER:

- You must **STOP** even if there is no stop sign.
- You must **STOP** behind the sidewalk or intersecting traffic flow.
- You must **YIELD** the right-of-way to all persons approaching on the sidewalk (from either side) and to all approaching traffic.
- You may proceed only when the way is clear.
- You may turn left or right, unless pavement markings or signs prohibit such a maneuver.

Backing a Vehicle

Visibility will be limited, and the interior and exterior vehicle mirrors will not provide a comprehensive view of the area behind your vehicle. To see as much as possible, your teen will need to sit up straight, turn his/her body and head to the right, and look out the rear window.

Use *one-hand steering*. Backing and steering with one hand requires shifting one's hips and seating position so your head can be turned to see beyond the head restraint.

To help *improve balance*, your teen will need to place his/her right arm over the back of the seat (as shown in the image) and grip the steering wheel near the top (12 o'clock position) with your left hand.



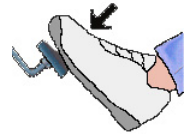
NOTE: While backing, cover the brake with the right foot, unless you need to accelerate slightly.

The Backing Maneuver for: *Straight Line Backing*

1. Keep right foot on brake.
2. Shift into "Reverse".
3. Turn on hazard lights.
4. Release parking brake.
5. Check traffic.
6. Place right arm on back of seat.
7. Sound horn.
8. Hold steering wheel with left hand at 12 o'clock.
9. Pick an object behind the car at a distance. Look straight at the object and do not let the car veer left or right. If the car moves left, steer right; if car moves right, steer left gently. The big secret to backing is to **back slowly**. Continue looking to rear until coming to a complete stop. You may glance to front while backing, but only for a moment.

Activity 8: Stopping and Securing the Vehicle

1. Once you have stopped, continue pressing the foot brake.
2. Shift to PARK in an automatic or to REVERSE in a manual shift vehicle.
3. Set the parking brake. Turn off all accessories. Close all windows.
4. Turn off the ignition switch. Remove the key.
5. Unfasten your safety belt.



Activity 9: Leaving the Vehicle

1. Check inside and outside mirrors.
2. Keep your key in hand.
3. Glance over your left shoulder before opening the door.
4. When it is safe, open the door and get out quickly.
5. Lock doors.

Lesson 3:

“Basic Vehicle Operation”

Activity 10: Proper Steering Technique

Parents should make their teenager aware that there are two acceptable methods for making turns:

1. Hand-over-hand steering (10-2 or 9-3 hand position) and
2. Push-Pull Steering 8-4 hand position.

It is recommended that both methods be practiced. You should ask your teen which of the methods he/she feels more confident using and which method gives him/her the better steering control.

TWO STEERING METHODS:

1. Hand-Over-Hand Steering



Hand-Over-Hand-Steering is pulling the steering wheel down with one hand while the other hand crosses over to pull the wheel further down. This steering technique is used 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:

1. Begin the turn from a balanced hand position (10-2 or 9-3)
2. Start pulling down to the left with the left hand. The right hand pushes the wheel toward the left about a quarter turn.
3. Release the left hand from the wheel and cross it over the right hand to grasp the wheel near the top. Continue pulling down.
4. Complete the turn by continuing to pull down with the left hand as you release the right hand.
5. To straighten the vehicle, unwind the wheel hand-over hand. **Never allow the wheel to slip through the hands.**

2. Push-Pull Steering



Push-Pull Steering is pushing the steering wheel up with one hand and pulling it down with the other hand.

1. One hand grasps the steering wheel near the 4 o'clock (right hand) or 8 (left hand) o'clock position
2. That hand then pushes the wheel up to near the 12 o'clock position. At the same time, the other hand slides up to the 11 or 1 o'clock position and pulls down.
3. As the pulling hand comes down, the pushing hand returns to the original position to continue the process. With this method, the arms are never crossed while driving.

Safety Tips

Do not steer when the vehicle is not moving.

TURNING

Turning at an Intersection

Approaching — Because of the increased activities that present themselves at an intersection, your teen needs to be prepared in order to reduce the risk when attempting to make a turn.



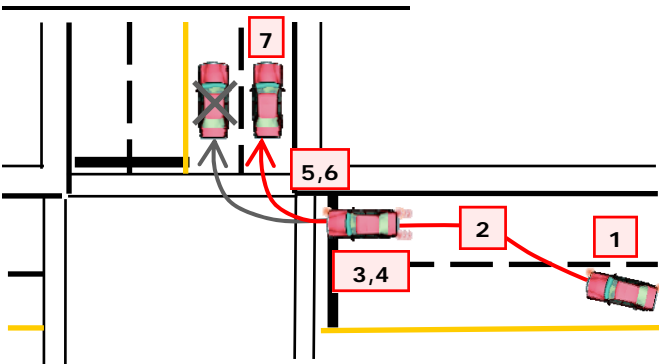
Approach an intersection safely.

- Decide well in advance whether or not you will be turning.
- If you will be turning, prepare for the turn 200 to 300 feet in advance, select the best lane, lane position, and be prepared to yield to pedestrians and other vehicles.
- Adjust your speed to allow more time to scan all corners of the intersection, checking for pavement markings, traffic controls (signals, signs), vehicles, pedestrians, etc.
- If the intersection is signal-controlled, identify who has the green light or if there is a special turning light (some traffic signals display both a red light accompanied with a lighted green arrow to allow safe movement in the direction indicated)
- Flash brake lights, check traffic to the rear, put on turn signal 4 seconds before turning.

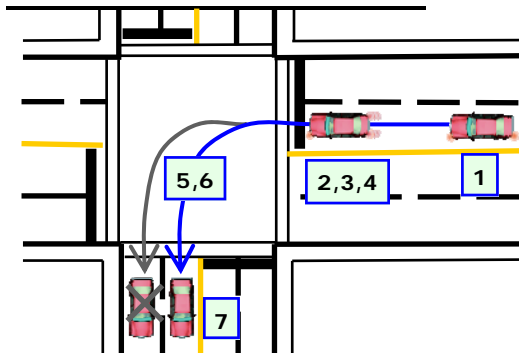
Making the turn.

1. Signal about half a block before the turn, and position your vehicle a minimum of three feet from the curb (any closer the rear tire may hit curb).
2. Brake early to reduce speed. Stop with the front bumper even with the curb line. *(If turning at an intersection control by a traffic light and your light is green: Slow to about 10 mph just before the crosswalk.)*
3. Check for vehicles, pedestrians and bicyclists. Yield and scan intersection to the left, front, right, and back to the left.
4. Select a gap in traffic, avoid hesitation, and look through the turn along the path of travel.
5. If the lane of traffic is clear turn into the nearest lane of traffic going in your direction use hand-to-hand steering and begin turning. (a) If turning right, start your turn when the vehicle's right-side corner post looks like it is aligned with the curb. (b) If turning left, use the yellow line as the turning target.
6. Select a target in the center of the travel path and accelerate gradually through the turn.
7. Return the wheel to the straight-ahead position, cancel signal and adjust speed to traffic.

Activity 11: Right Turn



Activity 12: Left Turn



Activity 13: Where to Stop at a Stop Sign

When you must stop at an intersection there are specific rules that apply. You must stop behind the stop line, or if there is no stop line, behind the crosswalk, and if there is no crosswalk, behind the curb line.



The **stop line** is a white line at least six inches wide that stretches from the curb to the center of the street or highway. The vehicle must stop with the front bumper (car, truck, etc.) or front wheel (bike, motorcycle) behind the stop line.



If there is a **painted crosswalk**, the vehicle must stop with the front bumper (car, truck, etc.) or front wheels (bike, motorcycle, etc.) behind the nearest crosswalk line.

On streets that have sidewalks, but no painted crosswalks, remember that the crosswalks are still considered to be there. Handle these intersections just as you would if the crosswalk were painted on the roadway.



If there are **no identifying pavement markings** and the sign or traffic control device says stop, then the stop must be made with the front bumper (car, truck, etc.) or front wheel (bike, motorcycle, etc.) behind an imaginary line called a curb line, which stretches from curb to curb closest to the driver. If there are no curbs present, the stop must be completed at that imaginary curb-line.

Activity 14: Four-Way Stop

1. When stopping behind another car, stop so you can still steer out, if the vehicle ahead of yours stalls and cannot start again. **From a car, seeing the rear tires of that car ahead is fine, but from a flat nose van it is not enough.**
2. The driver who stopped first should go first.
3. When cars at right angles stop at the same time, the driver on the right has the right-of-way.
4. By releasing the brake pedal and moving slowly forward before proceeding through the intersection, a driver who is moving can communicate an intent to go.
5. A driver should continue to glance left and right while moving into intersection.

Safety Tips

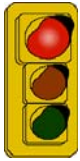
Even when you have the right-of-way, a driver must always be careful to avoid hitting other vehicles and pedestrians who have failed to yield to your right-of-way.

First Car Rule

Intersections with STOP signs on all the corners, or intersections with 4-way flashing RED or intersections with broken signal lights must stop. **The first vehicle approaching and entering the intersection has the right-of-way.**



Activity 15: Right Turn On Red



At some intersections you are permitted to make a right turn after stopping, providing the turn can be made safely and there are no signs prohibiting turns on a red signal.

When making a right turn on a RED light instruct your teen to:

1. Bring your vehicle to a full stop at the red light.
2. Yield to traffic and pedestrians. Scan intersection to the left, front, right, and back to the left, checking for vehicles, pedestrians and bicyclists.
3. If clear from left, complete turn into right lane.

Activity 16: Uncontrolled Intersections

An uncontrolled intersection has **NO specific signs or signals** to regulate the flow of traffic.

