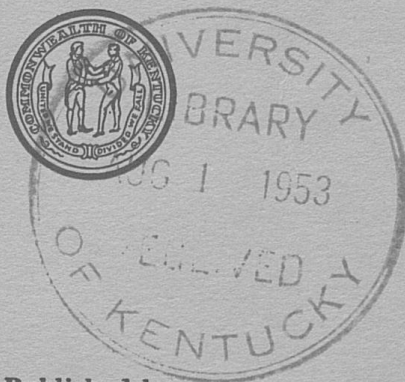


Per 10

Commonwealth of Kentucky
EDUCATIONAL BULLETIN

**HIGHWAY SAFETY
AND DRIVER EDUCATION**



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DEPARTMENT OF EDUCATION
WENDELL P. BUTLER
Superintendent of Public Instruction

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HIGHWAY SAFETY AND DRIVER EDUCATION

FOREWORD

It gives me much pleasure to present this bulletin on Highway Safety and Driver Education to the high schools of Kentucky. Having had a part, personally, in the planning and production of this publication, I am sure that teachers and school administrators will find the answers to many questions when planning experiences in driver education. It is hoped that every high school of the state will make generous use of this material and provide courses, or at least units of instruction, as an integral part of their program of studies; and by so doing make a wholesome contribution to the solution of one of our most perplexing problems. There are two plans outlined herein that will apply to every high school curriculum, however limited it may be.

I want to acknowledge with grateful appreciation the many hours of labor and valuable assistance given by each member of the committee in the production and completion of this bulletin. The charts and graphs found in the publication were drawn by Mr. William Bryant to whom the committee is deeply indebted. In the preparation of this material, the committee has drawn considerably from *The Young Driver—A Responsible Citizen*, a Resource Unit for Driver Education in the Senior High School prepared by Miss Maco B. Whittall, Safety Advisor, J. M. Atherton High School, Louisville, Kentucky.

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Superintendent of Public Instruction

April 13, 1953

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INTRODUCTION

Since the President's Highway Safety Conference in 1946, in which outstanding leaders in all activities of life participated, much emphasis has been given to the problem of traffic safety. The movement begun by this conference has been carried through by similar conferences in all States of the Union and many cities in an effort to control one of the worst menaces to society. These conferences have recommended, that American schools at all levels conduct traffic safety programs which will give adequate guidance in accident prevention to more than 30 million young people, and will prepare them to shoulder their responsibility in the motor age.

Every conference after giving much thought and study to the situation recommended that: (1) school administrators should as far as practicable provide driver education and training as an integral part of the curriculum when students are nearing the driving age and when possible should offer similar courses during the summer, at night sessions, for adults in the community; and, (2) they should determine the adequacy of instruction programs and practices in relation to safety, correlate them with present courses and plan for the utilization of co-curricular activities and student organizations.¹

These numerous safety conferences have done more than anything else to focus attention on the enormous loss of life and property as a result of accidents. Control measures are being improved greatly to reduce the loss. At present every State in the Union is providing courses in safety education including driver education with enrollments ranging from one percent of the total high school enrollment in North Dakota to nearly 50 percent in the state of Tennessee. Today over 8,000 high schools are offering courses in driver education and more than 700,000 students are enrolled, which is indicative of the practical value of this type of instruction.

¹The President's Highway Safety Conference, *Action Program*, (Washington, D. C. 1949) Bulletin, 1949.

The relation of driver education to the program of health-safety-physical education.

In most states the courses of instruction in driver education and training are made a part of the area of health-safety-physical education, although it is readily recognized and considered an aid to the social sciences, especially to courses in citizenship. Various plans of organization are used which include: (1) separate courses with credit toward graduation; (2) instruction as a unit in other courses; (3) instruction as work integrated with one or more other courses; (4) as school-community cooperative program; and, (5) as extra-curricular activities such as "driving clubs", school assemblies, and homeroom programs.

The relation of driver education as an integral part of health-safety-physical education to the over-all objectives of secondary education.

The greatest possession of any individual is his life and from time immemorial educational objectives designed toward the preservation of life have been given foremost consideration.

Many individuals and committees who have expressed themselves on the purposes and functions of secondary education have been most concerned with health and preservation of life as a goal to be attained. Since the famous report of the United States Office of Education in 1918 setting forth the "Seven Cardinal Principles" in which health was listed as its first objective, all educational reports on the purposes and functions of secondary education have likewise placed health and all its supplements as a major objective. Obviously safety education was incorporated in the health objective.

The acts of law-making assemblies have expressed the will of the people in providing for courses of study to meet the educational needs.

No less emphasis has been given by law-making bodies that have the responsibility of providing by law the courses of study for the training of children and youth. The Kentucky Legislature in 1884 provided for this course of study.²

²Superintendent of Public Instruction. *The Common Laws of Kentucky*, 1884. P. 12

Instruction Prescribed.—(Sec.)³ 6. The instruction prescribed by the board (State Board of Education)⁴ shall embrace (1) Spelling, (2) Reading, (3) Writing, (4) Arithmetic, (5) English Grammar, (6) English Composition, (7) Geography, (8) United States History, and (9) **Laws of Health**: Provided, however, that where there are as many as one-third in number of the pupils of any district who are the children of other than English-speaking parents, their respective languages may be added to the foregoing course of study.

This law passed almost 70 years ago indicates that the General Assembly considered the Laws of Health and instruction in the preservation of life as one of nine fundamental areas of learning. There is evidence also of much interest in meeting individual needs of pupils as expressed in the last sentence of this section of the law. This philosophy of providing for education to meet both individual and common needs of the people has prevailed throughout the years. Today the present minimum State Course of Study provides for instruction in nearly 300 separate courses in grades one through twelve. Education in highway safety should begin when the child enters school and should continue through the twelfth grade. Physical education is provided in grades nine through twelve. At least one-half year in health education is required in the ninth or tenth grade.

What are the problems of society, the present day social or economic conditions responsible for the increased emphasis on safety education as an integral part of the health-safety-physical education program?

The problem is enormous. Last year in Kentucky alone over 2,000 people lost their lives by accidents. Many of these accidents could have been prevented had the victims been properly trained by safety education and methods of accident prevention. Because this loss of life was so gradual throughout the 365 days of the year, the public was slow to react to the seriousness. But had it occurred instantly by the destruction of a town of 2,000 people, or by a mine disaster in Eastern Kentucky involving the loss of 2,000 lives, the awakening of public consciousness would have brought greater response and reaction.

The following table giving causes of death and permanent injuries by accident for Kentucky and the United States for the years 1949-51 is evidence of the problem.

³Substituted for section sign

⁴Words enclosed in parenthesis added

TABLE I

Type of Accident	United States		Kentucky		Average	
	1949	1951	1949	1951	U. S.	Ky.
Killed:						
By Automobile	31,107	37,300	622	741	34,203	682
By all Accidents	90,106	94,000	1,919	1,937	92,053	1,923
Permanently Injured:						
By Automobile	90,000	110,000	1,850	2,420	100,000	2,135
By all Accidents	240,000	240,000	5,012	5,050	240,000	5,031

Compare the figures in the above table with those in the following which gives the number of our people killed, wounded and missing as a result of three major wars, World War I, World War II, and the Korean War, during the present generation for Kentucky and the United States.

TABLE II

**Number of People Killed, Wounded
And Missing by Three Wars Since 1917
United States and Kentucky**

War	Killed		Wounded and Missing		Total Casualties	
	U. S.	Ky. ¹	U. S.	Ky. ¹	U. S.	Ky. ¹
World War I	126,000	2,600	238,800	4,800	364,800	7,300
World War II	393,131	7,900	673,807	13,500	1,066,938	27,300
Korean	22,909	460	104,517	2,100	127,426	2,550
TOTAL	542,040	10,960	1,017,124	20,400	1,559,164	31,150

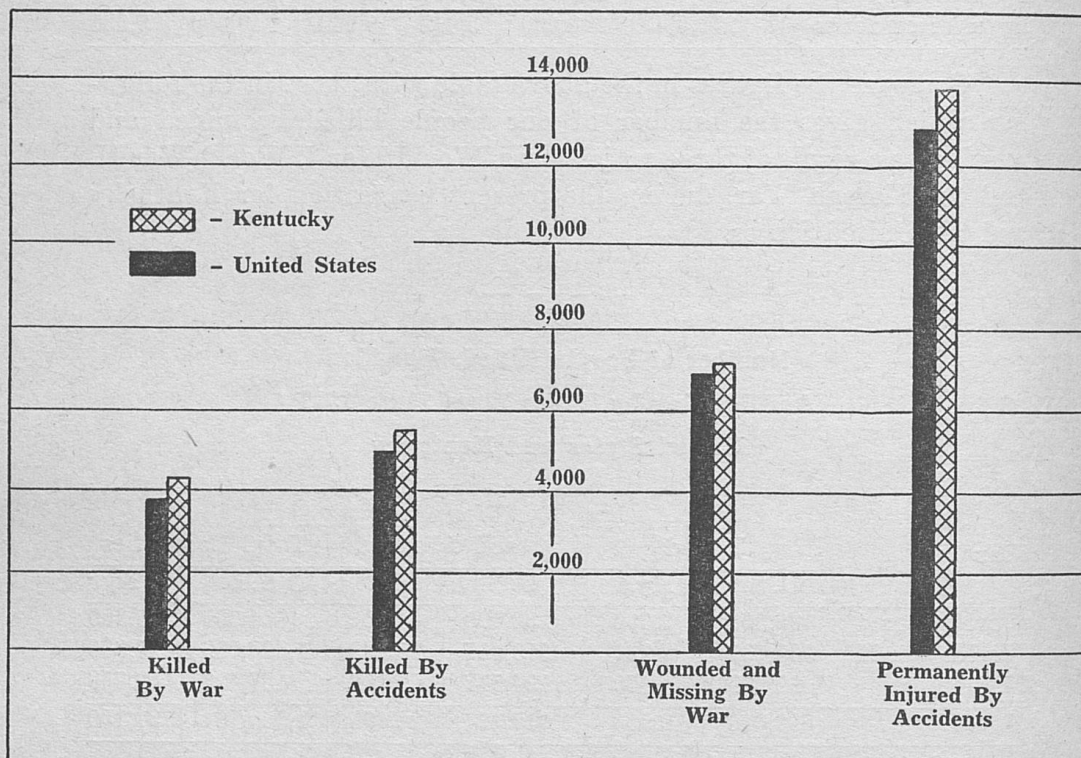
Source: United States War Department

Our country has been at war with other countries approximately eight years since World War I. During these years a little over a half million of our people were killed and over a million were wounded or missing. In a similar period of eight years based on averages, about three-fourths of a million were killed by accidents, or 200,000 more than in war. The number of non-fatal permanent injuries by accident amounted to almost twice the number wounded and missing as a result of war. Such figures as these are enough to convince the least informed person of the magnitude of the problem.

¹Kentucky figures estimated

FIGURE 1

Deaths, wounded and missing by three major wars since 1917 compared to the deaths and permanently injured by accidents for a commensurate period per million population for the United States, and Kentucky.

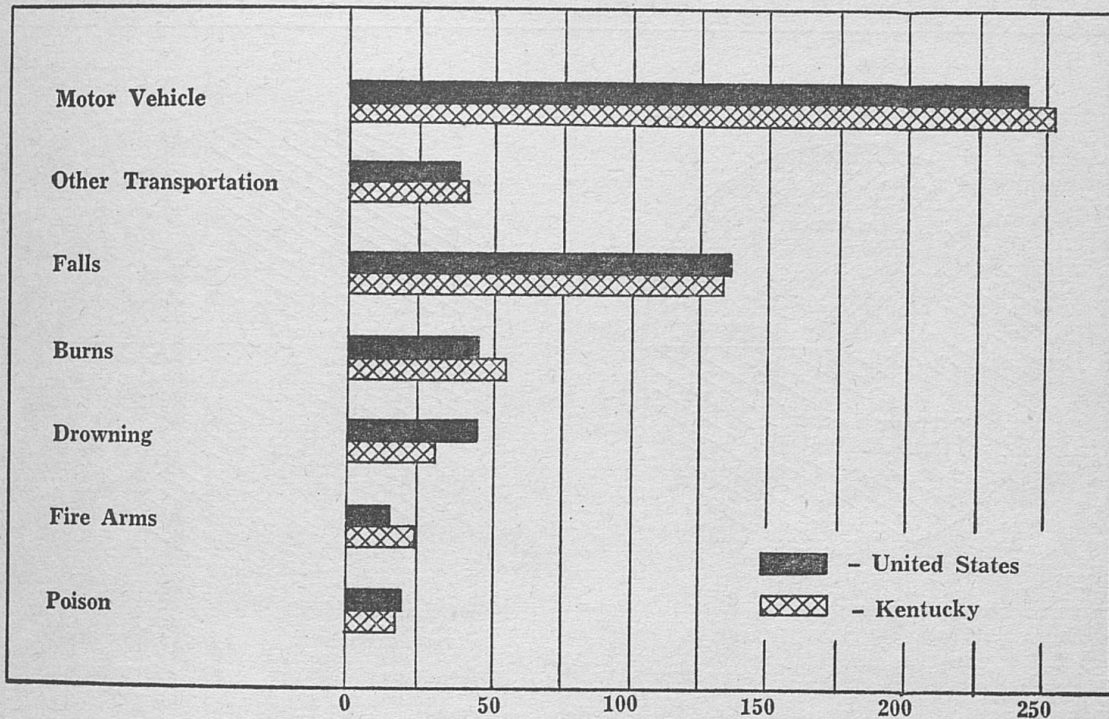


Source: United States War Department.

While it is extremely important that our schools provide for purposeful instruction in the field of safety in all its forms, it is even more important that proper instruction be given in driver education due to the alarming increase in highway accidents as compared with other types of accidents. As shown in the figure below for the nation and Kentucky it is conclusive that the number of fatalities sustained by motor vehicle accidents far exceed that of six other major causes.

FIGURE 2

**Number of Deaths Per Million Population in
Kentucky and United States According
To the Seven Leading Causes of Accidents**

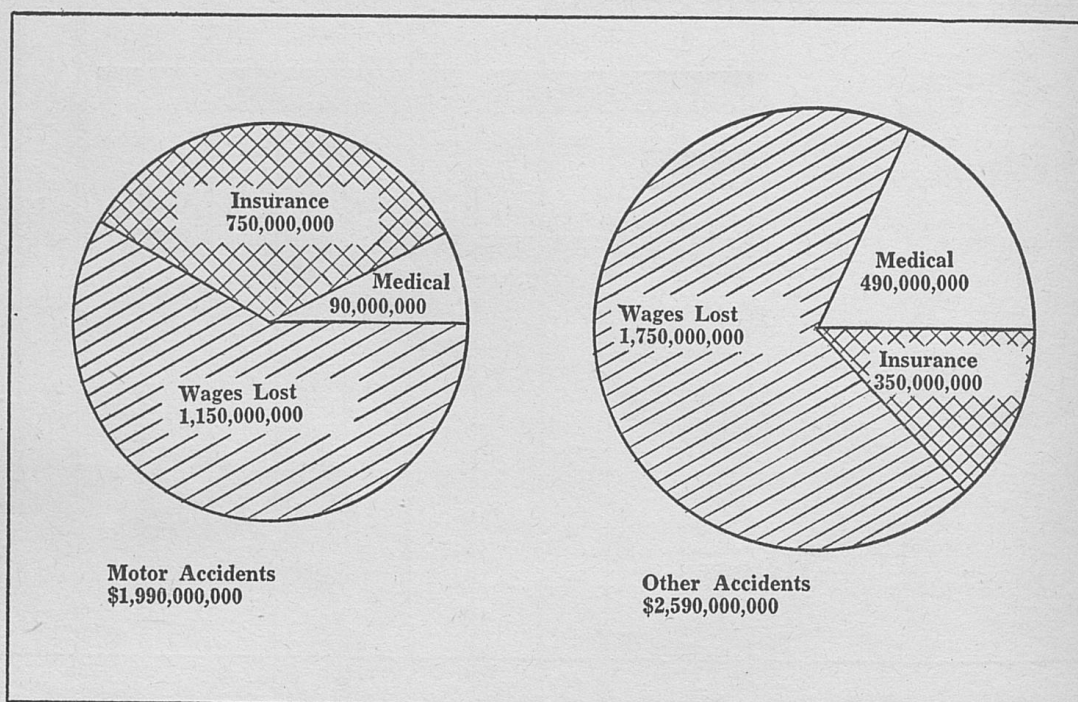


Source: National Safety Council

Not only has the death toll been most alarming, but the cost is enormous. The present day cost of all accidents in the United States exceed four billion dollars annually or a sum equal to about 80 percent of all expenditures for education and approximately twice the cost of the United States Atomic Energy Project. By far the largest item of cost is in the form of wages lost to the injured. This item alone amounts to over a billion dollars for all other accidents. A relative share of this cost is borne by Kentuckians.

FIGURE 3

The Cost of Automobile and other accidents in United States in 1951

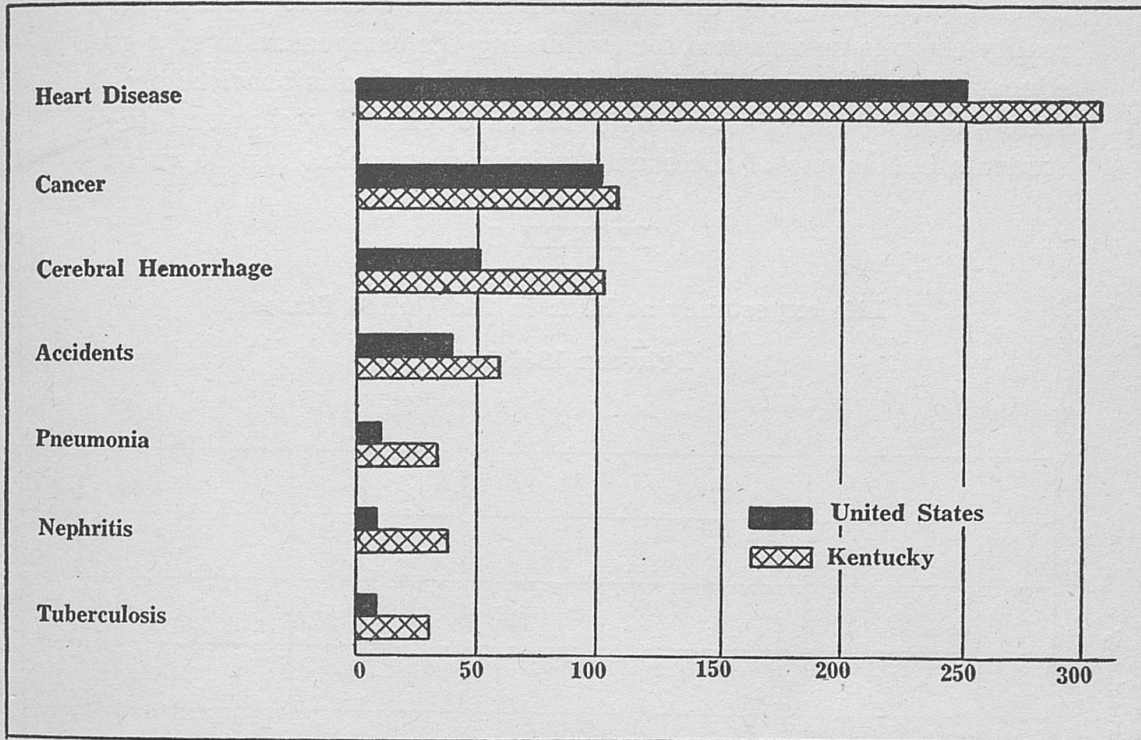


Source: National Safety Council.

When compared to the leading causes of death, accidents rank fourth. Only three diseases, heart disease, cancer, and cerebral hemorrhage, kill more people per 100,000 persons than is killed by accidents. Figure 4 shows the death rate per 100,000 people for Kentucky and the United States in 1950 according to seven leading causes.

FIGURE 4

Death rate per 100,000 population from the seven leading causes during 1950 for Kentucky and the Nation.



Source: Fact Book 1951, Institute of Life Insurance and Bureau of Vital Statistics in Kentucky.

There are many evidences that with the proper kind of education and training in attitudes, skills and understandings, a large portion of accidents can be prevented and much life can be saved as a result.

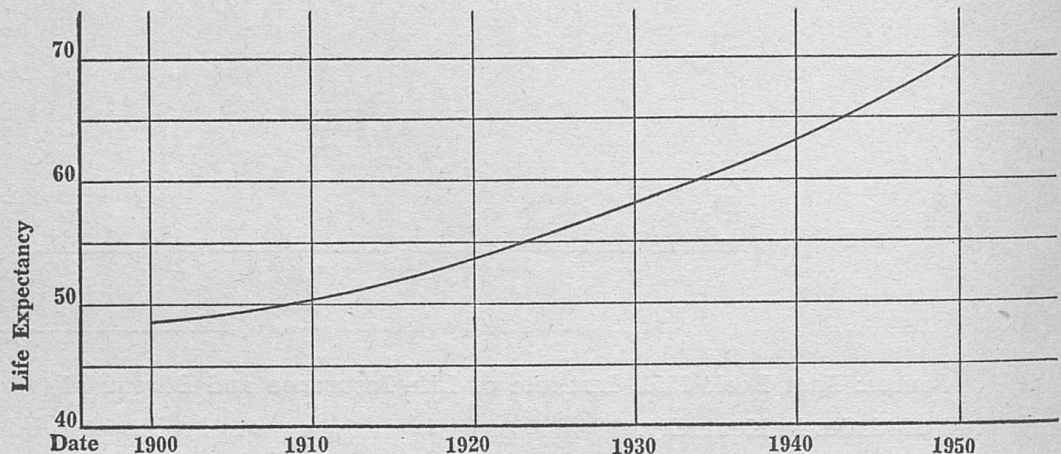
Many states have conducted follow-up studies of their driver education and safety education program in an effort to ascertain the effectiveness of their program of instruction. In every case the results have been exceedingly encouraging. In 1947, two high schools in the State of Maine offered courses in driver education. In 1952, the schools totaled 52, and 2,500 students were provided with courses in driving. Only 23 of the 6,303 pupils who have taken the courses in recent years have been involved in accidents and only one of the accidents resulted in fatalities. For the same period according to the State Police, accidents by teen-age drivers without driver education

resulted in 20 deaths, 376 personal injuries and 742 cases of property damage. Many other studies with similar results could be cited.⁵

Life expectancy has grown from 47 years in 1900 to about 68 years in 1950. This growth has been due in a large measure to education supplementing the discoveries of medical science. In a sense of reality there is no measure for evaluating the compensation of a good educational program to life and society. Education is provided by the state for its own improvement, not as a gift of "charity" to its students but as one of the soundest investments that can be made.

