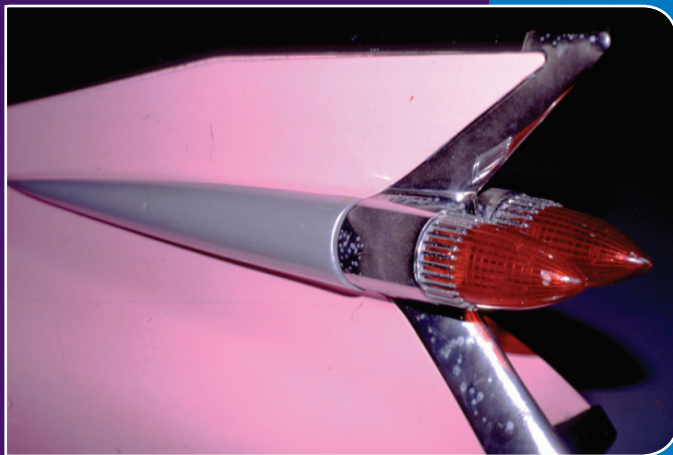
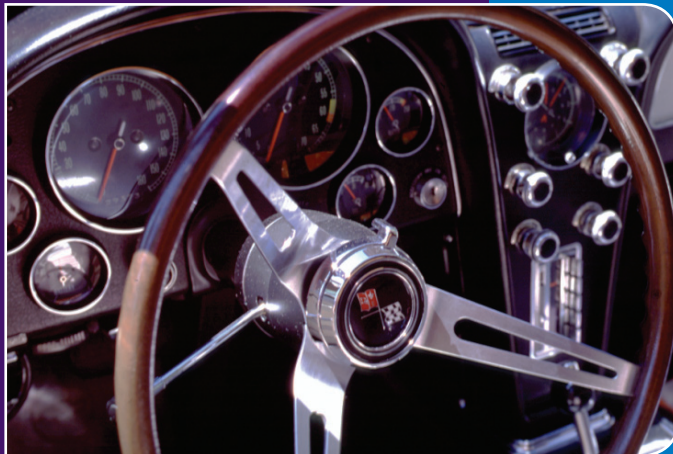


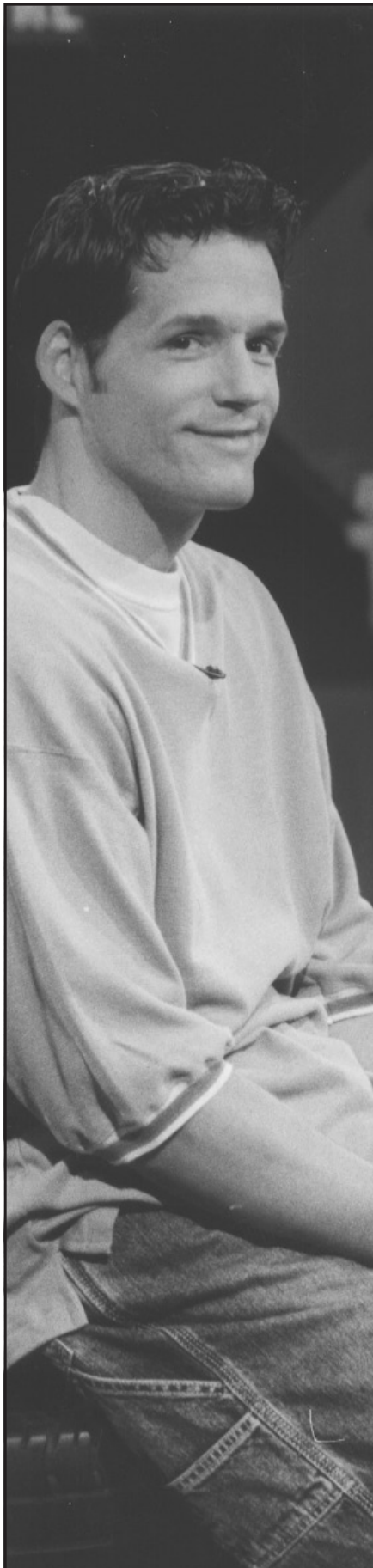
**NEW!**

# STREET SKILLS

## Learner's Guide



**KET**



## **Street Skills Production Team**

**Producer/Director:** Janet Whitaker

**Associate Producer:** Bob Booth

**Host:** Josh Hopkins

**Writer:** Ira Simmons

**Principal Videographer:** Frank Simkonis

**Videotape Editor:** Esther Reed

**Sound Design:** Chuck Burgess

**Executive Producer:** Liz Hobson

Produced through the facilities of KET,  
The Kentucky Network

## **Production Task Force**

Keith Broughton  
Kentucky State Police, Versailles, KY

Steve Coffey  
Kentucky Division of Driver's Licensing,  
Frankfort, KY

Trooper John Giles  
Kentucky State Police, Frankfort, KY

Gary Holobek  
Driver Education Teacher  
Jessamine County High School,  
Nicholasville, KY

Dennis Jones  
Eastern Kentucky University  
Traffic Safety Institute, Richmond, KY

Ray Ochs  
Eastern Kentucky University  
Traffic Safety Institute, Richmond, KY

Sgt. Steve O'Daniel  
Kentucky State Police, Frankfort, KY

Edwin Roe  
Driver Education Teacher  
Carroll County High School,  
Carrollton, KY

Art Sciubba  
Driver Education Teacher  
Greenwood School, Bowling Green, KY

Jim Starks  
Kentucky State Police, Versailles, KY

Doug Wesley  
Driver Education Teacher  
Boyle County High School, Danville, KY

## **Teacher's Guide**

**Writer:** Ira Simmons

**Editor:** Margaret Norman

**Design/Layout:** John Dawahare

**Photos:** David Crawford

© 1998, KET Foundation, Inc.