When your teen approaches an intersection he/she needs to:

1. Identify whether the intersection is controlled or uncontrolled.
2. Predict what actions other drivers or pedestrians might take.
3. Glance left first, then right. Look for movement from intersections and driveways.
4. Slow down and cover the brake as you approach an intersection, then accelerate to go through it.
5. Yield to oncoming traffic when you both arrive at the same time, or to vehicle that has already entered the intersection.

The right-of-way rule is: When two or more vehicles approach or enter an intersection at approximately the same time, the driver of the vehicle on the left shall yield the right-of-way to the vehicle on the right.

Safety Tips

You never assume that another driver will yield you the right-of-way. You still must be careful to avoid other vehicles or pedestrians.

Activity 17: School Zones and Crossings



SLOW DOWN — Be prepared to stop. The speed limit is usually 25 MPH. or less

When your teen approaches school zones or crossings he/she needs to:

1. Be alert, watch for the warning signs and check your speedometer after passing school speed sign.
2. Look for school children.
3. If crossing guard is there, follow directions he or she gives.

Be alert for stopped school busses. You must **STOP** when approaching a school bus which is loading or discharging passengers from or onto property immediately adjacent to a school, unless you are directed by a law-enforcement officer or other duly authorized uniformed school crossing guard to pass such school bus.

Safety Tips

You must also stop if the bus is loading or unloading children, even if the signal devices are not functioning properly.

Lesson 4:

“Urban and City Driving”

Activity 18: City Driving

Urban and city driving will present your teen with a multiplicity of situations. Vehicle and pedestrian traffic is continually changing. They will encounter lower speed limits, narrow streets, limited visibility (line of sight is often hindered by buildings, large vehicles, trees, etc.), pedestrians, bicyclists, and of course lots of other vehicles.

You will need to keep alert and watch that your teen is paying attention of all signs, traffic signals, crosswalks, school zones, intersections and pedestrian traffic they will be facing.

- **Adjust speed as traffic situations dictate.** Reduce speed in all traffic situations. Scan at least one (1) block ahead of your car. This will give you more time to identify the problem. If you stay calm, you will nearly always predict the correct driving procedure. Observe lines, lanes, signs, and have plenty of time to execute your maneuvers.
- **Scan at least one (1) block ahead of your car.** Look at cross streets way ahead and slow down. Scan for pedestrians, bicycles and people getting out of vehicles. One should choose the safest route for his/her destination
- **Reduce risk by leaving enough following distance to see, maneuver and stop.** Reduce speed in complex traffic situations. Look at least one (1) block ahead. Cover the brake in tight situations. Check for pedestrians and bicyclists at crosswalks and intersections. Leave enough following distance to see, maneuver and stop. Reduce speed as you pass a line of cars. Drive slowly in parking lots. Remember – flashing pedestrian signals warn that the signal light is about to change
- **Keep your car centered in your lane.** You need to frequently glance far ahead at the center of your lane. Avoid driving in another driver’s blind spot. Avoid driving side by side with another vehicle. Stay out of bunches, if possible. Blend smoothly with the flow of traffic.
- **Avoid driving in another driver’s blind spot.** Whenever possible try to avoid driving side by side with another vehicle and stay out of driving in bunches. Blend smoothly with the flow of traffic.
- **Avoid driving side by side with another vehicle.**
- **Stay out of bunches, if possible.** Blend smoothly with the flow of traffic.
- **Be aware and obey all traffic signals.**
- **Where there are two lanes,** stay in the right lane unless you are going to need to pass or turn left soon. If there are more lanes, travel in the center lanes.

Activity 19: Entering a Roadway

When a driver of a vehicle is about to enter or cross a roadway he/she must stop before entering or crossing the roadway and yield the right-of-way to all approaching vehicles and pedestrians. If the intersection is controlled by a traffic signal, the law requires you to always obey traffic signals unless a police officer is directing traffic and instructs you to do otherwise.

- A. Check traffic before entering.
- B. Allow at least two (2) blocks to join fast-moving traffic.
- C. Accelerate quickly, adjust speed and position to the flow of the traffic.

LESSON TIP

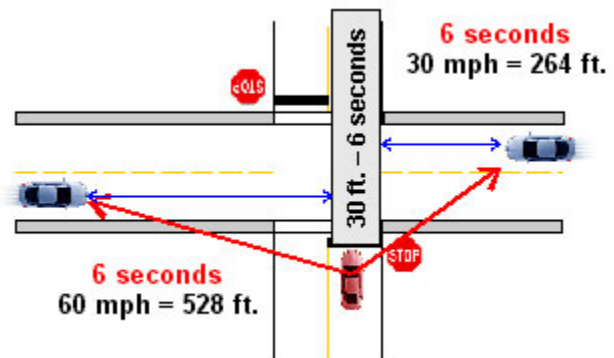
A 3 second interval between moving cars ahead should be maintained under normal traffic and road conditions.

Steer with very slight turns of the wheel, stay in your lane and maintain car position in the lane by looking far ahead. Check the traffic situation as far as visibility allows (front and rear).

Crossing an Intersections Controlled by Stop or Yield Signs

Entering or crossing traffic traveling at higher speeds through intersections controlled by stop or yield signs requires time-space judgments. What this means is that your teen will need to evaluate the oncoming vehicles and decide when it is safe to cross. Remind your teen to remain patient and wait until he/she has an adequate space to safely clear the intersection.

For example, crossing a two-lane roadway 30 feet wide would require a gap of about six or more seconds. An approaching vehicle traveling 30 mph, should be 264 feet away, or a gap of about a half block away when you attempted to cross. At 60 mph, the vehicle would travel 528 feet in six seconds or a gap of at least one block away when you attempted to cross.



Safety Tips

When in doubt, play it SAFE.

Whenever you are unsure, take the time to be safe! and wait until you feel you have enough space and time to enter or cross a roadway safely.

Activity 20: Making a Lane Change

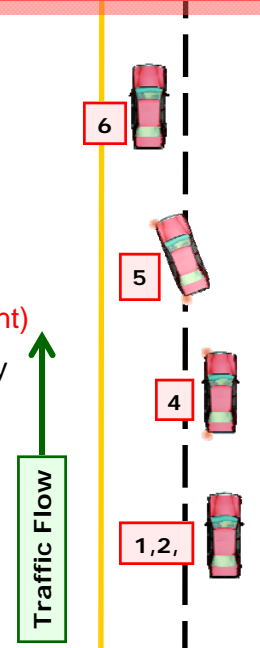
Safety Tips

When a lane change is necessary, plan for it well ahead of time.

When preparing to change lanes, ask yourself: Do I need really need to change lanes? If you have determined the lane change is necessary, make sure it is clear and safe to do so.

When changing lanes:

1. Check the rear-view mirror for fast approaching traffic; delay the lane change if a driver is about to pass you.
2. Be sure the lane you plan to use is clear and there is no slow-moving traffic.
3. Check for traffic to the side and in the blind spot by making a quick shoulder check in the direction you plan to move. **(Hold the car straight)**
4. If clear, give signal. (Use the lane changer device on the turn signal by applying halfway up/down pressure.) Maintain your speed or accelerate slightly before and during the lane change
5. Change lanes smoothly; maintain speed or accelerate slightly.
6. Establish position in the new lane and cancel signal. Adjust your speed to the traffic conditions in the lane you have entered.



The following chart contains examples of possible lane change conditions your teen may encounter. To change lanes safely he/she needs to apply a series of vision checks. These checks will aid in warning your teen of needed adjustments in speed, space, or possible postponement of the lane change.

Conditions	Adjustments
<p>A. Is your mirror blind spot clear?</p> <p>B. There is not be enough space in the adjacent lane for your vehicle to move safely into.</p>	<p>Speed up or slow down until you have a safe following interval for either your car or the other car and then change lanes. Your vehicle position usually determines which alternative you should choose.</p>
<p>C. A vehicle in the lane you want to move into may be approaching at a speed greater than you are traveling.</p>	<p>Wait until the vehicle passes and then proceed with the lane change.</p>
<p>D. You may not be able to complete your lane change before entering an intersection.</p>	<p>Wait. DO NOT change lanes in an intersection! Drive through the intersection first and then proceed with the lane change. An intersection and a lane change double the risk.</p> <p>There are many other reasons to cancel or wait to make a lane change. Drive smart, you don't want to crash. If there appears to be the slightest possibility of a conflict, abort the idea until the way is clear!</p>

Activity 21: Passing

Passing is necessary only when the vehicle being passed is traveling much slower than the posted speed limit.

When you attempt to pass, you must first look at the **time** you will need to safely overtake the vehicle you are passing, and if you have enough **space** to do it safely. When teaching your teen how to pass another vehicle, it is recommended that you first demonstrate this maneuver to your teen and let his/her first attempt a pass on a multi-lane roadway (two or more lanes) where the lanes of traffic are moving in the same direction.

Passing on a multi-lane roadway is usually safer than on a two-lane roadway with opposing lanes of traffic. Although it does not remove the possibility of a collision, there is less worry of a head-on crash from an approaching vehicle. Reducing the threat of approaching vehicles will also give your teen the extra time he/she requires to learn how to safely pass a car or a larger vehicle that require more time and space.

