

# DOCUMENT RESUME

ED 085 983

EC 061 004

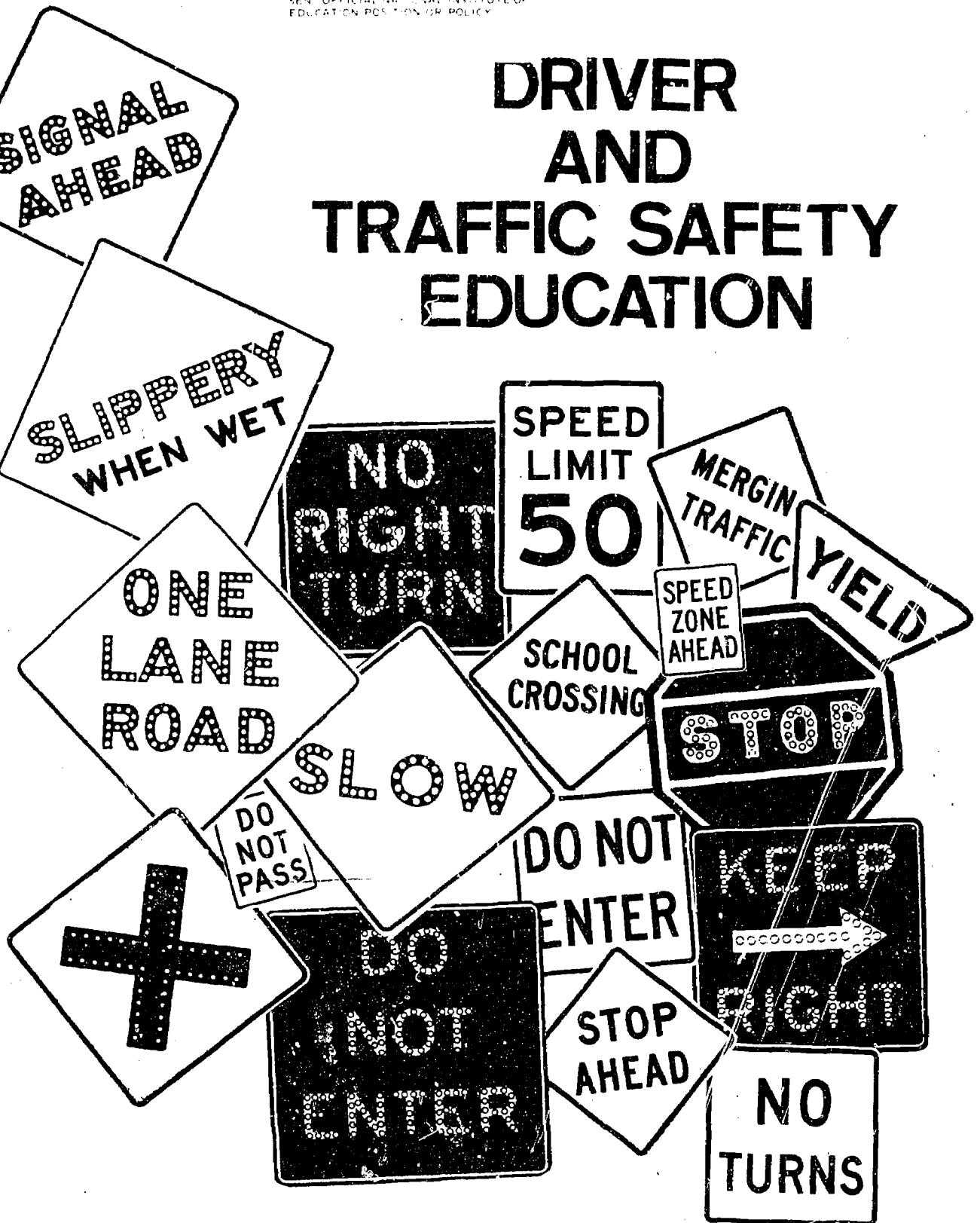
AUTHOR Latimer, Jonathan L.  
 TITLE Driver and Traffic Safety Education: A Lesson Plan for the Residents of Gracewood State School and Hospital.  
 INSTITUTION Gracewood State School and Hospital, Ga.  
 SPONS AGENCY Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C.  
 PUB DATE Oct 71  
 NOTE 141p.  
 EDRS PRICE MF-\$0.65 HC-\$6.58  
 DESCRIPTORS \*Driver Education; \*Educable Mentally Handicapped; \*Exceptional Child Education; Institutionalized (Persons); Mentally Handicapped; \*Safety Education; \*Teaching Guides  
 IDENTIFIERS Elementary Secondary Education Act Title 1; ESEA Title I

## ABSTRACT

Outlined is a course of driver education and traffic safety taught to retarded residents of a state institution. Stressed is the importance of driver education for residents able to leave the institution. The philosophy of the program is given to emphasize individualizing instruction, instructing students who possess the potential for driving, discouraging students who lack the ability to drive, and teaching appropriate pedestrian safety, vehicle passenger safety, and bicycle safety procedures. Recommended is a well qualified instructor and equipment such as the driving simulator, a car, and audiovisual aids. Differentiated are the three courses offered: the Advanced Course of Driver Education consisting of classroom discussion and drills, simulator instruction, and in-car driving experience; the Basic Course of Driver Education using the same material and equipment but slanted toward the negative aspects of driving to encourage students to decide against driving; and Pedestrian and Vehicle Passenger Safety for slower learning students. Noted is the addition of a class in bicycle and two-wheeler motor vehicle safety. Instruction is explained to involve from 30 to 60 hours of classroom instruction and 10 to 60 hours of in-car driving experience. The major portion of the document outlines the following topics: teaching methods, introduction of driver education to the students, the traffic accident, the driver, the car, the laws of nature and man, road signs, car nameuvers, driving in adverse conditions and emergencies, the driver's manual, and in-car driving. (DB)

# DRIVER AND TRAFFIC SAFETY EDUCATION

ED 085083



061004

DRIVER AND TRAFFIC SAFETY EDUCATION

A Lesson Plan  
For  
The Residents  
Of  
Gracewood State School and Hospital  
Funded By  
Title I, P.L. 89-313, ESEA

GRACEWOOD STATE SCHOOL AND HOSPITAL

GRACEWOOD, GEORGIA 30812

OCTOBER, 1971

## TABLE OF CONTENTS

	PAGE
INTRODUCTION . . . . .	1
TEACHING METHODS . . . . .	7
THE INTRODUCTION OF DRIVER EDUCATION TO THE STUDENTS . . . . .	13
THE TRAFFIC ACCIDENT . . . . .	22
THE DRIVER . . . . .	31
THE CAR . . . . .	51
THE LAWS OF NATURE AND MAN . . . . .	79
THE SIGNS . . . . .	89
THE MANEUVERS . . . . .	99
DRIVING IN ADVERSE CONDITIONS AND EMERGENCIES . . . . .	112
THE STATE'S DRIVER'S MANUAL . . . . .	123
THE ALLSTATE GOOD DRIVER TRAINERS . . . . .	124
IN-CAR DRIVING . . . . .	125
PEDESTRIAN, VEHICLE PASSENGER, AND BICYCLE SAFETY . . . . .	131
TRAFFIC KNOWLEDGE TEST . . . . .	136

## INTRODUCTION

The Gracewood State School and Hospital located seven miles south of Augusta, Georgia, is a residential institution for the mentally retarded with a population of approximately 1,750 residents. While many of these residents could possibly fall into the classic stereotype of the mentally retarded, many others do not. These institutionalized residents range from profoundly retarded to the mildly retarded. Many of the residents in the mildly retarded range are diagnosed as cultural familial. Cultural and educational deprivation have rendered them victims of a progression of failures. These deprivations include uneducated and poverty stricken families; being forced to work rather than go to school; progressive failure in school systems structured only to passers; broken homes; alcoholic parents; and criminogenic influences fostered by other deprivations.

Driver and Traffic Safety Education, sometimes shortened to Driver Education, does not denote a course designed only to teach students to drive. Instead, it embodies the total traffic safety concept of safe defensive driving, pedestrian safety, vehicle passenger safety, bicycle and two-wheeled motor vehicle safety, as well as a clear understanding of all the other forms of transportation.

The beginning of Driver Education at Gracewood can be traced back to the year of 1961. In that year, the Vocational Rehabilitation Department of the Georgia State Department of Education began a program designed to evaluate, train and place mildly retarded residents of the institution back into the community. It immediately became obvious that many of these individuals lacked necessary training in safety in general

and driver and traffic safety in particular. Without such training, community placement for many residents was impossible. )

In 1964, a driver education questionnaire was sent to all institutions throughout the United States and Canada seeking information on driver training courses. Of the 82 responses received, only a few reported any involvement in the area.

In 1967, Title I Funds of the Elementary and Secondary Education Act (P.L. 89-313), were used to begin a course of Driver Education at Gracewood. An evaluation of the institution revealed that there were a large number of residents who could benefit from such a course. It was also noted that tragically, many residents had already left the institution without benefit of the course.

Driver and Traffic Safety Education has undergone many changes since its conception in 1967. While aspects of the program that need improvement are constantly being discovered and while methods by which to make these improvements are constantly being explored, there is one basic fact that has not changed - Driver and Traffic Safety Education is a much needed program.

The philosophy behind the program at Gracewood is to constantly search for the needs of the individual, both directly and indirectly related to Driver Education and to alter the program to meet these needs. With this in mind, the major objectives of the program are: to teach those students possessing the potential for driving, how to become safe, defensive drivers; to discourage those students who lack the ability to drive from attempting to do so; to teach appropriate students pedestrian safety, vehicle passenger safety, and bicycle safety procedures; to help students gain a better understanding of the various forms of transportation; to improve the students reasoning and performance skills;

and to aid students personality development. By teaching capable students to drive, their vocational possibilities are greatly improved.

If the course of Driver and Traffic Safety Education is to be successful, teacher and equipment requirements must be met. At Gracewood, the instructor holds a degree in Psychology and has had additional training in teaching driver education, safety, and first aid.

The equipment and other teaching aids include a six car Link Driving Simulator laboratory, produced by the Singer Company, which includes a wide screen and 16mm color film movies produced by the Allstate Insurance Company. This simulation equipment helps prepare capable students for their actual behind-the-wheel driving experience, and helps less capable students gain a more realistic view of driving. Some driving experience can be studied and learned by use of the simulators that could not be learned in an actual driving situation. For example, it would be very dangerous to have someone suddenly step in front of the car to see if the student can and will stop in time. However, such situations as this are programed into the simulation equipment. Students lacking the ability to drive are allowed to satisfy their curiosity of driving within the safe confines of the classroom simulator; a curiosity which might otherwise find expression in a trial and error manner on the open road.

There must also be actual experiences gained in real situations. This would be largely impossible if it were not for Roberts Motor Company, the Plymouth-Chrysler Dealer in Augusta, which furnish a new car to Gracewood at the beginning of each new car year. The driver education car is used for behind-the-wheel driving experience and for providing concrete illustrations to class discussions. A great service is provided by the Seventh Region Jaycettes, who finance the insurance on the car.

Other equipment and teaching aids include an over-head projector and transparencies; a Traffic Illustration and Problem Board designed and constructed by the instructor; a printed and illustrated curriculum guide prepared by the instructor; a Driver Evaluator which tests students for field of vision, color vision, a distance judgement, and visual acuity; a Night Sight Meter, which tests students for glare vision, glare recovery, and night vision; a brake reaction time tester; a steadiness test; an engine cylinder model; a differential model; road signs; charts; posters; books; films; film strips; and the like.

The course of Driver and Traffic Safety Education at Gracewood is divided into three broad classes: the Advanced Course of Driver Education, the Basic Course of Driver Education, and Pedestrian and Vehicle Passenger Safety Education.

The Advanced Course of Driver Education is subdivided into three phases: classroom discussion and practice drills, simulator instruction, and in-car driving experience. Topics discussed in the classroom phase include a history of transportation, effects of the motor vehicle on our lives, the accident problem, what to do in case of an accident, carbon monoxide poisoning, alcohol-drugs and driving, the physical and mental makeup of a driver, how a car runs, taking care of a car, how to estimate the purchasing and operating cost of a car, laws and procedures of obtaining a license, road signs and street markings, rules of the road, how to spot hazards, lane driving, following and passing other cars, turning at intersections, expressway driving, pedestrians and pedestrian safety, parking, driving at night and in inclement weather, emergency reactions and car insurance.



The simulator laboratory phase is used to prepare capable students for their actual in-car driving experience. These students are taught the basic procedure skills for operating a car, how to spot and react to emergency situations, and how to improve their coordination and driving judgement/.

The final phase is the actual behind-the-wheel driving experience using the driver education car. For the first week the students drive on the campus of Gracewood. Here they practice the various driving skills. If they have done well up to this point, and if they have obtained a learner's license, they will receive practice driving in actual traffic situations.

At the end of the advanced phase, capable students will be able to pass the required tests for their operator's license.

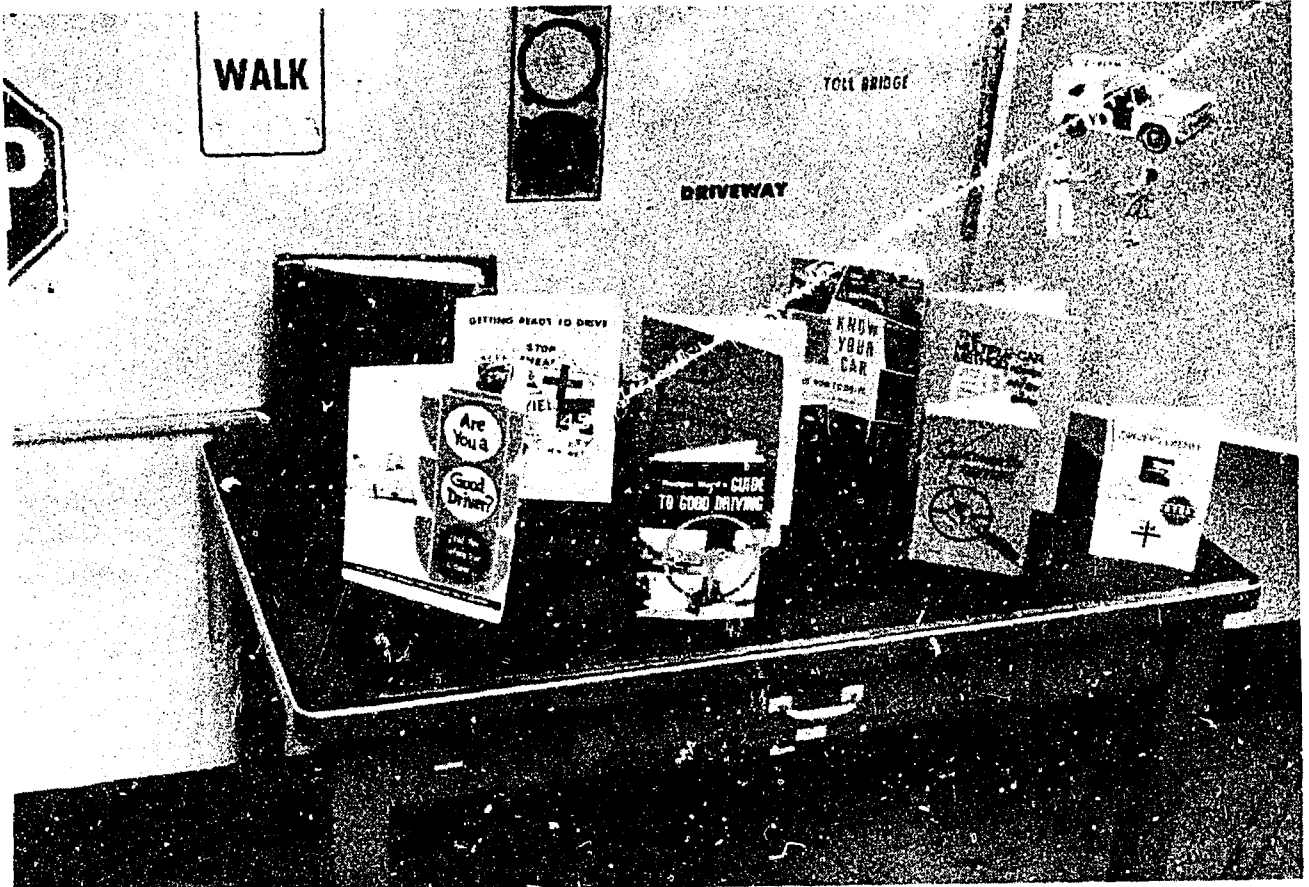
The Basic Course of Driver Education is designed for students who possess the ability to learn, but not to hold a license. This class uses the same material and equipment as the Advanced Class with the exception that the students are not allowed to drive on roads outside of the institution. This class is slanted toward the negative aspects of driving. Through this course it is hoped that the student will learn to evaluate his own driving ability correctly. The student is encouraged to learn as much as possible as an aid to his general education, but he is encouraged to decide against driving himself. He will be taught cheaper and safer means of transportation.

Pedestrian and Vehicle Passenger Safety is designed for the slower learning students. As the title of the course implies, these students learn and practice pedestrian and vehicle passenger safety procedures.

An additional class of Bicycle and Two-wheeler Motor Vehicle Safety Education is to begin this fall. This course is in the planning stage, but it is felt that it has great potential. To illustrate the importance of this course during the year 1969, 755 persons were killed and 120,000 to 150,000 suffered disabling injuries in bicycling accidents in the United States. Many residents of Gracewood who are not capable of owning or driving a car could own and safely handle a bicycle.

All classes vary in length according to the needs of the individual. The instructor teaches four, one and a half hour classes per day. Each class has a maximum enrollment of six students. The classroom phase of a course ranges from 30 to 60 hours of instruction, and the in-car driving experience averages from 10 to 60 hours depending on whether or not the student is able to drive outside of the institution.

References for



Driver Traffic Safety Education

Gracewood State School and Hospital

## TEACHING METHODS

Objective: To give suggested methods of teaching Driver and Traffic Safety Education.

### I. General Methods:

- A. Teaching methods for this lesson plan often accompany the material to be presented.
- B. When instructing a retarded child, do not think that you can get too elementary with your teaching methods. The more widely a topic is discussed the better the students will understand. Visual aids are a must and the more realistic the visual aid the better. Be careful to use vocabulary words that the students will understand. When using necessary vocabulary words such as, "prohibit" or "pedestrian" make sure the students understand the meaning.
- C. To create an air of informality, friendly conversation and just plain joking around is encouraged. However, in actual learning situations, the tone should be very serious stressing the hardness, complexity, and danger of driving.
- D. Never form unchangable judgements of a student's ability until he has completed all parts of the course.
- E. Remember, obtaining a driver's license is not the main goal of this course.
- F. Each student is an individual; what will work with one will not work for another.

- G. Any form of transportation requires the individual to learn or develop good attitudes, good habits, good skills, sound health, and sound knowledge. These are the basic factors in teaching Driver and Traffic Safety Education.
- H. Do not try to complete the course within a set time. Pace the class in accordance with the students' progress.
- I. When teaching students to perform a certain way, the instructor must set a good example or his teaching will be useless. In other words, he must practice what he preaches.
- J. Constructive self and group competition should be encouraged. However, this depends to a great extent on the individuals being taught.

## II. Methods for Teaching the Various Courses:

### A. Advanced Driver Education:

- 1. The teaching methods should be structured so that:
  - (a) Those students possessing the potentials for driving are taught how to become safe, defensive drivers.
  - (b) The students are taught new vocabulary words and they learn to apply other words to real situations.
  - (c) The students are helped to improve their personality by learning that there is a need for being cooperative, courteous, dependable, responsible, and agreeable toward driving and life in general.
  - (d) By participation in the program, a student has an opportunity to improve his reasoning ability, his coordination, his perceptual capacities, etc.

- (e) The high motivational value of the program is used to aid the students' general education.
  - (f) The students are helped to better evaluate their driving ability and themselves in general.
  - (g) The students will become more safety conscious in all areas of life.
2. All sections of this lesson plan should be covered. The depth of coverage depends on the needs of the individual.
3. Problems to be encountered:
- (a) Even at this level of ability, many students for some reason or other will be unable to perform well in all areas of the course. However, if the objectives of the course are followed, most students will benefit from it.
  - (b) Some students have mastered negative defense mechanisms so well that there is no way to help them learn to evaluate themselves and their driving ability correctly. However, even this evaluation of a student can help others plan his future needs.
  - (c) Since many students can not read, most learning must be done through the instructor during class time.
  - (d) By living in an institution, the students face certain handicaps over which they have no control.
  - (e) Students tend to demonstrate slower than average reaction time, poor distance judgement, less experience with driving, more distractability, more tenseness or "freezing up" in complex situations, less maturity and they may lack a sound social conscience.