FIGURE 5

**Life expectancy at birth in the United States
Between 1900-1948**



Source: Office of Vital Statistics, Federal Security Agency.

Since the conditions under which people live in the United States are certain to change constantly, the institutions, agencies, programs and activities of the people should be developed toward meeting the solutions of these vital problems. The time has come for driver education to be clearly recognized as an important segment of the curriculum of modern American secondary schools and safety education in all its phases should be given greater emphasis. The education of automobile drivers is a highly significant part of the public high school's responsibility for educating young citizens to live efficiently, responsibly, safely, and with enjoyment.

⁵Harold G. Richardson, State Board of Education, Augusta, Maine.

For several years, driver education has been recognized by many high schools of Kentucky as an important part of their program of studies. The first bulletin outlining suggested procedures and regulations was issued by the State Department of Education in 1948. The recommendations contained in this bulletin provided for a full semester's course consisting of both classroom instruction and behind-the-wheel training. For the completion of this course, students were allowed one-half unit of credit toward graduation. It is impractical for many high schools to offer this course since the behind-the-wheel training phase requires the use of a car which has proved to be expensive. This type of course which provides for the use of a car is encouraged and no less emphasis is given to it by other plans, however, there is great need for a type of classroom instruction that can be included in every high school curriculum. The purpose of this bulletin is to describe other methods of offering driver education in addition to the semester's course in classroom instruction and behind-the-wheel training.

ORGANIZATION AND ADMINISTRATION

Objectives in Driver Education

A review of Courses of Study on Driver Education from numerous sources including national educational organizations reveal the following list of objectives. These objectives may serve as topics around which teaching units may be developed.

1. To develop in students attitudes, habits, and skills necessary to be safe and courteous drivers and pedestrians.
2. To develop in students an understanding of the physical, mental, emotional characteristics of drivers, bicyclists, and pedestrians.
3. To instill in young drivers a sense of personal and civic responsibility in regard to driving motor vehicles and to improving traffic conditions thru programs of legislation, engineering, enforcement, education, and research.
4. To develop in students an understanding of the human deficiencies affecting traffic behavior and methods of compensating for them.
5. Respect for and understanding of the necessity and purpose of state and local traffic laws, rules, and regulations.
6. To help reduce the increasing number of traffic accidents and fatalities, especially among high school students.
7. To provide students with practical driving experience thru behind-the-wheel instruction.
8. To help conserve life and property.
9. To acquaint students with the construction, functions, and maintenance of motor vehicles.
10. To teach students the courtesies of driving.
11. To cultivate ideals of cooperation, service, and consideration for the welfare of others.
12. To assure the gradual development of good driving practices by having students master each step before attempting the next.

13. To develop consciousness of the importance of preventive maintenance in the conservation of motor vehicles.
14. To develop understanding of physical characteristics of streets and highways, including significance and value of signals, signs, and markings.
15. To enable students to drive motor vehicles with greater safety, efficiency, and pleasure.
16. To show the social and economic importance of motor vehicles in modern living.
17. To prepare the high school youth of today to become traffic advisors of tomorrow in promulgating sound, intelligent traffic programs.
18. To develop safety consciousness.
19. To develop understanding of and proper attitude toward causes of accidents.
20. To encourage students to practice self-disciplined adherence to traffic rules and regulations.

Plans of Organization

Plan A. Plan A is a type of curriculum organization providing for a separate course of one semester's work consisting of both classroom instruction and practice driving and carrying one-half unit credit toward graduation. This is the type of curriculum organization now being used in the high schools of Kentucky. The time required to complete the course is the usual five periods per week for a semester of eighteen weeks. It is suggested that the ninety class periods in the semester be divided as follows:

- (1) Three-fifths of the time, or fifty-four (54) class periods in the semester should be devoted to classroom instruction. The classroom instruction should be closely interrelated and correlated with the practice driving phase, both of which are requirements for the completion of the course.
- (2) The remaining time of thirty-six (36) class periods may be used by giving individual and group instruction in practice driving. To meet the additional time of six (6) clock hours required of each student in practice driving, schools may provide for home driving instruction to supplement the course requirements.

Plan B. Plan B may be organized as a unit of instruction or even a series of units in a semester's course in health-safety education. A block of time equal to at least thirty (30) class periods may be included in this plan. Any school that finds it impractical to use Plan A may choose to adopt Plan B. The entire time of thirty (30) class periods allocated to this unit of instruction must be spent in classroom instruction and no practice driving is required. Any practice driving included as a supplement to Plan A should be done by home driving instruction—a plan suggested later in this bulletin.

In relation to the two plans of Curriculum Organization described here, the following terms are defined.

- (1) **Driver Education** is the complete program of learning experiences provided by schools for the purpose of teaching students to use motor vehicles responsibly, safely, and efficiently, and involves classroom instruction and practice driving.
- (2) **Classroom instruction** is that phase of the program dealing with actual classroom instruction in which emphasis is placed upon knowledge of traffic rules and regulations, safe procedures in car operation, attitudes, and an appreciation of what constitutes safe driving practices. Due to the importance of classroom instruction in developing attitudes, it should be offered prior to installation of the actual practice driving instruction.
- (3) **Practice driving** is that phase of the program which provides an experience in actual "behind-the-wheel" instruction in an automobile.
- (4) **The home driving course** held in conjunction with the theoretical or classroom part of the course, conducted by the school, is designed to give pupils additional experience in car operation. This is accomplished through home-directed practice driving instruction given under the guidance of the school, and necessitates use of the family car. As a supplementary phase of the school program of driver education, the home driving course utilizing lesson outlines provided by the school should serve to improve the driving of parent-instructors, establish a desirable child-parent relationship in learning to drive, and materially reduce the

amount of time needed for "practice driving" instruction at the school.

Grade Placement and Eligibility of Pupils

Instruction in driver education should be offered at the grade level where most of the students closely approach the legal age for obtaining a driver's license.⁶ The legal age for obtaining a driver's license in Kentucky is sixteen years. A student may secure a temporary permit which shall be issued for sixty days, providing he qualifies in every other way except being properly instructed in operating skills. The student must be accompanied by a licensed operator who occupies a seat by him during the training phase. No person should operate an automobile on the public thoroughfares (avenues, streets, and highways) without a driver's license. School administrators should investigate the advisability of permitting their students to participate in practice driving on private property under the control of the school.

Plan A. The grade placement for Plan A is recommended for the tenth, eleventh, or twelfth grade. Students enrolled in any or all of these grades should be eligible, the assignment of which is the responsibility of school administrators.

Plan B. The grade placement for Plan B is recommended for either the ninth or tenth grade. Since this is a unit of instruction in the health-safety program, obviously, it will be placed in the grade, the health-safety course is assigned.

Arrangement of Courses

A full year's course in health and safety education may be arranged from either of the grades as follows:

- (1) Ninth Grade: First Semester—Health
Second Semester—Safety
- (2) Tenth Grade: First Semester—Health
Second Semester—Safety

⁶National Commission on Safety Education, *High School Driver Education Policies and Recommendations* (National Education Association, Washington, D. C., 1950) Bulletin, 1950.

Health education may be taught for one semester for which one-half credit is offered. Safety education may be taught during the other semester for which one-half credit is offered, thus making a full year's course in health and safety. Of the ninety (90) class periods in the semester's course of safety, sixty (60) periods should be devoted to general safety and thirty (30) periods to highway safety or driver education.

Schools desiring to organize the one-years health-safety course according to a core program may do so by providing two consecutive class periods for the course. By the core program method only one semester will be needed to complete the work according to Plan B.

A Brief Description of a Core Program.

The core program is a type of curriculum organization which correlates or fuses instruction in two or more subject-matter fields so that the subject-matter lines are not clearly defined. The methods and techniques used in the classroom are the conference, problem solving type, wherein the teachers and pupils plan and share together their experiences, investigations, and information. It is cooperation with greatest consideration to the growth and development of the individual, and all members work together as a group toward meeting common objectives. Like a miniature democracy in action, the pupils gain practice in desirable citizenship traits, and skills whether these skills be in reading, writing, or speaking on current problems, a study of the Constitution of the United States of a study of health and safety as a means of preserving life and health. It provides a type of experience needed by all children designed to provide thinking on contemporary problems, and needs of society. The core is assigned a block of time equal to two or more class periods depending on the subject joined in the core. The subjects most commonly joined are English and the Social Studies, although other subjects such as health and safety may be included. In the event health and safety are joined in a core for the ninth grade for one semester, two consecutive periods are provided for the course and one credit is offered, one-half of which may be in health and one-half in safety.

When teachers can be properly trained to conduct a core program, it is recommended for introduction in the seventh, eighth, and ninth grades. It has a place in all other grades.

Suggested Program of Studies in the Small High School

Ninth	Tenth	Eleventh	Twelfth
1. English	English	English	Elective
2. General Science	Biology	American History	Elective
3. Mathematics or ⁷ Health-Safety	Health-Safety or Mathematics	Elective	Elective
4. Elective	Elective	Elective	Elective
5. Elective	Elective	Elective	Elective

Selection and Qualifications of the Teacher

Teachers of driver education should have the basic qualifications necessary for effective teaching in the field. The teacher in Plan B will naturally be the teacher of health and safety. All teachers should be regularly certificated by the Kentucky State Department of Education. The field of concentration should be in health and safety education. Among the special qualifications needed are:⁸

- (1) The teacher should have enthusiasm for possible accomplishments in safety education, including the ultimate improvement of traffic conditions and the actual reduction of accidents.
- (2) The teacher should have an even temperament, a sympathetic attitude, and a high degree of patience needed for practice driving.
- (3) The teacher should possess sufficient maturity to command respect of students.
- (4) The teacher should possess an above-average driving ability as evidenced by having
 - a. a valid driver's license in the state
 - b. a driver record (state and local) free from repeated accident experience and numerous traffic law violations
 - c. several years experience in driving different makes or types of vehicles in cities and on highways under various traffic, weather, and road conditions
 - d. a desire to set a good example in his own driving
- (5) The teacher should possess ingenuity and imagination in handling all phases of instruction in a new field.
- (6) He should have an understanding of the mechanics of the automobile.

⁷If health and safety is scheduled for the ninth grade, mathematics is placed in the tenth grade or vice-versa.

⁸National Commission on Safety Education, *High School Driver Education Policies and Recommendations* (National Education Association, Washington, D. C., 1950) Bulletin, 1950.

Obtaining Equipment and Using Automobiles

Schools that schedule the separate course as provided by Plan A will need to provide an automobile for use of the students in practice driving. Automobiles are made available through one of the following ways.

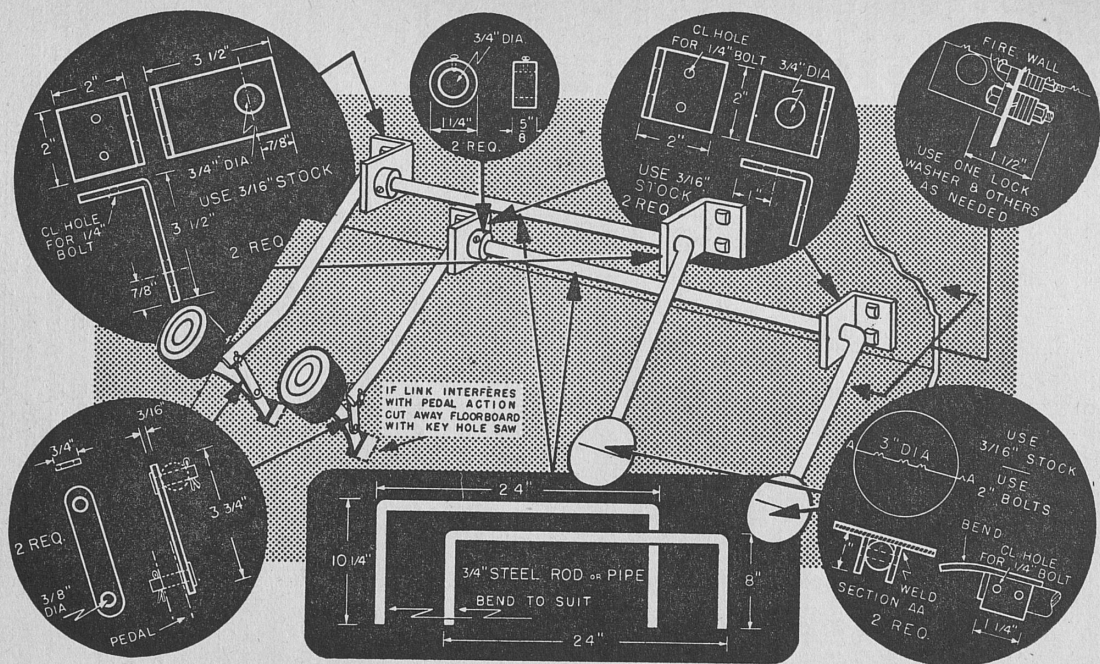
- (1) Through direct purchase with school funds.
- (2) Through gifts from the community organizations, such as civic clubs, etc.
- (3) Through leasing or renting from automobile clubs, automobile dealers, etc.
- (4) Through free loan from automobile clubs, automobile manufacturers and dealers, etc.
- (5) Through free use of cars belonging to parents of the students.

Under the lease, loan, or rental arrangements, schools may need to assume costs for some or all of the following items: (a) registration; (b) insurance; (c) gasoline, oil, and antifreeze; (d) repairs and replacements; and, (6) dual controls (purchase or rental; installation and removal). In addition to paying some or all of these costs, schools are expected to meet certain requirements of the supplying agency in order to obtain use of a car on a lease, loan, or rental basis.

The car should be a five-passenger car, equipped with dual controls. Cars equipped with dual control devices provide the instructor with both a clutch and brake pedal conveniently located so that he has full control of the car from his position at all times. The five-passenger car size will permit training instruction to be given four pupils at a time, and the dual controls are necessary so the instructor will have control over the car at all times as well as the pupil. Insurance must be provided and should be written so as to cover pupils, instructor, principal, superintendent, board members, and public property, as well as the car.

DUAL CONTROL DEVICE FOR USE IN DRIVER EDUCATION AND TRAINING

161



These are approximate dimensions. Adaptation to specific cars will require minor changes

National Conservation Bureau, 60 John Street, New York 7, N. Y.

Scheduling Pupil-Activities for the Plan A Course

To complete the course required for the semester's course in driver education each pupil should be required to participate in practice driving at least six (6) clock hours. For a class of twenty pupils this will require 120 clock hours of which only 36 periods are scheduled to be done by the teacher as a part of her or his class load. The remaining time will have to be done outside the time scheduled for the class. The one in authority should explore the possibility of bringing in resource people, such as dependable and safe school bus drivers to assist with the practice driving phase. The school might make some arrangements with parents of the children to use the family car. When any additional people are used, effort should be made to closely correlate the classroom instruction with the practice driving phase. To correlate the two phases, teachers may follow some plan like that described in the *Handbook or Driver's Manual, "Night or Day Drive Carefully"*, published by the Department of State Police, Frankfort, Kentucky.

While performing this practice the members of the class may be grouped into committees of four pupils each. In a class of twenty pupils there will be five committees numbering 1, 2, 3, 4, and 5. The time may be scheduled as follows:

- (1) First six weeks all members of the class will meet together for classroom instruction—30 class periods.
- (2) The next twelve weeks the class will meet two periods per week on Tuesdays and Thursdays for classroom instruction. On Mondays, Wednesdays, and Fridays each group will alternate by teams in practice driving. The other groups will work on group projects in the study hall or library.

For other plans of scheduling practice driving refer to: *Let's Teach Driving—An Administrative Handbook*, published by the National Commission on Safety Education of the National Education Association, 1201 Sixteenth Street Northwest, Washington, D. C.

Textbooks and Other Instructional Materials

A wide range of instructional materials is listed in the Materials Section of this bulletin. These materials should be used freely. The following textbooks are suggested:

Plan A

American Automobile Association. *Sportsmanlike Driving* (American Automobile Association, Washington, D. C., 1947).
Albert W. Whitney. *Man and the Motor Car* (Association of Casualty and Surety Companies, New York, 1949).

Teacher's manuals and other materials including tests are available for use with each of these texts, and may be obtained from the respective companies.

Plan B

Burkhead, et al. *Health and Human Welfare* (Lyons and Carnahan, Chicago, 1944.)

Evans and Fry. *Safety Your Problem and Mine* (Lyons and Carnahan, Chicago, 1938).

These are the two basal adopted textbooks for ninth and tenth grade health and safety. For other materials including manuals and workbooks refer to the Materials Section.

Community and State Cooperating Agencies

Schools should make every effort to correlate classroom instruction with school, community, and state agencies.

It is recommended that the safety education program be used in school assemblies, homeroom programs, or even with the student government organization. Resource people from the community should be invited to visit the school to work with groups on safety.

The Safety Education Section of the Bureau of Traffic and Operations Planning of the Department of Kentucky State Police maintains a staff of officers that is qualified and eager to work closely with schools and school patrols. This section on safety education, only recently activated, is equipped to show safety films to schools, give talks, or instructions to classes in any type of traffic safety. Any school desiring help from the Kentucky State Police should contact the nearest Safety Education Officer located at the following State Police Headquarters: Madisonville, Hodgenville, Frankfort, Richmond, and Pikeville.

THE TEACHING UNIT

One of the most common methods in use of organizing and presenting subject-matter materials is the teaching unit.¹ Next to the traditional textbook method, the teaching unit is perhaps used more than any other method. It is defined as a systematic and comprehensive survey, analysis and organization of possible problems, issues, activities, and teaching aids that a teacher might use in building a teaching unit. There is no common pattern for building a teaching unit, and since teachers will want to construct their units to conform to their individual ideals and methods, no particular plan is recommended.

The teacher should know, or secure the answer to these questions as he develops the teaching unit.

- (1) What specific outcomes and patterns of behavior are to be sought and developed by this teaching unit?
- (2) To what extent are the specific outcomes sought related to the need of the youth in the group, the needs of the community, and the overall purposes of secondary education?
- (3) What experiences and activities are needed that will assist the members of the group to reach the outcomes? How wide in variety should these experiences be provided?
- (4) What materials are available and how may these materials be secured?
- (5) How can the experiences provided be interrelated to other subject-matter areas and to life's problems of the group?
- (6) What techniques can be used to evaluate the outcomes of this teaching unit?

A large amount of teaching materials are available on the subject of safety education including highway safety. Much of this material is free and inexpensive and can be secured by the asking. The teacher is referred to the section of this bulletin relating to materials for a list. (See page 227.) Members of the class or group should be used as resource people to collect, classify, and arrange some of these materials.

The teacher should have at her command some good professional books or literature on the unit method of teaching. If she cannot afford the purchase of these materials, they should be made a part

¹Synonymous in meaning are the terms, unit, unit of work, unit of experience, Morrison unit, activity unit, and subject-matter unit.

of the teachers' professional library of the school. References that are particularly good are:

- (1) Ruth G. Strickland. *How to Build A Unit of Work* (Washington, D. C., U. S. Office of Education, 1946) Bulletin 1946, No. 5
- (2) James I. Quillen. *Using a Resource Unit* (Washington, D. C., National Association of Secondary School Principals, 1942)
- (3) Harold Alberty. *Reorganizing the High School Curriculum*. (The MacMillan Company, New York, 1947)
- (4) Mildred Biddick. *The Preparation and Use of Source Units* (The Progressive Education Association, Memo, New York, 1940)
- (5) J. Murray Lee, and Dorris May Lee. *The Child and His Curriculum* (Appleton Century Crafts, New York, 1950)

AN EXAMPLE OF A TEACHING UNIT

The teaching unit outlined in the following pages is suggestive and may be of help to teachers planning experiences in highway safety and driver education. This material may be even used when teachers need time to construct their own units.

In the preparation of this teaching unit, the Committee has drawn generously from, *The Young Driver—A Responsible Citizen*, A Resource Unit for Driver Education, prepared by Miss Maco B. Whittall, Safety Advisor, J. M. Atherton High School, Louisville, Kentucky. The Department of Education is grateful to Miss Whittall, and to the Division of Curriculum and Research of the Louisville City Schools, publisher of the unit in mimeograph form, for the privilege of using it as a major source.

A. INTRODUCING THE UNIT

Suggested Time: Two Class Periods

Objectives—Pupil Purposes

1. To understand the meaning of driver education.
2. To preview the Teaching Unit and to open avenues of approach to the subject.

Suggested Problems, Discussion Topics and Pupil Activities

1. Preview the teaching unit on driver education and discuss with the pupils some of its possibilities.
2. Bring to the class newspaper clippings, pictures, and other facts you are able to find on the automobile.