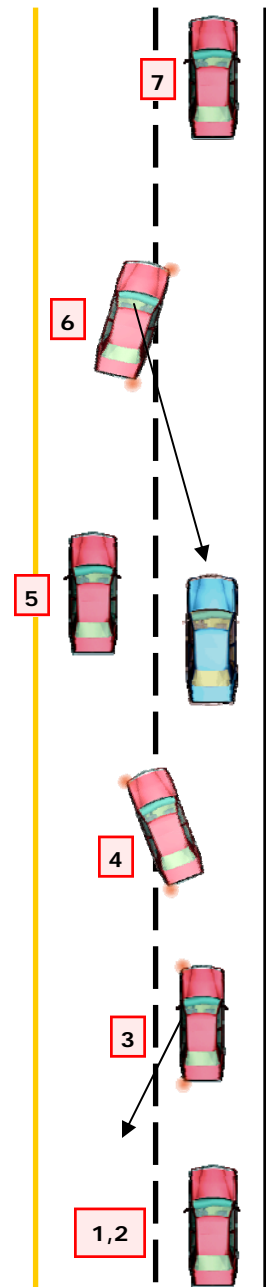
Passing on multi-lane roadway with travel lanes going in the same direction:

1. Make sure passing is permitted (legal) and can be made safely. Check path to the front and in opposite lane. Stay well back from car ahead.
2. Check mirrors (inside and out) for traffic to the rear that is close or may be attempting to pass you.
3. Signal left and check lane to left rear with a quick glance through the window over left shoulder.
4. If the gap is adequate and judgment indicates a pass can be made safely, steer left gradually into left lane while accelerating to a speed advantage of at least 10 mph faster than the car you are passing (not to exceed legal limit)
5. Stay in left lane and continue to evaluate the situation
6. Signal right but do not start to move right until you have checked the inside mirror and can see both headlights of the car you have passed. Check with a quick glance over right shoulder to the rear.
7. Continue at same speed and steer right into right lane, cancel signal and adjust speed appropriately.

Passing on a two-lane roadway with opposing lanes.

The distance you travel to pass a vehicle is the same distance an oncoming vehicle will travel when approaching you. To complete the pass safely your teen will need to:

- identify if passing is safe and legal;
- judge the relative speed and distance of other vehicles;
- judge the time and space needed to complete the pass safely; and
- apply proper passing skills to complete the maneuver safely.



When NOT to Pass

There are many situations where passing is either forbidden by law, or clearly unsafe and should not be attempted.

Passing is prohibited:

- on hills, curves and at intersections or railway crossings (except on roads with two or more lanes moving in the same direction).
- off the pavement or shoulder of the road.
- when a school bus is stopped to load or unload passengers (unless a physical barrier or unpaved median separates traffic going in either direction).
- when a solid line marks the left side of your lane.
- within 100 feet of a bridge or tunnel (unless otherwise indicated).



Passing is unsafe when

- passing a vehicle driving the legal speed limit (you would have to drive at an illegal speed to pass).
- visibility to oncoming traffic is limited (hills, curves tunnels, abutments, underpasses etc.)
- there are vehicles signaling to make a left turn.
- space is narrow or limited.

Lesson 5:

“Expressway Driving”

Expressways - also called interstate highways, freeways, and turnpikes are multiple-lane roads with no stop signs, traffic lights, or railroad crossings.

Activity 22: Entering the Expressway

Interstate and other limited access highways are usually reached through what is called an “Entrance Ramp”. Before you enter be sure you are using the correct entrance. To assist you in making the correct decision the state has posted guide signs that will inform a driver of the route number, direction and the name of a city or cities located in that direction. To merge onto the expressway safely, a driver must blend into high-speed traffic smoothly. This action requires the driver to adjust speed and position accordingly.

When entering an expressway:

1. Enter the correct ramp and drive within posted ramp speed.

- As you approach the entrance ramp to an expressway, read any information signs posted, and check for and obey any ramp speed signs.

2. Check traffic ahead and to the rear.

- Once you have entered the access ramp be alert for vehicles. Look ahead and behind for vehicles using quick glances while searching for gaps in traffic flow on the expressway. (*Gaps are open spaces between vehicles traveling in the expressway lane you are attempting to enter.*)

3. Begin taking quick glances over your shoulder.

- Continue to glance quickly at your mirrors and over your shoulder and select the gap in traffic flow you will merge into. (*On entrance ramps with no acceleration lane, you should accelerate on the entrance ramp only after you have found a gap large enough to allow you to merge safely, and accelerate to match the flow of traffic.*)

4. Signal Left.

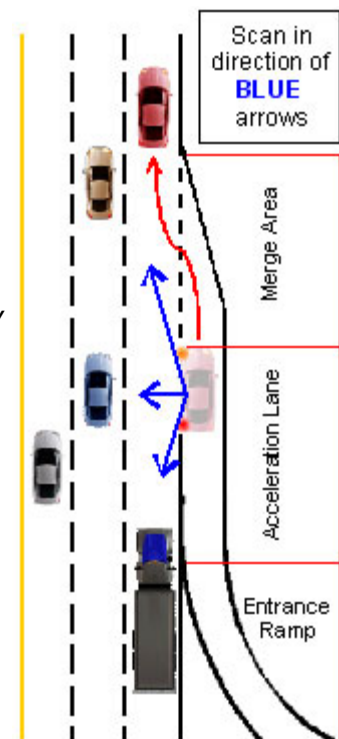
- Turn on the correct turn signal to indicate to others that you will be entering the expressway.

5. Keep checking for a gap as you enter the acceleration lane.

- Check over left shoulder and look for an adequate gap into which you can merge. You need to identify which vehicle you will follow or move in front of before entering the merge area.

6. On the acceleration lane, accelerate to adjust your speed to enter gap.

- When you have identified a safe gap, accelerate to the speed needed to enter the gap in traffic flow before the merge area.



7. Merge smoothly into expressway traffic.

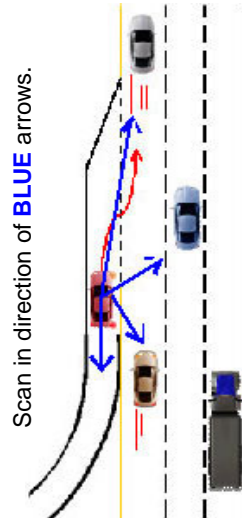
- Steer left to merge into the lane position and blend your speed with the traffic flow. Position your vehicle at a safe interval behind the vehicle you have selected.

8. Cancel signal and adjust to speed of expressway traffic; establish the two or three second rule for following distance.

- When you have entered the traffic flow, cancel your turn signal and readjust your speed to provide a safe space cushion around your vehicle.

Left-side Entrance Ramps

Some entrance ramps enter from the left instead of from the right. This means that merging traffic is entering the far-left lane, usually reserved for higher speed traffic. Consequently, the potential for vehicle merging problems is much greater. Furthermore, when entering the expressway from the left, the search pattern is also different, in that it is directed to the right and over the right shoulder instead of to the left of the vehicle. Also, additional lane changes to the right may be necessary once on the expressway if your desired speed is less than the traffic flow in the left lane of the expressway.



Safety Tips

You have chosen the wrong entrance and are now traveling towards the wrong destination.

If this happens to you, **DO NOT** attempt to turn around or back up in the entrance ramp. Continue onto the expressway and exit at the first opportunity.

Safety Tips



NEVER ENTER a ramp area marked with “**DO NOT ENTER**” and/or “**WRONG WAY**” signs, it is an exit ramp.

If you ever accidentally enter, **immediately pull over to the edge of the road**, when the way is clear, turn around and get off the ramp.

LESSON TIP

If no expressway is available for your teen driver at this phase, he/she should be introduced to procedures for driving on a major highway. (Hopefully, some four-lane highway driving will be available.)

Activity 23: Cruising on the Expressway

Traveling on multiple-lane roadways is faster than traveling on local roadways due to the lack of intersections that require stopping. This means your teen will be driving at a higher rate of speed and the effects of speed will limit your teen's ability to use his/her peripheral vision effectively. This will require your teen to make adjustments.

When driving at higher speeds, minor changes to car position occur in shorter time frames, causing significant or exaggerated vehicle movements. Visual adjustments are needed to lengthen or increase visual lead, so you have:

- more time to gather information.
- increased peripheral vision area, which allows for motion detection farther away from your vehicle in order to give more time for adequate response.
- more space is needed between your vehicle and other vehicles, so abrupt responses are held to a minimum.

Allowing an adequate following distance is another very important part of expressway driving. Experts recommended that you always:

- maintain a minimum 3-4 second following distance at speeds over 45 mph and,
- keep a space cushion on at least one side of your vehicle to give you an escape route if the lane ahead becomes blocked;
- try to maintain at least a 2-second space to the rear of your vehicle by controlling space to the front.

Which expressway lane should you drive in? Your lane choice will depend upon several factors, the volume of traffic, type of traffic, speed traffic is moving, and your planned exit. The center and/or far-left lane is reserved for drivers passing and higher speed traffic. The far-right lane is used by slower-moving traffic or by vehicles entering or exiting the roadway. When using the right lane be on alert for conflicts from drivers entering and leaving the expressway.

Cruising on the Expressway

1. Drive in the appropriate lane for traffic conditions and continually scan all around.
2. Adjust speed and steering with tiny movements of accelerator and steering wheel.
3. Look farther ahead and to the rear when driving at a higher speed.
4. Avoid making any sudden or abrupt moves.
5. Identify overhead signs for directions and lane information.
6. Drive on the right and pass on the left.
7. A good rule is to drive so that faster traffic passes on the left. If you are being passed frequently on the right, change lanes to the right.
8. Change lanes one at a time, using proper lane change procedure.

LESSON TIP

When your teen first drives on an expressway, events will happen much quicker. It will be important that you monitor his/her performance carefully.

Safety Tips

Increase following distance when following large trucks, buses, or motorcycles, or when driving in bad weather, being tailgated, or entering/exiting the expressway.

INCREASE

FOLLOWING DISTANCE



Activity 24: Lane Change

Use caution whenever you attempt a lane change, you may move into another vehicle's path of travel. In addition, when there are more than two lanes going in the same direction, several vehicles may want to move into the same lane at the same time.