(f) The institution can not or should not help capable students obtain a driver's license for the following reasons:

- (1) Insufficient time to teach a student to master driving; a task that may take months to accomplish.
- (2) Being institutional residents, the students have little chance to practice driving after obtaining a license. In the past, some students remained in the institution for as long as a year after obtaining a license without frequent driving experience.
- (3) The requirements for obtaining a license for institutional residents are extremely difficult to fulfill by persons other than parents or guardians.
- (4) Having a license with an institutional address may be mentally disturbing to some former residents.
- (5) Having to obtain a license on their own encourages students to learn more and to be more responsible adults.
- (6) Learning becomes the student's objective rather than getting a license while in the course.

B. Basic Driver Education:

1. The teaching methods should be structured so that:

- (a) Same as (B), (C), (D), (E), (F), (G), of advanced course.
- (b) Students lacking the necessary potentials for driving are discouraged from attempting to do so and they are helped to discover more suitable forms of transportation.

2. To teach the basic course:
  - (a) Cover all sections of this lesson plan except driving outside of the institution.
  - (b) The material should be slanted toward the negative aspects of driving.
  - (c) Less emphasis should be directed toward learning to drive and more emphasis should be directed toward helping the students learn to evaluate their own driving ability correctly.
  - (d) More emphasis should be directed toward other forms of transportation and to help students decide to substitute more suitable forms of transportation rather than driving a car.
3. Problems encountered in teaching this course are similar to those encountered in the advanced phase except that they are generally more severe.

C. Pedestrian, Vehicle Passenger, and Bicycle Safety Education:

1. This course is designed for students who encounter much learning difficulty.
2. The teaching methods should be structured so that:
  - (a) The students are helped to gain a general understanding of all forms of transportation.
  - (b) The students learn and practice correct pedestrian and vehicle passenger safety procedures.
  - (c) Those who are able, are correctly taught to ride and take care of a bicycle.



3. To teach this course:

- (a) Cover each section of this lesson plan very lightly and very basically.
- (b) Place more emphasis on material related to the above objectives.
- (c) Omit any section of this lesson plan that does not seem appropriate.

D. A given class should be comparable enough that one of the above approaches can be used for the entire class. However, due to individual differences that are likely to occur, the instructor may find it necessary to apply more than one of the above approaches to a given situation. In other words, some of the students in a class may benefit most from the advanced approach while others would benefit most from the basic approach. This can be done by:

- 1. Not only being concerned with class discussions as a whole but with the individual as well.
- 2. Making good use of situations or activities calling for a one-to-one student-teacher ratio.
- 3. By encouraging students to evaluate themselves and others in the class not in terms of failure but in terms of discovering one's true abilities and structuring his or her life style to fit this ability.

## THE INTRODUCTION OF DRIVER EDUCATION TO THE STUDENTS

Objective: To attempt to gain a good relationship with the students;  
to form a flexible pre-course evaluation of the students;  
and to help the students develop an understanding of the  
instructor, the course, and the motor vehicle.

- I. Get acquainted with the students:
  - A. Ask each student such information as, age, home town, past schooling, etc.
  - B. Discuss topics that appear to interest the students in a humorous, informal manner.
  - C. As a result of these discussions, it is hoped that the students will begin to ask questions, to answer questions without fear, to relate past experiences to the instructor and class, to respect the instructor as helpful, friendly, trustworthy, authority, etc.
- II. Describe the course contents and procedures to the students in order to give them the security of knowing where they are going, and where they have been.
- III. The pre-course evaluation procedure:
  - A. The instructor should obtain the following information from each student's personal file:
    - (1) Age, schooling, I.Q., etc.
    - (2) Evaluations by other authorities.
  - B. Give the following exercise to explore the student's knowledge of Driver and Traffic Safety Education:

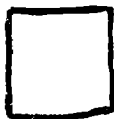
- (1) This exercise consists of true-false questions. Each question is read to the students, and they respond on an answer sheet.
- (2) The students should be told that this is an exercise, not a test.
- (3) The students should be given immediate feed-back of their performance on the exercise.
- (4) The students should be told how their score compares to the average score made on the exercise. They should be told that there is no passing or failing.
- (5) For those students who rate poorly on this exercise, an effort should be made to determine whether their poor showing is due to a lack of knowledge of the material or to a misunderstanding of the exercise procedure.
- (6) The exercise:

Note:

- (a) Ideas for this exercise were taken from John D. Wool's, Getting Ready to Drive; 1967.
- (b) Some of the questions were taken from the State of Georgia Driver's Manual.
- (c) Sign shapes should be drawn on the black board or placed on posters.

F

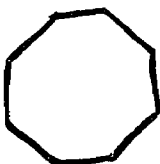
(1)





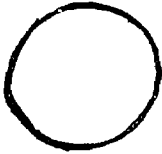
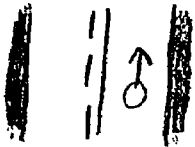
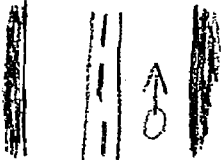
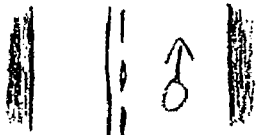
a traffic sign having this shape means to stop.

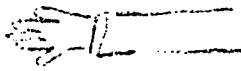

T

(2)



a traffic sign having this shape means to stop.

- T (3)  a traffic sign having this shape warns that curves, narrow bridges, intersections, or other similar hazards lay ahead.
- F (4)  a traffic sign having this shape warns that there is a railroad crossing ahead.
- T (5)  a traffic sign having this shape warns that there is a railroad crossing ahead.
- T (6) A flashing red traffic light means to stop and proceed when safe.
- F (7) It is not necessary to come to a complete stop at a stop sign, if no traffic is approaching.
- F (8) A flashing red traffic light means to slow down.
- F (9) At an intersection where a stop sign is posted, you may keep going as long as you slow down.
- T (10) A flashing yellow traffic light means to proceed with caution.
- T (11)  a driver can not pass in this situation if no one is coming in the opposite direction.
- F (12)  a driver can pass in this situation if no one is coming in the opposite direction.
- T (13)  a driver can pass in this situation if no one is coming in the opposite direction.

- T (14)  an arm held straight out is a signal to turn left.
- F (15)  this is a signal to slow down or stop.
- F (16) If you want to stop a car, you should press down on the gas pedal.
- T (17) The brake pedal is used to stop the car.
- T (18) Adding water to the radiator helps the engine run cooler.
- F (19) If you are driving a car with an automatic transmission, you should place the gear shift lever in "R" to go forward.
- T (20) Using an automatic transmission, you should place the gear shift lever in "P" before turning the car off.
- T (21) Using an automatic transmission, you should place the gear shift lever in "D" to go forward.
- T (22) Using electrical turn signals, you should push the turn signal arm down to signal left and push it up to signal right.
- F (23) If the needle on the gasoline gauge points toward "E", the car has plenty of gasoline.
- F (24) It is safe to drive 75 MPH on regular 2 lane highways.
- F (25) The law states that all vehicles should travel on the left side of the road.
- T (26) If you see a vehicle with a flashing red or blue light, siren blowing, or bell ringing, you should pull over to the right of the road and stop.
- F (27) When driving at night, you should dim your headlights only if the other driver dims his lights first.
- T (28) Georgia law states that you can not stop or park within 10 feet of a fire hydrant.
- F (29) If a traffic signal light is green and a police officer signals you to stop, you should sound your horn and increase speed.

- T (30) When driving in heavy traffic, you should keep pace with other traffic and stay in your own lane.
- T (31) If you are convicted of operating a vehicle while under the influence of any intoxicating beverage or drugs, you will lose your privilege to drive any vehicle.
- F (32) If a traffic light changes from green to yellow as you approach an intersection, you should speed up before the light changes.
- T (33) If a traffic light changes from green to yellow as you approach an intersection, you should stop before entering the intersection.
- T (34) A Georgia driver's license expires on the driver's birthday in the year printed on the license.
- F (35) The horn on a vehicle should be used to warn a stopped school bus that you intend to pass.
- F (36) When a tire blows out, the safest thing to do is to apply brakes to stop the vehicle quickly.
- F (37) When getting into or out of a vehicle parked alongside the curb, you should sound your horn to warn other vehicles and get out on the driver's side after traffic has stopped.
- T (38) When walking along a road, you should always walk on the left side of the road facing traffic.
- F (39) When walking at night, you should always wear dark colored clothes.
- T (40) When walking, you should not step off the curb until you are sure that it is safe to cross the street.
- T (41) All two-wheel vehicles should travel on the right side of the road.
- F (42) When riding bicycles with friends, it is safe to ride side by side rather than single file.
- T (43) When riding on a motorcycle, you should always wear a crash helmet.
- F (44) When riding a bicycle, it is safe to ride with no hands.
- T (45) When riding at night, it is safer to have a light on your bicycle.
- F (46) A person can buy a car that is in excellent condition for \$200.00.

- F (47) It cost about a dollar a week to buy gasoline to run a car.
- T (48) Small motors use less gasoline than big motors.
- T (49) Liability insurance pays for damages to the other person when you cause a wreck.
- F (50) There is nothing wrong with driving a car that is not insured.

C. Knowledge gained from this pre-course evaluation should be very flexible and subject to constant change.

#### IV. The history of transportation:

A. When teaching this topic, emphasis should be placed on developing an appreciation for our present forms of transportation. Visual aids are very helpful.

##### B. The history:

###### 1. The cave man:

- (a) Walking was the only form of transportation for a long time.
- (b) The invention of the wheel was the first giant step toward modern forms of transportation.
- (c) Early forms of water travel consisted of log boats or rafts.

###### 2. The Egyptians:

- (a) Give a brief description of the Egyptian civilization.
- (b) The Egyptian's main form of transportation was river travel.
- (c) Slaves were used to haul or pull heavy stones which were used in construction work.

3. The Romans:

- (a) Give a brief description of the Roman Civilization.
- (b) The Roman chariot provided a speedy, and easily maneuverable form of transportation on land.
- (c) The Romans experimented with several types of road construction. One form of construction was to pave roads with cobblestones.

4. The Dark Ages:

- (a) Give a brief description of the Dark Ages, and point out that it occurred after the fall of the Roman Empire.
- (b) The Roman chariots and roads were no longer used and the techniques for building them were soon forgotten.
- (c) Ask the class: How could the advancements of the Romans be forgotten? Use this example to show the students how education helps people move forward rather than backward.

5. The Re-birth:

- (a) The invention of the printing press helped spread knowledge and it aroused interest in study.
- (b) Better sailing ships resulted in more travel and discoveries.
- (c) Describe the horse-pulled train.
- (d) Describe the invention of the steam engine and how it worked.
- (e) The train - describe its progression from its beginning to the present.



- (f) The steamship - describe its progression from its beginning to the present.
- (g) Describe the invention of the internal combustion engine and how it works.
- (h) Air travel - describe its progression from its beginning to the present.
- (i) The automobile - By progressing from early cars to present ones, the students should be shown the many advances that have been made in the automobile. These advances include such things as electric starters, better tires, longer lasting parts, heaters, lights, safety features, etc.
- (j) The road - discuss its progression from footpaths, to wagon trails, to mud roads for automobiles, to the pavement of these same roads (and the dangers of this practice), and to the interstate highway of today.
- (k) Early laws governing the automobile - describe the fact that laws are made to protect the majority interest, and since most people traveled by horse drawn vehicles in the early days of the automobile, laws were made to protect those using horse-drawn vehicles, from the motor vehicle. Describe the early law that stated that an automobile had to be either hidden or taken apart so that it would not scare a horse that was attempting to pass. Another law placed speed limits at 5 miles per hour.

V. The automobile has changed our lives:

- (a) Describe the impact the motor vehicle has on our social customs and family activities.
- (b) Describe the economic impact of the motor vehicle.
- (c) Describe how the motor vehicle has aided and harmed our physical health.

VI. Use one class period to take the students on a driving tour and point out the following:

- (a) Different types of transportation.
- (b) Different types of roads.
- (c) Different types of traffic conditions.
- (d) Different types of driving maneuvers.
- (e) Different types of signs, traffic lights and street markings.
- (f) The poor driving habits and law violations of other drivers.

## THE TRAFFIC ACCIDENT

Objective: To impress upon the students the seriousness of traffic accidents, the causes of traffic accidents, and what they should do if they become involved in a traffic accident.

### I. The accident situation:

A. Relate to the students some of the true stories of accidents in the local area:

#### 1. Information to emphasize in these stories:

- (a) The wrecks to be discussed involved human beings, not meaningless numbers in some accident report.
- (b) The young people to be mentioned lost their lives at a time when they had just begun to live.
- (c) These accidents could happen to them (the students) or to their loved ones.
- (d) The loved ones of those killed in accidents must suffer greatly.
- (e) In the case of the young people, their accidents may have been prevented if the parents had raised them better.
- (f) These accidents did not occur in some far off place. They happened right here.

#### 2. Some true stories:

- (a) Four high school students from some of the city's richest families were double dating one night shortly after Christmas. The driver of the sports car in which they were riding had only recently received the car as a Christmas present from his father. As it turned out,

this boy was far too immature to own such a car. He tried to race another car on a city street, but as the speed of his car approached 90 MPH, he lost control of the car and hit a light pole. As the result of this accident, three young people lay dead.

- (b) On another occasion, four teenagers, who were also from wealthy families, and who were also double dating, were involved in a traffic accident. These young people were speeding along city streets at a time of night when they should have been at home in bed. As in the earlier story, the accident occurred when the driver lost control of the car, and it struck a fixed object. Two of the teenagers were killed instantly. One of the girls who had only recently received popularity and beauty honors from her fellow students at school suffered severe brain damage in the accident. She may never overcome the handicaps caused by this injury.
- (c) There is a 14 year old boy who has been a patient at a local hospital for the past two years. Because of injuries received in an automobile wreck, this boy can not move any part of his body below his neck. Since he can not breathe without help, he must be kept in an iron lung for the rest of his life.
- (d) At an army camp near here, a drunken man drove his car into a group of marching soldiers. Many of the soldiers were killed or injured. The drunken driver was placed in prison for four years.

- B. Show the students some photographs of traffic accidents. These photographs can be obtained from newspapers, magazines, etc. An excellent collection of photographs appeared in the July, 1969 issue of Readers' Digest. The title of this collection is "Pictures Without Words." Films may also be shown if available.
- C. Relate the following accident statistics to the students:
1. Since some students may not be able to grasp the meaning of large numbers, an attempt should be made to overcome this when presenting the statistics. For example, in order to help them realize how many people make up 55,500, ask them to visualize the average number of fans that watch a college football game on a Saturday afternoon.
  2. In 1967, a total of 53,100 people were killed in traffic accidents, but in 1968 this number increased to a total of 55,500.
  3. In 1967, there was a total of 1,900,000 people injured in traffic accidents. By 1968 this number had increased to 2,000,000.
  4. In 1967, damages resulting from traffic accidents cost citizens of the U.S. some \$10,700,000,000. By 1968, this cost rose to \$11,600,000,000.

## II. The types of traffic accidents:

- A. The following is a list of the types of traffic accidents, the number of people killed in each type, and the age group in which the largest number were killed in a given year.
- B. The statistics:
1. Collision between vehicles--total deaths, 22,000; age group 15-24.

2. Non-collision in the roadway (running off the road, etc.) - total deaths, 16,000; age group 15-24.
3. Collision with trains - total deaths, 1,600; age group 15-24.
4. Collision with bicycles - total deaths, 700.
5. Collision with fixed objects - total deaths, 2,400; age group, 15-24.

III. The causes of traffic accidents:

- A. The following is a general breakdown of some of the causes of accidents. Since these causes will be studied in more detail in other sections, a brief description will do for the present time.
- B. Ask the students to discuss the following questions:
  1. How does the driver cause accidents?
    - (a) He doesn't know how to drive (lack of knowledge or skills).
    - (b) Carelessness
    - (c) Drunkenness
    - (d) Poor eye sight
    - (e) Poor health
    - (f) Sleepiness or fatigue
    - (g) Under medication
    - (h) Talking and not watching driving
    - (i) Poor driving attitudes
  2. How does the road cause accidents?
    - (a) Hills
    - (b) Curves
    - (c) Holes
    - (d) Bridges

(e) Soft shoulders

(f) Other

3. How does the car cause accidents?

(a) Lights that won't work or are burned out

(b) Brakes that don't work

(c) Tires that are in poor condition

(d) Loose steering

(e) Other

4. How does the weather cause accidents?

(a) Rain

(b) Snow or ice

(c) Leaves in the fall

(d) Glare from the sun

(e) Other

C. Point out that while problems with the road, the car, or the weather can contribute to an accident, it is the driver who is mainly responsible for accident prevention, and it is his poor driving that causes most accidents.

IV. What to do in case of an accident:

A. The first things to consider after an accident are:

1. Place flags, flares or reflectors around the scene of the accident.

(a) a total of three such devices should be used.

(b) a device should be placed 100 feet down the road in each direction from the car; the remaining device should be placed beside the car.

- (c) show the students what these devices look like.
  - (d) reflectors or flares should be carried in every car.
  - (e) if there are no such devices available at the scene of an accident some kind of warning device will have to be created.
2. Give first aid to the injured, (The following guide to first aid was taken directly from the book, How to Drive, published by the American Automobile Association):
- (a) the instructor should demonstrate the various first aid techniques discussed.
  - (b) Do not move an injured person unless there is immediate danger. If you must move him, pull him by the shoulder or feet, while others support the trunk and head. Do not roll or twist the body.
  - (c) Stop bleeding by pressing against the wound with a clean cloth. Hold until the bleeding stops. (Explain when to use a tourniquet.)
  - (d) If the victim is unconscious, even temporarily, suspect head injury. Keep him quiet. If you must move him, keep him horizontal.
  - (e) Shock is present in most injuries. Keep the victim lying down and comfortable. Carefully watch those who insist on walking about.
  - (f) Burns are wounds - Exclude air to relieve pain. Cover with clean cloths.



- (g) Stoppage of breathing - clear mouth and throat, and keep them clear. Apply artificial respiration.
  - (h) Chest injuries - Limit motion of the chest by placing a wide strip of cloth snugly around the lower ribs. Do not tighten.
  - (i) Fractures - keep broken bone ends from moving. Keep joints above and below the broken ends from moving.
  - (j) Demonstrate to the students the contents and use of a first aid kit.
  - (k) A first aid kit should be carried in every car.
3. Call the police and tell them if an ambulance is needed:
- (a) Discuss the problems of getting to a phone.
    - (1) If the accident occurred in a rural area.
    - (2) If the home owner won't let you in to use the phone.
    - (3) Other
  - (b) Discuss the proper method of calling the police - if the phone number is known or if it is not.
  - (c) Describe the correct information to be relayed to the police:
    - (1) The type of accident.
    - (2) Where the accident occurred - Discuss how to give directions for the police to follow.
    - (3) The number and seriousness of the injuries.
    - (4) Remain on the phone until the police hang up in order to give any other information that they might request.

(5) After the police have hung up, you should return to the scene of the accident to offer any needed help.

4. It is important to decide which of the three above steps (placing warning devices, first aid, getting help) to do first.

The order of doing them depends on:

- (a) The number of people helping.
  - (b) The location of the accident.
  - (c) The seriousness of the injuries.
  - (d) Other
5. When several people are available to help, each person should be assigned a particular job to perform. If this is not done, an important task may not be performed because everyone may be thinking that someone else is doing it.

(a) Other things to consider often on accidents are: (The following information was taken directly from the book, Know Your Car, written by Bruce Grant and published by Rand McNally and Company.)

- (1) Obtain the name, address and license data of the other driver and his vehicle. Also get the name of his insurance company.
- (2) Obtain the names and addresses of as many witnesses as possible.
- (3) Make no statement to anyone except an officer of the law. Do not argue.
- (4) Above all, do not admit personal responsibility or attempt to negotiate settlement of damage claims on the scene.

- (5) Notify your insurance company as soon as possible.
- (6) Report the collision to the state authorities. In some locations the local police must be notified, and sometimes cars may not even be moved until police arrive.
- (7) Draw a diagram of the place where the accident occurred, showing the directions of streets or roads and position of cars.
- (8) Obtain the who, what, when, where, how information.
- (9) If property is damaged and the owner is not around, leave address on the damaged property and notify the owner as soon as possible.

## THE DRIVER

Objective: To discuss the physical and mental makeup of a driver in such a manner that the students will be able to evaluate and understand themselves more accurately.

I. Physical fitness of a driver. Discuss the following topics with the students:

A. The discussions should be carried on in a serious manner. The students should be encouraged to apply the knowledge gained to themselves, but no student should be told directly that a certain topic under discussion applies to him. No student should have his problems discussed before the class. However, private talks can be held before or after class.

B. Health factors that affect a person's ability to drive:

1. General health factors that may prevent driving for a few days:

(a) Flu, fever, measles, etc.

(b) Worry, headache, etc.

(c) Broken arm or leg.

2. Permanent health factors that can be corrected or compensated for so that the person can drive:

(a) Eye glasses can correct poor vision in many cases.

(b) Special equipment on the car may help those who do not have the use of their legs to drive.