3. Refer to the materials section of this bulletin and have the pupils to write for materials to be used later in the unit.
4. See a motion picture such as, AN THEN THERE WERE FOUR.
5. Discuss the interests of the group in driver education and determine the future usefulness to the members of the group.
6. Clarify the meaning of the terms *driver education* and *driver training*.
7. Relate driver education instruction to (a) operating an automobile, (b) traffic participation, (c) citizenship.
8. Obtain information on available plans of securing behind-the-wheel training.

B. DEVELOPING THE UNIT

PART I

THE HISTORICAL, SOCIAL, AND ECONOMIC SIGNIFICANCE OF THE MOTOR CAR

Suggested Time: Five Class Periods

From personal interviews, and reading the instructional materials available, a practical perspective should result from learning experiences that will cause the pupil to:

1. Trace the development of the automotive industry from "the horseless carriage" to the "streamlined convertible."
2. Relate the more remote developments of transportation and power to the present motor vehicle.
3. Understand the effects of the automobile on family life from the standpoint of business, recreation, and survival.
4. Realize the community changes that have occurred because of the widespread use of automobiles.
5. Appreciate the improved protective and emergency services of government made possible by the use of motor vehicles.
6. Realize the economic value of the automobile in terms of employment.

Objectives—Pupil Purposes

1. To inventory knowledge about the development of the motor car.
2. To develop a knowledge and appreciation of the social changes in America resulting from the invention of the motor vehicle.
3. To trace the development of the motor vehicle as a means of transportation.

4. To understand the changes in family life resulting from the widespread use of the automobile.
5. To understand the economic effects of the automobile on American life.
6. To understand the growth of civic services and organizations resulting from the increased use of motor vehicles.
7. To understand the use of motor vehicles in the protective and emergency services rendered by various government functions.
8. To understand the traffic problem in America.
9. To understand the seriousness of the automobile accident problem in general and for the young driver in particular.
10. To understand the meanings of the three E's in the solution of the accident problem—Education, Engineering, and Enforcement.

Suggested Problems, Discussion Topics and Pupil Activities

1. To realize objective 1.
 - a. Discuss man's limitations of travel before the advent of the automobile.
 - b. List facts you know about the early development of the motor car.
 - c. Decide what you need to find out about the early automobile in order to have a more intelligent understanding of its place in your way of life.
 - d. Determine the literal meaning of the word *automobile*.
 - e. Exchange views on the early automobile based on the models you may have seen at the Smithsonian Institute, Washington, D. C., at Greenfield, Michigan, or elsewhere.
 - f. Read "Motorists Were Pioneers, Too," *Automobile Bulletin*, February, 1952.
2. To realize objective 2.
 - a. Read about "horseless carriages or horseless buggies."
 - b. Indicate the necessary changes in the styles of clothing with the advent of the early automobile.
 - c. Refer to the Materials Section for items of interest on early accident data and early speed laws.
 - d. Find out the names of popular songs that were influenced by the early motor's appearance on the American scene.
 - e. Determine the relationship between the terms *Northwest Country*, *National Pike*, and *U. S. 40*.
 - f. Discuss the development of roads and highways from the days of mud roads to modern dual highways.
3. To realize objective 3.
 - a. Discuss man's discovery of the wheel as a forerunner of the motor car.
 - b. Discuss the invention of the internal-combustion engine as the forerunner of the modern motor car.
 - c. Discuss the meaning of the term "horsepower" as a measure of power.

- d. Relate the development of increased power to present accident statistics.
 - e. Discuss the relationship between the control of power and staying alive.
 - f. Read about the earliest experiments with automobiles in this and other countries.
 - g. List the names of early makes of automobiles still current.
 - h. See the motion picture *STYLING THE MOTOR CAR*, General Motors Corporation.
 - i. Collect snapshots of early automobiles from members of your family or from friends (to be returned to owners). Compare with Goodyear poster, *Automobiles 1915 to 1950*.
 - j. Outline the various steps of improvement in the mechanical and safety features of the motor car from 1895 to the present.

(1) Size of motor	(9) Instrument panel
(2) Lights	(10) Clutch
(3) Brakes	(11) Gear Shifting
(4) Steering	(12) Trunk
(5) Transmission	(13) Heating and defrosting
(6) Tires	(14) General Design
(7) Center of gravity	(15) Starting the motor
(8) Glass	
 - k. List persons who were key figures in the development of the American automotive industry.
 - l. Discuss the steps in the revolutionary changes in modes of American travel from the covered wagon to automatic transmission of the modern motor car.
4. To realize objective 4.
- a. Outline the importance of motor vehicles in obtaining food.
 - (1) Shipping perishable foodstuffs.
 - (2) Livestock transportation.
 - (3) Selling and distributing manufactured food products.
 - (4) Purchasing family supplies.
 - b. Contrast these practices with similar activities at the turn of the century.
 - c. Discuss opportunities for appreciation of natural wonders of America by means of the family car.
 - d. Discuss the probabilities of communication between your immediate family and relatives living at distant points.
 - e. Discuss the possibility of understanding the customs and manners of people in other parts of the country as a result of automobile travel.
 - f. Determine the importance of an open mind to this understanding.
 - g. Define *provincialism* and discuss the possibility of its breakdown as a result of travel.

5. To realize objective 5.
 - a. List the related industries that have grown out of the development of motor vehicles.
 - b. Name some of the annual sporting events that have figured in the development of the modern motor car, tires, etc.
 - c. List 25 jobs, other than production of the car itself, that depend directly or indirectly on the automobile.
 - d. List as many kinds of businesses as you can that have grown out of use of the automobile.
 - e. Compare car production numbers for 1895 through the present year.
 - f. Seek the origin of the term "assembly line" and discuss its use in types of industry other than the automotive industry.
6. To realize objective 6.
 - a. List the safety organizations that are known to you.
 - b. Find out how these organizations are financed, and what services they render to the public.
 - (1) Statistical reports of accidents.
 - (2) Educational materials
 - (3) Legislative matters at the city, state, and national levels.
 - c. Discuss the services rendered by the various automobile clubs that are interested in important safeguards for the motorist such as.
 - (1) Highway development.
 - (2) Education
 - (3) Public finances (gas tax, licensing, etc.).
 - (4) Legislative matters at the city, state, and national levels.
7. To realize objective 7.
 - a. Discuss the improvements in fire protection that are possible because of motor vehicles.
 - b. Determine the police protection you have that might not be available except for motor vehicles.
 - c. List the services available to your own school that depend on the daily use of motor vehicles.
 - d. Compare the accessibility of better schools for rural pupils to that of 1910.
 - e. Decide the influence of motorized transportation on your own school attendance.
 - f. List the emergency vehicles that are at your disposal, at home and at school, and the importance of time in those services.
 - g. Discuss the value of state government services in the
 - (1) Licensing of motor vehicles.
 - (2) Licensing of drivers.
 - (3) Regulation of the weight of trucks
 - (4) Traffic laws and regulations
 - (5) Enforcement agencies

8. To realize objective 8.
 - a. Discuss the factors of congested traffic in terms of
 - (1) Number of automobiles
 - (2) Parking facilities
 - (3) Daily distances traveled
 - (4) Changing patterns of urban development
 - (5) Location of industrial plants
 - (6) Natural barriers—rivers, hills, etc.
 - (7) Grade separations on streets and highways
 - (8) Narrow streets of older cities
 - (9) Suburban growth
 - (10) Taxation and road development.
9. To realize objective 9.
 - a. Consult *Accident Facts* or *The Travelers Book of Street and Highway Accident Data* for data on fatal accidents for
 - (1) Drivers of all ages
 - (2) The teen-age driver
 - (3) The young adult (20-25 years of age)
 - b. Discuss the effects of this accident record on automobile insurance rates.
 - c. Discuss types of insurance essential for car owners and why.
 - d. Read "How About Your Children and the Family Car?", *Coronet*, 1951.
 - e. Study the current *Fatality Report*, Louisville Safety Council, and try to calculate the loss to the community in terms of
 - (1) Loss of services of individual
 - (2) Loss of income to families
 - (3) Cost of accidents
 - f. Read Furnis, J. C., "Survived By—", *Reader's Digest*.
 - g. Read Jones, Paul, "Freak Squeak Roundup," *Safety Education*, February, 1950.
 - h. Read how Lyman Daniels, a test driver, feels about drivers generally in "our Driving Scares the Wits Out of Me," *American Magazine*, November, 1950.
 - i. Read "Teen-Age Drivers," Lumberman's Mutual.
10. To realize objective 10.
 - a. Discuss the importance of widespread educational effort to
 - (1) The young driver
 - (2) The experimental driver
 - (3) The vocational driver
 - b. List agencies interested in improved driving skill for all drivers.
 - c. Determine the relationship of improved driving skill to
 - (1) Saving lives
 - (2) Saving property
 - (3) Increased enjoyment of life
 - (4) Increased satisfaction in individual accomplishment.

- d. Determine the various forms of educational effort used to improve driving skill.
- e. Decide what you consider the most important educational device in present use.
- f. Discuss the part engineering plays in the solution of traffic problems.
- g. List engineering changes in traffic controls that have occurred recently.
- h. Decide what advantages obtained in the use of
 - (1) Dual highways
 - (2) Grade separations
 - (3) Cloverleaf intersections
 - (4) One-way streets
 - (5) Lane markings
 - (6) Uniform traffic signals for all parts of the country
 - (7) No-passing lines on streets and highways
- i. List the community agencies concerned with enforcement of traffic regulations.
- j. Discuss the place of the individual in law enforcement.
 - (1) Individual responsibility to oneself and one's family.
 - (2) Responsibility to group in protecting lives and property of others.
 - (3) The power of individual attitude in molding group opinion.
- k. Explore the reasons for constant vigil in the enforcement of any law.
- l. Discuss the personality and character traits of the individual who resorts to "fixing tickets" instead of accepting responsibility for his own acts.
- m. Decide how forethought can prevent violation of traffic regulations and thus avoid the penalties of violation.
- n. Decide whether any violation is really minor.
- o. See the motion picture LAST DATE.
- p. Discuss the joint responsibility of the driver and the passengers for group safety.

Materials and Content

Reference Code	Title
	Printed Materials
(A-1) ²	<i>Compton's</i> , Pages Vol. A. 503-508
(A-2)	<i>World Book</i> , Pages Vol. A. 558-559
(B-4)	<i>Sportsmanlike Driving</i> , Chapters 18, 19, 20, 21, and 22
(B-7)	<i>An Outline of Transportation</i> , Pages 34-51
(B-15)	<i>The Motor Car in American Life</i> , Pages 3-17
(B-25)	<i>Accident Facts</i>
(B-36)	<i>Man and the Motor Car</i> , Chapters 1, 26
(B-30)	<i>Who Me? Forty Years of Automobile History</i>
(B-39)	<i>Life and Health</i> , Pages 390-404
(D-7a)	<i>Automobile Facts and Figures</i>

²Code refers to reference number in materials section see page 227.

- (D-14a) *Automobiles 1915-1950*
- (D-7c) *A Chronicle of the Automobile Industry*
- (E-29) *The Maysville Turnpike*
- (D-13j) *When Wheels Revolve*
- (D-13h) *Transportation Progress*
- (D-7f) *What It Takes To Make a Car*
- (D-7d) *Horses to Horse Power*
- (I-25c) *The Teen-Age Drivers*

Visual Materials

- (F-2) AN THEN THERE WERE FOUR
- (F-16) LAST DATE
- (F-17) LEST WE FORGET
- (F-25a) TEENICIDE
- (F-26) STYLING THE MOTOR CAR

PART II

**THE RESPONSIBLE DRIVER—HIS MENTAL, PHYSICAL AND
EMOTIONAL QUALITIES**

Suggested Time: Six Class Periods

In order to improve the present traffic-accident record of teen-agers and young adults, the beginning driver must realize his personal and social responsibility for his own life and property and the life and property of others. The record of the 20-25 age group is now the worst of all age groups in proportion to the number of drivers in that group. The young driver must be made to realize that factors, other than those originating in the human mind, that cause fatal accidents are negligible in number. The greatest single factor in all kinds of traffic accidents is human failure to control power.

Attitudes derive from feelings and emotions, either by direct experience or from the observed or verbalized experiences of others. A feeling of responsibility, linked with the pride of ownership in the possession of a car or the privilege of use in the case of a borrowed car, will result in desirable driver attitudes that place high values on life and property. But, if the young driver has seen adult drivers apparently enjoying immunity from condemnation, or punishment, for the reckless use of a car, his attitudes may soon become destructive unless his sense of responsibility is very thoroughly grounded.

The potential driver, and the young driver, must fully understand how his feelings, emotions and attitudes originate. He must be able, also, to connect them directly to his own actions and the results of those actions.

Desirable attitudes should result from learning experiences that cause pupils to:

1. Understand and appreciate the importance of personal fitness in being a skilled driver.
2. Develop an understanding of the direct relationship between emotional control and ability to control a car.
3. Realize personal limitations, be willing to compensate or correct any disabilities, if present, and be realistic about any ensuing limitations.
4. Desire and acquire sound driving habits, skills, and understandings in order to become good defensive drivers.
5. Apply concepts of mental health to driving skill.
6. Develop the inquiring and flexible habits of mind needed to adapt driving practices to necessary changes in traffic engineering and enforcement.
7. Use the practice of self-examination to determine necessary changes in point of view when the driver becomes a pedestrian.
8. Recognize and observe the rights and privileges of other users of the streets and highways.

Objectives—Pupil Purposes

1. To understand the meaning of physical fitness as applied to driving.
2. To know the value of accurate vision to the skilled driver.
3. To know the value of the sense of hearing to the skilled driver.
4. To know the relation of physical strength to driving an automobile.
5. To know the importance of the sense of smell to a driver.
6. To know what constitutes accident proneness.
7. To understand the problems of the disabled driver.
8. To understand the temporary disabling effects of physical and mental fatigue when driving.
9. To understand the mental qualities that are vital for smooth, skillful driving.
10. To understand how staying alive depends on emotional control.
11. To know the dangerous effects of strong emotions while driving a car.

Suggested Problems, Discussion Topics and Pupil Activities

1. To realize objective 1.
 - a. Discuss physical fitness as a personal quality needed by the skilled driver.

2. To realize objective 2.
 - a. Learn all you can about vision as one of the important qualities of a skilled driver with reference to
 - (1) Perfect vision
 - (2) Nearsightedness and its compensations
 - (3) Farsightedness and its compensations
 - (4) Color blindness
 - (5) Field of vision
 - (6) Depth of vision
 - (7) Night vision
 - (8) Astigmatism
 - (9) Monocular vision (either eye)
 - (10) Eye-hand and eye-foot coordination needed for driving
 - b. Discuss the use of sunglasses, with and without corrections, and colored glass in car windows for
 - (1) Daytime driving
 - (2) Night driving
 - (3) Ways of determining need for glare protection.
 - c. Decide how refusal to compensate for vision deficiency might cause a driver to have a serious accident.
 - d. Discuss the relationship of vanity and personal responsibility for one's own acts in such a circumstance.
 - e. Use the psycho-physical testing devices, if available, for measuring your own visual qualities.
 - f. Read "Your Eyes Must See You Through," *American Magazine*, January 1952.
3. To realize objective 3.
 - a. Discuss the ways a driver may be handicapped by poor hearing as related to
 - (1) Immediate environment
 - (2) Approach to emergency vehicles
 - (3) Possible compensations for poor hearing(Note to teacher: Local enforcement agencies report very few accidents because of poor hearing.)
4. To realize objective 4.
 - a. Discuss physical strength as a qualification of a driver.
 - b. Learn what the kinesthetic sense is and what it means to a driver.
5. To realize objective 5.
 - a. Discuss the sense of smell as an aid to personal safety, when driving, as to
 - (1) Smell of burning rubber in car.
 - (2) Fumes of various types along the highway.
 - (3) Raw gasoline smell.
 - b. Determine why the sense of smell is of no help in detecting the presence of carbon monoxide gas.
 - c. List precautions for guarding against asphyxiation by carbon monoxide gas from a car.

6. To realize objective 6.
 - a. Consult *Accident Facts* and/or *The Travelers Book of Street and Highway Accident Data* for data on accident repeaters.
 - b. Chart the qualities of accident-prone individuals.
7. To realize objective 7.
 - a. Discuss mechanical adjustments necessary to make it possible for a permanently disabled person to drive a car.
 - b. Find out what disabilities cannot be corrected to the point of permitting the affected person to obtain a driver's license.
8. To realize objective 8.
 - a. Consult *Accident Facts* for data on the number of accidents caused by fatigue.
 - b. Discuss the comparative effects of mental and physical fatigue when driving a car.
 - c. Decide the best plan for the relief of fatigue when driving.
 - d. Discuss the relationship between fatigue and interpretation of road signs and directions.
 - e. Find out what proportion of accidents and fatalities was caused by being temporarily disabled by alcohol.
 - f. Determine the physical effects produced by alcohol.
 - g. Relate those physical effects to
 - (1) Lack of alertness
 - (2) Removal of inhibitions
 - (3) Covering up for personality difficulties (inferiority complex, etc.)
 - (4) Emotional instability
 - (5) Criminal carelessness
 - (6) Kinesthetic control
 - (7) Refusal to face reality
 - h. Study the table of alcoholic concentrations on page 59 of *Sportsmanlike Driving* and decide your chances of killing someone if you drive when drinking.
 - i. Read "False Ideas About Liquor," *Your Health*, Fall, 1951.
 - j. Decide the difference between the "drunken driver" and the "drinking driver" and which is the more dangerous.
 - k. Read "What Two Drinks Will Do To Your Driving," *Reader's Digest*, October, 1951.
 - l. Apply common sense to this question of "drinking drivers" to decide where you stand.
 - m. Investigate reports of alcoholic tests as a measure of control.
 - n. Study Safety Education Data Sheet No. 19, *Alcohol and Traffic Accidents*.
 - o. Relate personality qualities to the escapism of alcoholism.
 - p. See the motion picture *Sergeant Bruce Reporting, DRINKING AND DRIVING*.

9. To realize objective 9.
 - a. From your study of mental health, recall the mental qualities necessary to be a well-balanced individual.
 - b. Discuss the need for straight thinking in skillful driving in order to
 - (1) Understand your relation to other drivers.
 - (2) Appreciate the rights of other drivers to the use of streets and highways.
 - (3) Interpret regulatory signs and signals on streets and highways.
 - (4) Cooperate with enforcement agencies in making streets and highways safe for all.
 - (5) Increase the enjoyment of your car for business and recreational purposes in your daily life.
 - (6) In the solutions of traffic situations involving the element of surprise.
 - c. Evaluate the statement, "As you think so do you drive," in terms of
 - (1) How long you may stay alive.
 - (2) Your opportunity to complete your life, whatever its span, with the full use of your mind, body and senses.
 - (3) Your efficiency, and satisfaction and enjoyment, in driving.
 - (4) Your following the leisure-time pursuits of your choice.
 - d. Discuss the place of good judgment in skillful driving, and how it depends on realistic thinking.
 - e. Evaluate the statement, "Driving is a privilege," and its corollary, "Privileges can be extended only to those who accept them in a responsible manner."
 - f. Determine your responsibilities to yourself and your family as a driver.
 - g. Determine your responsibilities to others who use the streets and highways.
 - h. List situations in which patience could prevent accidents.
10. To realize objective 10.
 - a. Discuss how your chances of remaining alive may be slight if you lack emotional maturity.
 - b. Define emotional maturity and list its chief characteristics.
 - c. Define egotism and decide why it is childish, even babyish.
 - d. Think carefully about your own behavior to see if you need to rid yourself of childish habits. See the motion picture, BE YOUR AGE.
 - e. Decide where the *thrill seeker*, the *road hog*, the *show-off*, and the "traffic weaver" fit into the traffic pattern of today, and why they are bad risks financially, socially, and spiritually.
 - f. Relate the desire for pleasure at all costs to thoughtless criminal negligence.

- g. Decide how expendable the passengers in your car may be if you deliberately fail to control its power.
 - h. Find out the relationship of traditional thinking to driver responsibility and examine your own driver point of view for such thinking.
 - i. Read "Soreheads at the Wheel Are Death's-Heads," *Reader's Digest* March, 1952.
 - j. Discuss the similarity of the mental and emotional qualities needed by the skilled athlete to those needed by the responsible, skilled driver.
 - k. Discuss the value of reflection and self-examination, when a driver has had an accident or near-accident, as a means of preventing a similar occurrence.
 - l. Show how mental reflections and self-examination could reduce traffic accidents to a minimum.
 - m. Being temperamental has been defined as "90 per cent temper and 10 per cent mental"; justify this statement in terms of the driver who scolds at other drivers who cause him inconvenience.
 - n. Decide the qualities of a "smart aleck" driver. *Deft Driving*
 - o. Sum up the qualities that make a top-notch driver.
 - p. See the motion picture *Sergeant Bruce Reporting—COURTESY*
 - q. Discuss at length the three C's of defensive driving.
 - (1) Concentration
 - (a) On driving
 - (b) Keeping out other thoughts
 - (c) Observing rules and regulations
 - (2) Control
 - (a) Of self
 - (b) Of the power of your car
 - (c) Of environment
 - (3) Courtesy
 - (a) To other drivers
 - (b) To pedestrians
 - (c) In sharing the streets and highways through good driving practice.
 - r. See the motion picture *DEFENSIVE DRIVING*.
11. To realize objective 11.
- a. Distinguish between a healthy fear, that serves as a challenge to the mastery of one's environment, and a consuming fear that makes one unable to cope with his environment.
 - b. Relate an incident when fear causes an accident.
 - c. List the effects of anger on the part of a driver that might result in fatalities, even though the anger might seem justifiable.
 - d. See the motion picture, *Sergeant Bruce Reporting*, *DRIVER IRRITATIONS*.