Reasons for changing lanes include:

- Entering or exiting the expressway
- Changing lanes to allow another vehicle to enter
- Following large or slow-moving vehicles
- Passing
- Lane ahead becomes blocked
- Animals on expressway

LESSON TIP

Your teen will be driving at higher speeds (maybe for the first time), openings in traffic will appear and disappear in seconds, and your teen may become nervous.

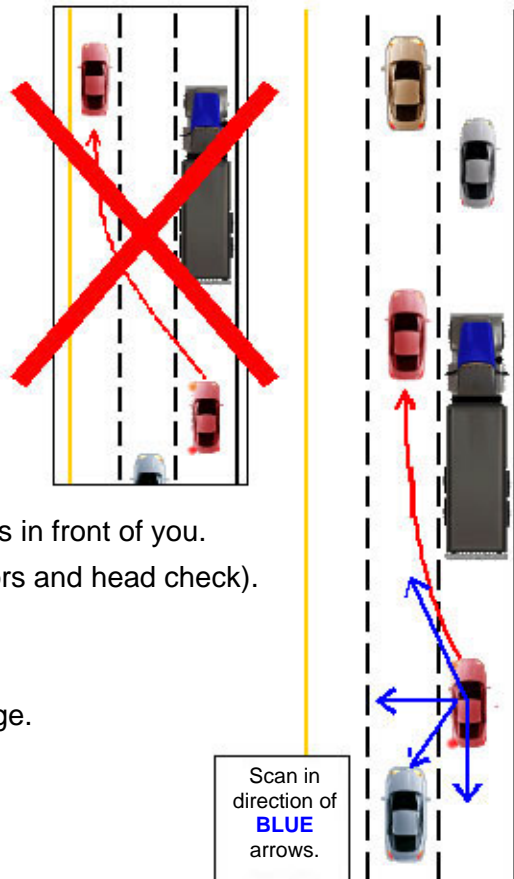
Observe what your teen is doing and be aware of his/her actions. Watch your teen's search techniques, ask him/her what they are seeing.

Lane Change Procedure

Changing lanes. Before changing lanes, check your side and rear-view mirrors for traffic approaching you from behind. Then give a turn signal to communicate your intention to change lanes. Check for other drivers who also may be moving into the same lane. Just before you begin moving into the other lane quickly glance over your shoulder for any vehicles that may be in your blind spot. Remember, whether you are changing lanes, passing, entering or exiting an expressway, always use your turn signals and check traffic to the rear and sides.

Follow these steps to safely change lanes:

- Maintain a safe following distance from the vehicles in front of you.
- Check traffic ahead, behind and to the sides (mirrors and head check).
- Signal your intention to change lanes.
- Select a safe gap in traffic.
- Check blind spots in the direction of the lane change.
- Adjust your speed — if clear, steer smoothly to the new lane (if not, wait) and cancel the turn signal.



LESSON TIP

When changing lanes, change one lane at a time. Do not cross several lanes at once. Adjust your speed to the flow of traffic once in the new lane.

Safety Tips

Keep alert, when there are more than two lanes going in the same direction, several vehicles may want to move into the same lane at the same time.

Activity 25: Approaching an Entrance on the Expressway

You are driving on the expressway approaching a Entrance Merge Area.

Whenever traffic enters onto an expressway a possible conflict between you and the driver(s) attempting to enter could happen. You must always remain alert to the risk of entering and exiting vehicles.

What should you do to minimize the risk:

1. Observe in advance twelve (12) second sight distance and change lanes if a car is approaching the entrance lane.
2. Maintain speed so that the merging driver can adjust his/her speed to yours.
3. If you are exiting at the same place where another vehicle is merging (crisscrossing), signal right and keep alert to the other vehicles around you.

Activity 26: Exiting an Expressway

Exiting an Expressway

Although exiting an expressway is usually a smooth procedure, it is not without inherent dangers. A driver should never wait until the last minute to attempt a lane change to reach an exit. Plan your exit as far in advance as possible. If you miss your exit or you cannot change your lane position safely, continue and take the next available exit.

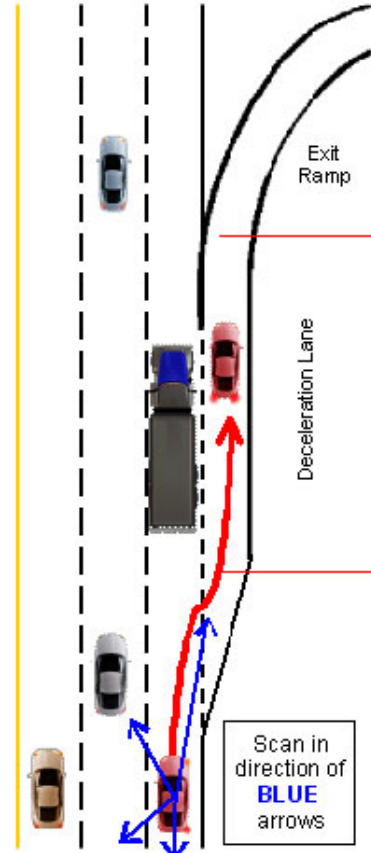
Identify the exit you will be taking early. Exits are marked with guide signs, usually one to two miles before the exit. About one-half mile (20-30 seconds) before the exit, signal and move to the lane closest to the deceleration lane.

The exit design has two components:

The Deceleration Lane — this area allows a driver exiting the expressway the time and space he or she would need to adjust vehicle speed to the significantly slower posted ramp speed without interfering with other expressway traffic.

- At the entrance to the deceleration lane, perform a smooth lane change procedure and move into the deceleration lane.
- Check the posted ramp speed sign and begin adjusting your speed to or below the safe posted speed calculated by the engineers who designed the exit ramp.
- Check for any traffic stopped or stopping ahead.
- Check mirrors and begin to slow down.
- Try to keep an adequate space cushion in front of and behind your vehicle.

The Exit Ramp — is the area that allows traffic to enter an adjoining roadway. Remember, in order to safely navigate an exit ramp, you must not exceed the posted ramp speed.



§ 20-140.3. Unlawful use of National System of Interstate and Defense Highways and other controlled-access highways.

On those sections of highways which are or become a part of the National System of Interstate and Defense Highways and other controlled-access highways, it shall be unlawful for any person:

- (1) To drive a vehicle over, upon, or across any curb, central dividing section or other separation or dividing line on said highways.
- (2) To make a left turn or a semicircular or U-turn except through an opening provided for that purpose in the dividing curb, separation section, or line on said highways.
- (3) To drive any vehicle except in the proper lane provided for that purpose and in the proper direction and to the right of the central dividing curb, separation section, or line on said highways.
- (4) To drive a vehicle onto or from any controlled-access highway except at such entrances and exits as are established by public authority.
- (5) To stop, park, or leave standing any vehicle, whether attended or unattended, on any part or portion of the right-of-way of said highways, except in the case of an emergency or as directed by a peace officer, or at designated parking areas.
- (6) To fail to yield the right-of-way when entering the highway to any vehicle already travelling on the highway.
- (7) Notwithstanding any other subdivision of this section, a law enforcement officer may cross the median of a divided highway when the officer has reasonable grounds to believe that a felony is being or has been committed, has personal knowledge that a vehicle is being operated at a speed or in a manner which is likely to endanger persons or property, or the officer has reasonable grounds to believe that the officer's presence is immediately required at a location which would necessitate crossing a median of a divided highway for this purpose. Fire department vehicles and public or private ambulances and rescue squad emergency service vehicles traveling in response to a fire alarm or other emergency call may cross the median of a divided highway when assistance is immediately required at a location which would necessitate the vehicle crossing a median of a divided highway for this purpose. (1973, c. 1330, s. 5; 1977, c. 731, s. 1; 1999-330, s. 5.)

Lesson 6:

“Turnabouts”

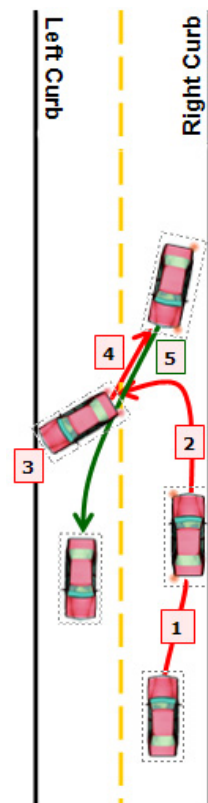
A turnabout is a maneuver for turning your vehicle around to go in the opposite direction. There will be times when you may be required to make a turnabout. When this happens, remember this is a high risk maneuver, because you may be crossing or backing into traffic. Take precautions and plan the type of turnabout that best suits your situation.

Activity 27: Three-Point Turn

Three-point turns are an option you can use when there is no driveway available for you to turn around and reverse direction. If traffic is light and you cannot drive around the block, or the available space prevents you from making a U-turn, the three-point turn may be your only choice.

Steps for making a three-point turn.

1. Stop as close to the right edge of the curb as possible. Check for traffic in both directions. Wait until you have a 20- to 30-second gap to complete the turn.
2. Signal a left turn. Look over your left shoulder for any cars in your blind spot. Then move the vehicle slowly while turning the steering wheel rapidly to the left to bring the vehicle into the opposite lane. Hold this position.
3. When the front wheels are almost to the curb, turn the wheels rapidly to the right. Stop the vehicle just short of the curb.
4. Check traffic to the left, then over your right shoulder. Shift the vehicle into reverse and, while slowly backing up, turn the wheel to the extreme right position. About 4 feet before stopping, turn the wheel rapidly to the left. Keep looking back until you have come to a complete stop.
5. Shift into drive. Check traffic. Signal your intent and accelerate to normal speed.



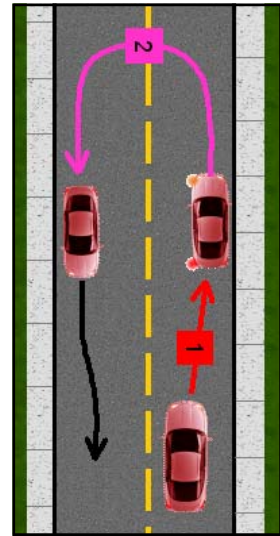
U-turns are not legal everywhere. Before you attempt to make a U-turn, look for any prohibiting signs. Both a NO U-turn sign and No Left Turn sign prohibit you from making a U-turn. U-turns are very dangerous and risky often requiring you to cross several lanes of traffic to execute. In business districts, cities and towns, U-turns are allowed only at intersections. **Never make a U-turn on an expressway.**

Activity 28: Midblock U-Turn

Make sure the local and state law permits this type of turnabout. To attempt a midblock U-turn you will require a wide space.

Steps for making a midblock U-turn.

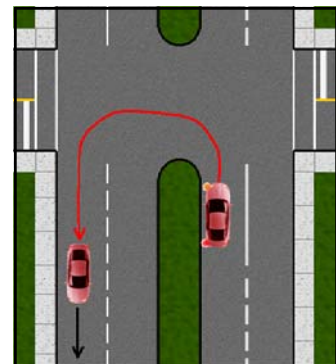
- Evaluate risk and select best location.
- Move vehicle to 3"-6" from right curb.
- Apply left-turn signal, stop, check for approaching traffic.
- Creep and turn wheel rapidly to the left.
- Complete turn, proceed into the outside or right-hand lane traveling in the opposite direction.



Activity 29: Intersection U-turn

U-turn at an intersection

When making a U-turn at an intersection, begin the U-turn in the left lane closest the center line or median. Complete the turn in the lane farthest to the right in the opposite flow of traffic and accelerate to the appropriate speed.

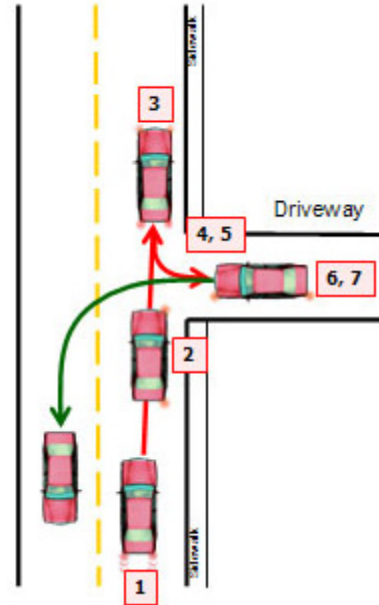


Activity 30: Two-Point Turn (Backing into an alley or driveway on right side)

Two-point turns require the driver to head into, or back into, a driveway on the same side or on the opposite side of the roadway to reverse direction. It is safest to execute a two-point turnabout by backing into a driveway on the same side of the street.

Back into driveway on right side

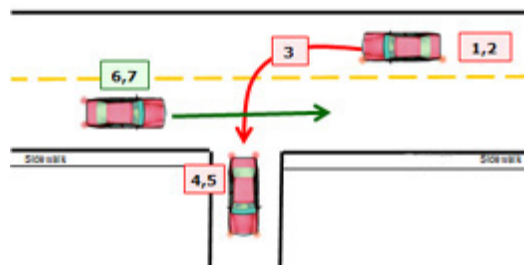
1. Check traffic flow.
2. Signal, and position yourself 2-3 feet from curb.
3. Drive beyond the driveway and stop.
4. Reverse, monitor intended path.
5. Back slowly, turning steering wheel rapidly to the right as you enter driveway.
6. Straighten wheels, centering car in driveway and stop with the wheels straight.
7. Signal left and exit driveway when the way is clear.



Activity 31: Two-Point Turn (Pulling into an alley or driveway on left side)

Pull into driveway on left side

1. Check traffic flow.
2. Signal, and position your vehicle to 3-6 inches from center yellow line.
3. When traffic is clear, drive into the driveway and stop.
4. Reverse, monitor intended path.
5. Back slowly, turning steering wheel rapidly to the right as you exit driveway.
6. Straighten wheels, centering car in roadway. When fully around the corner and facing the new direction stop with your wheels straight.
7. Shift into drive. Check traffic and accelerate to normal speed.



Lesson 7:

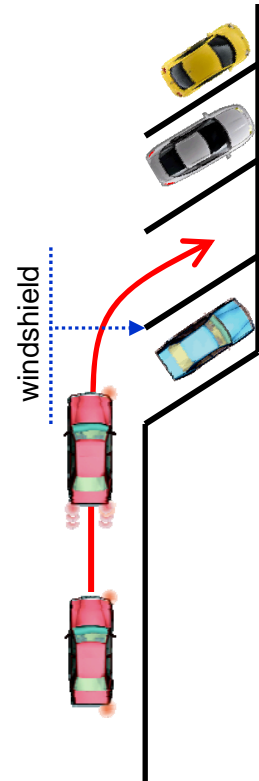
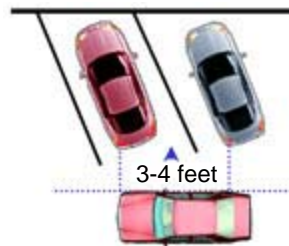
“Parking”

Activity 32: Angle Parking

Parking your vehicle diagonally to the curb. This type of parking space is usually angled to the curb at about thirty degrees.

Parking Steps (parking at a 30-degree angle)

1. Signal intention, slow down and position the vehicle three to four feet away from the space.
2. Move forward until the steering wheel is aligned with the first pavement line.
3. Visually locate the middle of the space and turn the wheel sharply at a slow controlled speed.
4. Steer towards the target in center of space to straighten the wheels.
5. Position the front bumper three to six inches from the curb or end of the space.



Activity 33: Angle Parking (Leaving)

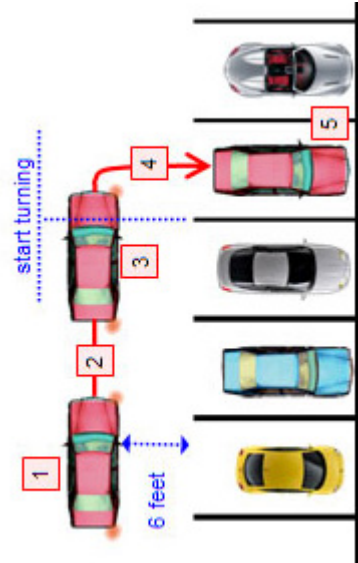
Exiting Parking Space

- 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, stop, and shift to Drive.

Activity 34: Perpendicular Parking

Parking your vehicle at a right angle to the curb. This type of parking space is angled ninety degrees to the curb.

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



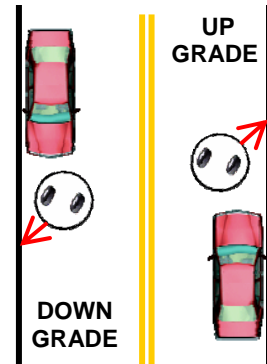
Activity 35: Perpendicular Space (Leaving)

Exiting Parking 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 the front bumper clears the back of the vehicle, stop, and shift to Drive.

Activity 36: Parking Without A Curb

1. Move to the edge of the road as far off the main traveled portion as possible.
2. Turn the front wheels away from the center line of the road.



Activity 37: Parking Downgrade With a Curb



Parking Steps (with a curb or without a curb it is the same procedure when parking downhill)

1. Position your vehicle as close to the curb as possible and stop.
2. Let the car move slowly forward while you turn the steering wheel sharply to the right until the right front tire rests against the curb.
3. Shift into “P” (Park) if your vehicle is equipped with an automatic transmission or into REVERSE gear if it is a manual transmission.
4. Engage the parking brake.

Leaving the Parking Space

- Release parking brake.
- Check traffic, back a short distance while straightening the wheels.
- Signal, then check traffic again, when way is clear accelerate and move into the lane of traffic.

Activity 38: Parking Up-grade With a Curb

Uphill (with a curb) Parking Steps

1. Position your vehicle as close to the curb as possible and stop.
2. Turn your steering wheel sharply to the left. Shift into “N” (Neutral) and let the vehicle move slowly back until the right front tire touches the curb.
3. Shift into “P” (Park) if your vehicle is equipped with an automatic transmission or into FIRST gear if it is a manual transmission.
4. Engage the parking brake.

Leaving the Parking Space

- Release parking brake.
- Signal, then check traffic, when way is clear accelerate and move into the lane of traffic.

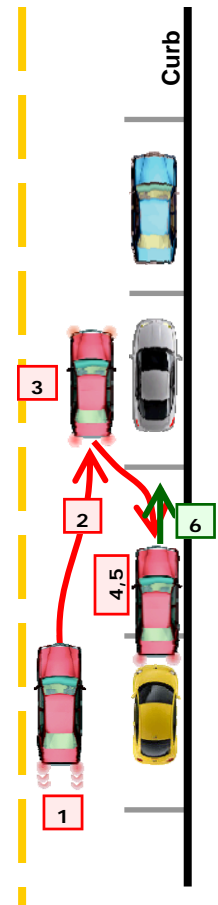
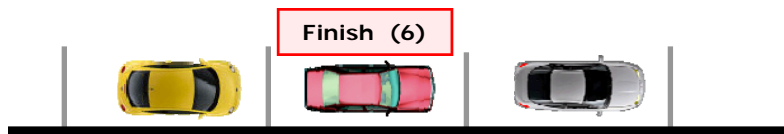


Activity 39: Parallel Parking

Parking your vehicle parallel to the curb.

Parallel Parking Steps on a two-way street

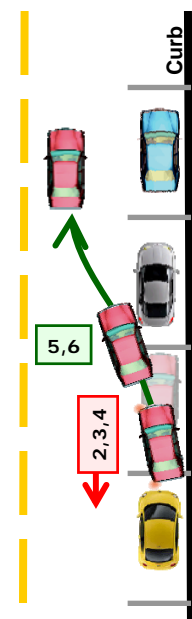
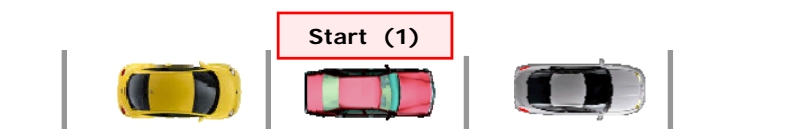
1. Select a space that is at least five feet longer than your vehicle. Flash your brake lights and put on your turn signal as you approach the space, and monitor traffic to the rear.
2. Place your vehicle approximately 2 - 3 feet from the vehicle you want to park behind, aligning your rear tires with the other vehicle's rear wheels.
3. Put the vehicle into reverse and turn the wheels all the way to the right.
4. Slowly back up until you are at a 45-degree angle. In your side view mirror, target the headlight closest to the curb of the vehicle behind to establish the 45-degree angle. Stop.
5. Turn the wheels all the way to the left.
6. Slowly back up until you are parallel with the curb. If this is done correctly, you should be less than 12 inches from the curb. (Practice will improve your space awareness.)



Activity 40: Parallel Parking (Leaving)

Exiting Parking Space

1. Keep right foot on brake. Shift into "Reverse."
2. Check traffic, sound horn and back slowly with right foot covering the brake, steering to the right.
3. Stop just before reaching the front bumper of the car behind.
4. Shift into "Drive," signal left and check traffic, including your blind spot and make sure your right fender has enough room to clear the vehicle in front of you.
5. Move slowly forward, steering sharp to the left.
6. Steer to the right as you clear the bumper of the car in front.



Lesson 8:

“Night Driving”

It is recommended that no less than six (6) to ten (10) hours of night driving be a part of the parent/teenager driving experience.

Night driving should be scheduled only after your teen has gained confidence in his/her basic car control skills and has demonstrated adequate skill levels while driving during daylight hours.

All the skills practiced in this handbook should be reviewed during darkness.

1. Turn headlights on when darkness makes it harder to see (no later than one-half hour after sunset). It is illegal to use parking lights rather than head lights.
2. Reduce speed. Darkness reduces your seeing ability and response time. Drive at a speed which allows you to stop in the distance illuminated by your headlights.
3. Increase alertness. Judging speed and distances of other vehicles and objects is difficult because of reduced visibility.
4. Increase following distance. Stay 4-6 seconds behind the car ahead
5. Locate and be able to operate the headlight switch and dimmer switch.
6. Turn headlights on at least 30 minutes after sundown and off no sooner than 30 minutes before sunrise.
7. Turn headlights on any time they may help others see you. Never drive with parking lights.
8. Use HIGH beam for open road with no on-coming traffic, unless you are following another car.
9. Use LOW beam for city streets, meeting on-coming cars, following cars, and under adverse conditions in daylight driving. (*North Carolina law requires you to burn your headlights anytime you activate your windshield wipers.*)
10. Look away from on-coming headlights. Look toward the right edge of roadway until approaching car has passed.
11. Keep windshield and headlights clear and clean.
12. Keep lights on instrument panel dimmed.
13. Adjust inside day/night mirror to night position.
14. If you wear glasses, wear them at all times while driving. Do not use tinted or sun glasses while driving at night.

Safety Tips

Make sure all the lights on your vehicle work.

Headlights

- When driving with headlights at night:
 - (A) When you use the high-beam headlights, you should be able to see a person who is 200 feet away.
 - (B) When you use the low-beam headlights, you should be able to see someone who is 75 feet away.
 - (C) It is very important for your vehicle's lights to have clean lenses and stay in proper working order. (*Dirty lenses will make it difficult to see.*)
- Your headlights should be inspected by a license mechanics during your yearly inspection.

REMEMBER, improperly adjusted headlights, can shine in the eyes of approaching drivers, bicyclists and pedestrians.
- Never overload the rear of your vehicle, this could cause the front of the vehicle to tilt upwards and produce a hazardous headlight glare for oncoming drivers, bicyclists and pedestrians.

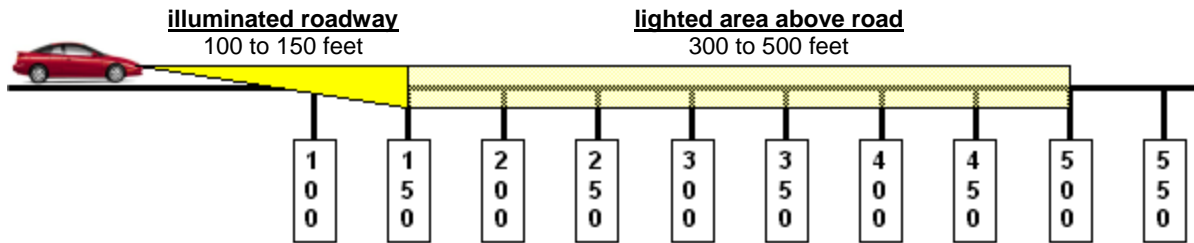
Taillights

- Taillights must be red in color and visible for at least 500 feet.
- License plate lights, the law states that the numbers should be visible for at least 50 feet.
- Brake or turn signal lights must be visible for at least 100 feet in normal daylight.

Low-Beam headlights — when driving in cities and towns (except on streets where there is no lighting) switch to low-beams. Whenever you are within 500 feet of oncoming traffic, switch to low beams to avoid blinding the other driver. When following another vehicle, use low-beams whenever you are within 200 feet of the vehicle ahead.

Properly Aligned Low-Beams

- Lights should be adjusted so that they illuminate the roadway 100 to 150 feet ahead, and light the area 300 to 500 feet above the roadway.
- Load, load distribution, and vehicle height affect light beam distance.
- Maximum safe speed illuminated by low beam headlights is 40 to 45 mph.

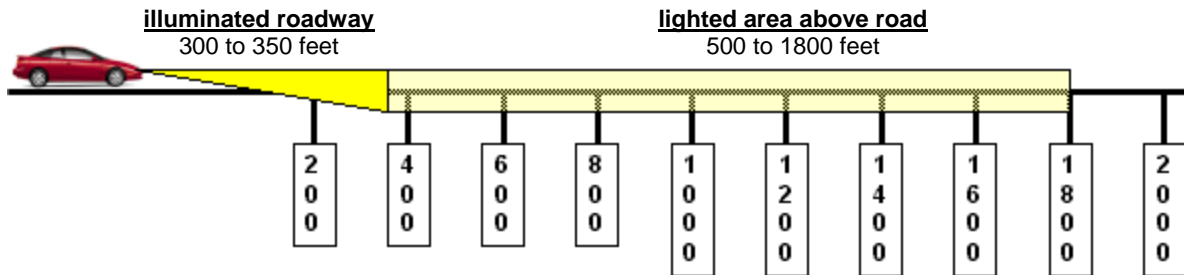


Turn your headlights on anytime you have difficulty seeing other vehicles.
If you have trouble seeing them — they are probably having difficulty seeing you.

Use High-Beam headlights — on highways when no other vehicle is approaching within 500 feet. If the high-beams of an oncoming car are not dimmed, avoid looking directly at the bright lights. Glance toward the side of the road, then look quickly ahead to determine the other vehicle’s position. Keep doing this until you have passed the other vehicle. Even though the other driver does not dim his headlights, do not retaliate by turning on your high-beam headlights.

Properly Aligned High-Beams

- Lights should be adjusted so that they illuminate the roadway 300 to 350 feet ahead, and light the area 500 to 1800 feet above road.
- Load, load distribution, and vehicle height affect light beam distance.
- Maximum safe speed is 55 to 60 mph.



Lower (dim) your high-beam headlights when you are:

- within 500 feet of an approaching vehicle
- when following closely (within 200 feet) behind another vehicle
- when driving on lighted roads
- when driving in fog, heavy rain, sleet, snow, or dust

Nighttime Precautionary Measures

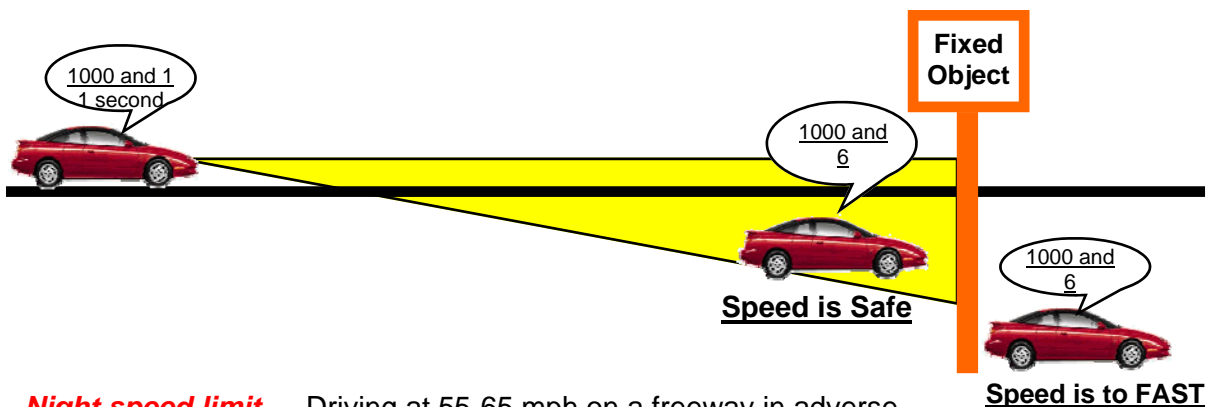
- Clean windshield inside and out — diffused light gives an appearance of a halo around the headlights of oncoming vehicles.
- *Clean all lights* — 50 to 90 percent loss of efficiency is due to grime on headlight lens.
- Reduce daytime speed.
- Increase following interval.
- Look to the right of oncoming vehicles.
- Be alert for pedestrians walking on unlighted roadways after dark.

Headlights — passing or being passed

When you are being passed or when passing another vehicle in darkness, both drivers involved must make sure they do not blind each other.

- Before passing (approximately 600 feet), the driver passing may flash his/her headlights to warn the other driver.
- Drive with low beams on.
- When two vehicles are side by side, the passing driver may switch to high beams, and the driver being passed to low beams.

Overdriving your headlights occurs when the vehicle's speed is greater than the stopping distance lighted by the headlights. To determine whether you are overdriving your headlights, select an object the moment the headlights pick it up, and count off six seconds. If the object is still ahead of the vehicle, you are driving at a safe speed. If you have passed it, you are driving too fast. The posted speed limits are calculated for daylight driving and are often too fast for nighttime conditions. Dirty headlights and improper headlight alignment will also add to this problem.



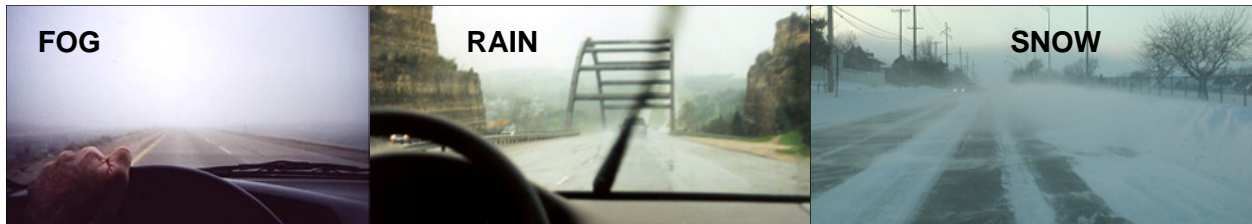
Night speed limit — Driving at 55-65 mph on a freeway in adverse conditions with low visibility is a danger to everyone and may lead an Officer to charge you with dangerous driving even though you were driving the posted speed limit. As soon as visibility or traction is reduced, the law requires that your speed be adapted to conditions. On roadways where visibility is reduced, night speed limits may be posted to help alert drivers to potential dangers.

Whenever you are driving on a roadway at night and you have difficulty seeing, **SLOW DOWN**, adjust your speed even if it is below the posted limit.

Lesson 9:

“Bad Weather Driving”

The best advice for driving in bad weather conditions is to stay off the road and avoid driving.



You should consider postponing your teen’s driving practice until the weather clears. If you do choose to give your teen driving practice in bad weather conditions, driving should be scheduled only after your teen has mastered basic car control skills and has demonstrated adequate skill levels while driving during good weather.

Driving in bad weather conditions.

Unfortunately, driving conditions are not always ideal. There are times when you may have to drive in undesirable conditions. Bad weather produces many challenges for drivers. The major ones are the loss of traction and reduced visibility.

Mother Nature can be very unpredictable ...

- Fog is evident ahead — billows of fog suddenly cover the roadway making it very difficult to see.
- It’s sprinkling — a few moments later, rain falls in sheets, slashing across the roadway.
- Snow is falling in large, lazy flakes — Two miles down the road, there is a whiteout and visibility is reduced to inches.

As weather conditions change, so must your driving, your attitude, your awareness and the speed you are traveling. Begin taking precautionary measures as soon as any of the initial conditions become evident.

In bad weather conditions drive with caution:

- **Keep Alert.** A driver must keep his mind alert, the condition of the road can change very quickly.
- **Turn headlights to low beam.**
- **Turn on windshield wipers.**
- **Drive slowly and increase your following distance.** Continue to reduce speed to limits imposed by visibility and turn on emergency flashers, but do not stop in the travel lane or on the shoulder.

- **Slow down when approaching curves and intersections.** When approaching a bend, slow down gradually before you take the bend to limit the chances of skidding.
- **Maintain position in center of lane.** Be alert for vehicles stopped in the roadway.
- **Avoid quick stops.** When you need to accelerate or brake, do so gradually (rather than in one sharp action). “Pump” the brakes to slow down **unless you have “ABS”**.
- **Avoid fast turns.** Sudden movements can cause your vehicle to skid, slow down and prepare for turns well in advance.
- **Shift to a low gear before going down a steep hill.** Steep grades will cause your vehicle to increase speed, shifting to a lower gear will allow your vehicle engine to help keep your speed from increasing.
- **If brakes get wet,** you can help dry your brakes by driving a short distance while applying light pressure to the brake pedal. The heat generated by friction on the brakes will evaporate the water.
- **Especially avoid slippery areas,** such as: ice patches, wet leaves, oil, and deep puddles.



Fog

The best advice for driving in the fog is **“DON’T.”**

You should consider postponing your practice until the fog clears.



Safety Tips

You must turn on your headlights in snow, rain, fog, or low visibility (1000 feet or less).

The law requires the headlights to be on when there is continuous use of windshield wipers.

If you do choose to drive, then slow down and turn on your low-beam headlights. Never drive with just your parking or fog lights. Increase your following distance and be prepared to stop within the space you can see in front of your vehicle. Avoid crossing or passing lanes of traffic unless absolutely necessary. Listen for traffic you cannot see. Use your wipers and defroster as necessary for best vision. If the fog becomes so thick that you can barely see, pull completely off the road. Do not continue driving until you can see.

Rain

Be extra careful during the first half hour after rain begins.

Grime and oil on the road surface will mix with water to make the road surface slippery.

A vehicle equipped with good tires, brakes and wipers can usually be driven safely in the rain. But you should never assume good equipment alone guarantees vehicle traction control, a drivers need to be alert and drive with caution:

- Keep your vehicle's windshield clear, use your wipers and put the defroster on. Use your low beam headlights to see and be seen.
- Slow down to compensate for reduced visibility.
- If heavy rain or heavy fog reduce your visibility to a level where it is unsafe to drive, pull off the road and sit out the storm in a safe location.

LESSON TIP

North Carolina law requires you to turn on and use your headlights anytime you activate your windshield wipers.

Heavy Rain

One of the dangers of driving in heavy rain is your ability to see and be seen by other motorists will be reduced. You may only be able to see a few feet ahead. Heavy rains will require you to reduce your speed and drive more slowly than usual.



Another perhaps even greater danger of driving in heavy rain is your vehicle may begin to hydroplane. Hydroplaning occurs when a thin sheet of water gets between the road surface and a vehicle's tires, the tires are lifted and lose contact with the road.

If your vehicle begins to hydroplane:

- take your foot off the accelerator.
- don't brake and, if possible, avoid steering changes.
- hold the steering-wheel firmly until your tires grip the road again.



Driving in Flood Conditions:

Whenever you see water moving across a roadway during or after heavy rains or during flooding conditions you will need to take precautions. If you attempt to drive through a flooded area you risk your vehicle becoming stranded because of a stalled engine or hitting a hidden pothole you could not see.

**If water looks to deep or fast moving, DO NOT PROCEED.
Turn around and use another route.**

Before you attempt to cross a roadway that is flooded, **check the water depth**. Try to look for items that will help you estimate how deep the water is, such as, fence posts, fire hydrants, parked cars or other objects along the roadside.

The trip through a flooded area must be made at a slow, steady speed and only if you can see the road. Remember there has been reports that 6 inches of fast moving water can sweep a car off the highway and 12 inches of fast moving water can float a car away or cause it to turn over.

Safety Tips



In severe rainstorms, watch for flooding at highway dips, bridges, and low areas.

Snow and Ice



Snow presents a special type of problem. Not only will it reduce your visibility, but it will also produce different levels of traction as you drive. When fresh snow falls, vehicle traction may be fairly good. But as traffic packs the snow, (especially at intersections) tire traction is reduced because roads become much more slippery. Temperatures may rise, and tire heat or hot exhaust may cause snow to melt and then freeze again creating dangerous icy road conditions.



Use caution and be alert if you have to drive.

Before you start driving, remove snow and ice from your entire car, including the roof, hood and rear of the vehicle. Be sure to clear all your windows (*keep windshield washer fluid reservoir full*), side view mirrors and front and rear lights of snow or ice so you can see and be able to communicate with other drivers.

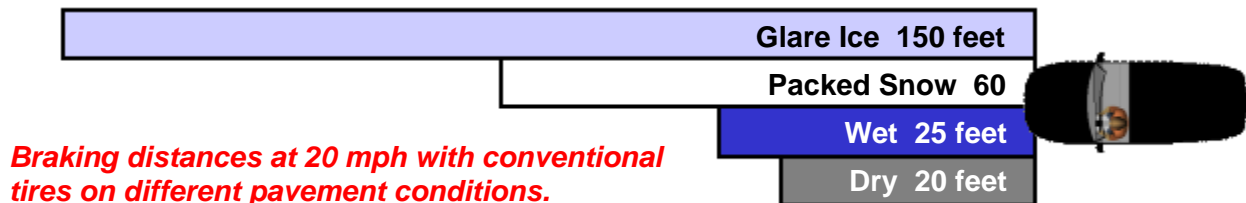
Driving on Snow and Ice

Safe driving requires you to have good tire contact with the road (traction). But when snow and ice are between your tires and the road there is a lot less tire grip on the road surface resulting in limited vehicle control. **Whatever the situation — smooth ice, packed, blowing or loose snow — you need to be very careful.**

Safety Tips

**DO NOT USE
CRUISE CONTROL ON
SLIPPERY ROADWAYS!**

- **Accelerate gently**, if you accelerate too quickly, the drive wheels will spin and lose contact with the road.
- **Increase your following distance**. Allow a much larger space between your car and the vehicle ahead.
- **Significantly reduce your speed**. Execute all maneuvers slowly and smoothly to avoid causing your tires to skid. (*Whenever you feel the drive wheels start to slip, immediately ease off on the gas pedal until traction returns.*)
- **Maintain an open line of sight and path of travel**. Visibility will be reduced. Make an extra effort to watch for ice, especially on bridges, (bridges freeze before other road surfaces) and in shaded areas.
- **Give yourself extra room to stop**. You can easily get involved in a conflict if your vehicle begins to slide when approaching signs, signals and intersections. Slow down before stopping or turning, and if you have to brake, apply the brakes gently.



Braking distances at 20 mph with conventional tires on different pavement conditions.

Unit 3

Emergencies

All drivers face mechanical problems or encounters some unusual situation at some time. If a situation does occur that requires you to respond, it is very important that you

DO NOT PANIC,

you need to react promptly and appropriately to the emergency.

This section contains some subsections you may find helpful if you encounter similar situations.

Tire Blowout

Teach your child to always keep both hands on the wheel. If a tire goes suddenly flat, you need both hands to control the car. If you have a sudden tire blowout, you should:

- Hold the steering wheel tightly and steer straight ahead.
- Slow down gradually. Take your foot off the gas pedal, but do not apply the brakes until the engine has slowed the vehicle enough to allow you to maintain control.
- Let the car slow to a stop, completely off the road if possible.
- Apply the brakes when almost stopped.
- Turn on emergency flashers.
- Have the tire replaced.



Changing A Flat Tire

Most vehicles are equipped with a jack and spare tire. While changing a flat tire may seem simple, you should follow these safety tips.

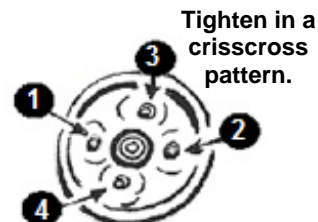
- Always park away from traffic and on level ground.
- Always place the vehicle's gear shift lever in **Park**, or in the case of a manual transmission, first gear.
- Always set the emergency brake and remove the keys from the ignition.

Safety Tips

WARNING — Never place your hands or feet under the vehicle or tire once it has been raised.

If you feel it is safe and you are ready to change the flat tire.

- Remove the spare tire, car jack, and lug wrench from the trunk before you attempt to raise the vehicle. Put a block firmly in front and behind the wheel that is diagonally opposite the flat tire to help prevent the vehicle from rolling when being raised up by the jack.
- Remove the wheel cover by prying it away from the rim using the flat end of the lug wrench. (For removal of custom wheel covers or locking lug nuts, consult the owner's manual.)
- Next, following the instructions in your owner's manual, place the jack at the location under the vehicle as recommended. Jack the vehicle up partway. (The flat tire should still touch the ground to prevent the wheel from turning.) Loosen each lug nut two full turns, but do not remove the lug nuts completely. Continue jacking the vehicle until the flat tire is raised approximately two inches from the ground.
- Complete the removal of all the lug nuts. Place the removed lug nuts inside the wheel cover so they are easy to find when you need them.
- Now, remove the flat tire from the vehicle. Place the removed flat tire on the ground behind the vehicle where it will be safe from rolling into traffic, and out of your way while mounting the spare.
- Place the spare tire onto the hub of the wheel by holding the outer sides of the tire. Never place your hands in the center of the rim or under the tire. Put each of the lug nuts back on with the tapered end of the nut facing the rim. Make sure they are snug, but not completely tight. This will help align the tire rim to the hub and hold the tire in place until the vehicle is lowered.
- Next lower the tire until it partially touches the ground, this will keep some pressure on the jack and will help assure that the rim is properly aligned to the hub when the lug nuts are tightened. Tighten all the lug nuts, using a crisscross pattern.
- Next, finish lowering the vehicle to the ground, and tighten all lug nuts once again following the same crisscross pattern. Place the wheel cover back on.



Brake Failure

If total brake failure does occur pump the brake pedal fast and hard to build up brake pressure. After three or four pumps you will know if the brakes are going to hold. This action may build up enough brake pressure to permit you to steer the vehicle off the roadway and stop safely.



If this does not work:

- Downshift to a lower gear. This uses the braking power of the engine to slow the vehicle.
- Choose an escape path that leads to an open zone off the roadway. Continue braking.
- Sound your horn and flash your lights to warn other drivers.
- Activate the hazard lights to warn other drivers of a problem.
- Apply the parking brake gradually. You can quickly release the parking brake if the vehicle begins to skid, and reapply as needed. Select a safe path of travel while the vehicle slows down.
- When have stopped, turn off the ignition. (Turning off the key locks the steering wheel of many vehicles.)



Safety Tips

Remember you can still steer and swerve to avoid hitting another vehicle or pedestrian. Also if needed you could steer into bushes or something soft to help you stop.

Power Brake Failure, is the loss of power when the booster unit that helps you brake no longer functions because the vehicle's engine has stopped running. However, this does not mean you do not have brakes. Your brakes will still function normally for one more application of the pedal.

- Apply the brake.
- Modulate pressure without releasing the brake.
- If the brake pedal is released, you will have to press harder on the brake pedal to stop the vehicle.
- The vehicle will eventually stop.

The Gas Pedal Sticks

The gas pedal will not return to idle when you release it, and the engine is racing. Accelerator failure could be caused by either a broken spring or the pedal getting stuck in the down position. In either case, you no longer have control over the vehicle's speed. Follow these steps:

1. Tap the gas pedal to try to unstick the throttle linkage or lift the pedal with your foot;
2. Shift to Neutral (the engine may race but no harm done) and apply firm pressure to the brakes without locking the wheels; and/or
3. Find a safe place to move the vehicle completely off the road.
4. Turn off the vehicle. **Caution** — this may lock the steering wheel, **DO NOT turn the ignition off while the vehicle is moving.**
5. Have the pedal repaired at a service center before driving again.

The Engine Stops Running

Usually a driver is given little warning that the engine is going to stop running. Engine failure can happen for various reasons: it becomes flooded, or it gets overheated; whatever reason, when the engine stalls, the steering mechanism will still work but it will require much more effort. If your engine stalls, follow these steps:



- Shift to Neutral.
- Look for an escape path.
- DO NOT BRAKE hard.
- Pull off the roadway (brake gently but with more pressure on the pedal).
- Stop; try to restart the engine.
- If unsuccessful, raise the hood and turn on your emergency flashers.
- Wait for help. (If you have a cellular phone call for assistance.)

Engine Becomes Flooded — When too much fuel and not enough air reaches the engine, it will become flooded. There will usually be a strong odor of gasoline. Follow these steps to start a flooded engine:



- Push the accelerator pedal to the floor and hold it there.
- Turn the key and try to start it for up to five seconds.
- If it doesn't start, wait several minutes and try again.
- Once started, release the accelerator pedal.

The Engine Is Overheating

This usually happens when the weather is extremely hot and/or in stop and go traffic. Although these are not the only causes for an engine to overheat. Some are the result of mechanical breakdown: a blown radiator hose; a broken fan belt; a seized water pump, etc., When the temperature light or gauge warns you the engine is beginning to overheat, try the following.

- If the air conditioner is on, turn it off.
- Turn on the heater to draw heat off the engine.
- If stopped, shift to “neutral” and press the accelerator pedal gently.
- If these fail, move to a safe location off the roadway.
- Turn off the engine, raise the hood and let the engine cool.
- DO NOT open the radiator cap, the pressure and hot steam can cause severe upper torso and facial burns
- Seek help.



Power Steering Fails

Power steering failure occurs when

- the engine stops;
- if the power steering fluid level is too low in the pump; and/or
- if the drive belt slips or breaks.

The vehicle can still be steered, because the steering mechanism still works. However, it will require much more effort on the driver's part to steer.

The Car Catches on Fire

Most vehicle fires start in the engine compartment and can involve fuel, oil, electrical equipment and other combustibles from a combination of sources. If a fire starts while you are driving, take the following actions:

- Quickly steer the vehicle out of traffic and away from buildings and people.
- Have everyone get out of the vehicle immediately and move at least 100 feet away.
- If the engine is on fire, call the fire department — leave the hood closed and move away from the vehicle and wait for the fire department to arrive, because the fuel tank could explode.
- If the passenger compartment is on fire, use a fire extinguisher, or call the fire department. (Carry an A-B-C-type fire extinguisher, it is designed to control such fires.)



If the fire is small enough to control and you are carrying an A-B-C-type fire extinguisher, you can attempt to put it out before it gets worse by following these steps:

- **Use caution** — cover your hands with gloves or rags and turn your face away from the heat and flames as you carefully open the hood. Be alert, the flames and heat may expand as the hood opens and begin burning more freely.
- Once the hood is up, direct the extinguisher at the fire. (**NEVER use water on an engine fire** — water will not put out an oil or fuel fire; in fact it may even aid in the fire spreading!)

Safety Tips

Fire is a possibility in any collision where engine components are damaged. Turn off the ignition and get everyone out and away from the vehicle. If a person is seriously injured, do not attempt to move him/her unless a fire is present.

Unit 4

Driving Log

Driving Log

Date	Activity	Start	End	Total
Grand Total				

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