3. Major disabilities that may prevent a person from driving without a doctors approval: (The following information was taken from the book, Sportsmanlike Driving, written by Driver

Education Specialists of the American Automobile Association and published by Webster Division, McGraw-Hill Book Company):

- (a) Diabetes: Patients suffering from diabetes of a degree that can be controlled adequately by diet and/or oral drugs may drive any type of motor vehicle. In cases where insulin is required and the diabetes is well controlled, the individual may drive a private vehicle. The uncontrolled diabetic should be advised not to drive any type of motor vehicle.
- (b) Convulsive disorders (Epilepsy): Any person suffering from a convulsive disorder resulting in loss of consciousness should be prevented from driving. Under certain conditions persons under treatment for epilepsy whose seizures are controlled may, in some states, be granted restricted licenses following detailed examinations by qualified specialists.
- (c) Disorders affecting muscular control: Multiple sclerosis, some cases of poliomyelitis, and other diseases affecting the nervous system pose special problems. People with any such disease should be carefully evaluated by a physician before attempting to drive.
- (d) Mental diseases: There are various types of mental diseases that make a person unsafe as a driver. Persons suffering from serious mental illness are usually patients in a hospital. However, mental illness patients who are not hospitalized should be permitted to drive only after very careful evaluation.

(e) Organic brain diseases: There are some other disorders such as brain tumors or syphilis, that may cause a person to become paralyzed or to be unable to drive safely. A physician should determine the status of each person.

(f) Heart Disease: There are many types of heart diseases. Some cardiac conditions may incapacitate a driver, some may not in any way interfere with safe driving. Each person with cardiac trouble should be carefully evaluated by a physician to determine his ability to drive with safety.

C. Vision and driving. (Some of the following information was taken from the book, How to Drive):

1. Point out that the ability to see plays a very important part in driving. In fact, few driving skills are possible without vision.

2. Types of vision:

(a) Visual Acuity:

(1) The ability to see details clearly.

(2) Types of poor visual acuity are near and far sightedness.

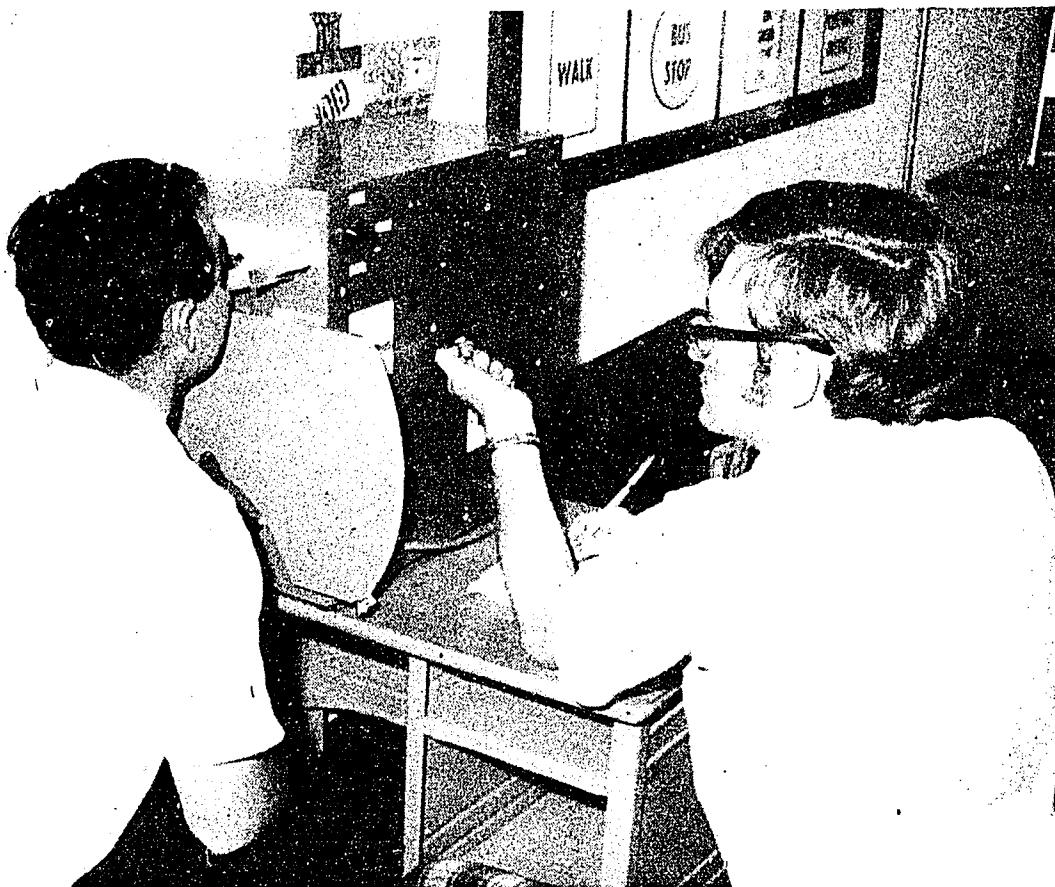
(3) Using a visual acuity testing device, demonstrate this type of vision and test each student for it.

(4) Discuss the effects of visual acuity on driving.

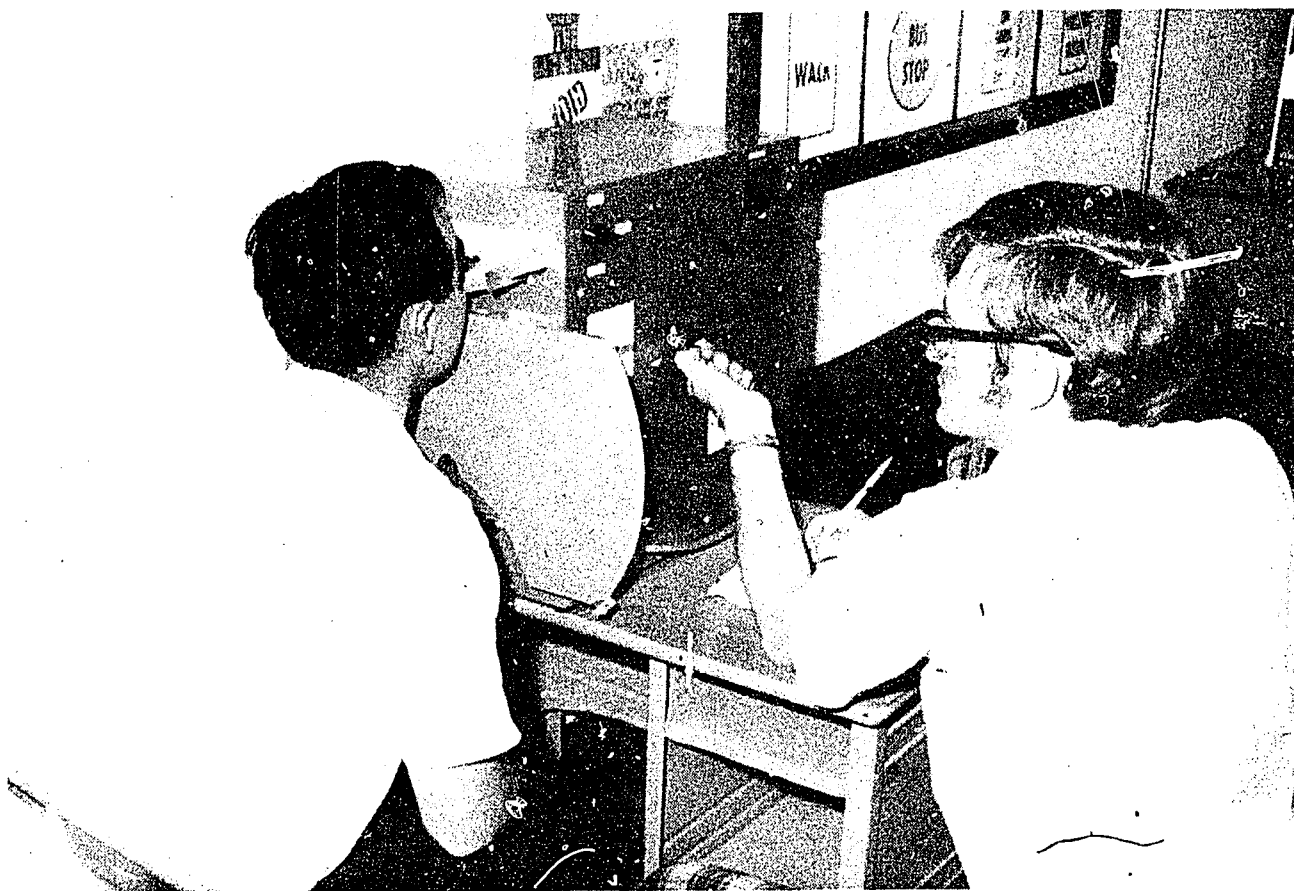
(5) This type of vision can be corrected with glasses.

(b) Side vision (Field of Vision):

(1) This is the ability to see to the sides.



A Student's Vision is Checked



A Student's Vision is Checked



- (2) Poor side vision results in the "tunnel effect."
  - (3) A driver having poor side vision may not be able to spot dangers to the sides of the car.
  - (4) Demonstrate and test each student for this, using a device that tests for field of vision.
  - (5) A driver can compensate for poor side vision by reducing speed at all points where vehicles or pedestrians might be approaching from the side, and by turning his head enough to glance both ways at intersections and at all other dangerous points.
- (c) Color Vision:
- (1) Describe what it is.
  - (2) Describe how faulty color vision effects a driver.
  - (3) Using a testing device for color vision, demonstrate and test each student for this.
  - (4) A driver can compensate for faulty color vision by knowing the standard arrangement of signal positions on a traffic light - red at the top, yellow in the center, green below; paying closer attention to the actions of others at intersections, which are controlled by traffic lights; and by learning to interpret traffic markers and signs by their shape.
- (d) Poor night vision (this includes the ability to see in low illumination, the ability to see in glare conditions, and the ability to recover from glare conditions):
- (1) Describe each type of night vision.

- (2) Describe the effects of poor night vision on a driver.
- (3) Using a testing device for the three types of night vision, demonstrate and test each student for this.
- (4) Techniques for using one's vision under these conditions will be discussed under the topic of driving at night.

(e) Describe and test for depth perception.

## II. Harmful chemical agents that may effect a person's ability to drive:

A. Carbon Monoxide (The following statements were taken from the book, Sportsmanlike Driving):

1. Read the following stories to the students:

- (a) A family was wakened by the blowing of a horn. They found their young son sitting in the car in the garage slumped unconscious over the steering wheel. He had driven in and kept the engine running while he sat reviewing the events of the evening. The wind had blown the door shut. As he lapsed into unconsciousness, his body fell on the horn button. The horn brought the puzzled family to the garage. Artificial respiration saved his life.
- (b) Driving along a highway, a man suddenly heard a crash and felt a bump. He put his hand to his head and felt moisture. He looked at his hand and saw blood. He looked about and discovered, to his confusion, that he

was sitting in his car in the middle of a creek. How he got there he never knew. The doctor found that he had been poisoned by carbon monoxide.

- (c) Clipping from a newspaper - Car fumes kill 4 at Drive-in Show. Columbus, Georgia, December 18 (AP). Four persons watching a drive-in-movie with their car heater going died of carbon monoxide poisoning. An attendant found the bodies after other cars had left the drive-in theater near here last night.

2. Carbon monoxide comes from the following places:

- (a) Gas and oil heaters in the home.
- (b) In a car, carbon monoxide is in the exhaust gases that come from the tailpipe.
- (c) This poisonous gas is produced by the incomplete combustion of gasoline.
- (d) Excessive amounts come from poor ignition and faulty carburetor adjustment.

3. Carbon monoxide is dangerous for the following reasons:

- (a) Since it is a colorless, tasteless, odorless gas, it is hard to detect.
- (b) Carbon monoxide can impair a person's mental reactions in a very short time.
- (c) This gas can be deadly even in small amounts.

4. Cues to the presence of carbon monoxide.

- (a) Mental dullness
- (b) Absent-mindedness

- (c) Sudden perspiration
- (d) Headache
- (e) Drowsiness
- (f) Dizziness
- (g) Nausea
- (h) The odor of other exhaust gases are mixed with carbon monoxide. When you smell exhaust fumes, you should be aware that carbon monoxide is in those fumes even though you can not smell it.

5. Rules to prevent carbon monoxide poisoning:

- (a) Run your engine as little as possible inside a garage and then only with the garage doors open.
- (b) Always have plenty of fresh air in the car.
- (c) Have the entire exhaust system inspected periodically to discover carbon monoxide leaks - from the car floor, heater system, muffler, exhaust and tail pipes, and the seal between the body of the car and the engine.
- (d) Be sure there is adequate ventilation if you run the engine to keep warm while the car is standing still at any time.
- (e) If ventilators are at the front, close them if you are kept waiting behind cars with engines running.
- (f) If holes are drilled in the fire wall between the engine and the passenger compartment to install new accessories, be sure an adequate seal prevents engine

fumes from entering the car.

- (g) Keep the car engine in proper condition to reduce the amount of carbon monoxide produced.

6. First aid for carbon monoxide poisoning:

- (a) When the victim is in an area filled with poisonous gases, never enter the area alone, and avoid breathing the gases yourself.
- (b) Get the victim into fresh air.
- (c) If necessary, give mouth-to-mouth breathing.
- (d) If you can, cut off the source of the poisonous gases, and keep other people away.

B. Alcohol:

- 1. Present the following information in order to illustrate the seriousness and scope of mixing alcohol and driving. Since the information is of a more technical nature, great care should be taken in making it understandable to the students. Help them understand the percentages mentioned.

- (a) The U.S. Department of Transportation's 1968 Report to the Congress, Alcohol and Highway Safety, revealed the following information:

- (1) The use of alcohol by drivers and pedestrians leads to some 25,000 deaths and a total of at least 800,000 crashes in the United States each year. Especially tragic is the fact that much of the loss in life, limb, and property damage involves completely innocent parties.

(2) Because consumption of alcohol tends to occur to a greater extent on weekends, it is commonly assumed that most crashes involving alcohol, therefore, occur on weekends. More fatal crashes involving alcohol do, in fact, occur on Saturday than on any other day. However, the difference in day-of-week distribution of crashes fatal to those who have been drinking and of those who have not been drinking is not as wide as the difference of distribution of such crashes by time of day (late afternoon, evening, and night are worse). This probably reflects the likelihood that very heavy drinkers comprising the majority of those in crashes after drinking, drink heavily throughout the week and not merely on weekends.

(b) The following information was taken from the article, "The Shocking Facts About Drinking and Driving," written by Dr. William Haddon. The article appeared in May, 1969 issue of Popular Science:

- (1) The amounts of alcohol that have been consumed by the drivers and pedestrians who cause crashes in which alcohol plays a role, are usually far greater than the amounts ingested by moderate drinkers.
- (2) People arrested for drunken driving typically are not drinkers who have had only a couple of drinks.
- (3) Some such drivers are teen-agers and social drinkers who have been drinking abusively. But many -

probably a majority - of such drivers are alcoholic.

(4) Alcoholic drivers typically are not skid-row bums.

They may be employed in respectable jobs, often aren't even known to their intimates as problem drinkers.

(5) Crashes caused by drivers who have been drinking heavily tend to be exceptionally violent, and often fatal.

(6) No other drug, including coffee, can reverse the effects of alcohol - itself a drug.

2. Describe what alcohol is and how much is found in the various drinks:

(a) The type of alcohol that is found in liquors is called ethal alcohol.

(b) The percentage of alcohol found in different drinks:

(Explain what is meant by this.)

(1) Beer: 4-12%

(2) Wine: 12-18%

(3) Fortified wine: 20%

(4) Liquors: 40-60%

3. Describe the effects of alcohol on the human body. (Some of the following statements were taken from the book, Sportsmanlike Driving):

(a) Alcohol is absorbed into the blood stream almost immediately, and it impairs the functions of the central

nervous system.

- (b) The effects of alcohol differ widely among different individuals and in the same individual at different times.
- (c) According to the book, How to Drive, the amount of concentration in the blood depends on many conditions:
  - (1) Amount of alcohol taken.
  - (2) Kind of alcoholic beverage taken.
  - (3) Amount of other fluids in the body.
  - (4) Size and weight of the drinker.
  - (5) Contents of the stomach.
  - (6) Speed of drinking.
  - (7) The time that has elapsed since the drinking took place.
- (d) Different percentages of alcohol in the blood causes different reactions in the person, (point out that a person can not expect to stop drinking for about 15 minutes and be sober enough to drive):
  - (1) .03% in the blood - No noticeable effects on behavior. It takes about 2 hours to sober up.
  - (2) .06% in the blood - there are increasing effects of the alcohol. There is a feeling of warmth, a decrease in skills, and there is less concern with restraints. It takes about four hours to sober up.
  - (3) .09% in the blood - There is a feeling of buoyancy, and exaggerated feelings such as feeling sad, happy,



etc. It takes about 6 hours to sober up.

(4) .12% in the blood - There is a decrease in fine coordination. There is also light to medium trouble walking or standing. It takes about eight hours to sober up.

(5) .15% in the blood - There is difficulty in reasoning, and there is trouble performing simple tasks. It takes ten hours to sober up.

(6) .40% in the blood - The drinker passes out.

(7) .60% in the blood - The person dies.

4. Describe how alcohol destroys a person's ability to drive:

(Some of the following statements were taken from the book, Sportsmanlike Driving):

(a) Alcohol interferes with vision. This weakens the driver's "first line of defense."

(b) Alcohol slows the reaction time of the drinking driver.

(c) Alcohol is not the stimulant it was once believed to be. Quite the opposite, we now know that it is a depressant.

(d) The person's ability to distinguish right from wrong is lessened so that he finds it easier to break traffic laws that are made to prevent accidents.

(e) Because alcohol reduces a person's coordination, his ability to control the car is lessened.

5. Describe why people continue to drink and drive, even when they realize the dangers involved. (The following statements were

taken from the book, Sportsmanlike Driving):

- (a) After one drink, a person often has little or no feelings or sensations to warn him of the change taking place in his body.
- (b) Each drink leads more easily to the next so that a person who does not plan to get drunk may do so anyway.
- (c) The other fellow - the facts about drunken driving are considered to never happen to "me", always to someone else.
- (d) There is a tendency for alcohol to effect the brain so as to mask from the person his own condition. People can often recognize the effects of alcohol in others, but never in themselves.

6. Describe what the law states concerning drunken driving:

- (a) A person is considered to be under the influence of alcohol if tests show that he has at least .10% of alcohol in his bloodstream.
- (b) The government report, Alcohol and Highway Safety, describes "Implied consent" as a state law providing that when you accept a driver's license, you are deemed to have given your consent in advance to a chemical test of your blood, breath, or urine if you are arrested on a charge of driving while intoxicated. Refusal to submit to such a chemical test then can be cause for revocation of license, irrespective of the subsequent court disposition of the drunken driving charge.

(c) The penalty for drunken driving is imprisonment for not less than 10 days or more than 12 months, or by fine of not less than \$100 or more than \$200, or by fines and imprisonment, or license revocation for two years. (The license can be regained at the discretion of the courts unless it's the third offense). For the third conviction, when two previous convictions occur within a four year period, the penalty is imprisonment for not less than 90 days nor more than 12 months, fine of not more than \$1,000, and the person shall have his license revoked for two years (mandatory).

C. Drugs (Some of the following information is taken from the book, Sportsmanlike Driving):

1. Drugs used as medication:

- (a) Drugs, even the popular "mild" varieties, should be avoided as potentially dangerous when the person who takes them is going to drive.
- (b) A combination of any quantity of a drug and any quantity of alcohol may produce serious results.
- (c) Drugs are safely used only under the direction of a doctor. Anyone who takes a drug should get his doctor's approval before attempting to drive a vehicle.

2. Drugs such as "Pot" or "L.S.D.":

- (a) These drugs are very dangerous - they can lead to drug addiction, illness, and even death.
- (b) These drugs should be avoided at all cost - they not only should be avoided when driving, but anytime.

### III. The mental fitness of a driver:

A. Just as before, this discussion should be conducted on the students level and it should help them to evaluate themselves better.

B. Describe the poor driving habits of some individuals:

1. Some people try to eat while they are driving.
2. Some people try to read road maps while driving.
3. Dangling an arm out of a car window may confuse other drivers.  
They may think that the person's signaling.
4. Some people attempt to hug and kiss their girl or boy friend while driving.
5. Some girls try to fix their hair or to put on make-up while driving.
6. Some people attempt to reach across the car to pick up something while driving.
7. Some people try to hold a child up beside them when they are driving.
8. Some people try to steer a car by keeping only one hand on the steering wheel.
9. Many drivers drive at speeds that are illegal and dangerous.
10. Some people are so interested in the scenery outside of the car that they fail to watch their driving.
11. Some people are so interested in conducting a conversation that they fail to pay attention to their driving.
12. Some people find excuses for not wearing seat belts.

13. "Birds to Beware of" (This information was taken from an article in the booklet, Right Behind the Wheel, sponsored by General Motors):

- (a) The Crosswalk Creeper - can't resist cheating on take off.
- (b) The One Winged Roof Clutcher - disdains two-handed driving.
- (c) The Gleeful Splatter-Dasher - loves to douse pedestrians.
- (d) The Head-Turning Chatterbird - seldom bothers to keep his eyes front.
- (e) The Half Blind Loon - a dirty windshield is his trade mark.
- (f) The Gawking Booby - gazes around while driving.
- (g) The Torrid Highway Creeper - a menace to all other road runners.
- (h) Wide-Sweeping Terror - watch out for him on curves.
- (i) The One-eyed Nighthawk - ignores his burned-out headlamp.
- (j) The Addlepatented Honker - always sounding off without reason.
- (k) Hill-Passing Swift - ignores no-passing signs on hills.
- (l) Migratory Weaverbird - constantly jumping lanes in heavy traffic.
- (m) Ruffle-Fendered Tail-Gater - he bears the marks of too close contact.

C. Describe the reasons for the poor driving habits mentioned above:

1. Faulty attitudes (The following information was taken from the book, Know Your Car, written by Bruce Grant):

- (a) Overconfidence - Taking too much for granted; assuming that a car will always perform as it should; and counting on other people to do the right thing all the time.
- (b) Minimizing the seriousness of minor accidents - Looking upon a little bump that merely dents a fender as being of small consequence. The only way to eliminate serious accidents is to eliminate the acts that cause little accidents.
- (c) Pride in past record - Getting puffed up about a no-accident record. Such a driver is on the verge of a rude awakening. There are a good many people in cemeteries who, if they could talk, could honestly say, "I never had an accident until this one."
- (d) Faith in experience - Believing that experience as a driver automatically makes one a good driver. However, bad habits are developed by experience as well as good ones.
- (e) False Ideas - Relying on guesses, estimates, legends, and fiction instead of facts. A quiz of hundreds of drivers revealed that when asked to estimate stopping distances at a given speed, 90% were short more than 40 feet - a dangerous misjudgement.
- (f) Self-righteousness - Judging one's own actions and usually deciding in favor of one's self-particularly in reporting accidents. Self-righteousness often causes

a driver to try to punish others who, in his opinion, do something wrong in traffic.

(g) Impatience - Taking needless chances just to save a little time. This results in traffic violations and, inevitably, in accidents.

2. Personality traits of accident prone individuals and perhaps, those who have not yet had an accident, but have poor driving habits that may lead to one. (Since the following information was taken from a college class discussion, the original source is not known):

(a) Such individuals may be asocial, nonconforming, aggressive, intolerant of authority.

(b) Such individuals may have a tendency to act impulsively.

(c) Such individuals may have greater distractability.

(d) Such individuals may experience emotional instability, difficulty in handling tensions, etc.

(e) Such individuals feel the need to stand out, show off, and to exaggerate their sense of ability.

D. The mental fitness of a good driver. A good driver must:

1. Accept the blame or responsibility for any damage he may cause while driving.

2. Have self control.

3. Demonstrate good sportsmanship.

4. Have forethought.

5. Have good judgement.

6. Have controlled attention.

7. Have a good sense of humor.

E. Describe how to rate your driver, and how to rate yourself as a driver. (The following information was taken from the booklet, Right Behind the Wheel. It appeared in the article, "Rate Your Date as a Driver," written by Betty Skelton):

1. Does he keep his car in safe condition - or does he think it's more important to buy a flashy ornament than replace a broken tail light? (Or, do you do this?)
2. Is he really a skilled and confident driver - or is he a half-trained one, apt to panic in an emergency?
3. Does he keep his eyes on the road and his hands on the wheel - or does he let the car drive itself part of the time?
4. Does he drive at a sensible speed - or does he seem to think the higher the speed, the higher his social standing?
5. Does he obey the rules of the road - or has he an unorthodox (and dangerous) code of his own?
6. Does he avoid mixing drinking and driving - or does he think that alcohol makes him an even better man at the wheel?
7. Is he courteous and self-controlled or does he drive with a chip on his fender?
8. Does he leave a margin for safety - or is he constantly crowding his luck?
9. Does he treat a car as a convenient and pleasant means of going places - or does he regard it as a toy for playing thrill games?



10. Do you feel relaxed and secure when you ride with him -  
or are you nervous as if you were riding a skittish horse on  
an icy freeway?
11. In rating your own driving, do you answer yes to any of the  
above questions? If so, what should you do about it?

## THE CAR

Objective: To better the students' understanding of how the vehicle works; to teach them the value, necessity, and techniques of vehicle maintenance; and to instruct them in the complications and methods of car purchasing, car insurance, and money management.

### I. Describe how the vehicle works:

- A. The discussion on this subject should be simple. The goal should be to familiarize the students with the basic operating features of the car, so that they will develop a healthy respect for the automobile, and so that they will better understand the discussions on car maintenance that will follow.
- B. Describe the internal combustion engine that is used to power the automobile. (Teaching aids include the General Motors chart of the automobile chassis, the model of "The Visible V8 Engine" by Renwal, the driver education car, and any other teaching aids obtainable):
  1. Use the above mentioned teaching aids to show the general location of the following parts, tell what system they belong to, and describe the basic function of each system.
  2. The engine block complex:
    - (a) Engine block
    - (b) Cylinders
    - (c) Pistons
    - (d) Valves

3. The fuel pump:
  - (a) Fuel tank
  - (b) Fuel line
  - (c) Fuel pump
  - (d) Carburetor
  - (e) Air cleaner for carburetor
4. The electrical system:
  - (a) Battery
  - (b) Generator
  - (c) Starter
  - (d) Ignition coil
  - (e) Distributor
  - (f) Spark Plugs
5. The exhaust system:
  - (a) Exhaust valves
  - (b) Exhaust pipes
  - (c) Exhaust muffler
6. The oil system:
  - (a) Oil pan
  - (b) Oil dip stick
  - (c) Oil filter
7. The cooling system:
  - (a) Radiator
  - (b) Cooling fan
  - (c) Water hose
  - (d) Water pump
8. The following is a brief description of how an internal combustion engine works: The fuel or gasoline is stored

in the gas tank, and flows to the engine through the fuel line. The fuel pump pumps the gas to the carburetor. The carburetor mixes this gasoline with air that has been cleaned as it passed through the air cleaner. Next, the carburetor turns this mixture into a vapor. This gas - air mixture now contains two of the three needed elements to cause combustion. By way of a valve, this vapor is carried into the various cylinders at the proper time. As a piston reaches the top of the cylinder, a spark is sent into the fuel-air vapor causing it to burn rapidly (the distributor times the spark plugs to fire at the proper time). The burning fuel causes pressure which pushes the piston down. The piston reaches the bottom of the cylinder and moves back to the top forcing the exhaust gases out through a valve that has opened. Then the piston goes down again, fuel-air is inserted into the cylinder, the piston comes back to the top, the spark plug fires, and the whole process is repeated. As the engine runs, it runs the generator which creates electricity, which is stored in the battery to be used to help the engine run and to operate the other electrical devices.

The oil system lubricates the moving parts of the engine. By reducing the friction between the parts, the oil system also aids in the cooling process.

The cooling system controls the temperature of the engine. If this system were not present, the temperature of the engine would reach 2,000 degrees or higher, and

thus, the engine would soon be destroyed. Water from the radiator is carried to the engine by way of a water hose. Once in the engine the water circulates through small passageways and soaks up the heat from the engine. This water flows back to the radiator where air blowing through the radiator cools the water. This forms a continuous process.

C. The drive train:

1. Teaching aids include the General Motors Automobile Chassis Chart, and any other helpful device obtainable.
2. Describe the location and function of each part.
3. The transmission:
  - (a) Straight transmission
  - (b) Automatic transmission
4. The drive shaft
5. The differential-rear axle

D. The chassis:

1. Teaching aids are mentioned above.
2. Describe the location and function of each part.
3. Frame
4. Lower control arm
5. Front and rear springs
6. Shock absorbers

E. The brakes:

1. Teaching aids include charts and diagrams of a braking system.

2. Describe the location and function of each part.
3. Master cylinder
4. Brake lines
5. Brake drums
6. Brake cylinder and shoes
7. Brake lining

F. In the driver's seat:

1. Teaching aids include the Link Simulator and the driver education car.
2. Describe the location and function of each part.
3. The controls:
  - (a) Steering wheel
  - (b) Horn
  - (c) Gear selector lever
  - (d) Turn signal arm
  - (e) Parking brake
  - (f) Foot pedals
4. The gauges and switches:
  - (a) Light switch
  - (b) Windshield wipers and washer switch
  - (c) Flasher lights
  - (d) Heating and cooling systems
  - (e) Speedometer
  - (f) Fuel gauge
  - (g) Temperature gauge
  - (h) Oil pressure gauge

- (i) Generator gauge
  - (j) Bright lights indicator
  - (k) Dimmer switch for headlights
  - (l) Other
5. The various safety features:
- (a) Seat belts
  - (b) Head restraints
  - (c) Side marker lights
  - (d) Flasher lights
  - (e) Padded dash board
  - (f) Steering wheel and gear shift lock
  - (g) Buzzer to remind one that he has left the keys in the ignition.
  - (h) Other

II. Describe how to take care of a motor vehicle:

- A. Teaching aids should include the driver education car, tire gauges, other vehicles which may be in greater need of repair, and any other aids that can be obtained.
- B. Proper driving habits:
- 1. Drive a car only when it is in good condition.
  - 2. Perform the proper "break-in" technique for a new car as described in the owner's manual.
  - 3. Plan your driving so that all errands can be performed on one trip rather than repeated trips.
  - 4. Excessive warm up time is wasteful. When starting a cold car, wait just long enough for the oil gauge to

show normal pressure and then drive. An engine which is driving a car warms faster than one which is idling.

5. Drive at reasonable speeds - the higher the speed the more gas is burned and the faster the tires are worn.
6. Start, drive, and stop smoothly.
7. Avoid racing the engine.
8. Shut off the engine during waits.
9. Never drive on a flat tire.
10. Avoid striking sharp objects.
11. Do not overload car.
12. Other

C. Maintenance of the car:

1. Maintenance of the finish:

- (a) The following information was taken from the book, Know Your Car.
- (b) The inside of your car should be brushed each week and a real cleaning job should be done once a month.
- (c) Wash your car at least once a week. Use a sponge or cloth with cold running water. Dry with a chamois skin or cloth. If after washing you find oil or grease spots on the finish you can take them off with a mild detergent, but wash the detergent off right away, (other authors state that one can use a mild soap and lukewarm water to clean the car).
- (d) Dry insects can be removed with a mild solution of baking soda and water. An application of wax remover will take off tree sap.



- (e) In the summer, do not wash your car in the sun. Little drops of water act as burning glasses and damage the paint. Do not wash your car when the body is hot.
- (f) Retouching - where paint has been chipped or rubbed off, retouch the finish to prevent rust spots from forming. You can determine the color of the body paint by looking at the paint card usually located underneath the glove compartment. Small tubes of the proper paint can be obtained from an auto accessory supply store or from the service department of the automobile agency. Buy some when you buy your car, as the shade you want may not be available after two or three years.
- (g) Waxing the car - a protective coating of liquid or paste wax should be applied, after washing, two or three times a year. When the paint loses its luster, the car should be polished. Rewax the car after polishing.
- (h) Rust - Rust may be removed from chrome with a kitchen scouring powder and a metal paste, then applied to polish the chrome.
2. Keep the carburetor in proper working order. All work should be performed by a qualified mechanic.
  3. Use good spark plugs and keep them clean.
  4. Maintain proper engine temperature - cold or overheated motors waste gas.

5. Lubricate or grease at proper time. Refer to the car owner's manual for proper time.
6. Change the oil at the proper time.
  - (a) Refer to car owner's manual for the proper time.
  - (b) Use proper weight oil (heavy duty).
  - (c) Change oil filter at the time indicated in the owner's manual.
7. Anti-freeze:
  - (a) Describe what it is and does.
  - (b) Have the anti-freeze replaced each fall.
8. Keep the oil level checked.
9. Keep the radiator clean and full of water.
10. Keep the battery charged.
11. Keep the windshield and lights clean.
12. Keep proper tire pressure.
13. Use the driver education car to demonstrate the above.
14. The tires:
  - (a) Use tires of proper size.
  - (b) Rotate the tires as described in the owner's manual.
  - (c) Have the wheel alignment and balance checked.
  - (d) According to the book, How to Drive, tire pressure should be checked when the tires are cold and always before starting on a trip. Never wait to check pressure until after the tires have been heated by driving and then "bleeding" them to what seems like proper pressure. Correctly inflated tires build up pressure as you drive. If you then reduce the pressure

by "bleeding", you will have underinflated tires when they cool, a condition which causes rapid wear. Underinflated tires permit excessive flexing of tire walls. This produces excessive internal heat, and the result can be rapid wear and dangerous blow-outs. Overinflated tires can also cause blow-outs in weak tires, and excessive and uneven wear, especially on the center of the tread.

- (e) Show the class pictures of the different types of tire wear:
  - (1) Overinflated
  - (2) Underinflated
  - (3) Not balanced
  - (4) Not in proper alignment
- (f) Changing a tire - using the driver education car and the instructions that come with it, demonstrate the proper method of changing a tire.

15. The brakes (The following information was taken from the book, Sportsmanlike Driving):

- (a) Wet Brakes - After driving through water deep enough to soak the brake drums and linings, try the brakes. Be ready. Your car just may not respond to your brake pressure. It is better to find that out safely and at once than when you are approaching the next intersection or when a pedestrian steps out in front of your car. You may find that your brakes do respond, but not evenly. Be ready with a firm grip on your steering

wheel, to counter a sudden brake pull to the right or left. Wet brakes can be corrected without much trouble. Gently apply pressure on the brake pedal while driving very slowly until the brakes respond properly.

(b) Symptoms of brake problems:

- (1) The brake pedal, when depressed, is less than 1 1/2 inches from the floor.
- (2) Continuous hard pressure on the brake pedal finds the foot moving down past the normal stopping point of the pedal. You must pump the pedal to make it "grip" at its normal stopping point.
- (3) The car "pulls" right or left when the foot brake is applied.
- (4) The brakes squeak or chatter.
- (5) The brakes tend to "grab" or take hold violently.
- (6) Stop lights remain lit until you pull the brake pedal back.
- (7) Any abnormal action or "feeling" noticed during braking.

16. Steering the car (The following information was taken from the book, How to Drive):

- (a) Too much play - If you can turn the steering wheel two or more inches before it starts to turn the front wheels, an adjustment is needed.
- (b) Hard steering - This can be caused by unequal or

underinflated tires, inadequate lubrication, improper wheel alignment, or worn or improperly adjusted steering parts. Have all checks made.

(c) Shimmy - If the steering wheel shakes rapidly from side to side, check tire inflation and wheel balance. If neither check solves the trouble, have a mechanic tighten connectors, correct wheel alignment, replace worn parts, or balance the wheels.

(d) Car wandering - If your car wanders from side to side or turns persistently to one side, it can mean unequal tire pressure or poor wheel alignment. Replace worn parts, or balance the wheels.

17. Signs of trouble in your car (The following information was taken from the book, Know Your Car):

(a) Exhaust smoke:

(1) Blue smoke means your car is burning excessive oil.

(2) Very dark smoke means it is consuming too much fuel.

(3) Black smoke indicates that the carburetor needs adjustment.

(4) Blue-white smoke indicates badly worn piston rings or worn valves.

(5) The best way to detect the above problems is to have someone suddenly race a warmed-up engine while you stand to the rear and watch the exhaust pipe.

- (b) Gauges - Learn to watch the gauges on your instrument panel for warning signals. Checking these gauges may prevent the danger of running out of gas, of having your battery go dead, of your oil not circulating freely, or of the engine becoming overheated.
  - (c) Leaks and drips - Before getting in your car after it has been standing for some time, look beneath it to see if water, gasoline, or oil has dripped on the pavement. Such dripping might indicate a leak somewhere.
18. Listening for trouble in the car (The following information was taken from the book, Know Your Car):
- (a) Backfire - This may signify improper timing of ignition or valves, a bad valve or faulty carburetor, or water in the gas.
  - (b) Chatter - If in the rear, may mean warped brake drums.
  - (c) Grind or hum - This could mean universal joint, differential or wheel bearing trouble.
  - (d) Knocks - Engine knock or clatter means the engine needs an overhaul. It might also be a fuel knock meaning you need a better grade of gasoline. A bad spark plug will cause the engine to "miss" and run unevenly. A heavy thumping knock may mean end play in the crankshaft. Sharp, distinct knocks may mean bad bearings.
  - (e) Rattle - This may be due to faulty springs or a loose exhaust pipe.

- (f) Piston slap - A moderate metallic slapping may be caused by excessive clearance between pistons and cylinder walls due to wear.
- (g) Screech - If heard on accelerating the motor, it is usually from a loose fan belt.
- (h) Squeak - If heard when brakes are applied, it indicates worn brake linings. Brakes may also squeak when wet, but will soon dry out and return to normal. A loud prolonged shriek may indicate oil is leaking onto the brake linings.

19. The above information was inserted not to teach each student to become a mechanic, but to help him learn to recognize warnings of car trouble. It was also inserted to show the students that only trained mechanics, not themselves, can understand and repair a car.

D. Describe the following first aid tips for the car (This information was taken from the book, Know Your Car):

1. Stuck Horn - Give the steering column a smart thump to jar the horn. It may be that the button is jammed. If this does not work, raise the hood, and if you know the location of the horn relay switch, tap it several times. There may be a short circuit. As a last resort, unscrew the lead wire from the horn, or if it will not unscrew easily, cut the wire itself. Of course, this must be repaired by a mechanic as soon as possible.
2. Locked out of car - In case of a frozen lock, grasp the key in a handkerchief or between gloved fingers and hold it

over the flame of a match or cigarette lighter until the key becomes hot, then thrust it into the lock. You may have to repeat this several times, but eventually it should work. When the key breaks off in the door lock and you do not have a spare key, you are in trouble. As the door key is also usually the key to the ignition, you won't be able to start the engine even if you succeed in getting into the car. It is wise to keep a spare key hidden somewhere inside the house for use in such an emergency.

You can, of course, get into the car by breaking a window, if absolutely necessary. Break one of the smaller windows, holding a stone wrapped in cloth. Wear a heavy glove and keep your head turned away to protect your eyes when you break the glass. If you can not now reach the door handle, use a strong wire, a stick with a fork at one end, or anything which you can hook onto the handle to release the latch.

3. Push-starting - In case your battery is dead or so weak that the starter will not turn the engine over properly, you may have to have another car push you. If yours is a manual-shift car, depress the clutch pedal, move the gear-shift lever into high, and then signal for the other car to start pushing. When your car has reached a speed of from 10-15 MPH, let out the clutch pedal, at the same time depressing the accelerator. Your engine should catch. If you have automatic transmission, place the selector lever



at "N" (Neutral) and keep it there until your car is moving about 25 MPH. Now move the selector into "L" (low).

A car with manual shift may safely be towed with the front wheels elevated. But, it is safer to tow a car with automatic transmission with the rear wheels elevated. Your transmission may not be working properly and you can not be certain it is in neutral.

4. Locked bumpers - Trying to get two cars untangled can often be more dangerous than it seems. One common method is for one person to stand on the lower bumper and joggle up and down as the other car tries to pull away. Or you can try lifting the upper bumper to free the two cars. In either case, be extremely careful or you may get an arm or leg caught. A better way is to take some bricks, blocks of wood, or flat stones - anything that will tend to raise the car - and place them under the wheels of the car whose bumper is on top. Drive the car forward or back over them. If this does not untangle the bumpers, you may have to jack up the wheels in order to raise the bumper high enough to slip free.
5. Vapor lock - Vapor lock is a hot weather problem. Gasoline vaporizes in the fuel lines, and the fuel pump moves this vapor into the regular fuel. In case of vapor lock, it is best to allow your engine to stand idle for a few minutes. Then in starting, press down on the accelerator - do not

pump - and hold it to the floor as you turn on the starter.

6. Frozen Radiator - If your radiator is frozen, the temperature indicator will register in the danger zone of "Hot". Your car should be towed or moved inside a warm garage. If this cannot be done, pour as much water as possible into your radiator and then cover your radiator grill. Start your engine and let it idle. This should thaw out the radiator.

E. Tools and other equipment for the car:

1. A set of screwdrivers and wrenches.
2. A carbon dioxide or dry powder fire extinguisher.
3. A first aid kit.
4. A blanket, water, and paper cups.
5. A tow-rope and a ball of twine.
6. A flashlight.
7. Spare fuses.
8. A battery jumper cable.
9. A set of warning reflectors.
10. Two 4 x 4 wood blocks.
11. A tire gauge and tire inflator (this is a pressurized can that is easy to use. It will help you to get to the nearest service station. This helps because it is sometimes dangerous to try to change a tire due to traffic conditions, weather, position of the car, time of day, etc.
12. A dime with which to place a phone call.
13. Other.

F. Describe where to get repairs done (This information was taken from the magazine, Parade; March 22, 1970. The title of the article is "Confessions of an Automobile Mechanic").

1. Don't get repair work done in transient areas where the mechanic knows he'll never see you again. If you can, have your car towed home. You'll save money in the long run.
2. Don't leave your car at a station where a lot of kids congregate. They may get practice on your car.
3. Don't pick a man because he can always give you immediate service. It might mean he doesn't have many other customers. This is doubly bad. The lack of customers usually means he's a butcher and if he doesn't have many customers, he's got to make his money where he can. That means you.
4. Always go to a reliable dealer with a well equipped service center.
5. It may be wise to get more than one mechanic to investigate the trouble so that you can find out what is really wrong.

G. Show the students how to keep a car maintenance chart (The following chart was taken from the book, Know Your Car): Chart on next page.

MONTH	SPEEDOMETER READING AT BEGINNING OF MONTH	GASOLINE		OIL		LUBRICATION	TIRES	MAINTENANCE	REPAIRS	MISC.
		No. Of Gal.	Total Cost	No. Of Qts.	Total Cost					
JAN.										
FEB.										
MARCH										
APRIL										
MAY										
JUNE										
JULY										
AUGUST										
SEPT.										
OCT.										
NOV.										
DEC.										

III. Describe the problems and procedures for buying a car:

A. Describe what to look for when buying a new car (The following information was taken from the book, How to Drive):

1. Determine if the car will fit one's needs in power, weight, and design.
2. Determine if the car has been built for or with the proper features for safety.
3. Determine if the car has riding comfort and design for convenience.
4. Determine what will be the car's resale value.
5. Determine if service for the car will be readily available.
6. Determine if its operating and repair costs will be reasonable.
7. Determine if the financing plan for its purchase is a good one.

B. Describe what to look for when buying a used car (The following information was taken from the book, How to Drive):

1. Use the driver education car to show the students what to look for when buying a used car.
2. Get a full history of the car.
3. Search for leaks:
  - (a) Oil spots on ground.
  - (b) Water running from the motor, water hose, or radiator.
  - (c) Gasoline leak.
  - (d) Exhaust leaks.
4. Inspect the chassis - springs, frame, etc.

5. Inspect the tires.
6. Inspect the body and finish:
  - (a) Windows should operate smoothly.
  - (b) The upholstery should be in good condition.
  - (c) The paint should be in good condition.
7. Inspect the radiator:
  - (a) Oil in the radiator means damaged engine.
  - (b) Air bubbles in the water while motor is running may mean a damaged engine.
8. Inspect the safety devices and accessories:
  - (a) Radio
  - (b) Windshield wiper and blades
  - (c) Heater
  - (d) Lights
  - (e) Seat belts
  - (f) Other
9. Driving test - Drive the car and listen, watch, or feel for the symptoms of car trouble that were discussed earlier. Have a friend follow behind you and watch for exhaust smoke, car weaving or tilting, etc.
10. Remember! When buying a used car, the cost of making repairs will be greater and come sooner than if you buy a new car. This cost must be figured in with the purchase price.

C. Financing a car:

1. According to the book, Know Your Car, car prices are greatly reduced in late summer, just before new models

come out. However, buying a car at this time will mean that the car will depreciate 30% in value as soon as the new models do come out. Is it cheaper to buy then or earlier?

2. The purchase price of a car can be borrowed or saved ahead of time for part or all of this price.
3. Explain to the students:
  - (a) Trade-in of old car.
  - (b) Down payments.
  - (c) Monthly payments.
  - (d) Interest rates.
  - (e) Where to borrow the money.
4. Encourage the students to save toward the car ahead of time in order to save interest rates and the burden of making monthly payments.
5. Show the students samples of sales contract forms, explain the forms to them, and explain the importance of knowing what is in a contract before signing.
6. What to look for in the purchase contract (From the book, Know Your Car):
  - (a) Adequate description of the car.
  - (b) The cash price of the car.
  - (c) The down payment on the car.
  - (d) A description of the trade-in-car, if any, and the trade-in allowance.
  - (e) Credit allowances, if there are any.

- (f) The difference between the cash price and the aggregate of the down payment and allowance.
  - (g) A description of each insurance policy for which a charge is made, and the cost.
  - (h) The amount of the finance charges.
  - (i) The total amount to be financed.
  - (j) The number and amount of weekly, monthly, or other installment payments.
  - (k) A statement of delinquency charges.
  - (l) A statement of prepayment allowances - deductions in total finance charges for paying the balance before it's due - if any, and if not regulated by law.
7. Encourage the students to do business with a reliable dealer and to have a person who understands these matters help.
8. Teach the students to budget their income:
- (a) By taking the student's own economic status into consideration, illustrate a person's living expenses such as rent, food, clothes, etc.
  - (b) Illustrate the operating cost of a car.
  - (c) Illustrate that there must not only be enough money left over after expenses to cover the cost of a car, but there must be enough to cover the operating cost as well.
  - (d) Compare the total cost of owning and operating a car with the cost of using other means of transportation.
9. Read the following true stories to the students. They help demonstrate how some dealers will cheat a customer. (These



stories were taken from the book Sportsmanlike Driving):

- (a) A young couple decided to trade in their old car on another used one, several years newer. They had been attracted to a sleek convertible in a used-car lot and were told by the salesman that it would cost "only a few hundred dollars to make" the trade.

They wanted to take a ride in the car before buying, but the salesman was unable to locate the keys of another car parked in front of it. They were told that if they didn't find the car perfectly satisfactory, they could always return it after a trial.

While someone went to look for the key to the car that was in the way, they were taken into the office. The boss filled out a sales contract form, and they gave him the \$100 down payment he required. They were told that they would need security to obtain a loan for the balance and that they were already committed to the deal, they agreed. The key was still missing when the salesman drove them home to get the deed to their small home for security. Returning to the used car lot, they signed the contract. The key to the car that had been blocking their car was then found, and they started home in their new car.

They hadn't driven it more than a few blocks before they realized that they had been "taken". The car was obviously no good. They drove back to the lot. The boss was gone and the salesman "too busy" to talk to

them. They were told to go to a downtown office the next day and see the boss.

They did. The boss wasn't there, but a lawyer was. He pointed out that a clause in the long contract they had signed called for a cash payment of \$1,884 within six days. Since they had signed the contract without reading it, they were hooked.

- (b) Finding a car he liked in a used-car lot, a man agreed to buy it. He read the contract very carefully before signing it - and still got trapped.

There were a number of "copies" of the contract, one on top of another. The salesman folded back the "original" just far enough for the man to sign the others. His "copy" was mailed to him.

It was not a duplicate of the one he had read. The cash price had been raised \$400 and the payments just about doubled. He called the dealer, who told him that the finance company was the one to deal with. When he tried to explain to them what had happened, he was told it would cost him another \$500 to get the contract canceled. He was "hooked".

#### IV. Automobile Insurance:

- A. Explain to the students what insurance is and how to obtain it.
- B. Driver Responsibility - When you drive a car, you are responsible for any damage you cause with that car. It costs a great deal of money to pay for damages - more than you will have on hand - that is why we buy insurance. If you are a good driver, the insurance

will cost you less. If you are a bad driver, the insurance will cost you more, or you can't have it at all.

- C. Explain the importance of having a good insurance company and agent that will honestly help one to obtain the proper insurance.
- D. Types of Automobile Insurance Policies (The following information was taken from the book, How to Drive):

1. Policies covering damage payments to others:

- (a) Bodily Injury Liability insurance - For damages because of injury or death to others up to the amount of coverage provided by the policy.
- (b) Property damage liability insurance - For damage to the property of others up to the amount of coverage provided by the policy.
- (c) Medical Payments - To cover funeral, medical, and hospital expenses for you or your passengers if killed or injured when in your car, or, in some circumstances, for you or relatives injured or killed while occupying, or struck by any car.

2. Policies covering damages to your own automobile:

- (a) Comprehensive insurance - For losses caused by fire or theft, or from such causes as storms, falling objects, floods, explosions, vandalism, and many others.
- (b) Collision insurance - For damage by collision or upset, to your car or to other private passenger cars driven by you or relatives residing in your household.

- E. Read the following true story to the students (This story was taken from the book, Sportsmanlike Driving):

Carol X, a seventeen-year-old high school girl, drove her parent's car with their permission. She was a careful, responsible, licensed driver. Hers was an average American family of moderate circumstances, owning their own home and planning for Carol to enter college in the fall. That is, this is the way it was up to a certain night during her senior year when the world changed for the X family.

That night, Carol went to a school dance with a senior boy who had no car. Her father offered to let Carol drive the family car, and the young people gladly accepted. When the dance ended, the couple stopped for a late snack at a downtown all-night restaurant. Leaving the restaurant, Carol mentioned being tired and the boy, also a licensed driver, offered to drive home. Carol was glad he made the suggestion, and he took the wheel for the short ride home. A few moments later, a pair of headlights suddenly loomed from an intersecting road. Tires screeched, then came a crash. For a while everything was confusion. The police came, interviewed the drivers and passengers, and Carol and her friend went home in a cab. Both cars were badly damaged, but only one person complained of any injury - a wrenched back.

Carol's father received legal notice that he was being sued as the owner of the car involved in the crash in accordance with the law of that state. The suit was for an amount several times the cost of their home.

In court, the jury decided against Mr. X. He had a \$10,000-\$20,000 liability insurance policy. The judgement

against him was for \$45,000! The injury was more serious than was at first believed. The insurance company paid the injured person \$10,000; Mr. X was ordered to pay the remaining \$35,000. The family sold their home and used the proceeds of the sale, plus all the money they had saved, toward settlement of the damages. They are now paying off the balance from Mr. X's salary and will be for years to come. Carol is working in a downtown store. For her, college is now far away.

## THE LAWS OF NATURE AND MAN

Objective: To create an understanding of the laws of nature, the laws of man, and the procedures for obtaining a license.

### I. Describe the laws of nature:

- A. Explain to the students what a law of nature is. Illustrate that these laws are always in effect and can not be broken.
- B. The following information was taken from the book, Sportsmanlike

#### Driving:

1. Friction - When two bodies are in contact, they resist motion which would cause the surface of one to slide over the surface of the other. This resistance is called friction:
  - (a) The entire control of a moving automobile depends on the grip which four small areas of tire surface have on the road. This grip results from friction.
  - (b) The friction between two surfaces sliding across each other can change. Some surfaces grip, or hold fast to, each other. Some surfaces slide easily across each other. These facts are very important for car control.
  - (c) Friction between the tires on the rear wheels of the car and the road surface enables the car to start. Without friction the wheels would merely spin as on ice or in mud. Friction between the brake shoes and drums and between tires and road surface stops the car.

2. Inertia - The inertia of a moving object tends to keep it moving in a straight line at a constant speed. The object, for example, a car, moves in a curved path only when some force pulls or pushes it out of a straight path:
  - (a) Use the example of swinging a rock tied to a piece of string to illustrate inertia.
  - (b) The control which a driver has over his car as he rounds a curve depends on:
    - (1) Speed of the car.
    - (2) Sharpness of the curve.
    - (3) Road and tire conditions.
    - (4) Side slope of the road surface - If the curve is "banked" toward the inside of the curve, control of the car is better. If the curve is flat, crowned, or banked toward the outside, control of the car is worse.
3. Gravity - Gravity pulls a car downhill so that it picks up speed. When a car is proceeding up a hill, gravity pulls the car back toward the bottom so that more power is needed to climb the hill. Braking distance required when proceeding down a hill is greater than the braking distance on a level surface.
4. Force of impact - The force with which objects meet. It comes into play, for example, when cars collide:
  - (a) The speed of the moving object - The force of impact varies as the square of the speed. If the speed is doubled, the force of impact is four times as great.

The greater the speed, the more severe the damages are likely to be in case of a collision accident.

- (b) The distance within which the object is stopped after hitting - The greater the distance within which the automobile is brought to a stop, the less the force of impact and the less the damage to the automobile and injury to the occupants. In other words, there would be less damage to a car that hit very small trees or bushes than to a car which hit a concrete wall. The distance traveled while stopping a car after hitting an object is important to the passenger in a car in terms of distance they travel inside the car if they are not wearing seat belts.
- (c) The weight of the object - When a heavy object collides with a lighter object the lighter object comes out worse.

## II. Describe the laws made by man:

- A. Man made laws are rules that are made by a group of men in government that are elected by the people.
- B. Traffic laws, like all laws, are made to protect us from injury and to maintain a smooth flow of traffic. For example, if there were no laws concerning what side of the road to drive on, there would be many head-on collisions.
- C. The basic law underlying all traffic laws is to keep your car under control at all times.
- D. Another basic law is to always obey traffic officers - obey them rather than traffic lights or signs.



- E. Other traffic laws or rules of the road will be discussed in later sections.
- F. Describe the types of violations that result in accidents:
  - 1. In 1967, the leading cause of accidents was speed too fast for conditions.
  - 2. In 1967, the second leading cause of accidents was failing to yield right-of-way.
  - 3. The third leading cause was driving left of the center line.

### III. Law enforcement:

- A. Laws made by man should not be violated, but many drivers do so.
- B. The reasons for obeying laws are to help drivers be free from accidents and to help traffic move smoothly - not to avoid being caught by the "Fuzz".
- C. Safety while violating laws, both man made and natural, depends on luck and luck sometimes runs out. Therefore, obey laws rather than try to depend on luck to keep you safe.
- D. Those who violate traffic laws may either kill or injure other people, damage their property, or be caught by the police.
- E. Penalties for conviction of traffic violations:
  - 1. The violator will receive tickets and fines for minor violations.
  - 2. Under the point system, besides having to pay a fine for a violation, after the person has a certain number of points in a certain length of time, he will lose his license.
  - 3. Suspension of a license:
    - (a) This is the temporary withdrawal of the license.
    - (b) Each state has its own laws governing this subject. In

Georgia, information can be found on pages 48 and 49 of the Georgia Driver's Manual.

4. Revocation of a license:

(a) This means that the licensee's privilege to drive a motor vehicle is terminated.

(b) Information on revocation can be found on pages 47 and 48 of the Georgia Driver's Manual.

(c) A person who commits and is convicted of any of the following offenses will have his license revoked.

(The following information was taken from the Georgia Driver's Manual):

(1) Manslaughter, voluntary or involuntary, (negligent homicide), resulting from the operation of a motor vehicle.

(2) Driving the motor vehicle while under the influence of intoxicating liquor or drugs.

(3) Any felony in which a motor vehicle is used.

(4) Failure to stop and render aid when directed to do so by an officer, hit and run, or leaving the scene of an accident.

(5) Perjury or making false affidavit or statement under oath to the Department of Public Safety.

(6) Transporting contraband or stolen goods.

IV. Describe the procedure for obtaining a license (This information was taken from the Georgia Driver's Manual):

A. Describe how to apply for a license:

1. A license may be obtained from examining stations of the

Department of Public Safety

2. There is an examining station in every county in Georgia.

Check for time and schedule.

B. Describe the different types of licenses:

1. The learner's license:

- (a) Show the students an example of a learner's license application, a temporary learner's license and a permanent learner's license.
- (b) This license is for an unlicensed person, who is learning to drive a vehicle.
- (c) The applicant must be 15 years of age and must be accompanied by a parent or guardian at the time of the first application.
- (d) Applicants must pass a vision test.
- (e) The learner's license is good for one year, and expires on the holder's birthday in the year printed on the license.
- (f) The learner must be accompanied by a licensed adult who is 21 years of age.
- (g) This permit is subject to suspension or revocation by the Department of Public Safety or authorized courts for any violations of the traffic laws of Georgia.
- (h) The learner's license is good for one year if obtained within 90 days of one's birthday, and it costs \$1.50.

2. The operator's license:

- (a) Show the students an example of an operator's license.

- (b) The applicant must be a resident of the state in which the license is to be obtained.
  - (c) The applicant must be 16 years of age or older.
  - (d) The applicant must provide adequate identification.
  - (e) He must be of good physical and mental health.
  - (f) He must pass a rules test, a sign test, a vision test, and a road test.
  - (g) The license can be bought for two years for \$2.50 or for five years for \$5.50.
  - (h) The license expires on the holder's birthday in the year printed on the card.
  - (i) This license can be revoked or suspended.
3. The chauffeur's license:
- (a) The applicant must pass the same test as the one used for the operator's license.
  - (b) He must be at least 18 years of age.
  - (c) The license can be bought for two years for \$4.50 or for five years for \$10.50.
  - (d) This license is for anyone who operates a vehicle for hire.
4. The Veteran's license:
- (a) This license is valid just as is the operator's and chauffeur's license.
  - (b) It is issued to any resident who has been honorably separated from the armed forces of the United States of America. He must have served during a crisis.

(c) This license is subject to suspension or revocation.

C. Describe the examination for obtaining an operator's license:

1. The examination is given for the purpose of educating the driver, and to eliminate those driver's who are unable to operate a motor vehicle safely:

(a) The examination determines how well you know the traffic laws and rules of safe driving.

(b) It determines how well you see.

(c) How well you drive is also determined.

(d) The examination determines if you are willing to keep your car in a safe condition.

(e) It also determines if you have the proper attitude toward the rights of pedestrians and other drivers.

2. Describe the rules test:

(a) Show the students a sample rules test.

(b) An oral test will be given to persons who can not read.

3. Describe the sign test in the same manner as used to describe the rules test.

4. Describe the vision test.

5. Describe the road test:

(a) You must have a person who is holding a valid license drive you to the place for the road test.

(b) Each applicant is required to furnish a vehicle in which to take the road test.

(c) The vehicle in which the test is taken will be checked for compliance with the Georgia Motor Vehicle Inspection Law. This law requires every vehicle registered in the

state of Georgia to be inspected at least once a year by an authorized state inspection station, and a current sticker is to be displayed in the lower left corner of the windshield.

(d) No one other than the applicant and the examiner may be in the vehicle during the road test.

(e) The driving test is the most important phase of the examination.

(f) The examiner will direct you to make left and right turns, back up, park, etc. He will also note your posture and your emotions, etc.

6. If the applicant fails to pass the test in three attempts he must wait thirty (30) days to take it again.

D. Describe the restrictions that may be imposed on a license:

1. The state patrol may impose certain restrictions on a license such as a person can not drive a car if he needs glasses, but does not wear them. In other words, this person is restricted to driving with his glasses on.

2. Operating a motor vehicle in violation of restrictions imposed on a license is a more serious offense than driving without a license and could result in the withdrawal of the driving permit.

E. Describe the procedures for the renewal of a driver's license:

1. The license can be renewed at any license examining station.

2. Requirements for renewals include paying the proper fee for the type of license wanted. An applicant for a renewal is

subject to a full or partial re-examination if the examiner deems it necessary.

F. Describe the reasons for license disqualification:

1. The applicants' license is currently suspended or revoked in Georgia or in any other state.
2. The applicant is considered to be a habitual drunkard or user of narcotic drugs.
3. He is adjudged to be physically or mentally incompetent, due to disability or disease, to safely operate a motor vehicle.
4. He fails to successfully complete the required driver's license tests.

G. It is illegal to drive without your license in your possession.

H. You can have only one Georgia license. Out of date or out of state licenses must be turned in.

I. A duplicate license must be obtained if yours is lost. Write down the license number and keep it in a safe place to help get a duplicate.

J. If a licensee changes address or changes name through marriage or any other legal process, he should immediately notify the: Driver License Bureau, Georgia Department of Public Safety, Atlanta, Georgia 30307.

K. Non-residents can drive in Georgia for 30 days and show proof of out of state license.

L. New residents must take the proper tests to obtain a Georgia license.

## THE SIGNS

Objective: To teach one to recognize, understand, and obey street markings, signs, and signals, and traffic control lights.

### I. Describe the various street markings:

A. Discuss the various street markings and conduct practice drills.

B. Use the Traffic Illustration Board to illustrate the following:

1. White striped lane markings.
2. White solid center line markings.
3. Concrete and grass medians.
4. Directional arrows painted on the pavement at intersections.
5. Control signs (stop sign) painted on pavement.
6. White solid line to designate the edge of the pavement.
7. Crosswalks and stop lines at intersections.
8. Yellow no parking lines in parking lot.
9. Parking spaces.
10. Yellow no passing lines.
11. Other

### II. Describe the various road signs:

A. Each of the basic sign shapes should be drawn on the board, explained and an example of each should be displayed; then each student should be drilled until he can give all of the desired information:





1.



The Stop Sign

- (a) Shape: eight sided or octagon.
- (b) Meaning: Stop
- (c) Color: Red and white
- (d) What to do: Come to a full stop and make sure the way ahead is clear before proceeding.

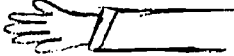



2.  The Warning Sign
  - (a) Shape: Diamond.
  - (b) Meaning: Caution or warning.
  - (c) Color: Yellow and black.
  - (d) What to do: Slow down.
3.  The Yield Sign
  - (a) Shape: Triangle.
  - (b) Meaning: Yield right of way.
  - (c) Color: Yellow and Black.
  - (d) What to do: Slow down at intersection and stop if necessary.
4.  The Railroad Sign
  - (a) Shape: Round.
  - (b) Meaning: Railroad crossing ahead.
  - (c) Color: Yellow and Black.
  - (d) What to do: Slow down and proceed with caution.
5.  The Regulatory Sign
  - (a) Shape: Rectangle.
  - (b) Meaning: Tells you what to do and what not to do.
  - (c) Color: White and Black.
  - (d) What to do: Do what it says to do.


- B. Use the sign chart, The Standard Traffic Control Signs, prepared by the U.S. Department of Commerce, (for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402. Price 20 cents per copy, \$15.00 per 100. Also available in 11" x 17" size at 10 cents per copy, \$5.00 per 100), the small signs in the room, and the Traffic Illustration Board to discuss the specific symbols or writings on each sign.
- C. Use the Traffic Illustration Board to show the location of the different signs.

### III. Describe the various hand signals:

- A. The following are hand signals used by drivers before changing lanes, maneuvering to or from a parking space, or making a turn:

1. LEFT: 

2. RIGHT: 

3. SLOW DOWN OR STOP: 

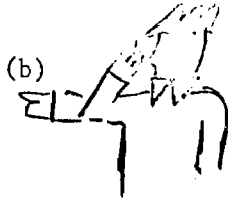
B. The following are signals used by an officer of the law when directing traffic. (This information was taken from the book, How To Drive):

1. Stop: The officer stands sideways to lane on which he will stop traffic. He then points to traffic in the lane to be stopped. Then he turns the flat of his hand toward the traffic to be stopped:

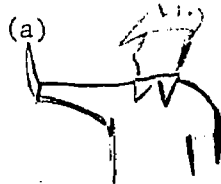


2. Go: The officer turns sideways to lane on which traffic is to start. He points at the traffic in that lane, and then beckons the traffic to go:



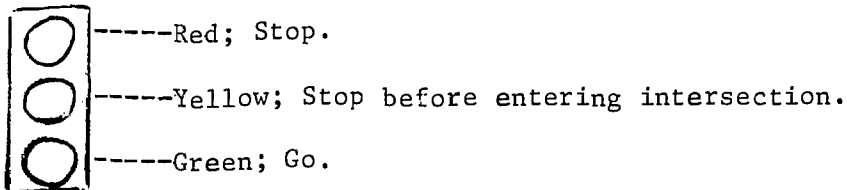


3. Left turn: The officer stops oncoming traffic. He then points at traffic which will turn left. Then he signals to make a left turn:

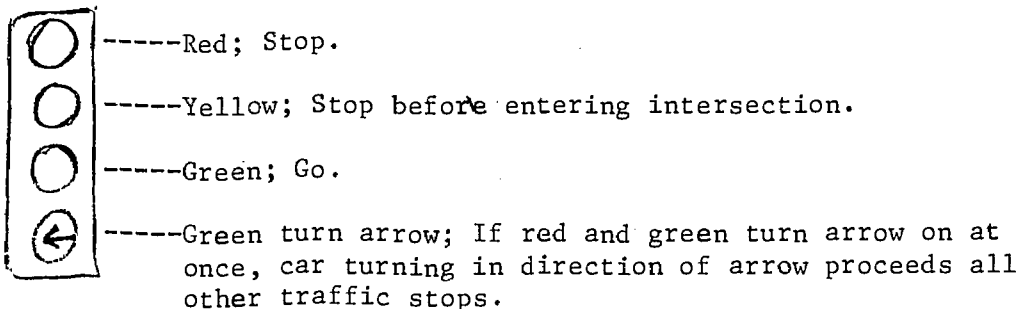


#### IV. Describe the various traffic control lights:

- A. Discuss the regular three position light by explaining the meaning of each color and its position on the light.



- B. Discuss the four position light:



C. Discuss the caution light:

1. A flashing red light means to stop as at a stop sign and proceed when safe.
2. A flashing yellow light means to proceed with caution.

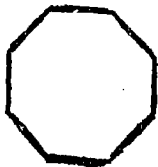
D. Discuss the flashing red signal lights at a railroad crossing.

V. Give the following "sign" test:

- A. Explain to the students the correct method of taking a multiple choice test.
- B. The signs or other traffic control devices should be drawn on individual sheets of poster paper. These devices are shown to the students as the questions are read out loud. After observing the object shown and listening to the question and possible answers, the students are to mark the correct answer on an answer sheet.

C. The test:

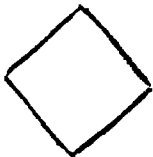
1.



This is the shape of a:

- (a) Railroad crossing sign
- (b) Speed limit sign
- (c) Curve sign
- (d) Stop sign

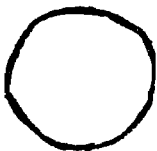
2.



This is the shape of a:

- (a) Warning or caution sign
- (b) Sign that warns of a curve
- (c) Sign that warns of a crossroads
- (d) All of the above

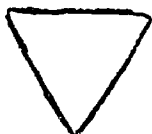
3.



This is the shape of a:

- (a) Railroad ahead sign
- (b) Caution sign
- (c) Stop sign
- (d) All of the above

4.



This is the shape of a:

- (a) Curve sign
- (b) Speed limit sign
- (c) Yield sign
- (d) All of the above

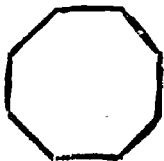
5.



This is the shape of a:

- (a) Stop sign
- (b) Regulatory sign
- (c) Caution sign
- (d) All of the above

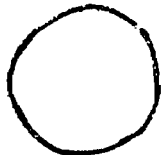
6.



The color of this sign is:

- (a) Red and white
- (b) Red and black

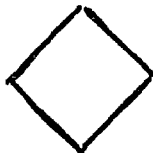
7.



The color of this sign is:

- (a) Black and white
- (b) Yellow and black

8.



The color of this sign is:

- (a) Yellow and black
- (b) Black and white

9.



The color of this sign is:

- (a) Red and black
- (b) Black and white

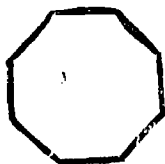
10.



The color of this sign is:

- (a) Yellow and black
- (b) Yellow and white

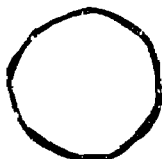
11.



This sign directs a driver to:

- (a) Stop and proceed when safe
- (b) Slow down
- (c) Speed up

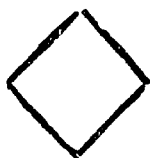
12.



This sign directs a driver to:

- (a) Stop
- (b) Slow down
- (c) Speed up

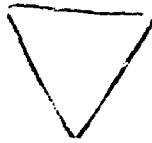
13.



This sign directs a driver to:

- (a) Stop
- (b) Slow down
- (c) Speed up

14.



This sign directs a driver to:

- (a) Stop
- (b) Slow down and stop if necessary
- (c) Speed up

15.



This sign warns of a:

- (a) Sharp curve to the right
- (b) U-Turn
- (c) Road entering the driver's road from the right

16.



This sign warns of a:

- (a) Bump
- (b) Soft shoulder
- (c) Winding road

17.



This sign warns of a:

- (a) Four-way crossroads
- (b) Yield right of way
- (c) Narrow bridge

18.



What does this sign mean?

- (a) All traffic must turn to the right or left
- (b) One-lane bridge ahead
- (c) Two-lane widens to four lanes ahead

19.



This sign means:

- (a) A sharp curve to the right
- (b) A school crossing
- (c) A road entering from the right at an angle

20.



This sign means:

- (a) A sharp curve to the left
- (b) A road entering the driver's road straight from the left
- (c) A four-way crossroad

21.



This sign means:

- (a) To stop by this sign and proceed when safe
- (b) To slow down and be ready to stop for a stop sign which is farther ahead
- (c) There is a rest stop up the road

22.



This sign means:

- (a) The pavement ends and the road becomes a dirt road
- (b) There is a bad bump ahead
- (c) There is a narrow bridge ahead

23.



Which message would be found on a sign having this shape:

- (a) No left turn
- (b) Speed limit
- (c) No U-Turn
- (d) All of the above

24.



Which message would be found on a sign having this shape:

- (a) No parking
- (b) Curve sign
- (c) Danger sign
- (d) Stop sign

25.



Which message would be found on a sign having this shape:

- (a) No right turn
- (b) No left turn
- (c) Both (a) and (b) are right
- (d) Both (a) and (b) are wrong

26.



This sign means:

- (a) A driver can pass another car if clear
- (b) You are on a one-way street
- (c) A driver can not pass another car
- (d) All of the above

27.



This sign means:

- (a) All traffic should proceed in the direction of the arrow
- (b) No cars should be driven in the opposite direction to the way the arrow points
- (c) All of the above

28.



This sign means:

- (a) A driver can enter at this point
- (b) A driver can not enter at this point
- (c) This sign tells drivers to drive with care

29.



This sign means:

- (a) All cars must turn left
- (b) Only cars in first lane can turn left
- (c) Cars in the first lane can only turn left; cars in the second lane can turn left or go straight

30.



This sign means:

- (a) U-Turns are not allowed
- (b) You can not make a right or left turn
- (c) There is a sharp curve in the road

31.



This sign means:

- (a) A driver can not go over 35 MPH
- (b) A driver can not go any slower than 35 MPH
- (c) It is 35 miles to the next town

32.



Which message would be found on a sign having this shape?

- (a) Narrow bridge
- (b) Yield ahead
- (c) Walk on left facing traffic
- (d) All of the above

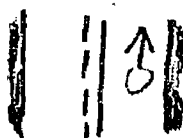
33.



Which message would be found on a sign having this shape?

- (a) Stop
- (b) School crossing
- (c) Divided highway
- (d) No left turn

34.

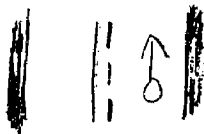


A driver:

- (a) Can pass
- (b) Can not pass



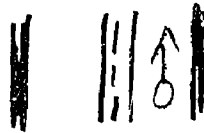
35.



A driver:

- (a) Can not pass
- (b) Can pass if clear

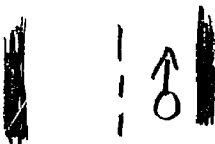
36.



In this situation:

- (a) Passing is prohibited
- (b) Passing is permitted

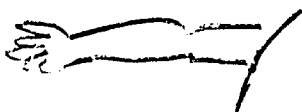
37.



In this situation:

- (a) Passing is prohibited
- (b) Passing is permitted

38.



This arm signal means:

- (a) Left turn
- (b) Right turn
- (c) Slow down or stop

39.



This arm signal means:

- (a) Left turn
- (b) Right turn
- (c) Slow down or stop

40.



This arm signal means:

- (a) Left turn
- (b) Right turn
- (c) Slow down or stop

VI. At this time, use another class period to take the students on a driving tour and point out the following:

- A. Different types of street markings.
- B. Different types of signs.
- C. Different types of turn signals.
- D. Different types of traffic control devices.

## THE MANEUVERS

I. Lane driving, stopping distance, speed limits, following distance, passing:

A. Lane driving:

1. You must, generally speaking, drive within one single lane, moving carefully from this lane to another when you want to make a left or right turn or when you speed up to pass a car in front of you.
2. Never straddle a lane marking.
3. On a highway of four or more lanes, you should drive in the left lane next to the median or divider if you wish to move faster or if you are preparing to make a left turn. The right lane is used by slower moving traffic and by traffic wishing to turn right.
4. Obey signs and lights that direct you to drive in certain lanes.
5. On highways divided into two roadways, drive only on the right roadway and cross at marked crossings or intersections.
6. Two cars proceeding in opposite directions on a one lane street - each driver should give the other at least one half of the roadway.

B. Stopping distance:

1. Explain reaction time to the students, and test each of them to determine their own reaction time.
2. The following are minimum stopping distances at different speeds. (Taken from the book, How to Drive):

MPH	Reaction Time Distance	Braking Distance	Total Stopping Distance
10	11 Feet	9 Feet	20 Feet
20	22 Feet	23 Feet	45 Feet
30	33 Feet	45 Feet	78 Feet
40	44 Feet	81 Feet	125 Feet
50	55 Feet	133 Feet	188 Feet
60	66 Feet	206 Feet	272 Feet
70	77 Feet	304 Feet	381 Feet

3. The following are stopping distances on dry, wet, and icy roads. (Taken from a General Motors Chart):

Speed	Dry Pavement	Wet Pavement	Ice or Packed Snow
20	40 Feet	50 Feet	89 Feet
30	77 Feet	101 Feet	183 Feet
40	138 Feet	171 Feet	311 Feet
50	190 Feet	258 Feet	472 Feet
60	263 Feet	366 Feet	666 Feet
70	346 Feet	487 Feet	897 Feet
80	439 Feet	623 Feet	1,158 Feet

4. Factors that affect stopping:

- (a) Surface of the road; type, worn or bumpy.
- (b) Leaves, sand, or mud on the road.
- (c) Slope of the road; up or down hill.
- (d) Tire condition; worn tread; pressure.

- (e) Condition of the brakes.
- (f) Two or four wheel brakes.
- (g) Physical condition of the driver.
- (h) Reaction time.
- (i) Equalization of brakes.
- (j) Type of tire; snow, mud, chains, etc.

C. Speed and speed limits:

1. Studies show that the chances of death increase as the speed of the vehicle increases:

Speed	Chances of Death
25 MPH	1 in 167
35 MPH	1 in 111
45 MPH	1 in 67
55 MPH	1 in 40
65 MPH	1 in 20
75 MPH	1 in 8
Over 80	Almost certain

2. Speed limits:

(a) Maximum speed limits:

- (1) Interstate highways in daytime - 70 MPH
- (2) State and U.S. Highways in daytime - 60 MPH
- (3) Interstate at night - 65 MPH
- (4) State and U.S. Highways at night - 50 MPH

- (5) School buses loaded with children - 40 MPH
- (6) Business or residential area, unposted - 35 MPH
- (b) Minimum speed limits:
  - (1) Interstate highways - 40 MPH
  - (2) All other highways - no vehicle shall be driven at such a slow speed as to impede or block the normal and reasonable movement of traffic unless the reduced speed is necessary for safety or to comply with the posted speed limit.

D. Following other cars:

1. Always keep far enough behind to stop within a safe distance if the other vehicle suddenly slows down or stops. This distance depends on:
  - (a) The speed of the vehicles.
  - (b) The condition or type of road.
  - (c) Other traffic.
  - (d) The weather.
  - (e) The condition of your car.
  - (f) Night or day light conditions.
  - (g) Your own physical condition.
2. Allow at least one car length for each 10 miles per hour of speed.
3. Most rear-end wrecks are caused by the driver in the rear following too close.

E. Passing other cars:

1. Before you cross to the left of the center line, make sure there is plenty of space ahead for you to pass and get back in the right lane before meeting any car coming from the opposite direction.

2. At night in rural areas, don't depend on your lights as a warning to the driver you are over taking. Sound your horn.
3. If you are changing your lane of traffic, be sure no one behind you has started to pass, then give a left turn signal so the driver following you will know what you intend to do.
4. After passing, check your rear-view mirror. When you can see the passed vehicle in your mirror, give a right turn signal and move back into the right lane.
5. Never pass in any of the following situations:
  - (a) You are approaching the crest of a hill or on a curve, so that your view is obstructed.
  - (b) You are approaching within 100 feet of an intersection or railroad crossing.
  - (c) Your view is obstructed within 100 feet of a bridge viaduct or tunnel.
  - (d) You are in a no passing zone designated by signs.
  - (e) There is a solid yellow line on your side of the center line.

## II. Turns and Turn-arounds:

### A. Turning at intersections (taken from the State of Georgia Driver's Manual):

1. Decide well ahead of time where you want to turn. If you are not sure, drive slowly until you can read the street signs or markings or decide in some other way, the direction

you desire to turn. Never make last minute turns. They are too dangerous.

2. It is important to always make sure in advance that the turn can be made safely. Check to the front and rear and sides for cars and pedestrians, and also watch for situations developing in the street you will enter upon turning.
  3. Get into the proper lane as soon as possible. The faster the traffic is moving, the sooner you should get into the proper lane.
  4. At least 100 feet before making the turn, signal your intentions. Signals are given to inform both pedestrians and drivers of your intentions. In cases of bright sunlight where other drivers can not see your lights, use hand signals. (Other rules of signaling to remember - do not depend on flashing red lights of a truck to be a signal for you to pass; and when driving at night, do not flash your headlights as a signal to pass.)
  5. Slow down before you reach the crosswalk and complete the turn at the same speed at which you enter the intersection.
  6. Make the turn correctly. This will be easy if you are in the proper lane and are traveling slowly enough at the time you start the turn.
  7. Finish the turn in the proper lane.
  8. Do not turn the steering wheel left until ready to make a left turn.
- B. Demonstrate the following turns on the Traffic Illustration Board and have the students practice them:

1. Right turns:

- (a) From 2 lane roads to 2 lane roads.
- (b) From 4 lane roads to 4 lane roads.
- (c) From 6 lane roads to 4 lane roads.
- (d) From 4 lane roads to 6 lane roads.
- (e) From one-way streets to two-way streets.
- (f) From two-way streets to one-way streets.
- (g) Other

2. Left turns: same as above.

3. Turns from a one-way street to another one-way street.

4. Turns to and from a three lane street.

5. Other

C. Turn-arounds: Demonstrate the different methods of turning around on the Traffic Illustration Board and discuss which method best fits a certain situation:

- 1. U-Turns.
- 2. Turns using side roads.
- 3. Three-point turns in roads.
- 4. Driving around the block.
- 5. Other

III. Right-of-way Laws (The following information was taken from the Georgia Driver's Manual).

- A. Although there are rules governing "who shall yield" and "who shall go" at intersections, you should never put those rules ahead of safety.
- B. If you have the right-of-way and the other drivers yield to you, proceed immediately.



C. When in doubt about who has the right-of-way, always yield the right-of-way.

D. Rules of right-of-way:

1. When approaching an intersection at which there are no traffic signs or signals, you must yield the right-of-way to the other driver if he has already entered the intersection.
2. If two cars approach an intersection at the same time and there are no traffic signs or signals, the driver on the left should yield the right-of-way to the driver on the right.
3. If you wish to enter a through street or highway marked by a stop sign, you must come to a complete stop before entering the intersection and proceed only when you can safely do so without interfering with other oncoming traffic. If there is no stop sign, you must yield to traffic on the through street or road, proceeding only when it is safe.
4. If you come to an intersection and another car has already entered the intersection, by the time you reach it, and the driver is signaling for a left turn; you should wait and let him turn first. If your car and his enter the intersection at the same time, the car that is going straight through has the right-of-way.
5. If you have stopped for a traffic light at an intersection, and wish to turn left when the light shows green, you must yield to the traffic waiting on the opposite side of the traffic light.

6. If you have entered an intersection and wish to turn left, you must yield the right-of-way to any other car or vehicle that is already in the intersection or close enough to the intersection to be dangerous.
7. If you are entering a street or highway from a private drive or side road, you should yield the right-of-way to cars on the street or highway.
8. Authorized emergency vehicles have the right-of-way when they are giving a signal either audible (siren) or visual (flashing red or blue light). If you hear a siren, pull to the curb (right side) and stop. Never follow an emergency vehicle.
9. Funeral processions - when any funeral procession identifies itself by using headlights on all cars and by keeping in close formation, the driver of every other vehicle should yield the right-of-way.
10. School Buses:
  - (a) The law requires you to stop before reaching from either direction, a school bus that has stopped to load or unload passengers under the following conditions:
    - (1) On any two-lane road.
    - (2) On any four-lane or multiple road where opposing traffic is separated by painted lines on the pavement or by any median too narrow for an adequate safety zone for pedestrians.
  - (b) When you have stopped, do not drive again until the bus moves on or the driver signals for you to move.

- (c) An extended stop arm and flashing red lights on the bus are usual signals of a stopped school bus. 'It is better to let the sight of a yellow bus be a warning to slow down and be ready to stop.
- (d) You must always stop and yield right-of-way when a school safety patrol member is signaling for you to stop.

11. Pedestrians:

- (a) Pedestrians in a marked crosswalk have the right-of-way except when they enter the crosswalk on a red light or against the direction of a traffic officer. Always watch out for pedestrians - stop if necessary.
- (b) When necessary, blow horn to warn pedestrians.
- (c) Always drive with caution when children are playing or people walking. This includes bicycle riders.
- (d) Never pick up a hitchhiker or hitchhike yourself.
- (e) The law requires drivers to stop and yield right-of-way to a blind person who has entered a street carrying a white cane or accompanied by a guide dog.

E. Use the Traffic Illustration Board to demonstrate and practice the rules of right-of-way.

IV. Expressway Driving (This information was taken from the Georgia Driver's Manual):

- A. Use the Traffic Illustration Board to illustrate the following material.
- B. Most drivers using expressways are interested in covering distance and saving time. Thus, if your needs are not geared

to expressway traffic patterns, regular roads should be used. High speed expressway driving calls for more advanced concentration to think ahead and anticipate actions.

- C. Using the acceleration lane entry should be made smoothly with the vehicle yielding to traffic, but gradually merging with the flow of vehicles without interference. Some access points do not have acceleration lanes and require the driver to stop before entering. Careful observance of signs will designate the proper action to be taken. Always enter and stay in the right lane until merged with expressway traffic flow.
- D. Following distance should be increased due to the increase in speed. Fatal expressway accidents are caused frequently by rear-end collisions resulting from vehicles following too closely at high speeds.
- E. Stops, other than in rest areas, should not be made except in an emergency. Such stops, if absolutely necessary, should be made only after giving the correct signal and by moving the vehicle off the pavement as far as the shoulder permits. If help is desired, signal passing patrolman or highway crew members by raising the hood of your vehicle. Under no circumstances should one walk or stand on the traveled portion of the expressway.
- F. Leaving the expressway is very easily executed when planned in advance and exit signs have been considered. Deacceleration lanes should be used to non-expressway conditions.
- G. Avoid the tendency to drive too fast on regular roads after leaving expressways.

V. Parking (Taken from the Georgia Driver's Manual):

- A. Before leaving a vehicle, set the parking brakes, stop the motor, and remove the key.
- B. To reduce thefts:
  - 1. Lock all doors and the ignition every time you park - even in your own driveway.
  - 2. Park only in well lighted areas where there is plenty of traffic.
  - 3. Instead of leaving packages in plain view inside the car, lock them in the trunk.
- C. Before you pull out of a parallel parking space, you should always give a left-turn arm signal, because your electrical turn indicators are liable to be obscured by other parked vehicles.
- D. Demonstrate for the students the correct methods of parking downhill, uphill with a curb, and uphill without a curb.
- E. Demonstrate angle parking, straight-in parking, and parallel parking on the Traffic Illustration Board.
- F. Georgia law prohibits parking or stopping in any of the following places:
  - 1. On a sidewalk, bridge, or within a tunnel.
  - 2. In front of a drive way.
  - 3. Within 10 feet of a fire hydrant.
  - 4. Within 15 feet of a railroad crossing.
  - 5. In any intersection or crosswalk.
  - 6. Within 20 feet of a crosswalk.

7. Within 30 feet of any stop sign or other traffic control signal.
8. Within 20 feet of the driveway to a fire station.
9. At any place where an official sign prohibits parking.

## DRIVING IN ADVERSE CONDITIONS AND EMERGENCIES

Objective: To teach the students the proper methods of driving in adverse road and weather conditions, and to teach them to spot and react to emergency situations.

### I. Driving on long trips (Taken from How to Drive):

A. Highway hypnosis. - As you drive along, mile after mile of broad, straight, level, easy roadway, you may grow lulled by the constant purr of the engine, hum of the tires, sameness of the scenery, fixed eye position and general monotony of easy car operation. You may become a victim of what is sometimes called "highway hypnosis". That is, you take on a false sense of security and grow less aware of actual traffic conditions. In this sub-alert state, freeway drivers have been known to drive off broad straight roads, plow into other traffic or anything in their paths, or even dose off at the wheel.

### B. To maintain alertness on long trips:

1. Have a window open so that a stream of fresh air can blow across your face.
2. Make slight variations in speed.
3. Stop and rest every hour or two.
4. Avoid heavy, sleep-inducing meals.
5. Glance at passing scenery, to avoid steady focusing of eyes ahead.
6. Wear loose, comfortable clothes.

7. Avoid long driving periods, especially at night.
8. Listen to a snappy radio program.
9. Avoid over-smoking.
10. Converse with others, or sing.
11. Be interested in road markings, traffic signs, colors, other traffic and the shifting scenery outside the car.

II. Driving at night (Taken from the Georgia Driver's Manual):

A. Rules for driving at night:

1. When you meet a car at night, you must lower your headlight beams (dim your lights) within 500 feet of the approaching driver.
2. When you follow another vehicle, you must dim your lights when you are 200 feet or closer to the car ahead. This is required by law.
3. You should lower your light beams when you are driving on a well lighted street.
4. Avoid looking directly into the lights of cars you are meeting.
5. Keep your headlights properly adjusted so that the lower beams are not aimed upward into an approaching driver's eyes.
6. Keep your windshield clean.
7. Slow down when facing glare from approaching headlights.
8. Be sure that you can stop, whenever necessary, within the distance you can see clearly ahead.
9. Watch continuously and carefully for pedestrians along the roadside.



10. Your car lights must be turned on at any time when the natural light or daylight is not good enough for you to see persons or vehicles clearly at a distance of 500 feet.
  11. If your car or vehicle is parked upon a street or highway with headlights on, the headlights must be dimmed. If your car is equipped with parking lights, use them when parked on the shoulder of an open highway at night. Use flasher lights if your vehicle is so equipped.
- B. Do not wear sun glasses when driving at night. When wearing them for daylight driving, don't wear fancy colored lenses. Many colors - yellow, blue, red, brown, etc. - seriously distort the natural colors of the objects you see through your sun glasses and may not provide adequate glare protection. Sage green and grey are the only colors which don't appreciably affect your color perception.

### III. Adverse road and weather conditions:

- A. Adverse road conditions (Taken from Sportsmanlike Driving):
1. Mud on pavement - Wet pavements are made more slippery by even a little mud which may have been washed across a road by rain.
  2. Wet leaves - This makes pavement slippery. Pumping brakes may be necessary.
  3. Wet steel rails - Avoid wet trolley and railroad tracks. Steel traffic plates or steel gratings over bridges can be very treacherous when wet. They call for a 20 to 25 mile-per-hour speed and no more.

4. Brick Pavements - Brick pavement loses a little of its good traction quality when wet. It can be very slippery when icy. A skilled driver will reduce his speed when he encounters wet brick.
5. Wet or frosty planks - Any wooden surface in which the planking is laid parallel to your direction of travel is dangerous when wet and exceedingly dangerous when covered with frost or ice. Planks laid crosswise on the road are ordinarily not dangerous unless covered with ice or frost.
6. Sand and gravel on roads - Dry sand or gravel acts the same way a quantity of buckshot or marbles under your wheels would act. Your tires can not get a grip because they slide.
7. Gravel roads - These are fine when there is enough dirt and moisture to keep them packed down hard with as even a surface as possible. When there is not enough of this binder to pack down the gravel, the road becomes rutted. Free gravel lies in the ruts and over the road surface. In such conditions, speeds of 30 to 35 MPH are dangerous. If the car's tread is a bit narrower or wider than the ruts, either the front or rear end, or both may jump clear of the rut and head for the ditch. Gravel roads may extend for miles and be well packed. Suddenly there may be an unexpected stretch of loose rutted gravel that will trick the unwary.

B. Driving on a slippery surface:

1. Overpowering - Those who are not accustomed to driving when road surfaces are slippery have a tendency to apply power too rapidly. Foot pressure on the accelerator should be very light at first, then increased very gradually.
2. Oversteering - The steering wheel turns with little effort when your car is on ice. It gives you the feeling that the front wheels are jacked up off the ground. Steering action doesn't feel firm. Make slight steering changes.
3. Overbraking - Overbraking locks wheels and may trigger a skid....brakes should be applied sooner and more gradually than in normal operation. If the wheels lock, pressure on the brake pedal should be released immediately and then repeated lightly and more gradually.
4. Climbing slippery hills - Although it is important that speeds always be held down to safe limits, controlled momentum as we start uphill is often necessary when traction is poor. We say that we need a running start. If there are vehicles stalled on the hill and blocking traffic as you approach, it is usually best to stop some distance before reaching the hill to await clearing of the road. Failing to wait and being forced to stop on the hill might mean being unable to get started again. Driving on the wrong side of

the road to pass a stalled vehicle can be very dangerous.

C. Driving in rain:

1. In a heavy downpour, pull safely off the road and turn on flasher or parking lights.
2. Use low beam headlights in a heavy rain so that other drivers can see you better.
3. Reduce speed in accordance to the amount of rain falling.
4. Roads are more likely to be slippery just after it begins to rain or drizzle. The first few drops of rain loosen the grease and dirt. These mix with the rain and the road is quickly covered with a slippery film that makes it extremely dangerous. The first few drops of rain is a danger signal to slow down and use extra caution.

D. Driving in fog (Taken from How to Drive):

1. In dense fog, creep. Drive as far as possible to the right of the center line, watch the road-edge carefully.
2. Drive with low-beam headlights, which throw the light down on the road rather than out into the fog to be reflected back at you.
3. Avoid sudden stops. When you have to stop, tap on the brake pedal so your stop lights will warn drivers following you. Pull completely off the road before stopping.

E. It is best to avoid driving in adverse conditions unless absolutely necessary. Try to avoid roads with steep hills or sharp curves. Ice patches may remain on bridges, at the bottom of hills, or in holes after it has melted from other areas.

#### IV. Emergency Situations:

##### A. Watching for hazards:

###### 1. The Smith system:

- (a) Aim high in steering.
- (b) Get the big picture - Keep an all inclusive watch over the wide deep roadway scene - to the front, sides and rear - for a block ahead in city streets and up to a half mile ahead on highways.
- (c) Keep your eyes moving.
- (d) Make sure they see you.
- (e) Leave yourself an out.

##### B. What to watch for (Taken from How to Drive and Know Your Car):

- 1. Playing children especially those playing with balls. A ball in the street could mean a child will follow.
- 2. Exhaust coming from a parked car, a person sitting behind the steering wheel, brake lights or back-up lights on mean the car may pull out in front of you.
- 3. A slight movement of a street-side door of a parked car shows that someone may step out on the wrong side.
- 4. An impatient driver ahead, nosing out around a car and so misjudging distance that he will be forced to cut in sharply.
- 5. Brake lights flashing on cars ahead.
- 6. A pedestrian crossing the street or about to cross it.
- 7. An erratic driver ahead who slows down at unexpected places without signaling and then darts on ahead, or who weaves rapidly from lane to lane.

8. A strip of icy road ahead, a section of wet pavement, a large puddle of water.
  9. A car on the crossroad moving rapidly toward a stop sign and apparently not about to stop.
  10. The left front wheels of oncoming cars for signs of swerving in order to avoid surprise turns.
  11. Watch not only the car directly in front of you, but the car ahead of it, for signs of slowing.
  12. Cars following you for signs of following too close or passing. Don't make sudden stops or direction changes when being followed closely. Warn the driver of your intentions in plenty of time.
- C. What to do in emergencies (Taken from the basic curriculum guide, Safety and Pre-Driver Education, by Title VI, Dunbar Service Center, Johnson City, Tennessee, 1969-1970):
1. Animals on the road - Don't spare the animal for human lives. Avoid the animal - if doing so will not cause you to become involved in an accident.
  2. Brakes fail - Take foot off accelerator pedal. Pump brake repeatedly. Shift to low gear if possible. Turn off the ignition. Rub tire against shoulder of pavement or curb, or hit a fence or small bushes quickly before picking up speed if you are on a mountain road.
  3. Gas pedal sticks - Turn off ignition. Depress clutch or move selector to "N". Apply brakes and pull off the highway.

4. Hood flies up - Look ahead out of the left window. Look under the center of the hood. Pull off the road as soon as possible.
5. Lights fail - Try other lights - hit turning signal, dimmer switch, etc. If battery or cable fail - steer as best you can and stop quickly.
6. Recovering from a skid - Keep yourself under control. Avoid braking. Steer in the direction in which the rear end of the car is skidding. Straighten front wheels when car begins to straighten.
7. Running off pavement - Release accelerator pedal. Keep firm grip on the steering wheel. Resist the urge to return to the pavement edge until the car is under control. Turn gradually back onto the highway after slowing down. It is best to wait for a driveway or an area where the pavement is nearly level.
8. Stalling on railroad tracks - If a train is coming, leave the car. If time permits, get help to push the car off the tracks.
9. Deep ruts and/or holes in the road - Slow down and try to avoid, but do not swerve suddenly or too sharply. Maintain a firm grip on the steering wheel.
10. Tire blows out - Avoid braking. Keep a firm grip on the steering wheel and pump the brakes lightly. When speed is greatly reduced, gradually pull completely off the road to stop and change the tire.

11. Car catches on fire - Carry fire extinguisher. Pull off the road as quickly as possible. Turn the car off. Get passengers out. Get back out of danger.
12. Bee in car - Ignore while driving. Stop on shoulder of road and then remove the bee.
13. Wrong-way drivers:
  - (a) When meeting a wrong-way driver, take defensive action. If at all possible pull onto the shoulder, try to get out of the oncoming driver's path. Do not attempt to outmaneuver him. Once out of the way try to flash your lights and blow your horn to attempt to make the driver in error aware of what is happening.
  - (b) When you become a wrong-way driver - Don't make a U-turn or try to back up, unless you have plenty of visibility and traffic is clear. Pump your brake until you slow your car, don't go into a skid. Steer to the nearest shoulder and stop, facing traffic. Wait for police to control traffic before you attempt to turn around. Use your emergency flasher to warn oncoming drivers. All passengers, including the driver should get out of the car.
14. When an accident is imminent and unavoidable - Steer until the accident is unavoidable. Turn off ignition to lessen the possibility of fire. Steer to the right normally, however, adjust to the situation. Stay in the car. Cross arms over your face and press head and arms against dash or steering wheel. Right front seat passenger - cross arms

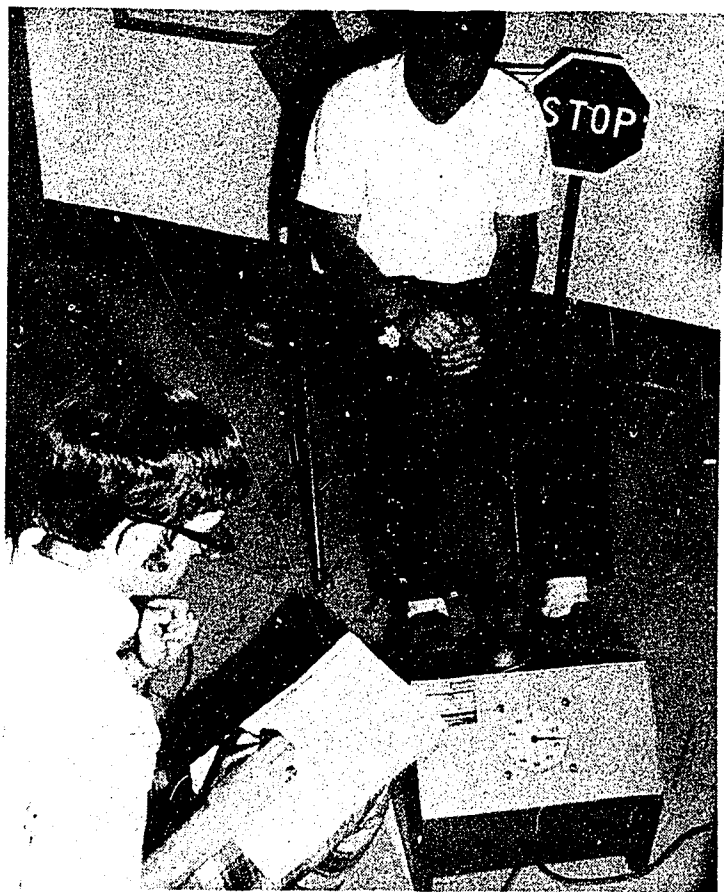


over your face and press head and arms against dash.

Rear seat passengers - cross arms over face and press head and arms against the rear of the front seat. Each person in the car should have seat belts securely fastened.

15. Rear end collision imminent - Throw yourself across front seat or slump down so your head is supported by back of front seat.

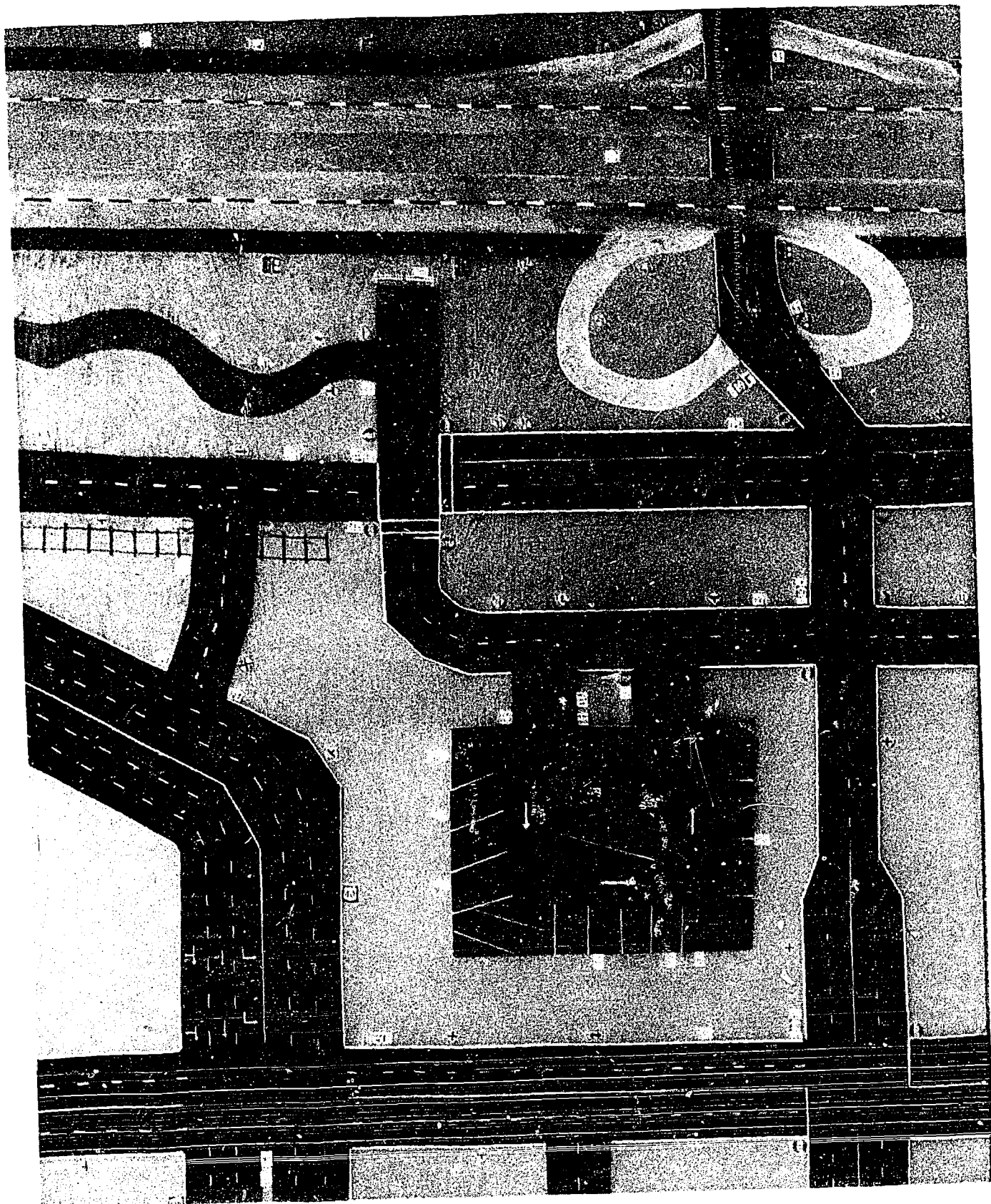
D. The above description of emergency reactions is general in nature. Every situation is different and calls for different responses. In an emergency, things happen so fast and the fear or tension is so great that correct responses are hard to put into action. Therefore, it is always best to use proper driving habits to prevent emergencies from happening in the first place.



A Student's  
Reaction Time  
Is Checked

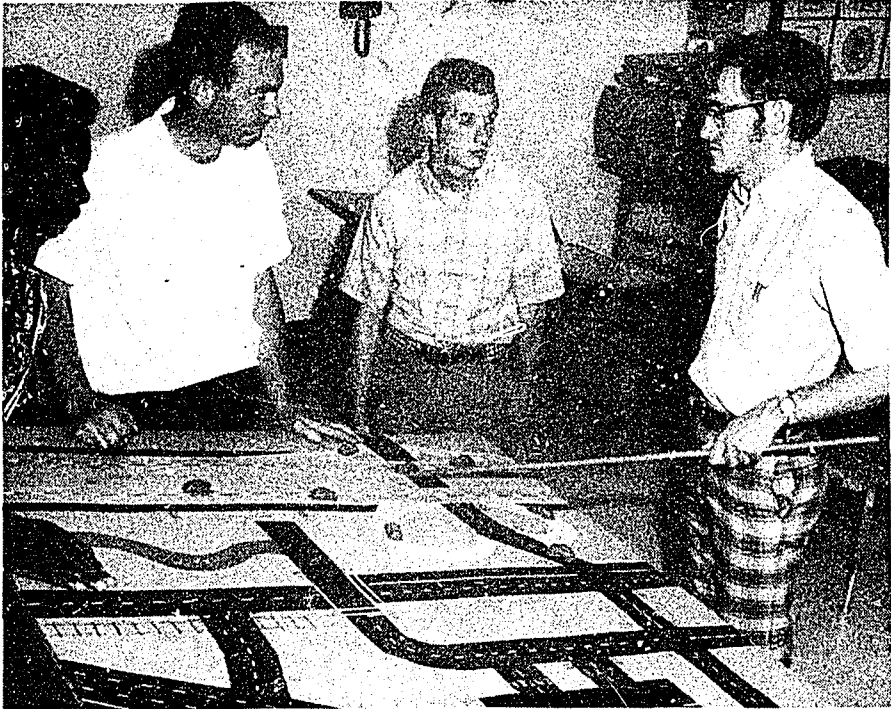
A Test For  
Steadiness





Traffic Problem And Illustration Board





## THE STATE'S DRIVER'S MANUAL

**Objective:** To promote a better understanding of the state's driver's manual for all students, and to aid capable students in preparing to take the necessary tests to obtain their license.

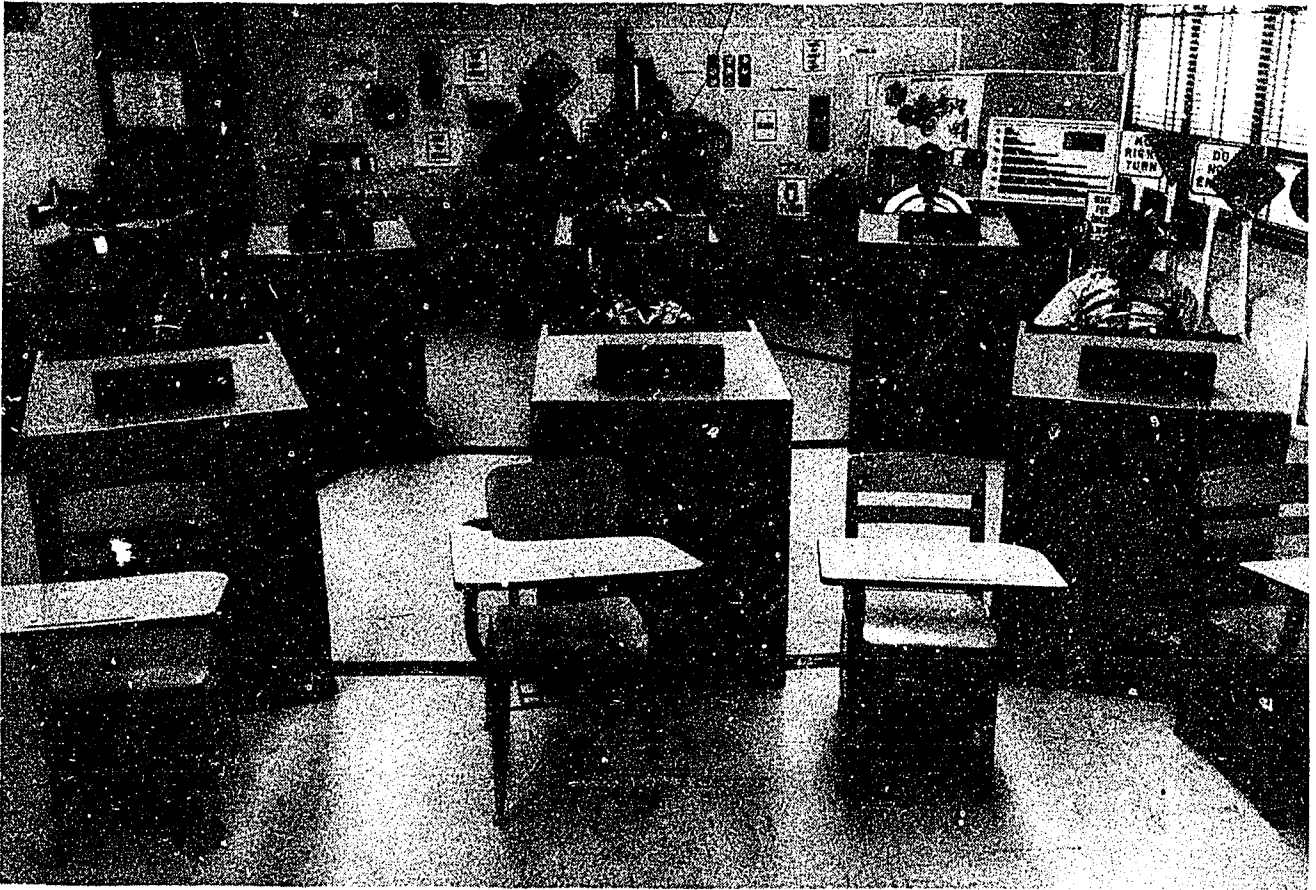
Each state produces its own driver's manual; a fact that may lead to differences from manual to manual. Each state also changes its own manual from time to time. For these reasons, the instructor should now review with the students the state's most current driver's manual. A copy of the manual should be given to each student if possible. The instructor should point out the important rules that may be asked on a license test; he should also point out parts of the manual that were not covered or were covered differently in earlier class discussions. After this review, a sample rules test should be drawn up from the manual and given to the students. This test would be more effective if it were patterned after the state license rules test. Remember, since many students may not be able to read, much care should be taken in helping the students learn the necessary material. Great care should also be employed in giving the test.



A Link Good Driver  
Simulator

A Student Learns  
on the Simulator



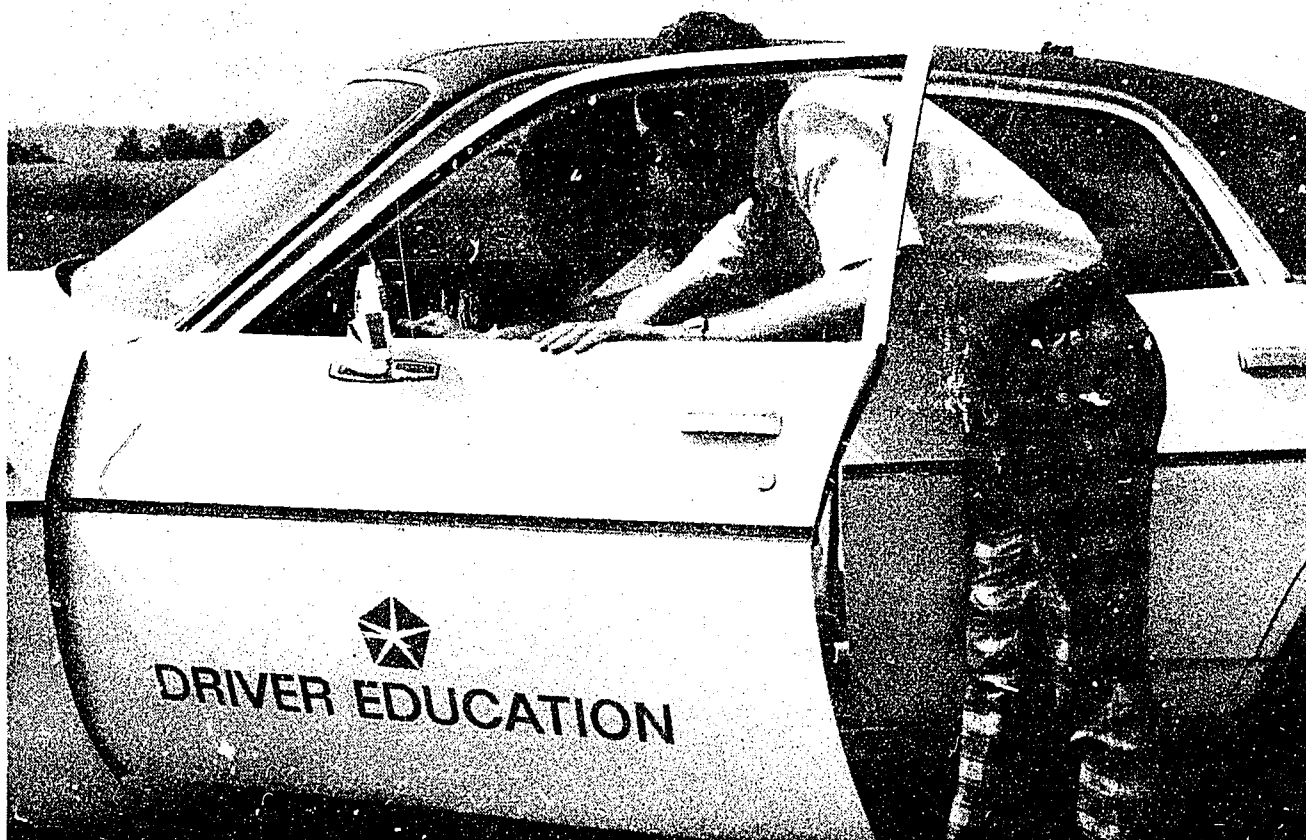


## THE ALLSTATE GOOD DRIVER TRAINERS

Objective: To teach the students the procedure skills for driving a car, spotting and reacting to emergencies, and other material related to developing a better understanding of the motor vehicle and preparing the students for their in-car driving experience.

- I. Take the students on a driving tour and point out the various traffic conditions, and driving techniques they will encounter when driving.
- II. The good driver training program:
  - A. The Teacher's Manual which accompanies the simulators should be used to teach this section.
  - B. Remember to gear teaching to needs of the individual and the objectives of the course in which he is placed.





A Student's First Day Behind The Wheel





## IN-CAR DRIVING

Objective: To develop a better understanding of the motor vehicle and to train able students to drive.

I. Teaching methods (Taken from material gathered from courses of driver education at Georgia Southern College in Statesboro, Georgia):

- A. Number of students - from two to four at a time.
- B. Don't push a student beyond his limits in any one practice session.
- C. Guides to aid teaching:
  - 1. Organize and conduct in-car instruction to provide maximum time for student's practice of safe driving skills and techniques.
  - 2. All material that can be dealt with effectively in the classroom or during observation time in the car should be covered in these phases of the course and should not be allowed to consume valuable in-car practice.
  - 3. In making all decisions relative to the planning and conduct of in-car instruction, take into account the inherent danger in the teaching environment. Never expose students to an unreasonable risk or harm.
  - 4. Be alert to the "emotional strain" that can affect any teacher and to the potentially disastrous consequences of such strain.
  - 5. Be alert to the possibility that many driver education students approach the driving task with considerable

- fear and anxiety. Make an effort to identify these students and to treat them accordingly.
6. Keep records of the driving performance of each student during each practice period.
  7. Use periodic individual student - teacher conferences to discuss the student's performance and to plan for improvement.
  8. Structure the teaching to fit the individual.
  9. Be prepared to adjust the amount of practice time spent on each skill to suit the individual capacities of each student.
  10. Provide the student with sufficient practice on a given skill to enable him to perform it correctly on several successive trials.
  11. Periodically check to see that skills which were learned earlier have been retained and when necessary provide additional practice.
  12. Have the student practice fundamental skills until they are learned well enough to permit efficient progress in the learning of more advanced skills.
  13. Avoid continuous and repetitive practice of the same skill to the point where the student loses his motivation.
  14. In planning for the practice of most driving skills, provide for initial massed practice followed by subsequent distributed practice.
  15. Assume control of the vehicle whenever an accident is

- imminent and there is reason to believe that the student is unaware of, or unable to cope with the danger.
16. Continuously be in a "ready position" that facilitates the assumption of control through application of the dual-control brake and by grasping the steering wheel.
  17. Equip the driver education car with a right side-view mirror and a second rear-view mirror for the teacher.
  18. Avoid over controlling the driver education car by assuming control in non-dangerous situations, assuming physical control when a verbal cue would suffice, and by unreasonable anticipating student errors.
  19. When the dual-control brake is used, make sure the student knows it is being used and when necessary, explain the reason for its use.
  20. Whenever possible plan the driving route in advance and communicate this plan to the student before the lesson begins.
  21. Develop and practice a "direction-giving technique" which includes a repertoire of clear and concise directions.
  22. Give directions well in advance to permit the student to get mentally and physically ready to perform.
  23. At appropriate times provide students with the opportunity to direct their own driving.
  24. Demonstrations should be models of expert performances and should be carried out at slow speeds appropriate for the students.

25. The demonstration should be accompanied by appropriate comments that point to critical elements of performance.
26. Demonstrations of complex maneuvers and techniques should be simplified and should emphasize only the most critical aspects of performance.
27. Provide verbal cues only when they are necessary to help the student perform correctly a skill, maneuver, or technique that he would otherwise perform incorrectly.
28. Be ready to use verbal cues during the student's initial performance of a complex skill, when a student tends to repeat a specific error, in difficult traffic situations, and in other comparable circumstances.
29. Recognize that the need for verbal cues diminishes as the student's driving proficiency increases.
30. Be in a position to observe all the important elements of student performance including those elements that are not reflected in the movement of the vehicle.
31. Thoroughly analyze all elements of the student's performance to determine the underlying cause of improper performance.
32. When the student is not aware of his error, clearly identify it for him.
33. As a general rule, verbal feedback should be immediate and precise.
34. Limit the amount of feedback in terms of the students' capabilities for utilizing it.
35. Whenever necessary, as part of the feedback process, indicate the appropriate corrective action.

36. Provide the student with an immediate opportunity to correct errors by performing the skill again.
37. Whenever appropriate, verbally reinforce corrected performance. Offer words of encouragement.

## II. Driving on the institution campus:

- A. Each student should review the gauges and controls of the driver education car.
- B. Each student should practice the following maneuvers:
  1. Getting set to drive.
  2. Starting the car.
  3. Driving forward and stopping. The students should test the controls to get the feel of them.
  4. Making left and right turns.
  5. Backing along straight and curved paths.
  6. Driving on dirt roads.
  7. Driving predetermined routes around the campus. Instruct the student to take you to a certain place and let him determine the routes to take.
  8. Practice parking.
  9. Practice turning around using the different methods.

## III. Driving off campus for capable students:

- A. Each student must have performed well on previous parts of the course and have a learner's license before taking this section.
- B. On the first day, have the students drive on a well constructed, but little traveled rural road. This gives him time to get used to driving in a less complex area, and he can make mistakes



without causing as great a dangerous situation. This type of driving should develop self-confidence, a clear sense of direction and good steering and speed control. As usual, continue this practice until the student masters it.

- C. Have the student drive in a residential area. This permits him to practice making turns, passing parked cars, speed control, watching for children playing in or near the street, and other conditions related to this type of area.
- D. As the student progresses, gradually introduce him to heavier traffic.
- E. Practice driving on multilane roads. Make lane changes and turns to and from these roads.
- F. Practice driving on a highway at higher speeds.
- G. Practice city driving starting with less complex situations and working toward more complex ones.

## PEDESTRIAN, VEHICLE PASSENGER, AND BICYCLE SAFETY

Objective: To help the slower learning students gain a better understanding of the general traffic situation; to help them practice better pedestrian and vehicle passenger safety; and to help all students who ride bicycles or other two wheel vehicles to practice better safety procedures.

### I. Teaching methods:

- A. The instructor should review with the students any part of this lesson plan that he judges to be appropriate to gaining a better understanding of the total traffic safety concept. The depth of this review and the tests given should be based on the student's ability to learn.
- B. After completion of part (A) discussions should turn to pedestrian, vehicle passenger and bicycle safety.
  1. The best method of presenting this type of material is through films and film strips.
  2. After each film has been shown, the important points should be discussed, and then the film should be repeated.
  3. The following are examples of films that could be used:
    - (a) "The Day the Bicycles Disappeared", by the American Automobile Association Foundation for Traffic Safety (Time: 15 minutes).
    - (b) "The Talking Car", by the American Automobile Association Foundation for Traffic Safety, 734-15th St., N.W. Washington, D. C. 20005. This film covers the see and be seen traffic safety rules for pedestrians.

4. At appropriate times during the course, the students should be taken on drives as mentioned earlier in the lesson plan. In this way, the instructor can give concrete illustrations of the different forms of transportation and the general nature of traffic conditions. The students can also be shown and allowed to practice proper vehicle passenger safety procedures.
5. The final phase will be for the students to practice pedestrian and bicycle safety procedures in actual situations.

## II. General rules for pedestrians:

### A. Make sure you see:

1. Other vehicles when you are crossing or walking along streets.
2. By watching the driver's eyes.

### B. Make sure you are seen:

1. When stepping out from between parked cars.
2. So that you are not hidden behind other cars driving or stopped along the road.
3. So that you are not in the driver's blind spot.
4. By cars turning left when you are crossing at intersections where you have a green light.
5. By staying up with the group so that you won't be a straggler and thus may not be seen.
6. By wearing light colored clothes at night and by carrying a light.

7. By using marked crosswalks at street intersections or wherever they are placed.
  8. By walking on the left facing traffic.
- C. Obey traffic signals.
- D. Do not leave the curb where an approaching vehicle is so close that the driver would have trouble stopping.

III. General rules for vehicle passenger safety:

- A. When riding in a vehicle always sit quietly and do not block the driver's view in any way.
- B. Always wear seat belts when riding in a car, lock the door, and make use of any other safety devices designed for your protection.
- C. When giving a driver directions, give them well in advance, and give them in an easy, simple to follow manner. Last minute or confusing directions could cause the driver to become confused and have a wreck.

IV. Bicycle Safety Education (References: Teacher's Guide to Bicycle Safety Activities and Projects and Bicycle Skill Tests both by the American Automobile Association Traffic Engineering and Safety Department, Washington, D.C. 20006):

- A. This section is designed for students who ride a bicycle either on or off campus. It should be distinguished from the class that just generally covers pedestrian, vehicle passenger, and bicycle safety.
- B. Discuss the appropriate parts of this lesson plan with the students. Special emphasis should be placed on: "The Introduction of Driver Education to the Students", "The Traffic

Accident", "The Driver", "The Laws of Nature and Man", and "The Signs". These sections should be covered in detail, but bearing in mind the object of the discussions is the bicycle and not the car.

- C. Show appropriate films and film strips, discuss them and also discuss bicycle safety rules and procedures.
- D. Using Bicycle Skill Tests as a guide, set up a range and have the students practice the proper riding skills.
- E. Have the students practice riding in actual situations.
- F. Instruct the students in the proper care and maintenance of a bicycle.
- G. General rules for bicycle riding:
  - 1. One person per bike - no passengers.
  - 2. Ride single file.
  - 3. Carry packages in a carrier made for that purpose.
  - 4. Be considerate of others.
  - 5. Two-wheeled vehicles may be used in the roadway and must obey all traffic regulations as prescribed for all motor vehicles. Ride on the right.
  - 6. Do not weave from side to side or change lanes dangerously.
  - 7. Always use proper hand signals.
  - 8. Avoid making left turns in heavy traffic.
  - 9. Obey and know all traffic control signs and signals.
  - 10. Spot emergencies in the making - think ahead.
  - 11. Keep bike in proper repair.
  - 12. Avoid night riding - If necessary to ride at night, make sure your bike has lights.

13. Don't show off or clown.
  14. Never enter a roadway without looking both ways.
  15. Be alert for vehicles about to pass you.
- H. Give the following true-false test to the students. (This test was taken from the "Crusader Cycle Club", a program developed by the Ontario Department of Transport).

### TRAFFIC KNOWLEDGE TEST

1. A bicycle should be ridden on the right hand side of the street or highway.
2. Bicycle riders should observe and obey all traffic signs, stop-and-go signals, and other traffic control devices.
3. Bicycle riders should move ahead between cars at a signalized intersection so as to be in front when the light changes.
4. Pedestrians do not have the right of way on sidewalks or crosswalks.
5. Bicycles should be "walked" across heavily traveled streets.
6. Night riding without a front white light or rear reflector is unsafe.
7. Bicycle riders hitching to a moving vehicle may be struck by other vehicles.
8. A bicycle in poor condition is safe if the rider is skilled.
9. It is safe and proper for a bicycle rider to carry a passenger.
10. It is safe to ride bicycles three abreast when riding in a group.
11. Hitching or holding on to moving vehicles is safe if the rider is watchful.
12. Bicycle riders should never carry bundles unless there is a bundle carrier on bicycle.
13. Riding in single file is the sensible thing to do.
14. The proper way to make a left turn is to cut the corner.
15. Bicycles should keep to the right while riding in the street.
16. Bicycle riders should give hand signals before making a turn.
17. A cyclist should always be concerned with the safety of pedestrians.
18. Icy or slippery streets are dangerous places to ride a bicycle.
19. A bicycle rider should look only straight ahead when crossing an intersection.
20. It is desirable to ride at least three feet away from parked cars.

## COMPLETING THE COURSE

In accordance with the objectives of the course being taught, completion is determined by having covered the appropriate material - not by any set time limit. Conferences should be held with each student to discuss his or her performance and to help form a future course of action. Each student should be given a certificate, and evaluations should be made by the teacher and placed in all appropriate files.



## ACKNOWLEDGEMENTS

### AUTHOR

Jonathan L. Latimer, B. A.  
Psychology Major  
Certified in Driver Education

### PLANNING AND CONSULTING

D. W. Oellerich, M. Ed., Sp. Ed.  
Director of Education

Norman B. Pursley, M.D.  
Superintendent

### GRACEWOOD STATE SCHOOL AND HOSPITAL PRINT SHOP

Mrs. Louise Pettigrew, Typist & Printer

Miss Meria Parker, Typist & Printer

Mrs. Suzanne Hollins, Typist & Printer

Mrs. Diane Lovell, Typist

Mr. William Hill, Photographer