- e. Discuss the ways in which grief and sorrow might result in traffic fatalities.
- f. Decide how excitement of any character could result in injury and/or death.
- g. Read *Magic Night*, pamphlet.
- h. Discuss the ways in which hatred, imagined or real, could be responsible for traffic accidents:
 - (1) Hatred for members of the family
 - (2) Hatred for law and order
 - (3) Hatred for enforcement officers
 - (4) Hatred of self because of lack of success
 "Check Your Attitudes", *Deft Driving*.
- i. Sum up your study of attitudes by seeing the slide film, DRIVER FITNESS AND ATTITUDE.

Materials and Content

Reference Code	Title
	Printed Materials
(B-4)	<i>Sportsmanlike Driving</i> , Chapters 3, 4
(B-36)	<i>Man and the Motor Car</i> , Chapters 3, 4
(B-39)	<i>Life and Health</i> , Pages 259-273, 403
(B-25)	<i>Accident Facts</i> , Pages 7-13, 69
(B-31)	<i>Driving Can Be Safe</i>
(B-28)	<i>Emotion and Educative Process</i>
(B-20)	<i>Psychology</i>
(B-11)	<i>Safety First-and-Last</i> , Pages 146-155
(D-12a)	<i>Deft Driving</i>
(D-6a)	<i>What Makes Drivers Act That Way</i>
(D-6b)	<i>Improving The Attitude of Young Drivers</i>
(D-6c)	<i>What is An Attitude</i>
(D-26d)	<i>How Can Driver Attitude be Affected. By Education</i>
(E-20)	<i>Your Eyes Must See You Through</i>
(E-9)	<i>False Ideas About Liquor</i>
	Visual Materials
(F-5)	CONTROL YOUR EMOTIONS
(F-8)	DRUNK DRIVING
(F-25i)	DRIVER IRRITATIONS
(F-25j)	DRINKING AND DRIVING
(F-30)	UNDERSTAND YOUR EMOTIONS
(F-38)	DRIVER FITNESS AND ATTITUDE

PART III

THE RESPONSIBLE DRIVER—HIS RECOGNITION, UNDERSTANDING, AND PURPOSEFUL ACCEPTANCE OF NATURAL AND MAN-MADE LAWS

Suggested Time: Six Class Periods

Many drivers either do not know, or they ignore the fact, that the natural laws of driving are as vital to their survival as are the laws made by man for the regulation of traffic. Often the phrase, "driving too fast", when found in a news report, is interpreted as meaning a violation of traffic laws found in city ordinances or state statutes. It seldom occurs to the reader of such an item that the violation of one or more of the natural laws of the science of physics was the real cause of the accident reported.

Statistics show that deliberate speed is the primary recognized cause of traffic accidents. Thus it becomes necessary for young drivers to have a comprehensive understanding of the natural laws over which no man has control, as well as the legal regulations set up by the various units of government at the city, state, and national levels for preventing accidents.

Knowledge, appreciation and an understanding of man-made laws which govern the regulation of motor-vehicle traffic must accompany the recognition and acceptance of the physics of driving. Attitudes toward law enforcement, feelings of social responsibility for one's own acts, together with cooperative, purposeful acceptance of authority, become implements of survival along with the technical skills of driving.

Learning experiences to develop desirable attitudes toward driving laws should include opportunities to

1. Understand and appreciate the laws of physics as a natural force in controlling a motor vehicle.
2. Acquire a willingness and determination to abide by the natural laws of driving in order to prevent street and highway accidents.
3. Develop an understanding and appreciation of the necessity for regulation of traffic by government agencies at the city, state, and national levels.
4. Realize the necessity for the modification of existing laws to meet new developments in the various phases of the traffic problem.
5. Know the provisions of the traffic laws of the Commonwealth of Kentucky, and, if possible, of surrounding states.

6. Know the requirements and provisions of the motor-vehicle registration and driver-licensing laws of the Commonwealth of Kentucky and the reasons for forfeiture of same.
7. Respect and appreciate the privileges granted the individual driver when being licensed to drive.
8. Understand the need for federal regulation of some phases of traffic laws without violation of states' rights.
9. Know the legal and driving-skill requirements for the driving of a motor vehicle as an occupation.

Objectives—Pupil Purposes

1. To understand the relationship between smooth operation of a car and the natural laws of stopping.
2. To understand the necessity for state laws and city ordinances to regulate traffic.
3. To understand street and highway signs and markers, their meanings and implied responsibilities.
4. To understand the legal requirements connected with the ownership of a car.
5. To know how to obtain and use a driver's license.
6. To understand the meaning and conditions of arrest for traffic violations.
7. To understand the legal and human responsibilities of a driver in case of an accident.
8. To know the legal requirements for the condition of a car.
9. To understand your responsibility toward emergency vehicles and equipment.
10. To understand the rules and regulations of right-of-way.
11. To understand the rules for signaling intention to change direction or stop.
12. To know the rights of the pedestrian and the motorist's responsibility to him.
13. To know the responsibility of a driver toward school buses on the street or highway.

Suggested Problems, Discussion Topics and Public Activities

1. To realize objective 1.
 - a. Define the terms *friction*, *momentum*, *inertia*, and *force of impact*.
 - b. Discuss the relationship between physical and mental fitness and reaction time and how they combine to affect stopping distances.
 - c. Read *Mr. Driver: Your Life Is in Your Hands*, National Safety Council.
 - d. Develop an understanding of the physical laws involved in stopping an automobile.
 - e. Learn how the position of your car in a line of traffic affects your stopping distance.

- f. See the motion picture *Sergeant Bruce Reporting*—FOLLOWING TOO CLOSE.
 - g. Compare stopping distances for ideal weather and road conditions with the distances required for adverse weather conditions.
 - h. See a demonstration of the use of a delonator for measuring stopping distances.
 - i. Discuss the importance of friction in keeping a car on the road as to
 - (1) Condition of tires
 - (2) Straight, flat surfaced roads
 - (3) Curves
 - (4) Rough pavement
 - j. Study about centrifugal force and its relation to friction in staying on curves and swerving a car at any time.
 - k. Discuss and illustrate, if possible, flat, crowned, and banked curves.
 - l. Distinguish between kinetic energy and momentum.
 - m. Study "Motor Vehicle Speed," Safety Education Data Sheet No. 55.
 - n. Discuss the statement "I can stop on a dime" in terms of
 - (1) Reaction time
 - (2) Stopping distances
 - (3) Force of impact
 - (4) Friction
 - (5) Inertia
 - (6) Personality shortcomings
 - o. See the filmstrip INERTIA.
 - p. See the motion picture *Sergeant Bruce Reporting*—SPEED.
2. To realize objective 2.
- a. Discuss the origin of traffic regulations that grew out of custom.
 - b. Find out the steps required to enact new traffic regulations in your city and state.
 - c. Discuss the need for uniform traffic regulations in the various cities, citing variations and likenesses in nearby cities. *Digest of Motor Laws*, American Automobile Association.
 - d. See the motion picture *Sergeant Bruce Reporting*—THE DRIVER AND THE LAW.
 - e. Discuss the relationship of the well-balanced individual, self-enforcement of traffic rules, and the reduction of traffic accidents.
 - f. Work out a definition of reckless driving from the Kentucky Driver's Manual.
 - g. Relate the above definition to the concept of the protective service of traffic officers as expressed in *The Driver and the Law*.

- h. Connect the "Last-Clear-Chance doctrine" from early English law with an individual's responsibility for his own acts.
 - i. See the filmstrip DRIVER FITNESS AND ATTITUDE.
 - j. Discuss the problem of right-of-way in relation to the last-clear-chance doctrine.
 - k. Consult your Kentucky Driver's Manual for the laws of right-of-way—written and unwritten.
 - l. Read the basic rules of driving.
 - m. Consult other driver's manuals in order to compare regulations and laws for states bordering Kentucky.
3. To realize objective 3.
- a. Distinguish between the size and shape of federal and state route markers in Kentucky and surrounding states.
 - b. Learn the difference between the meaning of black-and-white signs and black-and-yellow signs on the highway.
 - c. Learn the meanings of the following classifications of markers.
 - (1) Octagonal signs
 - (2) Round signs
 - (3) Diamond-shaped signs
 - (4) Crossbucks
 - (5) Rectangular signs
 - d. Learn the legal significance of electric traffic signals and discuss these points:
 - (1) Red light (single or double) and red arrows
 - (2) Flashing red
 - (3) Amber
 - (4) Flashing amber
 - (5) Green and green arrows
 - e. See the motion picture IT'S WANTON MURDER.
 - f. Discuss "running lights" on these points
 - (1) Saving a few seconds
 - (2) Saving lives
 - (3) Rights of others
 - (4) Moral responsibility for observance of regulations
 - (5) Fifth Commandment ("Thou shalt not kill.")
 - g. See the motion picture FATAL SECONDS and think about your own driving and the needless chances you may have taken.
 - h. Discuss the relative unimportance of saving a few seconds compared to protecting your own life and the lives of others.
 - i. Decide what "running the yellow" really is and discuss the choices drivers must sometimes make.
 - j. Discuss speed too fast for conditions in relation to traffic signals.
 - k. Think about the type of personality displayed by "horn blower" at intersection.

4. To realize objective 4.
 - a. Interview a driver about the data on the registration certificate required in Kentucky for ownership of a car.
 - b. Find out the legal procedure necessary in purchasing a new car or a used car.
 - c. List the safeguards necessary to avoid the purchase of a stolen car.
5. To realize objective 5.
 - a. Discuss the social responsibility of the owner of a driver's license to drive in a manner to protect his own life and property as well as the lives and property of others.
 - b. See the motion picture **YOUR PERMIT TO DRIVE**.
 - c. Study your Kentucky Driver's Manual, pp. 40-50, and be sure of these points:
 - (1) Learner's permit
 - (2) How to obtain your operator's license
 - (3) Requirements of the examination
 - (4) Renewal and replacement certificate
 - (5) Loss of the privilege of driving
 - (6) Form of examination
 - (7) Driving without a license
 - d. Discuss the personal qualities of an individual who will permit himself to
 - (1) Drive without a license
 - (2) Drive when his license has been suspended or revoked
 - (3) Rationalizes himself into believing he is in the right when he tries to outrun the traffic officer to avoid arrest and the loss of his license.
 - e. Discuss the need for the driver's license being accessible at all times.
6. To realize objective 6.
 - a. Interview a traffic court judge on these points:
 - (1) Meaning of being given a citation for traffic violation
 - (2) Meaning of physical arrest and the circumstances under which it may occur
 - (3) Meaning and seriousness of arrest by warrant
 - b. Define *misdemeanor* and relate to traffic violations.
 - c. Define *felony* and relate to traffic violations.
 - d. Decide when an automobile is a lethal weapon, intentionally or unintentionally.
 - e. See the motion picture **BORROWED POWER**.
 - f. Find out what constitutes voluntary and involuntary manslaughter and when a driver may be held on manslaughter charges.
 - g. Decide whether or not a car can be a murder weapon.
7. To realize objective 7.
 - a. Consult your *Kentucky Driver's Manual*, pp. 36-38, for

- (1) What you, a responsible driver, *can do* if you are involved in an accident
- (2) What the law says you *must do*
- (3) What you *must not do*
- b. Analyze your attitudes toward driving to see if they need revision as to your legal and social responsibilities in case you are involved in an accident.
- c. List the personal, social and moral qualities of the hit-and-run driver.
- d. See the filmstrip **IN CASE OF ACCIDENT**.
(Note to teacher: Minor accidents occur frequently when a boy is teaching his girl friend to drive and she does not have a learner's permit. A serious accident under these circumstances would mean stiff penalties to the car owner. Emphasis on the need for a learner's permit may be helpful with this problem.)
- e. Contrast *fearing the law* with *cooperating with the law*, as to
 - (1) Avoiding or accepting responsibility for one's own act
 - (2) Personal feelings of being "right with the world," self-esteem
 - (3) Honesty, truthfulness, decency
 - (4) Understanding and mastering environment
 - (5) Recognizing and accepting authority.
- f. Justify the statement "Ignorance of the law is no excuse" in regard to
 - (1) Legal requirements for operating a car
 - (2) Driver's license requirements
 - (3) Accident procedure
 - (4) Innocent violations of traffic regulations
 - (5) Deliberate violations of traffic regulations
8. To realize objective 8.
 - a. Consult your *Kentucky Driver's Manual*, pp. 38-40, for
 - (1) What equipment your car *must have*
 - (2) What equipment your car *must not have*
9. To realize objective 9.
 - a. Consult the Printed Materials for correct procedure with regard to approaching emergency vehicles.
 - b. Compare these data with similar data from your *Kentucky Driver's Manual*, pp. 24-25.
 - c. Find out the usual placing of responsibility when a car fails to yield the right-of-way to an emergency vehicle.
10. To realize objective 10.
 - a. Review your thinking about consideration of the rights of others to the use of streets and highways.
 - b. Define right-of-way.
 - c. Discuss thoroughly the rules of right-of-way with regard to
 - (1) Making right turns at unguarded intersections

- (2) Making left turns at unguarded intersections
 - (3) Making left turns at unrestricted intersections guarded by traffic lights
 - (4) Yielding right-of-way at four-way stops
 - (5) Determining right-of-way at two-way stops at the intersection of one-way streets not guarded by traffic lights
 - (6) Entering traffic from private driveways and alleys
 - (7) Pedestrians
 - d. Apply the doctrine of "Last-Clear-Chance doctrine" to right-of-way at any time.
 - e. Relate the yielding of right-of-way to the practice of defensive driving which takes nothing for granted.
 - f. See the filmstrip INTERSECTION CONTROLS
11. To realize objective 11.
- a. Consult your *Kentucky Driver's Manual* for the law regarding use of hand signals.
 - b. Determine the legality of the use of direction lights on a car for signaling intention to make right or left turns, and for changing lanes in traffic.
 - c. Discuss the general use and method of giving hand signals for signifying intention to
 - (1) Stop (emergency or regular)
 - (2) Turn right
 - (3) Turn left
 - (4) Leave curb
 - (5) Change lanes
 - (6) Pass
12. To realize objective 12.
- a. Consult your *Kentucky Driver's Manual* for information with regard to your responsibility to pedestrians.
 - b. Discuss the often tragic results of failing to yield right-of-way to pedestrians.
 - (1) When they have green light
 - (2) When caught in intersection when light changes
 - (3) On roads and highways where there is no sidewalk
 - c. Consult *Accident Facts* for data on car vs. pedestrian fatalities.
 - d. Discuss the unequal chance of a pedestrian against a car in traffic.
 - e. See the motion picture *Sergeant Bruce Reporting—DRIVER OR PEDESTRIAN?* for the need for a change in point of view when the driver becomes a pedestrian.
 - f. Discuss the effects of inability to judge distance and the speed of approaching vehicles from the standpoint of the pedestrian.
 - g. Decide how inability to judge distance on the part of the driver could cause pedestrian fatalities.
 - h. Discuss the human duties of a driver toward pedestrians without regard to legal rights.
 - i. See the motion picture CHILD SAFETY.

13. To realize objective 13.
 - a. Consult your *Kentucky Driver's Manual* for legal responsibility toward school buses.
 - b. Exchange experiences with regard to various types of semaphores and signals used on school buses.
 - c. Learn the penalties attached to violation of such laws.
 - d. Check similar information for neighboring states in *Digest of Motor Laws*, American Automobile Club.
 - e. Read "They Talk You Out of Reckless Driving," *American Magazine*, January, 1951.

Materials and Content

Reference Code	Title Printed Materials
(A-1)	<i>Compton's</i> , Pages Vol. A. 512-513
(A-2)	<i>World Book</i>
(B-4)	<i>Sportsmanlike Driving</i> , Chapters 9, 10; Pages 64-79, 112-131, 299-301
(B-36)	<i>Man and the Motor Car</i> , Chapters 9-13; Pages 139-146, 277
(D-18a)	<i>Motor Vehicle Laws</i>
(D-17b)	<i>Driver Manual</i>
(D-27a)	<i>Uniform Act</i>
(D-20a)	<i>Kentucky Driver's Manual</i>
(D-12a)	<i>Deft Driving</i>
	Visual Materials
(F-4)	CHAMPIONS AT THE WHEEL
(F-25e)	SPEED
(F-25f)	CHILD SAFETY
(F-25g)	DRIVER OR PEDESTRIAN
(F-25h)	FOLLOWING TOO CLOSE
(F-25m)	THE DRIVER AND THE LAW
(F-9)	FATAL SECONDS
(F-13)	IT'S WANTON MURDER
(F-6c)	YOUR PERMIT TO DRIVE
(F-32)	WHEEL SENSE
(F-38)	DRIVER FITNESS AND ATTITUDE
(F-42)	IN CASE OF ACCIDENT
(F-41)	INERTIA

PART IV

THE RESPONSIBLE DRIVER —HIS CAR IS MECHANICALLY SAFE

Suggested Time: Four Class Periods

Preventive maintenance of an automobile is defined as periodic checking, inspecting, servicing, repairing, and replacing parts according to a pre-arranged schedule to forestall the development

of any condition or defect that would contribute to an accident or breakdown on the road.³ The young driver needs to know the reasons, both economic and protective, for such maintenance.

The strengthening of responsible attitudes developed in previous topic learnings should include opportunities to

1. Develop concepts of personal and group safety resulting from keeping a car in first class (A-1) mechanical repair.
2. Understand the functions of the safety devices on a car and their correct use for maximum safety.
3. Distinguish between gadgets and safety devices.
4. Realize and understand that the most important safety factor of any car is *the driver*.
5. Realize the increased enjoyment that is possible when the driver keeps his car in first-class mechanical repair.

Objective—Pupil Purposes

1. To develop an understanding of those principles of unit construction necessary for safe and efficient driving.
2. To develop an understanding of the driver's responsibility for maintaining his car in a safe condition at all times.
3. To understand the proper maintenance of brakes as a safety measure.
4. To recognize the proper maintenance of tires as a means of staying alive.
5. To understand the importance of the steering mechanism of a car to safety.
6. To know the proper maintenance of the lighting system of the car as a safety measure.
7. To know how maximum efficiency of the ignition system depends on proper maintenance.
8. To know proper maintenance of other safety devices of your car.
9. To understand the need for other safety measures.
10. To understand the importance of good housekeeping to maintenance of cars.
11. To know the desirable points of economy driving.

Suggested Problems, Discussion Topics and Pupil Activities

1. To realize objective 1.
 - a. List and describe the functions of the various integral parts of the motor.
 - b. Visit the school shop or a local garage and have the pupils observe and report on the breakdown and assembly of a motor.

³National Commission on Safety Education, *High-School Driver, Education, Policies and Recommendations*, (National Education Association, Washington, D. C., 1950.) Bulletin 1950.

- c. Define the terms:
 - (1) Four stroke cycle
 - (2) Automatic transmission
 - (3) Hydraulic brakes
 - (4) Ignition
 - d. Correlate the activities in this section with general science and physics, or have the science teacher make demonstrations of the scientific principles involved.
2. To realize objective 2.
 - a. Prepare a check sheet for use in keeping a record of the parts of an automobile requiring periodic checking.
 - b. Evaluate the value from the standpoint of economy of preventive maintenance.
 - c. Have the pupils check on the condition of the family car, noting items in need of repair and replacement.
 - d. See the film TROUBLE SHOOTING YOUR CAR.
 3. To realize objective 3.
 - a. Discuss brake maintenance as to
 - (1) Equalizing
 - (2) Stopping power
 - (3) Condition of linings
 - (4) Condition of drums
 - (5) Distance from floor when depressed
 - (6) Fluid level of master cylinder of hydraulic brakes
 - b. Determine the warning signs that indicate need for adjustment of brakes.
 - c. Find out what the term "brake-driver" means.
 - d. Determine the relationship between overused brakes and the efficiency rating of a driver.
 4. To realize objective 4.
 - a. Discuss the maintenance of tires as to
 - (1) Correct pressure
 - (2) Systematic switching of tires
 - (4) Depth of tread related to stopping the car on dry, wet, or icy surfaces.
 - (5) Wheel balance
 - b. Decide the driver's responsibility to himself, his passengers and other motorists in keeping the tires in proper condition.
 - c. See the motion picture CARE OF THE CAR, and/or filmstrip PREVENTIVE MAINTENANCE.
 5. To realize objective 5.
 - a. Learn the symptoms of trouble that indicate need for the adjustment of the steering mechanism and a check of wheel alignment.
 - b. Read *Sportsmanlike Driving*, p. 342, for information on winter precautions with regard to steering.

6. To realize objective 6.
 - a. Discuss proper maintenance of the lights of a car with regard to current statistics on night accidents.
 - b. Learn the precautions the owner of a car needs to take to insure maximum light for night driving.
 - c. Consult your *Kentucky Driver's Manual* for the kinds of lights you must have on your car and the number permitted.
 - d. Learn the functions of the tail light, the park lights, the dimmer switch, the direction lights as safety devices on your car.
7. To realize objective 7.
 - a. Learn the various units of the electric system of your car that require systematic care.
 - b. Discuss the possibility of your car's catching fire because of the poor condition of some part of the ignition system.
 - (1) Battery
 - (2) Wiring short circuit
8. To realize objective 8.
 - a. Discuss the care of
 - (1) Windshield wipers
 - (2) Rear-vision mirror
 - (3) Sun visor
 - (4) Horn
 - (5) Defrosters and heater
 - (6) Side mirror
9. To realize objective 9.
 - a. Discuss precautions against motor-vehicle fires
 - (1) Possible short circuits
 - (2) Fires inside car from smoking
 - (3) Accidental burning of place where car is housed
 - b. Consult a chemistry instructor for the most effective way of putting out a motor-vehicle fire.
 - c. Discuss types of automobile insurance available for protection from loss by fire.
 - d. Discuss the need for carrying a fire extinguisher and first-aid kit in your car, and the type most suitable.
10. To realize objective 10.
 - a. Read *The Automobile User's Guide*.
11. To realize objective 11.
 - a. Read *Fuel Economy Through Planned Driving*, Plymouth Division, Chrysler Motor Company, for suggestions on common-sense driving.
 - b. Read "Winning the Economy Run," *Motor Trend*, July 1952, for information on the effects of "easy does it."
 - c. See the motion picture DRIVING ECONOMICALLY.

Materials and Content

Reference Code	Title Printed Materials
(A-1)	<i>Compton's</i> , Vol. A, Pages 514-527
(A-2)	<i>World Book</i> , Vol. A, Pages 560-563
(B-4)	<i>Sporasmanlike Driving</i> , Chapter 19
(B-36)	<i>Man and the Motor Car</i> , Chapters 5, 6
(B-16)	<i>The Car Owner's Handbook</i>
(B-34)	<i>Your Automobile and You</i>
(D-7e)	<i>Owner's Manual or User's Guide</i>
(D-13g)	<i>The Automobile User's Guide</i>

Visual Materials

(F-7)	DRIVER EDUCATION SERIES
(F-14)	KEEPING YOUR CAR FIT
(F-15)	KNOW YOUR CAR
(F-29)	TROUBLE SHOOTING YOUR CAR
(F-33)	WHERE MILEAGE BEGINS
(F-40)	IF IT HAPPENS
(F-50)	SWITCHES, INSTRUMENTS AND CONTROLS

PART V

THE RESPONSIBLE DRIVER—HIS DRIVING SKILLS

Suggested Time: Five Class Periods

Even though this unit is intended for classroom instruction only, the approach to skills of driving can be vital and functional as a kind of dress rehearsal, so to speak, to road experience and as a realm of influence in family and social group relations.

Learning experiences related to driving skills should give the pupil ample opportunity to

1. Evaluate his skills in terms of his enjoyment of, satisfaction in, and practical use of an automobile.
2. Increase his interests in the community, and beyond, in proportion to his increased skill in driving.
3. Know the "tricks of the trade" of driving that can be applied to to the beginning stages of road experience.
4. Understand the basic philosophy of cooperation with others and consideration of their rights as a solution to traffic problems.
5. Clinch the purposes of driver education—the development of intelligent, understanding, potential drivers.
6. Crystalize the concepts of citizenship related to driving an automobile.

Objectives—Pupil Purposes

1. To understand the meaning and importance of the instrument panel.
2. To recognize and understand the control of speed as a key to maximum satisfaction and efficiency in driving a car.
3. To recognize and understand the skills of overtaking and passing another vehicle.
4. To recognize and understand the skills of turning.
5. To recognize and understand the skills of city driving.
6. To recognize and understand the skills of parking a car.
7. To understand the need for extra driving care with regard to bicyclists.
8. To understand the responsibility of the driver toward school-boy patrols and (women) traffic guards.
9. To recognize and understand the skills of highway driving.
10. To understand the possible effect of mirages on highway driver responses.
11. To recognize and understand the driving skills needed for avoiding grade-crossing accidents.
12. To recognize and understand the skills of night driving.
13. To recognize and understand the skills required for driving motor-driven cycles.
14. To know how to meet road emergencies.
15. To recognize and understand the skills of winter driving.

Suggested Problems, Discussion Topics and Pupil Activities

1. To realize objective 1.
 - a. Discuss the instrument panel as an index to skillful driving
 - (1) Gasoline gauge
 - (2) Temperature gauge
 - (3) Oil pressure gauge
 - (4) Ammeter
 - (5) Speedometer
 - (6) Odometer
 - b. Determine the importance of these instruments in preventing breakdowns and accidents on the road.
 - c. Discuss the need for forming the habit of checking the readings of these gauges occasionally while driving.
 - d. Decide how watching the speedometer can control speed and prevent accidents. ("Driver becomes velocitated . . . slows down from 60 to 40 and has the impression he is going 25.")⁴
(Note to teacher: A special list of magazine articles for women is listed under Magazine References at the end of this section of the course titled "The Woman and Her Car." These are particularly helpful for the girls in the class.)

⁴Department of Public Instruction. *They're Going to Drive*, Bulletin 352, Lansing, Michigan. p. 8.

2. To realize objective 2.
 - a. Consult *Accident Facts* and/or *The Travelers Book of Street and Highway Accident Data*, for the number of fatalities caused by speed and the rank of speed as the cause of accidents.
 - b. Decide what is meant by "driving ahead."
 - c. Discuss "The faster they're going, the harder they hit."
 - d. Study the relationship of kinetic energy and momentum to speed of driving.
 - e. Develop an understanding of the need for slowing down.
 - (1) When going uphill
 - (2) When in striking distance of a child on a bicycle
 - (3) At intersections
 - (4) For the "crazy driver"
 - (5) For anything in sight in your lane—another vehicle, a pedestrian, a child playing at the edge of a street, animals, farm implements on the highway, break-in-pavement warnings, road-repair signs, blind spots and curves, rough pavement
 - (6) When personally disturbed
 - (7) When attempting untired areas
 - (8) In heavy traffic (adjust to flow of traffic)
 - (9) According to age and conditions of tires
 - (10) Adverse weather conditions
 - (11) At sundown
 - (12) For dips in pavement
 - f. See the motion picture *Sergeant Bruce Reporting—SPEED* and/or filmstrip *SPEED CONTROL*.
 - g. See the motion picture *DRIVING UNDER ADVERSE CONDITIONS*.
 - h. Discuss the driver's personal and social obligations to observe speed regulations according to
 - (1) Flow of traffic
 - (2) Posted limits of speed on streets and highways
 - (3) Condition of weather, pavement and driver
 - i. List the advantages and disadvantages of the policy of "safe and reasonable speed."
 - j. Determine and chart the speed limits for Kentucky and the surrounding states. *Digest of Motor Laws*.
3. To realize objective 3.
 - a. Discuss passing another vehicle as to
 - (1) Deciding to pass
 - (2) Overtaking
 - (3) *Coming alongside*
 - (4) Use of rearview mirror before and after pulling out to pass
 - (5) Judging distance
 - (6) Judging speed of any approaching traffic from opposite direction

- (7) The "traffic weaver"
 - (8) Passing a line of cars
 - (9) Seconds "saved" (Recall "Fatal Seconds")
 - (10) Effects of velocity on pulling out of and back into line
 - (11) When to pull back into line
 - (12) On curves and hills
 - (13) Closing space when car in front has pulled out to pass another car
 - (14) Limited view ahead
- b. Consult your Kentucky Driver's Manual for information on passing.
4. To realize objective 4.
- a. Consult *Accident Facts* and/or *The Travelers Book of Street and Highway Accident Data* for information on accidents resulting from turns.
 - c. Secure information on correct turning procedures
 - (1) Signaling for turns
 - (2) Managing steering wheel
 - (3) Judging distance required to turn
 - (4) Changing lanes—distance from intersection for changing
 - (5) Making up mind
 - (6) Control of speed for turning
 - (7) Use of brakes in turning
 - (8) Stopping before turning
 - (9) Pulling into traffic stream—fast traffic "right of way"⁵
 - (10) Correct time for changing gears
 - d. Learn when and where you can make U-turns.
 - e. See the motion picture *Sergeant Bruce Reporting—LEFT TURNS* and/or filmstrip *TURNING*.
5. To realize objective 5.
- a. See the motion picture *DRIVING IN THE CITY*.
 - b. List the characteristics of city driving that need particular attention.
 - c. List the driving skills needed for
 - (1) Control of speed
 - (2) Right of way
 - (3) Driving according to conditions
 - (4) Use of signals
 - (5) Entering car from curb side
 - (6) Choice of lanes
 - (7) Use of directional signs on pavement
 - (8) Driving areas controlled by synchronized blocks of signals
 - (9) Flashing amber and red lights
 - (10) Turning into one-way streets
 - (11) Communicating with other motorists
 - (a) Hand signals

⁵Department of Public Instruction. *They're Going to Drive*, Bulletin 352, Lansing, Michigan, p. 20.

- (b) Direction lights
- (c) Combination of hand and electric signals
- (d) Signaling intention to stop
- (e) Signaling intention to pull into traffic from curb
- (12) Defense against hazards due to "blind spots" of car
- (13) Need to look both directions at intersection of two-way traffic streets and back to left before moving through intersection
- (14) Making automatic split-second decisions on course of action
- (15) "Last-clear-chance doctrine" in case of any kind of obstructions
- (16) Overtaking and passing on the right
- d. Work out problems for 2-, 3-, 4-lane intersections for the various phases of city driving.
- e. Define sound speed for city driving.
- f. Decide what is meant by "beating the light" and the driver-rating for the habitual "light beater."
- 6. To realize objective 6.
 - a. See the motion picture PARKING THE CAR and/or filmstrip PARKING.
 - b. Discuss parking skill in general and these points in particular:
 - (1) Six steps of parallel parking
 - (2) Six steps of angle parking
 - (3) Special points for upgrade parking
 - (4) Special points for downgrade parking
 - (5) Precautions for cars with automatic transmissions
The Automobile User's Guide, pp. 47-48
 - c. Discuss the practices of parking with regard of rights of others in
 - (1) Residential areas
 - (a) Headed in wrong direction
 - (b) In front of homes of others
 - (2) Business districts
 - (a) Double parking
 - (b) Observance of time limits
 - (3) Fair use of available facilities
 - (a) Parking meters
 - (b) Restricted areas
 - (4) Responsibility for payment of parking ticket fines
 - (5) Highway parking
 - (a) Off road
 - (b) Area large enough to open lefthand door without endangering other motorists on highway
- 7. To realize objective 7.
 - a. Discuss the responsibility of the automobile driver for avoiding a var-vs.-bicycle accident.
 - b. Relate force of impact to landing distance of the victim when a car hits a bicycle.

- c. Find out the types of fatal injuries most common for the above type of accident.
8. To realize objective 8.
 - a. Discuss the duty of the school-boy patrols for protection of pupils from traffic but lack of power to direct traffic.
 - b. Discuss functions of the traffic guards in school areas as to
 - (1) Directing traffic
 - (2) Protecting pupils at intersections
 - (3) No power to make arrest except in a few locations
 9. To realize objective 9.
 - a. See the motion picture *Sergeant Bruce Reporting—HIGHWAY DRIVING* and/or *DRIVING ON THE HIGHWAY*.
 - b. List the special skills of driving, the highway knowledge, and driver traits vital to surviving highway driving.
 - c. Learn the meaning of RODEC.
ATTENTION! *Signs of Life*, National Safety Council.
 - d. Apply your previous study of correct following distance, passing, signaling change of direction, emergency stopping, laws of physics, and force-of-impact data to highway driving.
 - e. Consult *Accident Facts* and/or *The Travelers Book of Street and Accident Data* for the data on the most-frequent locations of highway accidents.
 - f. Study *Highway Driving: Rules, Precautions, Accident Data Sheet No. 52*.
 - g. Relate consideration for the rights of others to
 - (1) Safe following distances
 - (2) Interpretation of traffic signs and signals
 - (3) Safe passing practices
 - (4) Stopping on the highway
 - (5) Communicating with other motorists (Signaling and flicking headlights at night)
 - (6) Using correct traffic lane
 - (7) Pedestrians
 - (8) Doctrine of "Last-Clear-Chance doctrine"
 - (9) Littering highways and adjoining property with trash (Litterbugs, bottle bombers, can tossers) "The Great Litterbug", *Reader's Digest*, July, 1952.
 - (10) Concentration on driving
 - (11) Control of speed
 - (12) Adapting driving practices to condition of weather and road surface
 - (13) Disposal of cigarette in a manner that will prevent grass forest fires
 - h. List the particular skills and knowledge required for driving.
 - (1) Muddy roads
 - (2) Gravel or sandy roads
 - (3) Dirt roads—dry, wet, or frozen

- (4) When it is raining
 - (5) Fog, mist, or smoke
 - (6) Uneven pavement
 - (7) Roads and highways under repair
 - i. Read *Famous Last Words*, Aetna Casualty and Insurance Company.
 - j. Read "Meet Mr. Truck Driver," *Coronet*, February, 1952.
 - k. Find out the principal causes of head-on collisions and ways of preventing them. *Safe Driving Can Be Learned*.
 - l. Identify the most frequent cause of head-on collisions.
 - m. Relate force of impact to head-on collisions. *Speed Kills*, National Safety Council.
10. To realize objective 10.
- a. Read "Death in the Underpass," *Coronet*, April, 1952.
 - b. Explain the tricks of light in causing "water on the road," and wrong identification of roadside scenery and objects.
11. To realize objective 11.
- a. Consult *Accident Facts* and/or *The Travelers Book of Street and Highway Safety Data* for accident data on grade-crossing accidents.
 - b. Read *Miss That Train* (National Safety Council) and list the precautions that will prevent grade-crossing accidents.
 - c. Relate the following to grade-crossing fatalities.
 - (1) Quality of vision, compensated or not
 - (2) Judging distance
 - (3) "Beating the train"
 - (4) Losing one's nerve
 - (5) Stopping distance (on track or not) according to speed
 - (6) Responsibility for observing signals
 - (7) Low visibility
 - d. Make sure of the best method for driving across grade crossings as to
 - (1) Looking in all directions
 - (2) Coming to a full stop in a safe place when necessary
 - (3) Shifting to second gear for standard transmissions and low for automatic transmissions
12. To realize objective 12.
- a. Consult *Accident Facts* and/or *The Travelers Book of Street and Highway Accident Data* for data on night-driving accidents.
 - b. Study *Night Driving*, Safety Education Data Sheet No. 31, National Safety Council.
 - c. Read *Prevention of Night Traffic Accidents*, National Safety Council.
 - d. Discuss best practices for safe night driving.
 - e. See the motion picture DRIVING AT NIGHT and/or *Sergeant Bruce Reporting—NIGHT DRIVING*.
 - f. Consult your *Kentucky Driver's Manual* for information on correct time for turning on the headlights of your car.

- g. Read *Look Out When It's Dark Out*, National Safety Council.
 - h. Discuss protective measures the night driver should take for
 - (1) Fatigue
 - (2) Overdriving lights
 - (3) Locking car doors from inside
 - (4) City and highway driving
 - (5) Providing trouble lights in case of breakdowns on the road
 - (6) Hitchhikers
 - i. Read *Danger in the Dark*, Affiliated Aetna Life Companies.
13. To realize objective 13.
- a. Study *Motor-Driven Cycles*, Safety Education Data Sheet No. 36.
 - b. List the driving practices common to the driving of any vehicle that must be applied to motor-driven cycles.
 - c. Apply the laws of physics to light-weight vehicles.
 - d. Decide the chances of serious or fatal injury to the driver of the motor-driven cycle in case of automobile vs. motor-driven cycle in a traffic accident.
 - e. Decide the responsibility of the driver of motor-driven cycles to pedestrians.
14. To realize objective 14.
- a. Discuss ways of getting help in case of mechanical or tire trouble on the road.
 - b. See the filmstrip ROAD EMERGENCIES.
15. To realize objective 15.
- a. Consult *Accident Facts* and/or *The Travelers Book of Street and Highway Accident Data* for data on winter driving accidents.
 - b. Study *Winter Driving*, Safety Education Data Sheet No. 30.
 - c. Discuss car safety precautions needed for winter driving.
 - (1) Tire chains
 - (2) Anti-freeze solution
 - (3) Condition of defrosters and windshield wipers
 - (4) Carrying sand or salt for icy surfaces
 - (5) Tow line
 - d. Apply the laws of physics to winter driving.
 - (1) Applying brakes
 - (2) Stopping distances
 - (3) Correcting skids
 - (4) Control of speed
 - (5) Starting car on ice
 - e. Study *Winter Driving Dangers*, Affiliated Aetna Life Companies.
 - f. Read *Is This Slip Necessary?* and *Experts Don't Skid*, National Safety Council.

Suggestions to Teacher

Filmstrips SWITCHES; INSTRUMENTS AND CONTROLS; STARTING THE CAR; CONTROLLING THE CAR; and DRIVING STRAIGHT AHEAD would be particularly helpful to young people who are in the process of learning to drive or have learned recently. If a special showing of these filmstrips could be arranged outside of class, it should prove quite helpful to these beginners.

The filmstrips are part of a set. They are intended for behind-the-wheel instruction and were given to the film library as a part of the General Motors driver-education film kit.

Materials and Content

Reference Code	Title Printed Materials
(B-26)	<i>Enjoy Your Driving</i>
(B-4)	<i>Sportsmanlike Driving</i> , Chapters 8, 16, 17, 18
(B-36)	<i>Man and the Motor Car</i> , Chapters 7-12
(B-31)	<i>Driving Can Be Safe</i> , Pages 45-52, 84-97
(B-32)	<i>Safe Driving Can Be Learned</i>
(D-13g)	<i>The Automobile User's Guide</i>
(D-20a)	<i>Kentucky Driver's Manual</i>
(D-18a)	<i>Motor Laws</i>
Visual Materials	
(F-7)	DRIVER EDUCATION SERIES (except a)
(F-20)	OPERATIONS AND SAFETY
(F-25d)	LEFT TURN
(F-25k)	HIGHWAY DRIVING
(F-251)	NIGHT DRIVING
(F-31)	WE DRIVERS
(F-44)	NIGHT DRIVING

C. CLOSING THE UNIT

Suggested Time: Two Class Periods

Objectives—Pupil Purposes

1. To summarize the attitudes, responsibilities and driving skills needed to be an intelligent traffic participant in modern America.

Suggested Problems, Discussion Topics and Pupil Activities

1. To realize objective 1.
 - a. Read one or more of the following-named booklets as a review of the learnings of the unit on driver education:

- (1) *Why Ask for an Accident?*, Kemper Insurance, Mutual Insurance Building, Chicago 40, Illinois
 - (2) *We Drivers*, General Motors Corporation, 3044 West Grand Boulevard, Detroit 2, Michigan
 - (3) *The Whys and Wherefores of Good Driving Practices*, Chrysler Corporation, P. O. Box 1687, Detroit, Michigan
 - (4) *Your Guide to Safe Driving*, Hardware Mutuals, Stevens Point, Michigan
- b. See one or more of the following motion pictures in order to intensify the concepts acquired in this unit on driver education.
- (1) WE DRIVERS, General Motors Corporation, 3044 West Grand Boulevard, Detroit 2, Michigan
 - (2) YOU'RE DRIVING 90 HORSES
 - (3) PRACTICE MAKES PERFECT
- c. Have the class develop a code for responsible driving; give each member of the class a mimeographed copy of this code.
- d. Take your copy of *The Driver's Lucky Seven* (National Safety Council, 425 North Michigan Avenue, Chicago 11, Illinois), home with you and file with your *Kentucky Driver's Manual* for future reference.

Evaluation and Examination

The evaluation of the teaching unit should do two things. First, it should reveal how well the teacher has directed the pupil toward realizing the desired goals. Second, it should attempt to reveal to what extent the group has developed in attitudes, skills, and understandings as a result of the experience. Some techniques used in the measurement are: (1) general observation and follow-up studies; (2) record of tests both teacher-made and commercial tests; (3) record of reactions to certain problems; and, (4) appraisal given by other teachers or a committee of teachers on the attitudes and behavior pattern.

**DRIVER EDUCATION COURSE
OUTLINE OF SUGGESTED TEACHING UNITS, TOPICS, AND
TIME ALLOCATION**

Credit: One-half Unit

Unit	Title of Teaching Unit
I	The Historical, Social and Economic Implications of the Automobile (Four Class Periods)
II	The Driver; Physical and Mental Qualities (Seven Class Periods)
III	The Automobile: Construction and Maintenance (Seven Class Periods)
IV	The Approach to Skillful Driving: Attitudes and Fundamentals (Five Class Periods)
V	The Art of Skillful Driving (Five Class Periods)
VI	Rules of the Road (Six Class Periods)
VII	Streets and Highways (Four Class Periods)
VIII	The Pedestrian and Bicyclist (Two Class Periods)
IX	Traffic Accidents: Implications and Social Controls (Four Class Periods)
X	Review and Examination (Two Class Periods)
XI	Behind-the-wheel Instruction (Three Class Periods)
XII	Special Pupil Project Work (Five Class Periods)

Fifty-four (54) Class Periods of Classroom Instruction
Thirty-six (36) Class Periods of Behind-the-wheel training

UNIT I

**THE HISTORICAL, SOCIAL AND ECONOMIC
IMPLICATIONS OF THE AUTOMOBILE**

Suggested Time: Five Class Periods

Objectives

1. To preview the course in driver education and open to the students some of its possibilities.
2. To develop an appreciation for the significance of the revolutionary change in society resulting from the use of the motor vehicle as a medium of transportation.
3. To develop an understanding of the extent of our dependence on the motor vehicle today and of the social and economic effect of the automobile upon the lives of all.
4. To develop an appreciation of the traffic accident problem resulting from the use of the automobile.

Content

1. Early methods of transportation.
2. Attempts to improve transportation media resulting in the invention and further development of the automobile.

3. The social and economic implications of the automobile.
4. The problems of the safe and efficient movement of traffic.
5. The nature and scope of traffic; the accident problem.
6. The need for a solution of the problems created by the automobile.

Suggested Problems, Discussion Topics and Pupil Activities

1. Prepare an exhibit of photographs depicting the development of the automobile, or approach the subject by an appropriate film or film strip.
2. Prepare a list of the ways in which your community is dependent on the motor vehicle for its existence.
3. Discuss some of the traffic problems of your community. Suggest solutions.
4. Compare the development of the automobile in the United States with other countries in the world. Explain the implications.
5. What has been the effect of the automobile upon family life in the United States?
6. Discuss the relationship between our concept of mass production and the development of the automobile.
7. Compare the differences in terms of time, cost, comfort, convenience, etc. in making an automobile trip from San Francisco to New York, in 1920, 1930, 1940, and 1950!

Materials

Reference Code	Title
	Printed Materials
(A-1) ¹	<i>Compton's Pages</i> Vol. A 503-508
(A-2)	<i>World Book</i> , Pages Vol. A 558-559
(B-4)	<i>Sportsmanlike Driving</i> , Pages 1-3
(D-7a)	<i>Automobile Facts and Figures</i>
(D-13h)	<i>Transportation Progress</i>
(B-30)	<i>Who Me? Forty Years of Automobile History</i>
(B-37)	<i>Experiences in Citizenship</i>
(B-36)	<i>Man and the Motor Car</i> , Pages 9-29
(D-14a)	<i>Automobiles 1915-1950</i>
(E-29)	<i>The Maysville Turnpike</i>
	Visual Materials
(F-27)	TEACH THEM TO DRIVE
(F-17)	LEST WE FORGET

UNIT II

THE DRIVER: PHYSICAL AND MENTAL QUALITIES

Suggested Time: Seven Class Periods

Objectives

1. To provide students with an opportunity to take personal inventory of the physical, mental, and emotional factors which determine efficiency in driving.

¹Code refers to the reference number in Materials Section, page 227.

2. To develop an understanding of the significance of individual differences (in physical and mental qualities) among drivers.
3. To develop an appreciation for the importance of recognizing physical or emotional defects of drivers and properly correcting or compensating for them.
4. To develop an understanding of the importance of proper attitudes, habits and emotional behavior in skillful driving.

Content

Part 1—Physical Qualities

1. Soundness of body
 - a. Muscular coordination
 - b. General condition of health
 - c. Physical disabilities affecting driving
 - d. Other factors affecting driving
 - (1) Fatigue
 - (2) Drowsiness
 - (3) Carbon monoxide
 - (4) Effects of alcoholic liquors and drugs
2. Types of Disabilities
 - a. Non-compensable disabilities
 - (1) Paralysis or deformities
 - (2) Inability to judge distances
 - (3) Slow reaction
 - b. Compensable disabilities
 - (1) Loss of Limb
 - (2) Deafness
 - (3) Color-blindness
 - (4) Extremes in height
3. Visual Acuity
 - a. Importance of eye-sight in driving
 - (1) 95% of stimuli in driving is visual
 - b. Ability to distinguish objects clearly at a given distance.
4. Field of Vision
 - a. Ability to see to either side
 - b. Tunnel vision (restricted field of vision)
 - c. Compensations for tunnel vision
5. Depth perception
 - a. Ability to judge distance and relationship of moving objects
 - b. Triangulation
 - c. Type of accident involvement resulting from poor depth perception
 - d. Compensations for depth perception deficiencies
6. Sensitivity to glare
 - a. Accident involvement in night driving
 - b. Effect of headlight glare
 - c. Effect of driving in the bright sunlight
 - d. Corrections and compensations for sensitivity to glare

7. Color blindness
 - a. Significance in accident involvement
 - b. Corrections and compensations for color blindness
8. Reaction time
 - a. Significance in accident involvement
 - b. Effect on stopping distance
 - c. Measurement of reaction time
9. Hearing
 - a. Significance in accident involvement
 - b. Compensations for hearing deficiencies
10. Temporary disabilities
 - a. Minor disabilities: colds, indigestion, headaches, hayfever, etc.
 - b. Compensations for temporary disabilities
11. Alcoholism
 - a. Effect on traffic accidents
 - b. Effect on reaction time, judgment, vision, and general physical efficiency
 - c. Effect on emotional stability of driver
12. Carbon-monoxide poisoning
 - a. Characteristics of carbon-monoxide
 - b. Precautionary measures to prevent poisoning
13. Age
 - a. Gradual decline of physical agility
 - b. Effects of physical decline on safe driving

Part 2—Mental Qualities

1. The accident-prone driver
 - a. Who is the accident-prone driver
 - b. What is the significance of the accident-prone driver
2. The egoist
 - a. The self-centered driver
 - b. Re-acts childishly to rules and regulations
 - c. Thoughtless of other drivers' rights
3. The egotist
 - a. The show-off driver
 - b. Covers up an inferiority complex
 - c. Assumes a false nonchalance
 - d. Brags about his fast driving, narrow escapes and drinking ability
4. The irresponsible driver
 - a. Fails to assume his social responsibility in operating a motor vehicle safely
 - b. He drives fast, fails to stop for signs, assumes right-of-way, is discourteous to other drivers
 - c. Irresponsibility is largely a habit; it can be corrected
5. The temperamental driver
 - a. Emotionally instable
 - b. Emotionally immature

- c. Lacks self-control
- d. Easily annoyed in traffic
- e. Sees faults of other drivers
- 6. The inattentive driver
 - a. Does not make driving a full-time job
 - b. Easily distracted from driving
 - c. Thinks of other things while driving
- 7. Judgment
 - a. The application of all elements going in to make a good driver

Suggested Problems, Discussion Topics and Pupil Activities

1. Administer psychophysical tests to each student in the class.
2. Compare in graphical form the scores of the students on the psychophysical tests.
3. On the basis of the above comparison, discuss individual differences in driving.
4. Compare driver failures (physical and mental) with mechanical and engineering failures as causes of traffic accidents.
5. Discuss the importance of emotional stability in safe-driving.
6. Discuss the subject of the drinking driver in relation to our total traffic accident problem.
7. Discuss the effect of fatigue on driving.
8. Interview a traffic officer and get his opinions concerning the effect of improper driving attitudes on traffic accidents.

Materials

Reference Code	Title Printed Materials
(B-4)	<i>Sportsmanlike Driving</i> , Pages 32-44; 49-62
(B-11)	<i>Safety First and Last</i> , Pages 146-155
(B-13)	<i>Drive and Live</i> , Chapter V
(B-14)	<i>Youth at the Wheel</i> , Pages 65-82
(B-17)	<i>Safe Driving</i>
(D-6a)	<i>What Makes Drivers Act That Way</i>
(D-6b)	<i>Improving Attitudes</i>
(D-6c)	<i>What is an Attitude</i>
(D-6d)	<i>Driver Testing Devices</i>
(B-38)	<i>Safety</i>
(B-36)	<i>Man and the Motor Car</i> , Chapters III and IV

Visual Materials

(F-5)	CONTROL YOUR EMOTIONS
(F-8)	DRUNK DRIVING
(F-25)	DRINKING AND DRIVING
(F-30)	UNDERSTAND YOUR EMOTIONS
(F-38)	DRIVER FITNESS AND ATTITUDES

UNIT III

THE AUTOMOBILE, CONSTRUCTION AND MAINTENANCE

Suggested Time: Seven Class Periods

Objectives

1. To develop an understanding of those principles of automobile construction and maintenance necessary for safe and efficient driving.
2. To develop an appreciation of the complex mechanism of the motor vehicle.
3. To develop an understanding of the significance of proper maintenance to safe and economical motor vehicle operation.
4. To develop an understanding of the driver's responsibility for maintaining his car in a safe condition at all times.

Content

Part 1—Construction

1. The engine
 - a. The four stroke cycle
 - b. The fuel system
2. The clutch
 - a. Its operation
 - b. Technique of engaging
 - c. Riding the clutch
3. Transmission gears
 - a. The gear shift
 - c. Automatic transmissions and liquid clutch
 - d. The universal joint
 - e. The differential
4. Lubrication system
 - a. What is the function of a lubricant
 - b. What are the principal lubricating systems of an automobile engine
 - (1) The Splash system
 - (2) The ressure system
5. Cooling system
 - a. The radiator
 - b. Water pump
 - c. Water jacket
 - d. The fan
6. Steering mechanism
 - a. The steering wheel
7. The brakes
 - a. Their function
 - b. Mechanical brakes
 - c. Hydraulic brakes

- d. Parking brakes
- e. The effect of friction on braking
- 8. The Electrical system
 - a. The ignition system
 - b. The distributor
 - c. Fuses
 - d. Lights
- 9. Safety and Comfort
 - a. Tires
 - b. Shock absorbers
 - c. Springs
 - d. Longer wheel base

Part 2—Maintenance

- 1. Routine procedures
 - a. Lubrication
 - b. The cooling system
- 2. The Ignition system
 - a. Battery
 - b. Wiring
 - c. Carburetor
 - d. Spark plugs
- 3. Brakes
 - a. Operation
 - b. Proper application
 - c. Adjustment
- 4. Lights
- 5. Tires
 - a. Proper pressure
 - b. Dangers of low pressure
 - c. Dangers of high pressure
 - d. Effects of improper wheel alignment
- 6. Effects of quick starting and stopping
- 7. Economic factors
 - a. Gasoline economy
 - (1) Driving at moderate speed
 - (2) Driving smoothly
 - b. Tire economy
 - (1) Maintaining proper pressure
 - (2) Smooth operation of vehicle
 - c. Inspections
 - (1) Periodic inspection of motor, wheels, tires, etc.

Suggested Problems, Discussion Topics and Pupil Activities

- 1. Visit a local garage and have students report on the factors causing mechanical failures.
- 2. Procure lubrication check sheets to determine what points require lubrication service.

3. Discuss octane rating and its significance in economy and performance of a vehicle.
4. Discuss methods of getting longer wear out of tires.
5. Set up a lubrication and maintenance schedule for passenger vehicles.
6. Discuss special precautions to be taken for cold weather driving.
7. Have pupils check on condition of family car, noting items in need of repair or replacement.
8. Prepare a chart showing increased cost of operation as speed increases.
9. Discuss the value of compulsory motor vehicle inspection.
10. Interview a traffic officer and get his opinions concerning the effect of improper driving attitudes on traffic accidents.

Materials

Reference Code	Title Printed Materials
(A-1)	<i>Compton's</i> , Vol. A, Pages 514-527
(A-2)	<i>World Book</i> , Vol. A, Pages 561-562
(B-4)	<i>Sportsmanlike Driving</i> , Chapters XII-XIII
(D-5a)	<i>Inspection Requirements</i>
(D-7e)	<i>Owner's Manual</i>
(B-14)	<i>Youth at the Wheel</i> , Pages 81, 64
(B-13)	<i>Drive and Live</i> , Chapters VIII-IX
(D-13b)	<i>Chemistry and Wheels</i>
(D-13e)	<i>Optics and Wheels</i>
(D-13j)	<i>When the Wheels Revolve</i>
(D-15)	<i>Better Buymanship</i>
(D-27)	<i>Millions on Wheels</i>
(B-36)	<i>Man and the Motor Car</i> , Pages 62-100

Visual Materials

(F-14)	KEEPING YOUR CAR FIT
(F-15)	KNOW YOUR CAR
(F-26)	STYLING THE MOTOR CAR
(F-50)	SWITCHES, INSTRUMENTS AND CONTROLS

UNIT IV

THE APPROACH TO SKILLFUL DRIVING

(Attitudes and Fundamentals)

Suggested Time: Five Class Periods

Objectives:

1. To develop an appreciation on the part of the student for courteous and skillful driving.
2. To develop an understanding of the relationship between the

State laws and the natural laws in control of the movements of the car in traffic.

3. To develop an appreciation on the part of students for the need of a systematic training program for new drivers.
4. To develop an appreciation on the part of the student to exercise
5. To help students regard driving as an activity which requires attention, skill and practice.

Content

Part 1 — Attitudes

1. The learning process.
2. Driving
 - a. A game
 - (1) Skill
 - (2) Cooperation
 - b. Instruction
3. Observation
 - a. General
 - b. Foresight
 - c. Attention
 - d. Habit
 - e. Sportsmanship

Part 2 — The Fundamentals

1. The controls
 - a. Comfortable position
 - b. Ignition switch
 - c. Starter
 - d. Foot brake
 - e. Parking brake
 - f. Clutch
 - g. Gear shift
 - h. Accelerator
 - i. Hand throttle
 - j. Choke
 - k. Light switches
 - l. Windshield wiper
 - m. Warning devices
2. Driving techniques
 - a. Starting the car
 - b. Stopping the car
 - c. Driving ahead
 - d. Steering
 - (1) Forward
 - (2) Backward
 - e. Turning
 - (1) Right
 - (2) Left
 - (3) Sharp turns

- (4) Turning around
- (5) "U" turns
- (6) Turning in close quarters
- f. Shifting
- g. Riding the clutch
- h. Parking
 - (1) Angle
 - (2) Parking on grades
 - (3) Parallel
- i. Driving on hills

Suggested Problems, Discussion Topics and Pupil Activities

1. Make a comparison between learning an athletic sport and learning to drive.
2. Interview parents, friends, and relatives to learn the ways in which they learned to drive. Compare their methods with the system recommended in the text.
3. Have members of the class list habits and attitudes which may characterize poor drivers. Discuss specific types of accidents which may result from the actions of such drivers.
4. Have a committee prepare a rating chart which could be used in checking the ability of drivers. Try it out on various drivers while they are unaware of what is going on. Report findings to class.
5. While riding in a car or standing on a busy corner watch for errors of drivers in crossing intersections, passing, turning, and other maneuvers. Report findings to class.
6. Interview a garage mechanic or car dealer. Find out the differences in performance between an old worn out car and a new one with respect to acceleration, braking, shifting gears, and steering. Discuss what a person should look for when buying a used car.
7. Appoint a committee to prepare a manual containing all fundamental points a beginning driver should learn.

Materials

Reference Code	Title Printed Materials
(B-4)	<i>Sportsmanlike Driving</i> , Chapters IV-V-VI
(B-11)	<i>Safety First and Last</i> , Chapter VIII
(B-13)	<i>Drive and Live</i> , Chapter IV-V-VI
(B-29)	<i>How to Become a Skillful Driver</i>
(B-34)	<i>Your Automobile and You</i> , Chapter VII
(B-36)	<i>Man and the Motor Car</i> , Chapter VIII
(B-20)	<i>Psychology</i> , Chapter X
(D-6c)	<i>What Is an Attitude</i>
(D-18)	<i>Kentucky Motor Vehicle Laws</i>
(D-26c)	<i>Attitude Scale</i>
(D-26d)	<i>How Can Attitudes be Affected by Education</i>

Visual Materials

- (F-1) ACT YOUR AGE
- (F-5) CONTROL YOUR EMOTIONS
- (F-20) OPERATORS SAFETY
- (F-22) SAFETY PATROL
- (F-25c) COURTESY
- (F-25m) THE DRIVER AND THE LAW
- (F-26) CONTROLLING THE CAR

UNIT V

THE ART OF SKILLFUL DRIVING

Suggested Time: Five Class Periods

Objectives:

1. To provide an understanding of driving techniques which will assist in safe behavior under varied and adverse driving conditions.
2. To help students recognize how physical and mental coordination is required in mastering the complexities of driving.
3. To develop an understanding that safety in driving is a basic principle in skillful driving.
4. To help students realize the art of good driving depends upon the ability to use sound judgment and common sense.
5. To equip students with basic knowledge for skillful driving in city traffic and on the open highway.

Content

Part 1 — Driving Under Special Conditions

1. Traffic
 - a. Follow the stream of traffic
 - b. Anticipate emergencies
 - c. Signal your intentions
 - d. Avoid taking chances
 - e. Correct your mistakes
 - f. Control car smoothly
 - g. Adapt your speed
2. Grades and slippery roads
 - a. Friction
 - b. Centrifugal force
 - c. Wet and icy road surfaces
 - d. Skidding
 - e. Getting out of the skid
 - f. Starting on slippery roads
 - g. Stopping or slowing down on slippery roads
 - h. The use of chains

- i. Descending hills
- j. Coasting
3. Centrifugal force
4. Trolley and railroad tracks
5. Visibility
 - a. Night driving
 - b. Headlight glare
 - c. Sun glare
 - d. "One-eyed" automobiles
 - e. Fog
 - f. Storms
 - g. Dirt, steam, water or ice on windshield
 - h. Obstructions to visibility
 - i. Visibility on hills
6. Estimated safe speeds

Part 2 — Skills on the Highway

1. Following distance.
2. Passing
 - a. Proper
 - b. When prohibited
 - c. Courtesy
 - d. Slow drivers
3. Driving lanes
 - a. One lane habit
 - b. Changing lanes
 - c. Changing width of road
4. Intersections
5. Parking on highway
6. Railroad grade crossings
7. Emergencies
 - a. Brake failure
 - b. Blowouts
8. Observation

Part 3 — Skills in the City

1. Entering the streets
2. Speed
3. Intersections
4. Lanes
5. Turning
6. Crosswalks
7. Passing
8. Safety zones
9. Parking
10. Signal lights
11. Pedestrians and bicyclists

Suggested Problems, Discussion Topics and Pupil Activities

1. Prepare a series of traffic situations which would require advanced emergency decisions.
2. Draw a map of the neighborhood surrounding your home, showing streets, roads and highways. Select several locations and indicate how you would control your speed at each point. Justify your policy in writing by analyzing the conditions which lead you to adopt it.
3. A moving vehicle has a kinetic energy equivalent to $\frac{1}{2} MV^2$. Where M is the weight of the car and V the velocity in feet per second, how many foot pounds of energy does a car weighing 3200 pounds have at 60 miles per hour? This would be equal to a free fall from what height?
4. Consult a physics textbook and find out what laws of mechanics can be applied to automobile driving. What laws are involved in speed and braking distance?
5. If your car is going fifty miles per hour and the car ahead is going twenty-five miles per hour, will it be safe to try to pass if there is another car going thirty, coming in the opposite direction, and 400 feet ahead?
6. Go on several rides with experienced drivers, and note the cases where "driving ahead" helped them to avoid situations in which accidents might have occurred.
7. Make a study of the best ways to handle a car in order to use gasoline, oil and tires with maximum efficiency.

Materials

Reference Code	Title Printed Materials
(A-2)	<i>World Book</i> , Vol. A, Pages 568-570
(B-4)	<i>Sportsmanlike Driving</i> , Chapters IX-X-XI
(B-11)	<i>Safety First-and-Last</i> , Pages 24-39
(B-13)	<i>Drive and Live</i> , Pages 194-217
(B-14)	<i>Youth at the Wheel</i> , Pages 65-136
(D-13i)	<i>We Drivers</i>
(D-12a)	<i>Deft Driving</i>
(D-27a)	<i>Uniform Act</i>
(D-17b)	<i>Kentucky Driver Manual</i>
(D-18a)	<i>Motor Laws</i>
(B-29)	<i>How to Become a Skillful Driver</i>
(B-34)	<i>Your Automobile and You</i> , Chapter XIV
(B-36)	<i>Man and the Motor Car</i> , Chapter VIII

Visual Materials

(F-19)	ONCE UPON A TIME
(F-31)	WE DRIVERS
(F-4)	CHAMPIONS AT THE WHEEL

- (F-6) DRIVER EDUCATION FILM SERIES
- (F-32) WHEEL SENSE
- (F-26) CONTROLLING THE CAR
- (F-49) STOP, LOOK AND LIVE

UNIT VI

RULES OF THE ROAD

Suggested Time: Six Class Periods

Objectives

1. To develop an understanding and appreciation of the need for rules and regulations governing the use of streets and highways.
2. To develop an appreciation of the responsibility of the individual for obedience to traffic regulations (self-enforcement).
3. To develop a spirit of cooperation in traffic law enforcement.
4. To acquaint the driver with signs, signals and markings provided for traffic facility and safety.
5. To develop an appreciation for proper licensing of motor vehicle operators.

Content

1. The need for order on the highway
 - a. Self-enforcement
 - b. Cooperation with enforcement officers
 - c. The need for uniform regulations
2. Basic rules
 - a. Signaling
 - (1) Hand
 1. Left
 2. Right
 3. Stop or Slow
 - (2) Signal by position
 - (3) Signaling devices
 - (4) State laws to signal drivers by hand or blow horn for pedestrian
 - b. Highway markings
 - (1) Octagonal — Stop
 - (2) Round — Railroad Crossing
 - (3) Diamond — Slow
 - (4) Square — Caution
 - (5) Rectangular — Information
 - c. Passing
 - (1) Drive on right side of roadway
 - (2) Pass to right of those approaching you

- (3) Pass to left of those whom you are overtaking
 1. Pass with proper precautions
 2. Give proper signals
 3. Return to right side of highway as quickly as possible but do not cut in
 - (4) Give way to those seeking to overtake and pass you
 - (5) Overtake and pass only when view is unobstructed and you can pass with safety
 1. Watch for hill crest approaches, narrow curves, intersections, approaching roadways
 2. Use extreme caution when passing on three-lane highways
- d. Crossing traffic
- (1) Yield right-of-way to cars and pedestrians
- e. Speed
- (1) Basic speed law — "Drive at speed that is reasonable and prudent under existing circumstances."
 - (2) Observe posted speed limits
 - (3) Observe State speed limits
 1. Open highway
 2. Residential
 3. Business district
 4. Special regulations
 - (4) Drive within limitations of vision or attention
 1. Weather changes
 2. Traffic congestion
 3. Time of day
- f. Turning
- (1) Turning right or left
 1. Proper lane
 2. Proper signal
 3. Safe speed
 4. Observe oncoming traffic
 - (2) "U" Turn
 1. No "U" turn on curve or hill
 2. Clear vision 500 feet
 3. Observe posted regulations
 - (3) Speed on turns
 1. Slow down approaching turn
 2. Accelerate coming out of turn
- g. Parking
- (1) Park off highways
 - (2) Do not interfere with flow of traffic
 - (3) Do not park too close to crosswalks, intersections, railroads, driveways, fire hydrants, etc.
 - (4) Do not double-park

- (5) Do not park on a bridge or in a highway tunnel
- (6) Observe local parking ordinances at all times

h. Responsibility

- (1) In case of accident
 - 1. Never run away
 - 2. Stop and give what aid you can
 - 3. Report accident to proper authorities

i. Licensing regulations

- (1) Age requirements
- (2) Application for license
- (3) Learners' permits
- (4) Fees and expiration
- (5) Use of license
 - 1. Restricted licenses
 - 2. Change of name or address
 - 3. Duplicate license
 - 4. Chauffeur's license

j. How you may lose your license

- (1) Revocation
- (2) Suspension

Suggested Problems, Discussion Topics and Pupil Activities

1. Make posters illustrating uniform highway signs which are used throughout the country.
2. Using models, blackboards or sand tables, demonstrate correct and incorrect procedures in various traffic situations.
3. Discuss, based on the State Motor Vehicle Code, the meaning of the term "Right-of-way".
4. Make a comparison of State Regulations for hand signaling in your state and surrounding states.
5. Develop a chart showing which traffic regulations are uniform in the majority of states and which are not. Discuss the advantages of uniformity.
6. Make a list of recent accidents in your community. Indicate any traffic violations involved. Would correct observance of traffic regulations have prevented the accidents?
7. Describe the term "Self-enforcement" and list some of the advantages.
8. Describe and interpret the so-called basic speed law.
9. Make request for a member of State Police to meet with class some time during this unit.

Materials

Reference Code	Title Printed Materials
(B-4)	<i>Sportsmanlike Driving</i> , Chapter XVII
(D-17b)	<i>Drivers Manual</i>

- (D-19) *Highway Materials*
- (D-20a) *Kentucky Driver Manual*
- (D-26b) *Behind the Wheel*
- (C-5) *Study Guide*
- (B-36) *Man and the Motor Car, Chapters IX-X-XI*

Visual Materials

- (F-11) HIGHWAY MANIA
- (F-7c) DRIVING ON THE HIGHWAY
- (F-25k) HIGHWAY DRIVING
- (F-47) ROAD EMERGENCIES

UNIT VII

STREETS AND HIGHWAYS

Suggested Time: Four Class Periods

Objectives

1. To help students realize that the development of the highway represents a continual adaptation to the progress of the motor car.
2. To enable students to recognize that the chief factors in the engineering and planning of streets and highways is safe and efficient movement of traffic.
3. To teach the student the fundamental technique in reading road maps.

Content

1. The development of our streets and highways
 - a. Early roads
 - b. Trails to the west
 - c. Influence of motor car
 - d. Federal aid
 - e. City and county development
2. Highways in open country
 - a. Routes
 - b. Design and construction
 - c. Safety designs
 - d. Designs for facility of traffic flow
 - e. Speed control
3. City streets
 - a. Improved design
 - b. Automatic signals
 - c. Streamlining city traffic
 - d. Intersections
 - e. Illumination
4. Map reading
 - a. Interpretation of legends
 - b. Reading maps

Suggested Problems, Discussion Topics and Pupil Activities

1. Trace the development of highways from early Colonial days up to the present time.
2. Explain how the automobile has influenced trends in highway planning and construction.
3. What influence has the Public Roads Administration had on the building of streets and highways?
4. Describe the effects on society (industrial, educational and recreational) which have come about as a result of present highways.
5. Name several ways in which highway engineers have partially solved the problem of moving traffic efficiently.
6. Discuss recent trends in street and highway design.
7. What are the physical characteristics of the various kinds of road surfaces?
8. List and illustrate the types of traffic control devices in use today.
9. What are the latest features in the construction and design of intersections to reduce hazards and move traffic more efficiently?
10. Discuss the importance of highways and how they can be utilized in planning for national defense.
11. Using a regular road map, plan a trip, from your city and return via a different route, of about 500 miles. Find the shortest route, best roads, most scenic route, and approximate cost of proposed trip.

Materials

Reference Code

Title Printed Materials

- | | |
|---------|----------------------------------------------------|
| (A-1) | <i>Compton's</i> , Vol. R, Pages 157-162 |
| (A-2) | <i>World Book</i> , Vol. R, Pages 6969-6972 |
| (B-4) | <i>Sportsmanlike Driving</i> , Chapters XVIII, XXI |
| (B-11) | <i>Safety First-and-Last</i> , Chapter V |
| (B-13) | <i>Drive and Live</i> , Chapter XV |
| (B-18) | <i>Traffic Engineering</i> |
| (D-27a) | <i>Uniform Act</i> |
| (B-36) | <i>Man and the Motor Car</i> , Chapter XII |

Visual Materials

- | | |
|--------|-------------------------|
| (F-7) | DRIVER EDUCATION SERIES |
| (F-28) | TRAFFIC WITH THE DEVIL |
| (F-39) | DRIVING STRAIGHT AHEAD |
| (F-35) | YOUR DRIVING HABITS |

UNIT VIII

THE PEDESTRIAN AND BICYCLIST

Suggested Time: Three Class Periods

Objectives

1. To encourage students to practice sound pedestrian habits.
2. To develop an appreciation of the cooperation needed among drivers, pedestrians and bicyclists to promote better traffic conditions.
3. To develop an understanding of the responsibilities and legal obligations of bicyclists and pedestrians.
4. To help prospective drivers recognize the rights of pedestrians and to practice courtesy when meeting them.

Content

Part 1 — The Pedestrian

1. The pedestrian problem
 - a. Accident records
 - b. The non-driver pedestrian
 - c. The driver pedestrian
2. Pedestrian practices and hazards
 - a. Darkness
 - b. Attitudes
 - c. Attention
 - d. Sense of traffic flow
 - e. Signaling
 - f. Crossing streets
 - g. Distractions
 - h. Physical handicaps
 - i. Street cars and buses
 - j. Walking on open highway
3. Improving pedestrian practices
 - a. Education
 - b. Engineering
 - c. Enforcement
 - d. Legislation

Part 2 — The Bicyclist

1. The bicycle problem
 - a. Accident records
 - b. Training
2. Skill development
 - a. In modern traffic
 - b. Correcting weakness
 - c. Streams of traffic

- d. Signaling
 - e. Positive rules of skill
 - f. The don't of negative rules
 - g. Bad habits of motorists
3. Improving bicycle practices
- a. Courtesy
 - b. Condition of bicycle
 - c. Licensing of bicycles
 - d. Rider's certificates
 - e. Enforcement
 - f. Examinations and skill tests

Suggested Problems, Discussion Topics and Pupil Activities

1. Discuss common types of pedestrian and bicycle accidents.
2. Discuss legislation and endorsement as means of control of pedestrians and bicycle problems.
3. Compare the pedestrian and bicycle problems from viewpoints of driver, pedestrian, bicyclist.
4. Visit the police department to inquire how many bicycle accidents there were in your community last year. How many bicyclists were to blame?
5. Analyze a bicycle versus motor vehicle accident that occurred and suggest ways in which it could have been avoided.
6. Locate the dangerous intersections on the way from your home to school. Are they guarded in any way? If not, how should they be guarded?
7. As you step off the curb to cross street a car 300 feet away is coming toward you at the rate of 25 miles per hour. If you walk at the rate of 4 miles per hour and the street is 40 feet wide, where will the car be when you reach the middle of the street?
8. Observe pedestrian behavior of students on the streets around your school. List the bad practices and suggest a program which the school should conduct to improve the situation.

Materials

Reference Code	Title Printed Materials
(B-4)	<i>Sportsmanlike Driving</i> , Chapter VIII
(B-1)	<i>Safe Use of the Highways</i> , Chapter III
(D-2b)	<i>Pedestrian Protection</i>
(B-6)	<i>The Bicycle and Traffic Safety</i>
(D-10)	Ask for various bulletins
(B-23)	<i>National Bicycle Tests</i>
(D-25b)	<i>Accident Facts</i>
(D-26e)	<i>Bicycle Safety</i>
(B-33)	<i>Safety in the World Today</i> , Chapter II
(B-36)	<i>Man and the Motor Car</i> , Chapter XIII

Visual Materials

- (F-3) BICYCLING WITH COMPLETE SAFETY
- (F-18) ON TWO WHEELS
- (F-10) HEADLESS HURRY—ENDLESS WORRY
- (F-25f) CHILD SAFETY
- (F-25g) DRIVER OR PEDESTRIAN
- (F-49) STOP, LOOK AND LIVE

UNIT IX

TRAFFIC ACCIDENTS: Implications—Social Controls

Suggested Time: Four Class Periods

Objectives

1. To help students acquire the understanding that traffic safety is dependent upon skillful and efficient performance of drivers.
2. To develop the understanding that most automobile accidents are the results of avoidable causes.
3. To arouse a strong intolerance toward careless driving and all common traffic hazards.
4. To develop an appreciation of the significance and scope of the accident toll in America.
5. To develop an understanding of the types of automobile insurance available and the value and usefulness of such protection.
6. To foster a spirit of responsibility for damages and injuries resulting from one's own errors.
7. To encourage a non-fatalistic attitude toward traffic accidents and to strengthen the belief that there is a solution to the accident problem.
8. To develop a scientific attitude toward solving the accident problem and to recognize the significance of efforts made through education.
9. To develop a belief in the necessity of practical traffic laws, rigid enforcement of these laws, and improved engineering of streets and highways.
10. To help students obtain knowledge of community efforts to reduce accidents and of the functions of many national agencies engaged in the safety movement.

Content

Part 1 — Implications

1. The price we pay for accidents
 - a. Loss of life
 - b. Injuries
 - c. Economic loss

2. Accident causes
 - a. Mechanical failure
 - b. Human failure
 - c. Contributing factors
3. What to do in case of an accident
4. Accident reporting
5. Liability
 - a. Driver
 - b. Contributory negligence
 - c. Damage
6. Insurance
 - a. Definition
 - b. Types of property damage coverage
 - c. Liability
 - d. Compulsory
 - e. Financial responsibility laws

Part 2 — Social Controls

1. Safety has proven itself
2. Fatalism
3. Education
4. Enforcement
 - a. Licensing
 - b. Enforcement agencies
 - c. Ticket fixing
 - d. The courts
5. Engineering
 - a. Automobile
 - b. Highway
 - c. Traffic
6. Statistics
7. Research
8. Organizations
 - a. Public
 - b. Private
9. The future
 - a. The automobile
 - b. The highway
 - c. The motorist
 - d. The public

Suggested Problems, Discussion Topics and Pupil Activities

1. Secure data on an automobile accident which occurred in your community. Discuss the details in class. How could the accident have been avoided had the traffic rules been observed?

2. Make a study to determine the most dangerous streets and intersections in your town.
3. Find out the cost of traffic accidents in your state. Compare the results with fire losses. How does the traffic figure compare with the cost of public education?
4. Find out how the accident record in your state compares with that in other states.
5. Debate the statement: "Youth driving is poorer than the driving of adults."
6. Secure data from the police department and prepare an accident spot map of your town. Indicate locations of traffic deaths, injuries, and property damage accidents.
7. Observe cars driving along roads in the vicinity of the school and point out conditions or actions likely to result in accidents.
8. Write an essay on the most effective methods to use in reducing accidents among young drivers.
9. Investigate the amount of insurance claims paid by insurance companies for automobile accidents in your community and in your state in one year.
10. Find out upon what the automobile insurance rate for your community is based. Consult a local insurance agent or write to a reputable insurance company.
11. Make a study of bad parking practices in your locality and propose a remedy.
12. Obtain records showing a high accident rate for a particular location. Apply simple engineering procedures and determine the probable needed improvements. Have findings checked by local traffic authority.
13. You are judge in a traffic court. A man is brought before you charged with driving at excessive speed. The evidence against him is thin and he tells a convincing story in his own favor. However, his past records show repeated minor violations of the traffic laws. Under the law you can acquit him or find him guilty and sentence him as follows: (1) fine him \$100; (2) revoke or suspend his driver's license; (3) suspend sentence with a warning; (4) sentence him to the Police Department Traffic School for a course of lectures on good driving. What would you do? Write a brief statement stating and explaining your action.
14. Set up a model traffic court and hold a mock trial of several students accused of various traffic offenses. Have evidence presented by student officers representing a model police accident investigation squad. Have a student judge explain reasons for his judgment.

Materials

Reference	Title
Printed Materials	
Code	
(B-4)	<i>Sportsmanlike Driving</i> , See Index
(B-11)	<i>Safety First-and-Last</i> , Chapter XIV
(B-13)	<i>Drive and Live</i> , Chapter XII
(B-19)	<i>Improving Driver Responsibility</i>
(D-7a)	<i>Accidents Facts and Figures</i>
(D-25b)	<i>Accidents Facts</i>
(B-36)	<i>Man and the Motor Car</i> , Check the Index <i>Use the World Almanac</i>
Visual Materials	
(F-13)	IT'S WANTON MURDER
(F-12)	HIT AND RUN DRIVER
(F-43)	MARY JONES GOES TO COURT
(F-40)	IF IT HAPPENS
(F-42)	IN CASE OF ACCIDENT
(F-46)	ON RECORD

UNIT X

EVALUATION—REVIEW AND SUMMARY—EXAMINATION

Suggested Time: Two Class Periods

1. General review of the texts.
2. Review of State Laws and Regulations.
3. Examination.
4. Review of Examination.

Materials

Teachers may use the tests prepared for use with the various materials used in the course, or she may use her own tests. Evaluation should be made by same means to ascertain how well the pupils have developed in attitudes, knowledge, and skills.

UNIT XI

BEHIND-THE-WHEEL INSTRUCTION

Suggested Time: Three Class Periods

Objectives

1. To make the student fully acquainted with all of the instruments in the driver's compartment.
2. To put the student in a relaxed and receptive mood behind the wheel before road instruction begins.
3. To develop the proper habits and skills that will make a safer, more competent driver.

Content

Part 1—Adjustment to the Car

1. Instrument panel and other controls
 - a. Oil pressure gauge
 - b. Motor temperature indicator
 - c. Gasoline gauge
 - d. Speedometer
 - e. Lights
 - f. Windshield wiper
 - g. Clock
 - h. Glove compartment
 - i. Ignition switch
 - j. Choke
 - k. Hand throttle
 - l. Ammeter
 - m. Seat adjustment
 - n. Heater
 - o. Hood release
2. Mechanical devices
 - a. Steering wheel
 - b. Clutch
 - c. Brakes
 - d. Accelerator
 - e. Starter

Part 2—Driving Techniques

1. Preliminary Checks
 - a. Tires
 - b. Fuel
 - c. Brake pedal
2. Adjustments
 - a. Mirror
 - b. Seat
3. Starting the engine
 - a. Gears in neutral
 - b. Check hand brake
 - c. Clutch pedal down
 - d. Turn on ignition
 - e. Press on starter
 - f. Accelerate
 - g. Clutch pedal up
4. Starting, Shifting and Stopping
 - a. Shifting into low gear
 - b. Driving in low gear
 - c. Shifting through all forward gears
 - d. Driving in all forward gears
 - e. Stopping
 - f. Shifting from high gear into second gear

5. Make right and left turns
6. Backing the car
7. Parking the car
 - a. Parking at angle to curb
 - b. Turning around
 - c. Parking parallel to curb
 - d. Driving out of the parallel parking stall
8. Driving Practice
 - a. Straight road driving
 - b. Passing
 - (1) Oncoming cars
 - (2) Overtaking and passing
 - (3) Fixed objects
 - (4) Pedestrians and cyclists
 - c. Signals
 - (1) Hand
 - (2) Position of car
9. Driving and Parking on Grades
 - a. Driving on grades
 - b. Parking on grades
 - c. Turning around on grades
10. Driving in traffic
 - a. Speed
 - b. Keeping in line
 - c. Spacing
 - d. Braking
 - e. Stopping
 - f. Attitude toward drivers and pedestrians
11. Skill tests
 - a. Position judgment: Straight line driving both forward and backward
 - b. Position judgment: Smooth, accurate stopping
 - c. Close quarters maneuvering
 - d. Turning: Turning vehicle around in limited space
 - e. Parking: Angle
 - f. Parking: Parallel
12. Final road test

Materials

Reference Code	Title Printed Materials
(D-26b)	<i>Behind the Wheel</i>
(B-35)	<i>How Shall We Drive</i> , Pages 97-104
(B-16)	<i>The Car Owner's Handbook</i>

SPECIAL PUPIL PROJECT WORK

Suggested Time: Four Class Periods

The time allocated to special pupil project work may be used anytime throughout the semester.

The remaining time of thirty-six class periods for the semester should be used in laboratory experiences in practice driving behind-the-wheel. This instruction may be given concurrently with, or subsequent to the classroom instruction.

These units of work as outlined in the succeeding pages are merely suggested plans of procedure. No previously prepared plan can be as effective as the plan prepared by the teacher himself; therefore, the teacher is encouraged to develop his own units of work, projects, field trips, etc. to fit local conditions. There are many good books on the subject. Many good ideas can be secured by looking through some of them.

MATERIALS

- The following materials are all recommended and a large collection of these materials should be placed in the library for reference.

Reference Code	Type, and Title of Materials
A	General Reference
(A-1)	<i>Compton's Pictured Encyclopedia</i> (F. E. Compton & Company, Chicago, 1952) Vol. A, pp. 500-527.
(A-2)	<i>The World Book Encyclopedia</i> (Field Enterprises, Inc., Chicago, 1952) Vol. A, pp. 558-570. Note: Check other subjects relating to the automobile, safety, etc., in these references and also other general references.
B	Books
(B-1)	Allen, Thomas. <i>Safe and Sane Use of Highways</i> (E. M. Hale Co., Milwaukee, 1935)
(B-2)	American Red Cross. <i>First Aid Textbook</i> (Local Chapter or Blakiston, Philadelphia, 1945)
(B-3)	_____. <i>First Aid Instructor's Manual—Standard and Advanced Courses</i> , available only to qualified instructors.
(B-4)	American Automobile Association. <i>Sportsmanlike Driving</i> (The Association, Washington D. C. 1948)
(B-5)	Bacon, Francis L. <i>Outwitting Our Hazards</i> (Silver Burdett, Chicago, 1941)
(B-6)	Bennet, Richard O. <i>The Bicycle and Traffic Safety</i> (Northwestern University Traffic Safety Institute, Evanstone, Illinois, 1937)
(B-7)	Bouton, Archibald L. <i>An Outline of Transportation</i> (General Motors Corporation, Detroit)
(B-8)	Burkhardt, et. al. <i>Health and Human Welfare</i> (Lyons and Carnahan, Chicago, 1944)
(B-9)	Clemensen, LaPorte. <i>Your Health and Safety</i> (Harcourt, Brace and Company, Inc., 1946)
(B-10)	Derthick, L. G., et. al. <i>Be Safe and Live</i> (Johnson, New York, 1940)

Reference Code	Type, and Title of Materials
(B-11)	Dull, Charles E. <i>Safety First-and-Last</i> (Henry Holt and Co., New York, 1938)
(B-12)	Eaton, et. al. <i>Safety Your Problem and Mine</i> (Lyons and Carnahan, 1938)
(B-13)	Fitzgerald, J. J., et. al. <i>Drive and Live</i> (Johnson, New York, 1937)
(B-14)	Floherty, John J. <i>Youth at the Wheel</i> (J. B. Lippincott, Co., Philadelphia, 1937)
(B-15)	Fuller, Curtis. <i>The Motor Car in American Life</i> (Row, Peterson and Company, New York)
(B-16)	Green, Paul D. and Ritcher, Ralph. <i>The Car Owners Handbook</i> (Garden City Publishing Co., Inc., New York, 1949)
(B-17)	Hamilton and Thurston. <i>Safe Driving</i> (Doubleday Doran Co., Garden City, New York, 1937)
(B-18)	Hammond and Kreml. <i>Traffic Engineering and the Police</i> (National Conservation Bureau, New York, 1940)
(B-19)	James, E. W. <i>Improving Driver Responsibility</i> (National Conservation Bureau, New York, 1940)
(B-20)	James, William. <i>Psychology</i> (Henry Holt and Co., New York)
(B-21)	Key, Norman. <i>Education for Traffic Safety</i> (American Automobile Association, Washington, D. C. 1949)
(B-22)	Kuns, Ray F. <i>Automobile Essentials</i> (Bruce Publishing Co., New York, 1937)
(B-23)	Lorenz, Alfred. <i>National Bicycle Test, Center for Safety Education</i> (New York University, New York, 1939)
(B-24)	Marble, P. R. and Wilson, I. D. <i>Automobile Safety</i> (American Book Company, Cincinnati, 1940)
(B-25)	National Safety Council. <i>Accident Facts</i> (The Council, Chicago—Annually)
(B-26)	O'Connor, Richard J., et. al. <i>Enjoy Your Driving</i> (Oceona Publications, New York, 1952)
(B-27)	Palmer and Crooks. <i>Millions on Wheels</i> (Vanguard Press,
(B-28)	Prescott, Daniel Alfred. <i>Emotion and Educative Process</i> (American Council on Education, Washington, D. C., 1938)
(B-29)	Sherman, Ray W. <i>How To Become a Skilled Driver</i> (Ford Good Drivers League, Dearborn, Michigan, 1940)
(B-30)	Sinsabaugh, Cris. <i>Who Me?—Forty Years of Automobile History</i> (Arnold Powers Inc., Detroit, 1940)

- | Reference Code | Type, and Title of Materials |
|----------------|-----------------------------------------------------------------------------------------------------------------------------|
| (B-31) | Smith, T. S. <i>Driving Can Be Safe</i> (Burgess Publishing Company, Minneapolis, 1949) |
| (B-32) | ————— <i>Safe Driving Can Be learned</i> (Burgess, Minneapolis, 1952) |
| (B-33) | Stack, Herbert J., et. al. <i>Safety in the World of Today</i> (Beckly and Cordy, Chicago, 1941) |
| (B-34) | Welday, Roy A. <i>Your Automobile and You</i> (Henry Holt and Co., New York) |
| (B-35) | Watts, James H. <i>How Shall We Drive</i> (Wheeler Publishing Company, Chicago, 1952) |
| (B-36) | Whitney, Albert W. <i>Man and the Motor Car</i> (Association of Casualty and Surety Companies, New York, 1949) ¹ |
| (B-37) | Whittaker and Jamison. <i>Experiences in Citizenship</i> (Webster Publishing Company, St. Louis) |
| (B-38) | Williams, J. F., et. al. <i>Safety</i> (MacMillan, Chicago, 1941) |
| (B-39) | Wilson, Charles C., et. al. <i>Life and Health</i> (The Bobbs-Merrill Company, 1948) |

C **Workbooks and Manuals**

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| (C-1) | Bowman and Boston. <i>Living Safely</i> (The MacMillan Co., New York, 1949) |
| (C-2) | Burt and Stephens. <i>Safety Education Workbook</i> (Follett Publishing Co., 1257 Wabash Avenue, Chicago, 1943) |
| (C-3) | Fishbein and Irwin. <i>First-Aid Training</i> (Lyons and Carnahan, Chicago, 1951) |
| (C-4) | Irwin, Leslie W. <i>My Safety and First-Aid Book</i> (Lyons and Carnahan, Chicago, 1952) |
| (C-5) | Tysor, H. J. <i>A Workbook and Study Guide for Driver Education</i> (Banks, Upshaw and Co., Dallas, 1950) |
| (C-6) | American Automobile Association. <i>Teachers Manual for Sportsmanlike Driving</i> (The Association, Washington, |
| (C-7) | Association of Casualty and Surety Companies. <i>Driver Education Teacher's Manual for Classroom Instruction</i> (The Association, 60 John Street, New York) |
| (C-7a) | <i>Traffic Engineering Handbook</i> |

¹Publication of *Man and The Motor Car* has been transferred to Prentice Hall, Inc., 70 Fifth Avenue, New York, New York. Orders for this material should be placed with this company.

Agencies Which Distribute Free and Inexpensive Materials in Safety and Driver Education

The following instructions should be observed in ordering materials from commercial concerns and other organizations.

1. The teacher or a member of the class should make requests for specific pieces of literature on the school letterhead.
2. State clearly for what purpose the material is to be used.
3. Allow sufficient time for the shipment of the materials before it is needed. It is advised to anticipate needs early in the year and order well in advance of the time the materials are to be needed.
4. Establish a file for all materials so that they can be kept for future use, thus avoiding the necessity for making repeated requests.
5. The collection and filing of materials can be made a teaching situation for members of the class, but not more than one member of the group should request materials from an individual or organization.
6. All commercial supplementary teaching materials, if used, should be free from direct sales promotion and should contribute positively, effectively, and without distortion to promoting the educational program approved by the responsible education authorities; wherever used, such materials should be chosen on the basis of their soundness, balance, significance, timeliness, accuracy, fairness, truthfulness, and objectivity.

Reference Code	Type, and Title of Materials
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| D | Pamphlets |
| (D-1) | Aetna Life Insurance Company , 151 Farmington Ave., Hartford, Connecticut.
Publishes free materials on automobile accident prevention. |
| (D-2) | American Automobile Association , Pennsylvania Avenue at Seventh Street, Washington, D. C. |
| (D-2a) | <i>Driver Education and Training Manual</i> |
| (D-2b) | <i>Pedestrian Protection</i> |
| (D-2c) | <i>Plans for Building Driving Tests</i> |
| (D-2d) | <i>The Law and the Motorist</i> |

- | Reference Code | Type, and Title of Materials |
|----------------|-------------------------------------------------------------------------------------------------------------|
| (D-3) | American National Red Cross , 17th between D and E Streets, N.W. Washington, D. C. |
| (D-3a) | <i>On Guard Against Accidents</i> (available to instructors) free |
| (D-4) | American Road Builders Association , 938 National Press Building, Washington, D. C. |
| (D-4a) | <i>A Visit By the Spirit of Safety</i> (a junior high school play) |
| (D-5) | American Standards Association , New York, New York. |
| (D-5a) | <i>Inspection Requirements for Motor Vehicles</i> |
| (D-6) | Association of Casualty and Surety Companies , 60 John Street, New York, New York. |
| (D-6a) | Stack. <i>What Makes Drivers Act That Way</i> |
| (D-6b) | <i>Improving the Attitude Among Young Drivers</i> |
| (D-6c) | Strass. <i>What is an Attitude</i> |
| (D-6d) | <i>Manual for Constructing and Using Driver Tests</i> |
| (D-7) | Automobile Manufacturing Association , 320 New Center Building, Detroit 2, Michigan. |
| (D-7a) | <i>Automobile Facts and Figures</i> |
| (D-7b) | <i>A Car Traveling People</i> |
| (D-7c) | <i>A Chronicle of the Automobile Industry</i> |
| (D-7d) | <i>Horses to Horsepower</i> |
| (D-7e) | <i>Owner's Manual or User's Guide</i> |
| (D-7f) | <i>What It Takes to Make a Car</i> |
| (D-8) | Chevrolet Motor Company , Detroit, Michigan.
Ask for free literature. |
| (D-9) | Chrysler Corporation , Detroit, Michigan. |
| (D-9a) | <i>Fuel Economy Through Driving</i> |
| (D-10) | Cycle Trades of America , New York, New York.
Various bulletins on bicycle skill and safety |
| (D-11) | Employer's Mutual , Accident Prevention Department, Wausau, Wisconsin.
Ask for list of materials. |
| (D-12) | Ford Motor Company . Dearborn, Michigan (Film Library 3000 Schoefer Road) |
| (D-12a) | Kramer. <i>Deft Driving</i> |

- | Reference
Code | Type, and
Title of Materials |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (D-13) | General Motors Corporation , Department of Public Relations, 3044 Grand Boulevard, Detroit, Michigan. |
| (D-13a) | <i>Charts</i> |
| (D-13b) | <i>Chemistry and Wheels</i> |
| (D-13c) | <i>Electricity and Wheels</i> |
| (D-13d) | <i>Metallurgy and Wheels</i> |
| (D-13e) | <i>Optics and Wheels</i> |
| (D-13f) | <i>Putting Progress Through Its Paces</i> |
| (D-13g) | <i>The Automobile Users Guide</i> |
| (D-13h) | <i>Transportation Progress</i> |
| (D-13i) | <i>We Drivers</i> |
| (D-13j) | <i>When the Wheels Revolve</i> |
| | Request list of new publications |
| (D-14) | Goodyear Tire and Rubber Company, Inc. , Public Relations Department, 144 E. Market Street, Akron 16, Ohio |
| (D-14a) | <i>Automobiles 1915-1950</i> |
| (D-15) | Household Finance Corporation , Chicago, Illinois.
Issues pamphlets for consumers on tires, gasoline and oil. |
| (D-15a) | <i>Better Buymanship</i> |
| (D-16) | John Hancock Mutual Life Insurance Company , Post Office Box 111, Bock Bay Station, Boston 17, Massachusetts. |
| (D-16a) | <i>Picture Yourself as a Safe Driver</i> |
| (D-17) | Kentucky Department of State Police , State Office Building, Frankfort, Kentucky. |
| (D-17a) | <i>Kentucky School Trooper Manual</i> |
| (D-17b) | <i>Driver's Manual—Night or Day Drive Carefully</i> |
| (D-18) | Kentucky Department of Revenue , Capitol Annex, Frankfort, Kentucky |
| (D-18a) | <i>Motor Vehicle Licenses, Operator's License and Safety Responsibility Law. 1950</i> |
| (D-19) | Kentucky Department of Highways , State Office Building, Frankfort, Kentucky.
Request may be made for various materials on Kentucky and highways and traffic information. |
| (D-20) | Louisville Automobile Club , 800 South Third Street, Louisville, Kentucky. |

- | Reference Code | Type, and Title of Materials |
|----------------|---------------------------------------------------------------------------------------------------------|
| (D-21a) | <i>Fatality Reports</i> (Monthly) |
| (D-21b) | <i>Louisville Traffic Digest</i> |
| (D-22) | Lumberman's Mutual Casualty Company , 4750 Sheridan Road, Chicago 40, Illinois. |
| (D-22a) | <i>Teen-age Drivers</i> |
| (D-23) | Metropolitan Life Insurance Company , Welfare Division, 1 Madison Avenue, New York 10, New York. |
| (D-23a) | <i>Calling All Drivers</i> |
| (D-24) | National Education Association , 1201 Sixteenth Street, N.W., Washington, D. C. |
| (D-24a) | <i>High School Driver Education, Policies and Recommendations</i> |
| (D-24b) | <i>Let's Teach Driving</i> |
| (D-24c) | Teachers Manual. <i>Smart Driving</i> |
| (D-25) | National Safety Council , 425 North Michigan Avenue, Chicago 11, Illinois. |
| (D-25a) | Baker. <i>Effects of Enforcement and Licensing on Driver Attitudes</i> |
| (D-25b) | <i>Accident Facts</i> (published annually) |
| (D-25c) | <i>The Teen-age Driver</i> |
| (D-25d) | <i>Fleet Safety Manual</i> |
| (D-25e) | <i>Bicycle Safety</i> |
| (D-26) | New York University Center for Safety Education , Washington Square North, New York, New York. |
| (D-26a) | <i>Knowledge Tests for Automobile Drivers</i> |
| (D-26b) | Kramer. <i>Behind the Wheel</i> |
| (D-26c) | <i>Siebrecht Attitude Scale</i> |
| (D-26d) | Stack. <i>How Can Driver Attitudes be Affected by Education</i> |
| (D-26e) | <i>The Safety Education Digest. Driver Education</i> |
| (D-27) | Public Roads Administration , Washington, D. C. |
| (D-27a) | <i>Uniform Act Regulating Traffic on Highways. Uniform Vehicle Code</i> |
| (D-28) | Superintendent of Documents , United States Printing Office, Washington, D. C. |

- | Reference Code | Type, and Title of Materials |
|----------------|-------------------------------------------------------------------------------------------------|
| D-28a) | <i>Accident Records. The President's Highway Safety Conference</i> |
| (D-28b) | <i>Priorities in Action Program. President's Highway Safety Conference.</i> |
| (D-29) | The Traffic Institute , Northwestern University, 1704 Judson Avenue, Evanston, Illinois. |
| (D-29a) | Michelberger, <i>Alcohol and Traffic Accidents</i> |
| (D-30) | The Traveler's Insurance Company , Hartford, Connecticut |
| (D-30a) | <i>The Traveler's Book of Street and Highway Accident Data (Annually)</i> |
| (D-31) | U. S. Office of Education , Federal Security Agency, Washington 25, D. C. |
| (D-31a) | <i>Automobiles (Modern Word at Work Series No. 5)</i> |

E Magazines and Magazine Articles

Note: The following magazine on safety education should be in the high school library.

Safety Education, official publication of the school and college division of the National Safety Council, 425 North Michigan Avenue, Chicago 11, Illinois. Schools having back numbers of this magazine already in their libraries will find an enormous amount of material on driver education in previous numbers. Some of these articles are already listed in this section. Reprints of safety material published in this magazine can be secured from the National Safety Council.

Good Housekeeping. In this magazine will be found a series of articles by Charlotte Montgomery, entitled "Women in the Car." These articles were published in the issues from November 1950 to August 1952.

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| (E-1) | Balsam, Louis Gay. "Soreheads at the Wheel Are Death's-Heads." <i>Reader's Digest</i> , March, 1952. |
| (E-2) | Beatty, Jerome. "They Talk You Out of Reckless Driving." <i>The American Magazine</i> , January, 1951. |
| (E-3) | Bennett, Richard O. "With Bikes, Drivers Take Too Much for Granted." <i>Safety Education</i> , April, 1952. |
| (E-4) | Broome, Forrest J. "High School Physics and Safety." <i>Safety Education</i> , December, 1949. |
| (E-5) | Case, Andrew L. "Detonator Demonstrations Discourage Demon Drivers." <i>Safety Education</i> , November, 1948. |

- | Reference Code | Type, and Title of Materials |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (E-6) | Conover, D. W. "Attitudes and Accidents." <i>Safety Education</i> , December, 1949. |
| (E-7) | Daniels, Lyman. "Your Driving Scares the Wits Out of Me." <i>American Magazine</i> , November, 1950. |
| (E-8) | Falteysek, William H. "But, Pop, I'll Be Careful." <i>Safety Education</i> , September, 1949. |
| (E-9) | Funk, Wilfred. "False Ideas About Liquor." <i>Your Health</i> , Fall, 1951. |
| (E-10) | Furnis, J. C. "Survived By _____." <i>Reader's Digest</i> , July, 1952. |
| (E-11) | Griffin, James J. and Sielski, Matthew C. "New Investment in Safety." <i>Safety Education</i> , May, 1951. |
| (E-12) | Hodge, Carle. "Meet Mr. Truck Driver." <i>Coronet</i> , February, 1952. |
| (E-13) | Jones, Paul. "Freak Squeak Roundup." <i>Safety Education</i> , February, 1950. |
| (E-14) | Kelly, Eleanor. "Motorists Were Pioneers Too." <i>Automobile Bulletin</i> , Louisville Automobile Club, 800 Third Street, Louisville, Kentucky, February, 1952. |
| (E-15) | Korber, Mabel K. and Bard, Harry. "Help Young Citizens Face Traffic Problem." <i>Safety Education</i> , October, 1951. |
| (E-16) | Laas, William. "How About Your Children and the Family Car?" <i>Coronet</i> , February, 1951. |
| (E-17) | Lauer, A. R. "Driving Habits vs. Attitudes." <i>Safety Education</i> , October, 1948. |
| (E-18) | Loucks, Donald. "Regardless of Weather, People Will Drive." <i>Safety Education</i> , January, 1952. |
| (E-19) | "Manners for Motorists." Illustrated, <i>Coronet</i> , July, 1952. |
| (E-20) | O'Conner, Liam. "Your Eyes Must See You Through." <i>American Magazine</i> , January, 1952. |
| (E-21) | Rautman, Emily W. and Arthur L. "When Can They Take the Car?" March, 1950. |
| (E-22) | Rhoads, Dusty. "Death in the Underpass." <i>Coronet</i> , April, 1952. |
| (E-23) | Schneider, N. O. Attitudes and Driving." <i>Safety Education</i> , March, 1951. |

- | Reference
Code | Type, and
Title of Materials |
|-------------------|--------------------------------------------------------------------------------------------------------------------|
| (E-24) | Sielski, Matthew C. "Teaching Driving the Right Way." <i>Safety Education</i> , November, 1949. |
| (E-25) | Stack, Herbert J. "Attitudes and Education." <i>Safety Education</i> , January, 1951. |
| (E-26) | Strasser, Marland K. "What is an Attitude?" <i>Safety Education</i> , April, 1951. |
| (E-27) | Stroppe, Bill. "Winning the Economy Run." <i>Motor Trend</i> , July, 1952. |
| (E-28) | "Teen-Agers Were Taught to Be Better Drivers." <i>Safety Education</i> , October, 1951. |
| (E-29) | "The Maysville Turnpike — 1830." <i>Automobile Bulletin</i> , Louisville Automobile Club, July, 1952. |
| (E-30) | Trabue, Marion R. "Desirable Standards in Driver Education and Training." <i>Safety Education</i> , January, 1949. |
| (E-31) | Warton, Don. "What Two Drinks Will Do to Your Driving." <i>Reader's Digest</i> , October, 1951. |
| (E-32) | Whitney, Albert W. "The Plus and Minus of Safety Education." <i>Safety Education</i> , September, 1951. |
| (E-33) | Williams, Sidney J. "Traffic Safety and the Machine Age." <i>Safety Education</i> , March, 1951. |
| (E-34) | Yost, Merrill G. "Every Pupil Needs Driver Education." <i>Safety Education</i> , January, 1952. |
| (E-35) | "Youth's Death Rate Double Children's." <i>Safety Education</i> , January, 1952. |

F Audio-Visual Materials

"Motion Pictures"

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|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (F-1) | ACT YOUR AGE. (Emotional Maturity) (14 min.) ²
Forms of emotional immaturity; methods of self evaluation.
(16mm, sound, also color, 9 ³) |
| (F-2) | AND THEN THERE WERE FOUR. (30 min.)
Dramatizes needless cost in lives of "take a chance" driving.
(16mm, sound, 11) |

²The time required to run the film.

³The source of film. Refer to film sources page 241. Films may be secured from sources listed by purchase or loan. Example: "9" refers to Ideal Pictures Corporation, 65 East South Water Street, Chicago 1, Illinois.

Reference Code	Title Title of Materials
(F-3)	BICYCLING WITH COMPLETE SAFETY. (10 min.) A strong appeal for carefulness in riding bicycles on streets and highways. Safe and unsafe practices illustrated. (16mm, sound, 6)
(F-4)	CHAMPIONS AT THE WHEEL. (17 min.) Shows how to correct the more frequent causes of accidents—speeding, backing, failing to slow down at intersections, errors in judging, timing distance, and how to overcome these errors by practice. 16mm, sound, color, 4)
(F-5)	CONTROL YOUR EMOTIONS. (14 min.) Psychology underlying proper control and direction of emotions. (16mm, sound, also color, 9)
(F-6)	DRIVER EDUCATION FILM SERIES. (11 min.) Titles of the series: (a) Driving Economically , (b) Practice Makes Perfect Driving , (c) Your Permit to Drive . (16mm, sound, 8)
(F-7)	DRIVER EDUCATION SERIES. (11 min. each) Six subjects teaching correct and safe driving techniques. Titles: (a) Care of the Car , (b) Driving in the City , (c) Driving on the Highway , (d) Driving Under Adverse Conditions , (e) Driving at Night , (f) Parking the Car . (16mm, sound, free loan, 7)
(F-8)	DRUNK DRIVING. (20 min.) How drunkenness can cause tragic accidents. (16mm, sound, 4)
(F-9)	FATAL SECONDS. (11 min.) Dramatic story of a careful driver who gambled only once with the lives of his loved ones—and lost. 16mm, sound, 1)
(F-10)	HEEDLESS HURRY — ENDLESS WORRY. (11 min.) Emphasizes safe pedestrian habits illustrating both safe and unsafe practices. (16mm, sound, 2)
(F-11)	HIGWAY MHANIA. (17 min.) Problems of traffic control, lack of uniform laws, qualifications for driving, licensing of teen-agers as factors in safe driving. (16mm, sound, 10)
(F-12)	HIT AND RUN DRIVER. (21 min.) Discussion of hit and run driver and methods of apprehending such drivers. (16mm, sound, 15)
(F-13)	IT'S WANTON MURDER. (20 min.) Story of a G.I. who survived three years of combat to be killed in an automobile accident brings out the fact that most accidents are completely avoidable. (16mm, sound, 3)

Reference Code	Title Title of Materials
(F-14)	KEEPING YOUR CAR FIT. (12. min.) Explains need for checkup of tires, battery, oil, and radiator. Advantages of rotating of tires, regular lubrication, changing oil filter, and seasonal inspection of cooling system. (16mm, sound, 5)
(F-16)	LAST DATE. (20 min.) Story of four teenagers whose lives were tragically affected by carelessness of a young driver. (16mm, sound, 11)
(F-17)	LEST WE FORGET. (11 min.) Traces progress of the family automobile from "horseless carriage" days to tomorrow. (16mm, sound, 8)
(F-18)	ON TWO WHEELS. (11 min.) Correct traffic rules for bicycles. (16mm, sound, 8)
(F-19)	ONCE UPON A TIME. (11 min.) Animated cartoon on street and highway safety with fairyland settings and characters. (16mm, sound, color, 4)
(F-20)	OPERATORS AND SAFETY. (19 min.) Safety in bus operation, how to operate safely in passing, at intersections, at bus stop zones, and under special weather conditions. (16mm, sound, 5)
(F-21)	SAFE DRIVING SERIES. (11 min. each) Three subjects for teaching safe driving. Titles: (a) Fundamental Skills , (b) Streets and Highways , (c) Advanced Skills and Problems . (16mm, silent, also color, 9)
(F-22)	SAFETY PATROL. (11 min.) Safety patrol of young boys, helping children to and from school. Nine rules for pedestrian safety. (16mm, sound, 8)
(F-23)	SCHOOL BUS OPERATION. Part I. (13 min.): (a) Bus Care and Maintenance ; Part II. (14 min.): (b) Passengers—driving hazards—safety . (16mm, sound, 5)
(F-24)	SCREW DRIVERS AND SCREW JAYS. (12 min.) Shows poor driving and such common faults as double parking, weaving in and out of traffic, and passing on the wrong side. (16mm, sound, 14)
(F-25)	SERGEANT BRUCE REPORTING SERIES. (13 films, 6 min. each) Each film deals with an aspect of driving. Divided into three sets. Set 1, titles: (a) Teenicide , (b) Defensive Driving , (c) Courtesy , (d) Left Turn . Set 2, titles: (e) Speed , (f) Child Safety , (g) Driver or Pedestrian? , (h) Following Too Close . Set 3, titles: (i) Driver

Reference Code	Title Title of Materials
	Irritations, (j) