

Lesson 6

OBJECTIVES for LESSON Six

- With the skyrocket price of gasoline, conservation of fuel is a benefit to all. One of the major objectives of this lesson is the management of space and avoiding unnecessary acceleration. Timing of traffic lights gives the driver an opportunity to save fuel and to demonstrate effective space management.
- The teen should demonstrate the ability to see a red traffic light early enough to be able to reduce speed gradually for several seconds. This gives the red light time to change to green and eliminates the need to stop. The most gas-consuming phase of driving is putting the vehicle into motion from a stopped position.
- Every traffic light that one can avoid stopping at results in fuel conservation as well as reducing the risk of rear end crashes. Always get control of the rear zone when stopping.
- The teen should be able to verbally state when an LOS-POT change is detected. This is the "A" step of the Zone Control System. She is not expected to see all zone changes.
- Once she does "see" and verbalize the zone change, she should perform the "B" step by checking at least one other zone and stating its condition. She does not need to verbalize the "C" step; she should take the actions necessary to get the best speed control, lane position and communication to create the best space management.

THE DRIVING SETTING

Use residential roadways, rural two and four lanes, urban areas, and State highways with two to six lanes of traffic. For practice of Guide 23 use an off-street training area. Use an available parking space or mark a 10 by 18 foot area with traffic cones or carton boxes to represent a parking space. After practice, use a parking space with cars to both sides. If only one car is available to park next to, let it be on the passenger side.

6

Key Behavioral Pattern Applications

See Traffic Light in Target Area

When checking the condition of the target area, look for status of the traffic light. What color and for how long?

See red lights as closed zones

As soon as the red light is detected, make an attempt to arrive into a green traffic light with no stopped traffic.

Adjust speed to arrive into green lights

Each car stopped at the red light will add one second to the time it takes for the last car to move. If there are six cars stopped at the light, it will take six seconds after the light changes before the car ahead of you will be able to move.

Left Turns at Green Traffic Lights

1. Waiting to make a left turn at a green traffic light, with oncoming traffic, is a high risk rear zone exposure.
2. **Get 1/4 Into Intersection (unless your state law prohibits waiting in the intersection).** *You must never enter the intersection unless you are certain that you will be able to make the turn.* The only opening to make a left turn, without a turn arrow, may occur when the green light changes to yellow. If you make the commitment to enter the intersection, you must continually make the **four checks** to find the safest opportunity to make the turn and clear the intersection.

Left turn at green light - 4 checks

1. **Check REAR For Unstable Zone** caused by fast closing traffic and continue the monitoring until "sand barrels" are there
2. **Look For A GAP To Enter** in the traffic flow
3. **See An Open Turning PATH** that you want to enter
4. **See The LIGHT Change** When you see the green light changing to yellow, look to see if oncoming traffic is stopping and be ready to complete your turn without delay.

Using ABC's of Zone Control effectively

A. Alert Switch On: FIND conditions when your LOS-POT has blockages that prevent you from seeing something that may occupy the space where you intended to put your vehicle. Or, something prevents you from maintaining the speed or lane position en route to your target area.

B. Before Acting: SOLVE the blockage:

- **Check Rear Zone.** See what actions are needed to control the rear zone while braking.
- **Check Opposite the zone change.** See if the zone is open; look for related information.
- **Check for an Alternate Path.** If the space you intended to occupy is no longer available, it is good to know where you can safely put the car as an alternative path of travel.

C. Create Time/Space Management: SOLVE the blockage by getting the best choice of Speed Control, Lane Positioning, and Communication.

Evaluate need for lane changing

Consider the reason for making a lane change. Avoid unnecessary lane changes

Move by lane positions

Use the least amount of space. When entering from the right, enter LP3. When entering from the left, enter LP2.

Time arrival into open zones

Get the best opening of the lane to be entered and attempt to arrive into an open side zone.

Key steps for backing into space

Reduce your risk and liability. When you back in you only need to control a static parking space. But, when you back out of a space, you need to control the whole dynamic parking lot that is always changing, which is difficult to do.

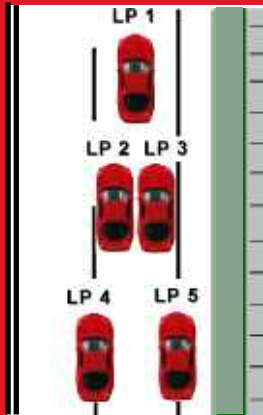
Rating: √ = Okay, X = More Practice Needed

17 CONTROL ACTIONS for EXPERT Driving

Speed Control

1. Same Speed
2. Decelerate
3. Cover Brake
4. Apply Brake
5. Accelerate

Lane Position



Communication

1. Signal Lights
2. Headlights
3. Brake Lights
4. Horn Usage
5. Hands, Arms
6. Speed Altered
7. Lane Position

NOTES

20: Traffic Lights: Timing

1. See Light In Target Area
2. See Red Light As Closed Zone
3. Check Rear Zone
4. Alert Rear -- Tap Brake Lights
5. Begin Constant Braking
6. Time Arrival Into Open Zone
7. At 10 mph, Go or Stop
8. Green Light, Scan Intersection
9. Red Light, Make Smooth Stop

Left Turn At Green Light

- Waiting For Opening Get 1/4 Into Intersection

1. Check **REAR** until stable
2. Look for a **GAP/HOLE**
3. See Open **PATH** to enter
4. See **LIGHT** change

21: ABCs of Zone Control

A. Alert switch on:

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- See Zone Change

B. Before acting:

- Check Other Zones:

- Options Available
- Related Information
- Open Zones
- Escape Path

C. Create time/space:

- Get Best Speed Control
- Get Best Lane Position
- Send/Receive Communication

Key Behavioral Patterns

- See Red Light as Closed Zone
- Adjust speed to get Green Lt.
- 45 degree Intersection Search
- Rear, Gap, Path, Light checks
- Use ABCs of Zone Control
- Evaluate before Lane Change
- Use LPs during Lane Change
- Time arrival for open side zone
- Perpendicular, backs In space

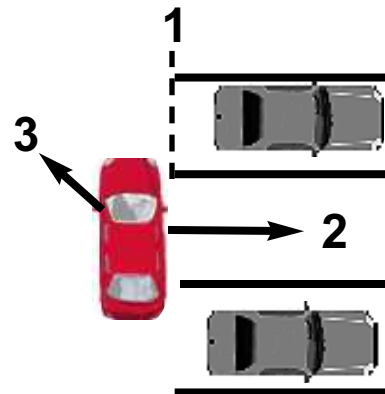
22: Lane Changes

1. Why Change?
2. Check Other Lanes
3. Mirror Checks
4. Signal For Communication
5. Move To LP 2 or LP 3
6. Check Blind Spot
7. Time Arrival Open Side Zones
8. Increase Speed If Needed
9. Enter LP 2 or LP 3
10. Release Signal Light Lever
11. Mirror Check
12. Best Lane Position

23: Perpendicular Parking - Backing Into Space

1. Side Position
2. Forward Position
3. Select 45-Degree Target
4. Creep - Turn Wheel Fast
5. Use The Least Forward
6. Line Up Car With Space
7. Shift To Reverse
8. Back To Rear Pivot Point
9. Inch - Turn Wheel Fast
10. Get Car Straight In Space
11. Inch - Straighten Tires
12. Back To Rear Reference

Begin with these three steps.



Advantages Gained by Backing Into a Perpendicular Space

1. Can get into and out of tight spaces.
2. Takes less time to park and "unpark."
3. Better view while leaving space.
4. Avoids backing out into traffic.
5. Others let you cut into traffic flow.
6. Gives you best control and less stress.
7. Reduces your liability if a crash occurs.
8. Less risk of hitting something, or being hit.

Lesson 6: Student-Centered In-Car Activities

Guide 20 Traffic Lights: Timing and Turning Left Have the teen state when she sees a traffic light in the target area. Ask her to demonstrate the best approach speed to arrive in the intersection with a green traffic light and zones clear of LOS-POTs. **Common Error:** While attempting to make a left turn the teen will need your help to locate a safe gap to enter. A dangerous delay of movement, when the light changes from green to yellow, may occur unless she is actively looking for the light to change and gets a timely commitment from oncoming traffic.

20: Traffic Lights: Timing and Turning Left

Activity 1: When the traffic light is red, give the student a few seconds to respond to it by applying a braking action. The exact amount of braking force will be determined by speed and distance away from the intersection. The student will need you to coach her for the correct amount of braking pressure. If she doesn't begin any braking action, or fails to see the red light, you will need to provide a cue.

Activity 2: When a rear zone check is made, have the student state the condition as open, closed, or unstable.

Activity 3: Coach the student to tap the brake pedal to alert the driver behind by flashing the brake lights.

Activity 4: The student will need consistent coaching to achieve the ability to apply a steady braking pressure and keep that amount until the car comes to a stop.

Activity 5: Play a game with the student challenging her to see if she can avoid stopping while driving in city traffic by using her vision effectively to time arrival into open zones.

Activity 6: When the student is attempting to time traffic lights, you need to guard against her making too great of a speed reduction which results in driving at 10 mph for more than a few seconds. For example, the student is still eight seconds away from the intersection when speed is reduced to 10 mph. This could be dangerous and annoying to the rear zone traffic.

Activity 7: As the student approaches an intersection, have her state if it is clear. For example, she would say "left clear", "front clear", "right clear" as each zone is checked.

Activity 8: Challenge the student by having her make stops so smooth that the stop cannot be felt by anyone in the car.

Activity 9: When the car is stopped in a traffic flow, have the student continue to monitor the rear zone until there are at least two cars (sand barrels) stopped in back.

20: Left Turn at Green Light

Activity 10: Have the student repeat four words to help her remember the steps when making an "unprotected left turn" (no green turn arrow) at an intersection with a green traffic light. The words "REAR, GAP, PATH, LIGHT" are a mnemonic device to help her remember what to do. She should state the condition of the check made, such as, "Path open." The "Rear" is checked for fast approaching vehicles that are not attentive to our stopped position. The "gap" is looking to calculate when there will be an appropriate gap or hole to enter. The "path" is to have awareness of what she will be turning into when there is an opening. And, checking the "light" is to see the moment the light begins to change from green to yellow so she can safely make the turn and clear the intersection.

20: Left Turn, no Traffic Light

Activity 11: From this lesson on, whenever the student is making a left turn, whether there is a traffic light or not, you want her to make these checks "REAR, GAP, PATH, LIGHT". Have her state the check being made and the condition that she finds. When there is no traffic light, the "Light" check is omitted.

Guide 21 Using the ABC's of Zone Control The sooner you see a Zone Change, the more time you will have to prompt the teen to verbalize what she is seeing. For example, you could say, "How is your front zone?" The teen should respond as to its condition. When it is closed, you can then use the B step by asking, "How is your rear zone?" Then, ask the teen to demonstrate any of the "C" step controls, such as: "Show me your best lane position" or "Why is it best to apply the brake now?" With your questioning, and by giving the teen positive feedback, you will help her consciously use the ABC steps of Zone Control. **Common Error:** The most common error a teen driver will make is to eliminate the second step of the ABC process. She is most likely to take an action — the "C" step — after seeing a zone change without getting all necessary information. Knowing this, you can help her to see the zone change early enough to give you time to coach her to check the other zones in a timely manner. Help her to get into the habit of using the detection of a "zone change" as an "alert" switch to consciously check other zones before deciding what will be the best speed selection, lane position or communication choice.

21: Using the ABC's of Zone Control

Activity 1: There are several learning stages to developing into habit the ABCs of Zone Control. First, the student needs to know what are LOS-POT blockages. Second, the student needs to know what Other Zones to check after finding an LOS-POT blockage. And then, the student needs to know what are the best selections of Speed, Lane Positioning, and Communication. The major objective is for the student to use the Zone Control System repetitively on a conscious level until it becomes habit. You can begin by building on what the student knows at this stage of learning. The following activities use building blocks for student development.

Activity 2: Spend about 10 minutes to have the student FIND LOS-POT blockages and to state when she sees one. For example, she might say "LOS blockage—parked truck". It may be helpful to the student at the beginning of this activity if you FIND and state some LOS-POT blockages.

Activity 3: Build upon the previous activity. Have the student continue to state LOS-POT blockages but this time when an LOS or POT blockage is stated by the student, you state the B step and ask her the condition of the other zone to be checked. For example, she states the right-front zone is closed by an LOS-POT blockage caused by parked delivery truck. You ask, "how is your left-front zone?"

Activity 4: To help the student become more proficient in using the B and C steps you FIND and state an LOS-POT blockage. Then ask her to tell you the condition of the Other Zones that are important to check. In response to the closed right-front zone, she may state "left-front zone open". You give her positive feedback and then ask what lane position is best? She responds and takes, "lane position two". This brings the ABC steps onto a conscious level for practice, and by repeating this process 20-30 times, it can develop into automatic behavior.

Student-Centered In-Car Activities: Lesson 6

21: Using the ABC's of Zone Control

Activity 5: Have the student go through all three of the ABC steps of Zone Control by beginning with her FINDING one LOS-POT Blockage. Then ask her to tell you what Other Zones need to be checked. And then, have her take the correct actions for Speed, Lane Position, Communication. Place emphasis on having the LOS-POT detected no closer than the 15 second range. The Other zones are checked and selection from the 17 choices are made (5 speed choices, 5 lane position choices, and 7 communication choices) before arriving in the four-second danger zone.

Guide 22 Lane Changes with Precision First, have the teen practice this Guide by pulling away from a curb, and returning to the curb, which would represent making a left and right lane change. Repeat until all behavioral patterns are successfully demonstrated. Then select a location where several lane changes can be made in succession. Ask the teen to demonstrate specific steps from the Guide. For example: "Show me lane position two." "Show me how, and tell me why, a blind area check is made." "If we were to make a lane change, explain where and how you would do it." Give her positive feedback for correct performance. If any step is not performed correctly, coach her, step-by-step, to achieve success. **Common Error:** The teen will tend to move directly into the new lane without pausing in the appropriate lane positions. During the learning process you should remind her to pause in lane position two before making a left lane change. Then she should tell you if it is okay to move into the new lane. Remind her to pause in lane position three of the new lane to use the least amount of space. Have her make many lane changes in succession for the best opportunity to build precision lane change behavioral patterns into habit.

22: Lane Changes with Precision

Activity 1: Select situations when a possible lane change could be made. Discuss with the students what they think will be gained by making a lane change at that moment. Point out other drivers that made a lane change with nothing to gain. Whenever a driver is entering a new traffic flow there is an increase in risk. Anytime there is a change in speed or direction there is a change in risk exposure. Making a lane change means leaving a traffic flow and entering another traffic flow, which creates more risk than if the change did not occur. You want the teen to see that a lane change should not be a frivolous act.

Activity 2: Before the student makes a lane change, have her evaluate the condition of what will become the right-front, or the left-front zone after the lane change is made. The purpose is to get the student to think about the condition the vehicle will be moving into to avoid entering an LOS blockage or a closed POT.

Activity 3: Have the student demonstrate how to use the lane change position of the signal indicator (hold fingers on it).

Activity 4: If you have access to a parking lot have the student demonstrate all of the 12 steps for making a Precision Lane Change as defined in Guide 22. You will be able to use the parking spaces, if there are several rows in alignment, as lanes. You can call off each of the steps and ask her to explain and then demonstrate it. The parking lot practice will allow you to have her perform in "slow motion" without traffic interference.

22: Lane Changes with Precision

Activity 4: When traveling on a straight road, and without traffic to the rear, have the student practice making lane changes without actually leaving the travel lane. Have the student start in the center of the lane. Tell her to pretend to make a lane change by going through all the actions as if a lane change is being made but she will only move into lane position two. Then you can have her go through another simulated lane change by going from LP2 to LP3 of the same lane. You call off a behavior for her to demonstrate, such as: "show me how to signal for a left lane change," "show me how to make a mirror and blind spot check."

Activity 5: When traveling on a four-lane roadway: Have the student practice making five or six lane changes in a row when conditions permit. Evaluate and give her feedback on three or four of the behaviors listed on Guide 22. Then, select another three or four behaviors during the next lane change.

Guide 23 Perpendicular Parking, Backing into Space

Practice in a parking lot. Follow each step. The importance of this exercise is to give the teen an opportunity to practice the maneuver to learn the behavior of each step, not merely to complete the parking procedure. **Common Error:** If the teen parks the car without performing each step on the conscious level of awareness, there will be little transfer of the behavioral patterns to other maneuvers. If you ask the teen to demonstrate each step, such as: "show me the side position", "show me your pivot point", etc., these same steps can be applied to a parallel parking procedure when you have her perform the behavioral patterns of Guide 30.

23: Perpendicular Parking, Backing into Space

Why Backing In is Good: The average driver will perpendicular park by pulling forward into a space and backing out. They never acquired the habit, nor the value, for backing into a space. There is a risk in backing, and there is a risk in entering a traffic flow and when they both occur at the same time the risk is doubled. The risk of having a crash while entering the parking space is less than the risk of having a crash while entering the travel lane of the parking lot. There is less risk entering the travel lane while driving forward than the risk of entering while backing. If you back out of the space you need to detect every car that may come into your path. If a crash occurred you could be charged with failure to grant right of way. When you back into the space you only need to control the parking space. Guide 23 gives a step-by-step process that will make it easy to perform and control the task of backing into the space.

Activity 1: With Guide 23 in sight, state one step and ask the teen to explain what it means; how it is to be performed; and then have her perform that one step. Repeat process for all steps.

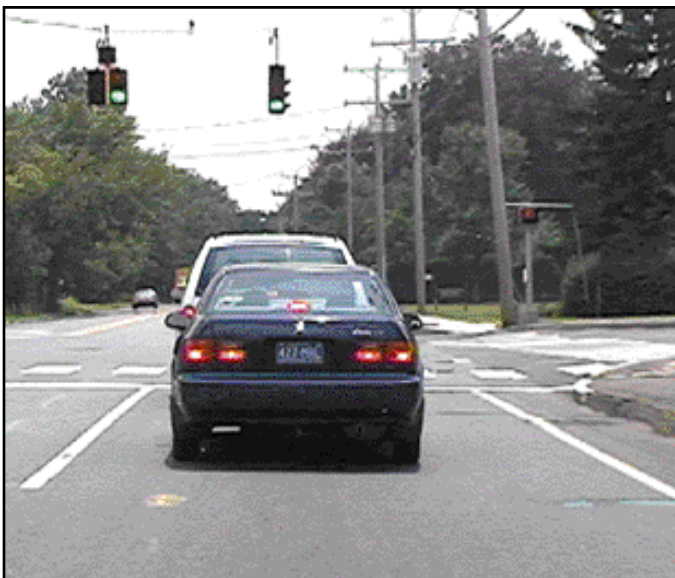
Activity 2: With the car at step 2, Forward Position, secure the car. Get out of the car with the student to observe the proper side and forward positions. For the side position, stand so you are able to see the space between your car and the parked cars. For the forward position, stand in the middle of the parking space to see the car's tires centered in the space.

Activity: Parking is an opportunity for the student to use the creeping and inching skills that were learned in earlier sessions. Pulling forward to the 45-degree target would require a creeping speed. When entering the parking space, inching speed is used.

See Red Light as Closed Front Zone



The traffic light is turning red. Try to time your arrival for a green light. The red light is a closed front zone. By treating it as a closed front zone—rather than as a red light—you will have an opportunity to practice a behavioral pattern that can be very valuable in a number of other closed front zone situations. An example of a similar situation occurs when you are on a highway and all traffic comes to a sudden stop because of construction or a crash. That becomes a high-risk moment, which you would have very few opportunities to “practice”. When you see a red light as a closed front zone, adjust speed to arrive into an open zone. Most drivers only learn that a red light means to stop. By setting a higher standard (i.e. to arrive at the intersection with a green light rather than a red light), you are able to give yourself a test situation where you can have success or failure. There will be thousands of red traffic lights that you will be approaching. That will give you thousands of opportunities to have success!



The traffic light just changed from red to green. There are two cars stopped. How many seconds before the vehicle in front of you is able to move?

Answer: The vehicle in front will not move until two seconds after the light changes. It takes one second per vehicle, normally, before the last vehicle is able to move. If it takes longer, there could be a problem delaying the traffic flow such as: a car stopped to make a left turn, a pedestrian crossing, a stalled car, or an inattentive driver.

6

Lesson

Parent-Teen Practice Guides

Student Name _____

Parent/Mentor Name _____

Rating: ✓ = Okay, X = More Practice Needed

			1. See Traffic Light in Target Area and how long its been red/green
			2. See Red Lights as Closed Front Zones, Check Rear, time light
			3. Four Checks for Left Turn at Green Lights 1. Rear Zone Status 2. Gap to Enter 3. Open Turning Path 4. See when Light Changes to yellow
			4. ABC's of Zone Control: A = Alert Switch On, FIND LOS-POT
			5. ABC's of Zone Control: B = Before Acting Check Rear Zone, Check Opposite the Zone Change, Check for an Alternate Path of Travel
			6. ABC's of Zone Control: C = Create Control, Get best Speed Control, Lane Position, Communication
			7. Evaluate Need for making a Lane Changes
			8. Make Precision Lane Change using Lane Positions
			9. Time Lane Changes into Open Side Zones
			10. Practice Perpendicular Parking, use Guide 23, page 33

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Driving Environment: Use residential roadways, rural two and four lanes, urban areas, and State highways with two to six lanes of traffic. For practice of Guide 23 use a lightly used parking lot. Use a parking space with cars to both sides. With only one car to park next to, let it be on the passenger side.

NOTES

1st Date _____ 2nd Date _____ 3rd Date _____

Signed _____ Signed _____ Signed _____