ISBN 1-881020-32-0

## **Teacher's Guide Task Force**

Lisa Caudill  
Driver Education Teacher  
Madison Southern High School  
Berea, KY

Diane Culbertson  
Library Media Specialist  
Paul Laurence Dunbar High School,  
Lexington, KY

Gina Fultz  
Guidance Counselor  
Madison Southern High School,  
Berea, KY

Ken Gibson  
Kentucky Department of Education,  
Frankfort, KY

Tom Smith  
Driver Education Teacher  
Corbin High School, Corbin, KY

Doug Wesley  
Driver Education Teacher  
Boyd County High School, Danville, KY

## **"Distracted Driving" Credits: Video, Web Site, and DVD**

**Executive Producer:** Nancy Carpenter  
**Producer/Director/Editor:** Esther  
Tattershall

**Associate Producer:** Janet Whitaker  
**Content Advisor/Writer:** Mary Duncan  
**Writer/Editor:** Margaret Townsley

**Videographer:** Frank Simkonis  
**Sound Design/Audio Post:** Chuck  
Burgess

**Graphic Design:** Clark Bradshaw,  
John Dawahare

**Graphics Associate Producer:** Allison  
NeCamp

**Web Design:** Cynthia Lowell

**Web Content:** Charles Hamilton, Allison  
NeCamp, Esther Tattershall, Margaret  
Townsley, Janet Whitaker, & Mary  
Duncan

**DVD Design:** Matt Crum

**Camera Assistant:** Jason Robinson

## **Special Thanks**

Carnegie Mellon University  
Kentucky Office of Highway Safety  
Virginia Polytechnic Institute and  
State University

Ben Allen  
Charles Hamilton  
Jodi Jasper  
Rachel Murphy

# Table of Contents

## Program 1: The Art of Driving

Summary .....	4
Segments:	
• Introduction .....	4
• The Driver .....	4
• The Car .....	4
• The Road .....	4
• Rules of the Road .....	5

## Program 2: Nature's Laws

Summary .....	6
Segments:	
• Physics and Physiology .....	6
• How Quickly Can You Stop Your Car? .....	6
• Collisions.....	6
• Curves.....	8
• Weight.....	8
• The Living Machine.....	8
• The Dangers of Texting and Driving.....	9
• Alcohol and Drugs.....	9

## Program 3: The Car

Summary .....	9
Segments:	
• Maintenance .....	9
• Tires.....	9
• Blow-Outs .....	9
• The Battery .....	9
• Brakes .....	10
• Engine Problems .....	10

## Program 4: The Road

Summary .....	11
Segments:	
• The Law .....	11
• The Road .....	11
• Rural Roads.....	11
• Over-Correcting .....	11
• Expressways .....	11
• Night Driving .....	12
• Hydroplaning .....	12
Parent-Teen Driving Contract (courtesy AAA) .....	13

Be sure to visit the Street Skills Web site: [ket.org/streetskills](http://ket.org/streetskills)



## Introduction

Traffic crashes are the leading cause of death for teenagers, claiming twice as many lives as homicides and nearly three times as many as suicides. Most fatal crashes result from drivers' mistakes—from carelessness and poor judgment. And many could be prevented.

The goal of KET's four-part *Street Skills* video series is to make teens better drivers by changing their attitudes about driving. The series helps to make them more thoughtful drivers, more aware of dangers, and more capable of avoiding mishaps.

*Street Skills* uses the strengths of the television medium—its lifelike immediacy, its ability to zoom in close and to stop action—to give teens new perspectives on driving. The series breaks the act of driving into its separate components in order to place driving within a psychological, social, and cultural context.

# Program 1

## The Art of Driving

### Summary

This program is an introduction to driving, from the rules of the road to the mystique of the automobile in American society. It examines the three components of driving—driver, car, and road—and provides an overview of basic themes that are elaborated upon in later programs in the series.

### Content and Themes

#### Introduction

We meet Josh Hopkins as he sips a mug of coffee at a roadside cafe. After heading down the open highway, the program quickly introduces the serious side of driving by making an important statistical point: **Given the number of cars on the road and the number of hours spent driving, it's highly probable that each driver will eventually encounter a dangerous situation.**

This idea is repeated throughout the series. "The road is full of surprises," says Hopkins. "Odds are, you will eventually meet the unexpected."

The program then draws on the knowledge of experts to help prepare for the unexpected. The introduction of experts is reassuring; it tells viewers they are not alone in facing driving dangers. The knowledge shared by these driving mentors, combined with experience, will help young drivers learn to avoid trouble.

"Driving is an art," says Hopkins. "Like any art, it takes time to learn. But driving also has a lot of rules you have to know."

The program then breaks driving down into its three components: the driver, the car, and the road. Special emphasis is given to the driver in this first program.

#### The Driver

This section begins with a quick succession of facts about drivers, young and old, new and experienced:

- Traffic crashes are the leading cause of death for young people 15 to 24 years old.
- Most traffic crashes are caused by drivers' mistakes and carelessness, not mechanical or structural failures or violent weather.
- Drivers can prevent problems more easily than they can get out of trouble once they're in a dangerous situation—slowing down makes it easier to prevent problems.

- Drivers are not well protected by their vehicles.
- Drivers are affected psychologically by driving.

The program discusses at length the psychological component of driving. Cars can be potent symbols of status and power, and driving is an important means of self-expression. The physical and psychological isolation of drivers in their vehicles encourages them to "act out" while driving, to vent their anger and frustration when behind the wheel.

This psychological element underscores the need to adopt a defensive mindset while driving. "Before you start driving, be aware of how you feel," says Hopkins. "And get the right attitude. When you see other drivers out on the road, always expect the worst. Never assume another driver will do what's logical, safe, or even smart."

The principal element in defensive driving is watching your speed. The faster you're going, the less time you'll have to react to problems. Speed is the main factor in the severity of crashes. These driving truths are repeated throughout the series.

**The higher the speed, the more likely a crash will occur; the higher the speed, the more likely injuries will be serious.**

#### The Car

This section makes clear that regular maintenance and a thorough knowledge of the owner's manual are the best ways to avoid serious mechanical problems with vehicles. If you "look in the book" and take time to read the owner's manual, says the mechanic, you can save yourself a lot of trouble.

Restrictions on driver visibility are discussed.

**Blind spots** are gaps in the driver's vision.

**Blind spots on either side of the car can be eliminated only by turning the head. Drivers should never rely only on mirrors.**

Drivers should also be especially careful of children and people in wheelchairs because they are below the normal line of vision. People riding bicycles and motorcycles are also easily lost in blind spots.

With experience, drivers develop a sense of the space surrounding their vehicles. This sense of space is the foundation of basic driving maneuvers like backing, turning, and parallel parking.

#### The Road

This section emphasizes elements of communication in driving. The road is always "talking to you" with traffic signs, lights, and painted lines. As you drive, you should be "talking to yourself," constantly scanning the road ahead, evaluating what you see, and reacting appropriately. You're also "talking to other vehicles" on the road—signaling turns and other maneuvers well in advance, so that no one will be surprised by anything you do.

Speed limits are discussed and defined. Limits are not there to frustrate you, says Hopkins, but represent the maximum speed you can go on a given stretch of road and still get yourself out of trouble if something unexpected happens.

Drivers' behavior at *yellow lights* is discussed in detail (1.5 minutes) because this is one of those areas of driving that rely heavily on the judgment of each driver.

The purpose of the yellow light is to clear the intersection in anticipation of a red light. Drivers already in the intersection should continue on through when the yellow light appears, but drivers who have not reached the intersection should slow to a stop when they see yellow. Unfortunately, many drivers interpret the yellow light as a "Speed up" rather than a "Slow down" sign.

As accident footage makes clear, drivers and passengers are especially vulnerable in the side collisions that occur in intersections. So it's important to remember this driving truth:

**Rushing through yellow lights is a major cause of collisions.**

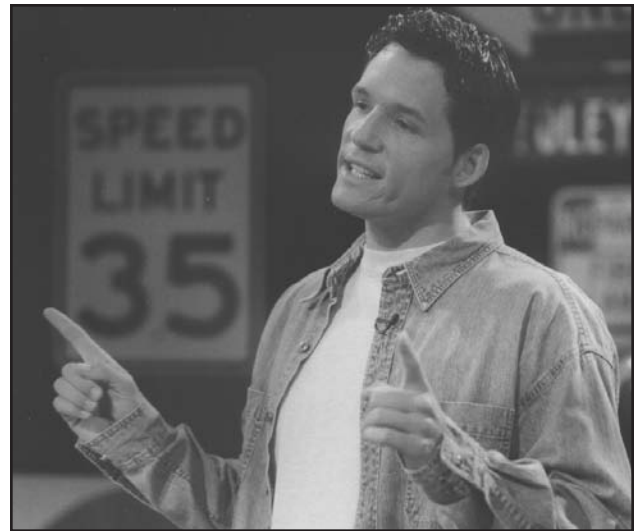
### ***Rules of the Road***

This goes over the basic rules for *right of way*. It includes an interview with a paramedic and a documentary segment taped inside a speeding ambulance to let viewers see what goes on in ambulances. This sequence underscores the reasons drivers must pull over to yield the right of way to ambulances and other emergency vehicles.

Merging into expressway traffic is another driving area that calls for a good deal of individual judgment, and it receives an extensive discussion as part of the rules of the road section. Documentary and animated footage illustrate the proper way to enter the acceleration lane, then gradually build up speed as you look for a gap in the traffic.

The need for showing courtesy in this situation is emphasized—for both merging drivers and drivers already on the expressway. "Give 'em a break," Hopkins advises. "Be respectful. It goes a long way in driving."

**Simple acts of driving courtesy help to create a reciprocal community of good feeling on the road.**



# Program 2

## Nature's Laws

This program focuses on the physical and biological forces that affect driving—the roles of speed, gravity, and friction in vehicle handling and the effects of fatigue, distractions, alcohol, and drugs on the driver.

### Content and Themes

#### Physics and Physiology

Host Josh Hopkins begins the program with a provocative question: How are you at physics and biology? You might be able to ignore these subjects in school, but science and the laws of nature cannot be overruled when you drive.

For example, take the simple and essential act of stopping your car. With the help of a neurologist, we follow an image of danger on the road as it ricochets back and forth in the brain and watch as the brain sends a message along the nerves to the foot, which then hits the brake pedal. The whole process amounts to a *reaction time* of three-fourths of a second (under normal conditions).

That doesn't sound like much time. But as our physics teacher points out, a car going 20 mph can travel about 22 feet in that three-fourths of a second before the foot ever touches the brake. That's roughly equivalent to three spaces in a parking lot. The physics teacher adds that under normal conditions (a dry road surface and good tires), the car being braked will travel *another* 20 feet before it comes to a stop; this is known as the *braking distance*. The total *stopping distance* is the sum of the reaction distance and the braking distance. For a car going 20 mph, it will be about 42 feet, or five parking spaces.

The physics teacher then describes the dramatic effects of increasing speed. If the speed in our example is doubled to 40 mph, the car will of course travel twice as far—or 44 feet—in the same three-fourths of a second it takes the driver to react. But the *braking* distance will not just double, as is

commonly thought, but will increase according to the *square* of the number of times you increased the speed. Since you multiplied the speed by 2, you have to square 2 (multiply it by itself). Two squared times 20 feet—or  $4 \times 20$  feet—equals a braking distance of 80 feet. Therefore, the total stopping distance will be around 124 feet.

If the speed is tripled to 60 mph, the reaction distance will triple, to 66 feet. The braking distance will equal three *squared* times 20 feet or  $9 \times 20$  feet—180 feet. The total stopping distance, then, will equal 246 feet.

**Because of the distances required to react to problems and to stop, it's important to keep plenty of space between you and other vehicles.**

Drivers should stay a minimum of three seconds

### When you increase your speed, the math gets a little tricky.

If you're driving 20 mph, you'll travel 22 feet (the *reaction distance*) between the time your brain registers that you need to stop and the time your foot hits the brake. You'll travel another 20 feet (the braking distance) before your vehicle comes to a complete stop.

To find out your stopping distance at 40 mph (2 times 20 mph):

- |   |                        |
|---|------------------------|
| 1. Multiply the reaction distance by 2 (since you're going $2 \times 20$ mph)             | $22 \times 2 = 44$ ft. |
| 2. Multiply the braking distance by the square of the increase (2 times itself or $2^2$ ) | $20 \times 4 = 80$ ft. |

**Stopping distance at 40 mph**

**124 ft.\***

To find out your stopping distance at 60 mph (3 times 20 mph):

- |   |                         |
|---|-------------------------|
| 1. Multiply the reaction distance by 3 (since you're going $3 \times 20$ mph)             | $22 \times 3 = 66$ ft.  |
| 2. Multiply the braking distance by the square of the increase (3 times itself or $3^2$ ) | $20 \times 9 = 180$ ft. |

**Stopping distance at 60 mph**

**246 ft.\***

\* with good tires on a dry road

behind other vehicles in normal driving conditions, and a minimum of four seconds behind at night or in rain or snow.

To check yourself, note when the vehicle in front of you passes a landmark (a sign, an overpass, etc.) and then count the seconds until your vehicle reaches the landmark.

As the driving expert points out, these are *minimum* recommended distances. Given the speeds vehicles are capable of reaching and the potential of highway miscalculations and mishaps, there is no maximum recommended distance.

### Collisions

The grim calculations we encountered in the discussion of speed also hold true for collisions. A vehicle that crashes into a solid object at 40 mph doesn't strike with just twice the energy of a vehicle going 20 mph. Its energy is twice *squared*, or *four times*, that of the slower vehicle.

With the help of experts, this section analyzes



## Think you can stop on a dime? Think again!

### Distance Traveled

#### In a school zone:

You're driving at 20 mph. A student steps out into the road ahead of you.

Your brain sends a message to your foot. You apply the brake.

Reaction distance under normal conditions 22 feet

Braking distance under normal conditions 20 feet

Total stopping distance under normal conditions 42 feet

[reaction distance + braking distance = stopping distance]



#### On a country road:

You're driving at 40 mph. A dog wanders out into the road ahead of you.

Your brain sends a message to your foot. You apply the brake.

Reaction distance under normal conditions 44 feet

Braking distance under normal conditions 80 feet

Total stopping distance under normal conditions 124 feet



#### On an interstate highway:

You're driving at 60 mph. The car in front of you blows a tire.

Your brain sends a message to your foot. You apply the brake.

Reaction distance under normal conditions 66 feet

Braking distance under normal conditions 180 feet

Total stopping distance under normal conditions 246 feet



**Note:** Weather makes the stopping distances even greater. At 20 mph, the braking distance with good tires on a dry road is about 20 feet.

On a rain-covered road, that distance increases by a third, to 26 feet. On snow, the distance triples to 60 feet; on ice, it balloons to 150 feet.

## Curves

The discussion of highway curves is important because it underscores how high speed can overwhelm the centripetal force (created by the friction of the tires) that allows the car to maintain its turning course. The message of the physics teacher's classroom demonstration is clear:

**Always reduce speed well before entering a curve.**

The key word is *before*: Hitting the brake when you're already in a curve can result in a skid. This message is repeated and elaborated on in Program 4.

## Weight

The heavier the vehicle, the greater energy it will bring to a collision. For that reason, this section focuses on the dangers posed by trucks, the "heavyweight champs" of the highway. An expert on trucks takes us inside a truck cab to show how truck drivers are hampered by a lack of vis-

ibility and by the sheer bulk of their rigs. Trucks lack maneuverability and cannot brake quickly, and they happen to be strong where cars collide with them. Therefore:

**Give trucks plenty of room, and be especially careful when passing or following them.**

## The Living Machine

Hopkins begins this section by suggesting that you think of your car as a machine hooked up to a living machine, the human body.

Like cars, each person's body has its individual quirks and weaknesses, such as nearsightedness, color blindness, or hearing loss. Having your eyes "zapped" by bright headlights while driving at night is an example of how vulnerable the living machine can be. (Faced with this situation, drivers are advised to look to the side of the road until the lights pass.)

The living machine's performance is also affected by emotion. The distracting influences of anger, frustration, or fun-filled fantasies keep drivers from giving their full attention to driving.

**Excesses of emotion—both negative and positive—are dangerous factors in driving.**

what happens in a crash. Essentially, three successive collisions occur. The first involves the vehicle, the second its occupants, and the third the internal organs of the occupants.

When a vehicle stops suddenly, the people inside the vehicle continue moving at the former speed. If not restrained by seatbelts or airbags, they crash into dashboards or through windshields.

Even after the body itself has stopped, the organs inside it continue moving at the former speed. When they are finally stopped, tissues can be torn, causing massive bleeding. (In a common occurrence with high-speed crashes, the aorta, the large artery that feeds the heart, is torn away from the heart.)

"It's the sudden *stop* that is fatal to human beings," concludes a state medical examiner. "Our tissues cannot stop at certain rates of speed without exceeding the way we're put together."

The rate of injury increases by 300 percent if you are thrown from your car in a crash. To reduce injuries, **all occupants of a vehicle should be properly secured by seatbelts or by infant car seats. The presence of airbags in a vehicle should never be considered a substitute for using seatbelts.**

## ***The Dangers of Texting and Driving***

Approximately 90 percent of crashes among 16- to 21-year-olds result from driver inattention—in other words, distracted driving. Those distractions include anything that takes your attention off the road—eating, adjusting controls on the dash, or talking on a cell phone. You may think that everyone does it, so why shouldn't you? But that's risky thinking.

Texting while driving is particularly dangerous. The likelihood of an accident increases by 23 times when you text and drive. Texting requires you to look down and away from the road for several seconds. That may sound minor, but consider this: At 60 mph, a car takes just one second to travel 80 feet.

As one of the experts in this segment says, "In driving, vision is king. If your eyes are diverted, especially for four or five seconds, you're asking for trouble."

Brain research offers another reason to avoid distracted driving. You may be great at multitasking, but that doesn't mean you can do two things at once and give both your full attention. Researchers have learned that your brain automatically responds to outside stimuli, whether you want it to or not. When someone talks to you—whether that person is in the car or on the phone—your ability to concentrate on driving decreases by a whopping 37 percent.

The important thing to remember is this:

**Any distraction will make you lose focus. And when the thing you're not focused on is driving, the results can be deadly.**

## ***Alcohol and Drugs***

Drugs, legal and illegal—including ethyl alcohol in all of its forms—dull perceptions, slow reflexes, and cloud judgment. This section emphasizes the effects of alcohol because of its prominence in traffic accidents. The use of alcohol is a major factor in nearly half of all traffic deaths, and 20 percent of drivers 16 through 20 who are involved in fatal crashes are legally intoxicated. For drivers 21 through 24, the number jumps to 40 percent.

This segment makes clear that *consuming alcohol has a cumulative effect*. It takes one hour for the body to eliminate the amount of alcohol contained in just one cocktail, one mug of beer, or one glass of wine. Nothing will speed up that process, and each additional dose of alcohol adds another hour to the time required to clear the body of alcohol. So the body of a person who has consumed five drinks will require five hours to get rid of the alcohol.

The effects of alcohol begin almost immediately, because alcohol is quickly absorbed into the bloodstream. "Their confidence level goes up," says one expert on drinkers who drive, "but their skill level

goes down."

For teens, alcohol use is bound up with issues of peer pressure and group acceptance. But as Hopkins makes clear, you have to buck the pressure to drink and drive—and you must help your friends do the same.

As complicated as social situations can be, the rule is simple:

**Never drive when you've had any alcohol, and never let a friend drive under its influence.**



# Program 3

## The Car

### Summary

This program discusses the most dangerous things that can go wrong with the thousands of parts that make up an automobile. It shows what the driver can do when things go wrong, and it stresses the importance of regular maintenance.

### Content and Themes

The underlying theme of this program is the need to understand your car and to know what it needs to operate smoothly. Getting to know your car requires no great mechanical genius. It simply means reading the owner's manual and taking the car in for regular maintenance.

"You have to know the vehicle you're riding in," Hopkins says. "Pilots are required to know their planes and sailors their boats, but a driver can get a license and get on the road and know virtually nothing about the vehicle he's driving."

### Maintenance

Our mechanic recommends an *oil change* every three months or 3,000 miles. Oil is essential to keeping an engine working safely and efficiently.

Beyond that, each oil change gives the mechanic a chance to look at other key areas under the hood. This means checking on the car's *radiator coolant*, the *battery fluid*, the *brake fluid*, the *power steering fluid*, and the reservoir for *anti-lock brake fluid* (if applicable). It's also a good idea to have the *transmission fluid* checked. The *air filter* should be checked, too—and changed every 6,000 miles.

It's also important to check your *windshield washer fluid* and to monitor the rubber inserts of *windshield-wiper blades*. When they wear out, you won't have the visibility you want when you need it most.

You should also regularly take time to check your tires. Our mechanic discusses the *wear indicators* in the tread grooves of tires. When the tread becomes so worn down that it's level with the wear indicators, it's time to get new tires.

**Regular vehicle maintenance heads off big problems before they occur and enhances the safety of your vehicle.**

Once again, the significance of communication in driving is underscored. The driver has to pay attention to the vehicle—watch its gauges and look for wear and tear. Your car, says Hopkins, "is giving you messages all the time."

### Tires

This section elaborates on the importance of tires. They are the most vulnerable parts of the car, and the only parts that touch the road surface—which makes them essential for vehicle control.

Drivers should pamper their tires as much as possible, avoiding potholes, bumps, and sudden stops. Check your *air pressure* once a month. How much air should you have in your tires? Looking at your tires is the simplest and best way to find out. The pressure should be exactly what the number on the side of the tire says it should be. Too much or too little air can reduce control and gas mileage, as well as the life of your tires.

Every 6,000 miles, go to a garage and have the tires rotated and balanced. Read over the section of your owner's manual about changing tires, so you'll know what to do when you have a flat.

**Tires are the "Achilles heel" of every vehicle—the part of the vehicle most likely to fail. Keep them well maintained.**

### Blow-Outs

A *blow-out*, or the sudden loss of air from a tire, can create a dangerous situation. A blow-out on a front tire will cause the vehicle to swerve in the direction of the flat. A blow-out on the left front tire is especially dangerous because it can pull the vehicle into oncoming traffic. Always steer firmly away from the flat, in the direction you want to go.

A blow-out on a rear tire can cause the vehicle to sway from side to side in a "fishtailing" motion. Steer in the direction you want to go, and the car should straighten up.

**When a blow-out occurs, don't panic. Stay off the brake and ease off the accelerator; if cruise control is engaged, turn it off first. Steer firmly away from the flat, in the direction you want to go. Check your mirrors, make your signals, and slowly get off the road.**

Changing a tire is not a complicated procedure if the driver has taken time to read the owner's manual for the vehicle and to make sure that all the necessary equipment is on board. When changing a tire, put on your flashers so other cars can see you.

### The Battery

Our expert shows how to use jumper cables to charge a battery once it has run down.

Pull a car with a good battery close enough so the cables will reach from one battery to the other, but not so close that the two cars touch. Locate the positive [+] and negative [-] terminals on both batteries. Remove the terminal covers, if necessary. If the batteries have vent caps, lift the caps and cover the

batteries with rags so you won't get splashed with battery acid.

Sequence is critical here! First hook up the red (positive) cable to the positive terminal of the good battery, then attach the other end of the red cable to the positive terminal of the dead battery. Then attach the black (negative) cable to the negative terminal on the good battery. *Do not* attach the other end of the black cable to the bad battery. Instead, attach it to a metal part of the frame (making sure the cable doesn't touch any loose or moving parts of the engine).

Start the engine of the car with the good battery and run at a fast idle. Then start the other car and let it run for a few minutes before disconnecting the cables.

## Brakes

It's important to know whether the car you're driving has manual, power-assisted, or anti-lock brakes.

**Anti-lock brakes** are designed to let you keep steering moderately even after you've applied your brakes suddenly. (Conventional brakes can lock up, causing the tires to lose traction and sending the car into a skid.) Some drivers panic and stop braking when they hear the thumping sound anti-lock brakes make. Others incorrectly pump anti-lock brakes, when they should apply full, steady pressure.

If you apply anti-lock brakes and start to skid, don't let up on your brakes. Continue braking and steer to get out of the way of danger. But if you go into a skid and you're not already braking, it's best not to apply your anti-lock brakes until you've regained control of the car.

If you do not have anti-lock brakes and you go into a skid, stay off the brake. Ease off the accelerator and steer smoothly in the direction you want to go.

The driver's steering should match the movement of each skidding motion. A sudden skid should be matched with a quick turn of the wheel; a more gradual skid should be matched with gentler steering.

Conventional disc brakes (not anti-lock brakes) work on the same principle as bicycle hand brakes and should be "squeezed" as you would squeeze a hand brake, never "pumped," as drivers were taught to do 30 years ago.

Brake failure is a serious matter. In the event of **brake fade**—the loss of braking power in overworked brakes—pull off the road and give your brakes a chance to recover. If your brakes fail completely, you can use the emergency brake as a brake pedal to slow the vehicle as you get to the side of the road.

## Engine Problems

An engine may **flood**, and fail to start, because its gas-to-air ratio has gotten out of balance. A strong smell of gas tells you this has happened. The driver has two choices. You can try starting by holding the gas pedal down *without pumping* while turning the key. Here's a second, probably smarter, option: Let the vehicle sit for an hour, and then try again.

Driving in hot weather can cause an engine to **overheat**. If your temperature gauge heads into the danger zone, you should take quick action. Though it won't do much for the driver's comfort level, rolling down the windows and turning on the heater full blast can give the engine relief until you can stop, let it cool, and check the radiator.

# Program 4

## The Road

### Summary

This program covers different kinds of driving environments and their special hazards. The impact of adverse weather conditions on driving is discussed in detail.

### Content and Themes

The deceptive and changing nature of the road is the central theme of the program. Drivers must be alert to changes and to the unique challenges of rural, expressway, and city driving. Drivers must also know how to cope when weather causes driving conditions to deteriorate.

### The Law

Driving occurs within a legal framework. This section tells the young driver what to do if stopped by police. Watching a stopped-car situation from the perspective of a state trooper, we learn that troopers tend to be most on edge when they leave their vehicles to approach a strange car. They feel more comfortable if they can see the hands of the driver and the passengers.

A lawyer also offers tips. The driver should stay calm; let the police officer control the situation. The driver is legally required to have along a *driver's license, proof of insurance*, and a copy of the vehicle's *registration*. While a copy of the title is not required, it's a good idea to have one in your glove compartment.

### The Road

This section illustrates how weather can affect driving by changing the road surface. At 20 mph, the braking distance with good tires on a dry road is about 20 feet. On a rain-covered road, that distance increases by a third, to 26 feet. On snow, the distance triples to 60 feet; on ice, it balloons to 150 feet.

A tire on ice is like a hockey puck, comments a hockey player—meaning it will go where force and gravity take it, not necessarily where the driver wants it to go.

**Reduce speed accordingly when the driving surface is affected by rain, snow, or ice.**

### Rural Roads

Two-lane country roads look peaceful, but they deserve special attention because they are the most

dangerous driving environment. That's mainly because of speed: Drivers tend to overestimate how fast they can go on these roads.

Rural roads also tend to be poorly marked, and collisions with cars merging from hidden side roads and with deer and other large animals are common hazards.

Drivers injured in crashes on rural roads also have a better chance of dying from their injuries because emergency help can be slow in arriving.

### Over-Correcting

While going down a rural road, a driver can grow careless and allow the car to drift off the road onto the gravel. Drifting onto gravel is a frequent cause of accidents that injure young drivers on country roads.

Having tires on two different road surfaces is an unsettling experience. When it happens, most inexperienced drivers panic and jerk the steering wheel hard to the left. This exaggerated movement, or *over-correction*, can easily pull the car across the road and into the path of oncoming traffic.

**If your vehicle drifts off the road, beware of over-correction. Gradually ease back onto the road with a smooth turn of the steering wheel.**

### Expressways

Statistically, four-lane highways are the safest roads; they're well marked and planned for efficiency. But drivers still have to be aware of their potential dangers, two of which are speed and monotony.

Speeds are higher on the expressways and interstates, which means less time to react to problems and more damage in collisions. Because of the higher speeds, no driver can afford to get lazy about the basics of driving—signaling, clearing away blind spots, and keeping plenty of space around you.

Be especially careful not to "bunch up" with other drivers in a group of cars moving at the same speed. Let the pack pass by in order to restore a safe distance between you and other vehicles.

Drivers on expressways can lose track of how fast they're going, and that can create dangers when they try to leave the expressway. Excessive speed on an exit ramp can result in loss of control.

Mile after mile, expressways can look very much the same, causing drivers to become overly relaxed, forgetful, and even drowsy. Dozing off at 60 mph can be fatal. Drivers should never push themselves when they sense that fatigue could be overtaking them. The smart choice is to look for a place to rest or sleep and pull over.

**On long trips, take regular "stretch" stops every couple of hours to reduce fatigue. Know your limits and don't try to push yourself.**

## ***Night Driving***

Darkness conceals road hazards, radically restricting the driver's ability to see well enough to make smart decisions. At night, all you can see of oncoming vehicles is their headlights, and your view of the road itself is restricted to the range of your own headlights. If speeds are too high, a vehicle can easily *outrun its headlights* and find itself in hazards the driver has too little time to avoid.

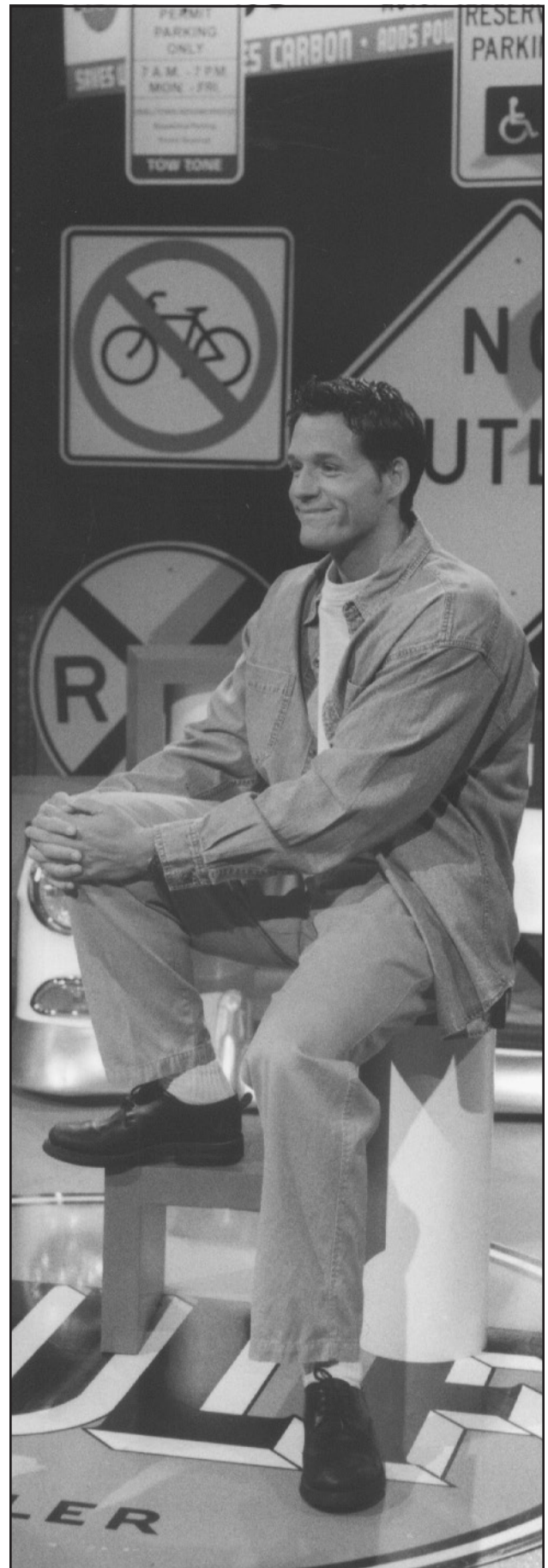
**Be aware of how much darkness reduces drivers' perceptions. Decrease your speed and increase your attention.**

## ***Hydroplaning***

When you see rain on the street, says Hopkins, "an alarm should go off in your head. When you see snow, a louder alarm should go off." The alarm signals that you need to reduce speed. If you ignore that alarm, you raise the risk of trouble.

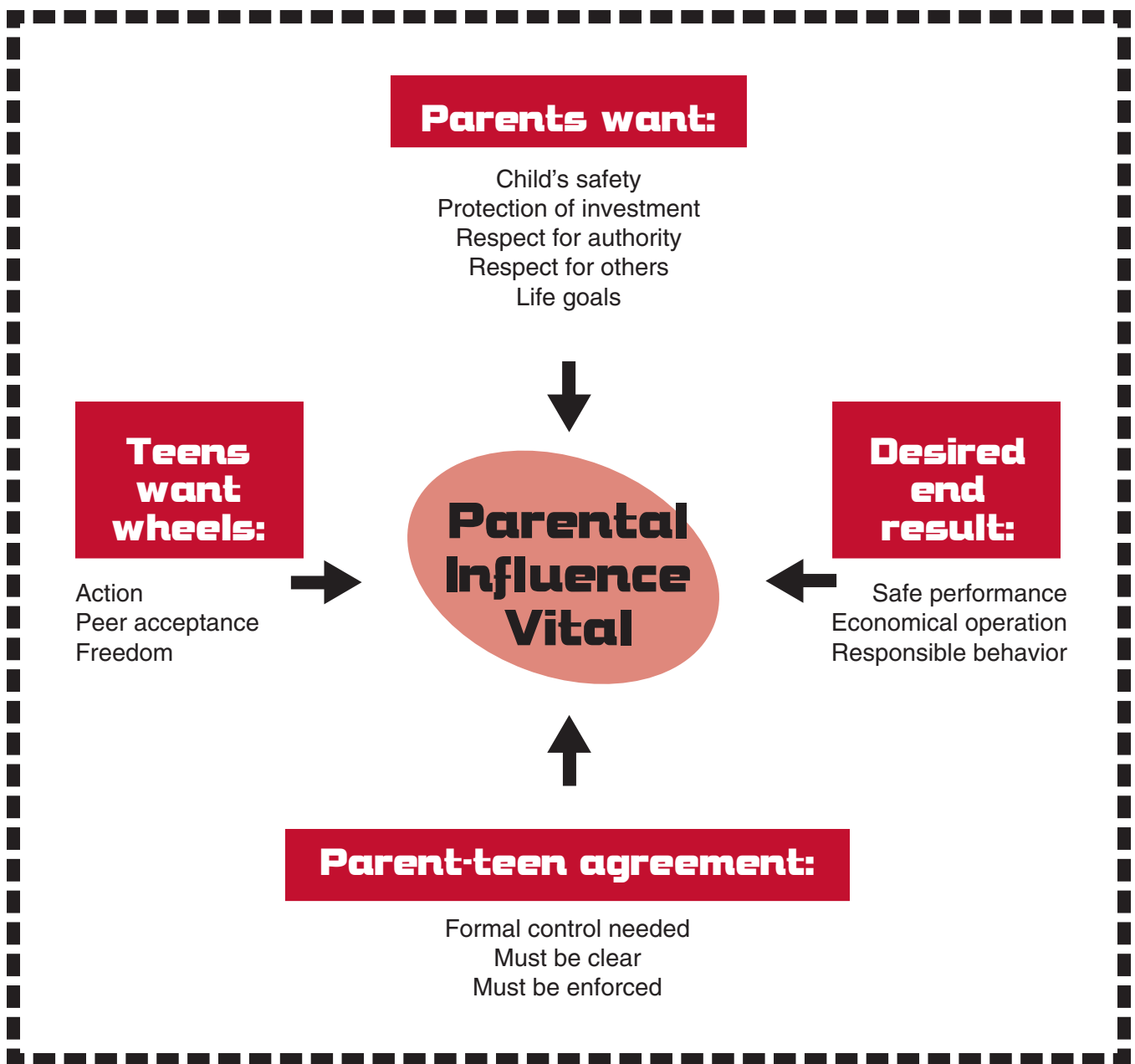
One serious result of excessive speed on a rain-covered road is *hydroplaning*—when the vehicle leaves the road surface and rides on the surface of the water.

The driver has *no control* in this situation. The only option is to stay off the gas, resist the temptation to hit the brake, and wait for the car to grip the road again.





# Teaching your teens to drive



# Parent's Guidelines for Implementing a Parent-Teen Car-Use Agreement

## 1. Be an example

- Behavior is learned, not innate.
- It is unreasonable to expect your child to behave differently than you do when driving or caring for a vehicle.
- If there are preteens in the family, prepare them to take responsibility as a part of growing up.

## 2. Be clear

- Go over the contract with your son or daughter.
- Fill in the blanks where applicable.
- Explain the regulations.
- Listen to your child's point of view.
- Link driving privileges to school performance and overall behavior. Emphasize consequences of failure to meet contract provisions.
- Emphasize that you will not accept irresponsible behavior.

## 3. Be positive and emphasize

- your concern for your child's safety and welfare.
- your hopes for your child's future.
- your expectations concerning responsible behavior.
- that driving is a privilege and a reward for responsible behavior.
- conservation of family resources as an important need.

## 4. Be vigilant

Let your child know that together you and he or she will be inspecting

- compliance with maintenance requirements.
- tires, for abusive use or inadequate pressure.
- fuel level and mileage, before and after the child uses the car.
- the vehicle, for damage.
- the vehicle, for clues to drinking or other drug abuse.

## 5. Be prompt

- Act promptly if there is an infraction of the agreement.
- The longer you wait to impose consequences, the weaker the link to behavior.
- Delaying can be perceived as a sign of weakness.

## 6. Be firm but gentle

- Let the contract do the talking.
- Express disappointment when rules are broken.
- Do not negotiate consequences for infractions.
- Be firm. Do not change your mind.
- Let your anger show, but do not allow it to take over.
- If your child is not accustomed to obeying regulations to the letter, he or she may protest loudly when sanctions are imposed. Do not cave in to the uproar.
- Avoid name calling. Your power lies in enforcement of the agreement.
- Loud accusations cause resentment and alienation.

## 7. Be consistent

- Punish each infraction the same way each time it occurs.
- Both parents must provide a united front on issues. Do not allow yourselves to be divided and conquered.
- Your credibility and the power of the agreement will be weakened if you are not consistent in your enforcement and application of consequences.

## 8. Be fair

- Get all the facts before you take action.
- Inform your child that other families are also using the parent-teen agreement and that he or she is not being singled out as an exception.

## 9. Be flexible

- Zero flexibility could lead your child to drive at breakneck speeds to meet deadlines.
- Be careful not to allow exceptions too frequently; otherwise, your exceptions become the rules, and your agreement loses its power.
- Beware of the tradeoff game: You deny the driving privilege on Friday night, but your child wants to trade for the following Friday instead.
- Avoid the negotiation game in which your child wants to bargain for extra miles or extra driving time.

## 10. Be in control: be alert for games

- On strike: "I won't study if you won't let me have the car."
- Nobody likes me: "This is the only way I can make it with the group."
- The tickets are bought: "Now you'll make all of us waste money."
- Nobody else can drive: "You're spoiling the fun for all of us."
- The excuse game: "We ran out of gas." "I had to take everybody home."

## 11. Be forgiving

- Your love must be unconditional.
- The contract provides for withholding privileges, not withholding love.

We, \_\_\_\_\_

hereby enter into an agreement covering the use and operation of any vehicle used by

**You Will Be Required To Pay for the Following** *(write in percentage desired):*

- |  |  |
|--|--|
| <input type="checkbox"/> Cost of vehicle             | <input type="checkbox"/> Vehicle registration            |
| <input type="checkbox"/> Cost of fuel                | <input type="checkbox"/> Maintenance costs               |
| <input type="checkbox"/> Damage due to abuse         | <input type="checkbox"/> Full insurance coverage         |
| <input type="checkbox"/> Under-25 insurance costs    | <input type="checkbox"/> Fines and penalties             |
| <input type="checkbox"/> Collision damage            | <input type="checkbox"/> Under-B-average insurance costs |
| <input type="checkbox"/> Costs due to driving record | <input type="checkbox"/> Other _____                     |

**You Will Be Responsible for the Following:**

- |   |  |
|---|--|
| <input type="checkbox"/> Check fluids each fuel fill            | <input type="checkbox"/> Inspect and check tire pressure |
| <input type="checkbox"/> Report unusual performance             | <input type="checkbox"/> Clear or clean all windows      |
| <input type="checkbox"/> Report when fuel is less than 1/4 tank | <input type="checkbox"/> Do normal maintenance           |
| <input type="checkbox"/> Wash and wax vehicle                   | <input type="checkbox"/> Keep interior clean             |
| <input type="checkbox"/> Have maintenance done                  | <input type="checkbox"/> Other _____                     |

**Your User Privilege Will Be Linked to Your Grades in School and Performance at Home:**

- Doing duties at home properly and on time.
- Showing proper respect for parents and others.
- Complying with family regulations.
- Attendance, conduct, and effort at school.

**The Maximum Number of Miles and the Maximum Number of Times**

**You May Drive Per Week are** *(related to grades):*

Grades:

- |   |   |   |
|---|---|---|
| A | <input type="checkbox"/> miles per week | <input type="checkbox"/> times per week |
| B | <input type="checkbox"/> miles per week | <input type="checkbox"/> times per week |
| C | <input type="checkbox"/> miles per week | <input type="checkbox"/> times per week |
| D | <input type="checkbox"/> miles per week | <input type="checkbox"/> times per week |
| F | <input type="checkbox"/> miles per week | <input type="checkbox"/> times per week |

**You Will Lose Your User Privileges These Numbers of Days for Each Traffic Offense or At-Fault Crash:**

- |                |                               |                   |                               |
|----------------|-------------------------------|-------------------|-------------------------------|
| First offense  | <input type="checkbox"/> days | Preventable crash | <input type="checkbox"/> days |
| Second offense | <input type="checkbox"/> days | Serious violation | <input type="checkbox"/> days |
| Third offense  | <input type="checkbox"/> days | Drugs or alcohol  | <input type="checkbox"/> days |

**You Will Be Required To Comply with the Following Regulations:**

- You will provide destination and time of return.
- Safety belt will be fastened at all times.
- Every passenger must wear a safety belt.
- No drugs or alcohol in the car.
- You may not lend the car or allow others to drive it.
- You will call if more than 30 minutes late.

**You Are Legally Responsible for Your Actions as a Driver.**

**We, as Vehicle Owners, Are Legally Liable for Damages Done by You as a Driver.**

Signed on the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

Parent \_\_\_\_\_ Parent \_\_\_\_\_

Son/Daughter \_\_\_\_\_



## Street Skills addresses the dangers of distracted driving

Texting is one of the greatest hazards facing teen drivers today. The DVD set that accompanies this learner's guide includes four 30-minute programs (*The Art of Driving, Nature's Laws, The Car, The Road*) on Disc 1 plus a second DVD with these bonus features:

- A 10-minute video on the dangers of texting and other distractions
- Survivor stories from teenagers involved in serious accidents caused by texting while driving
- An interactive quiz

*Learn more at [ket.org/streetskills](http://ket.org/streetskills).*



KET Enterprise • 560 Cooper Drive • Lexington, KY 40502 • 800.354.9067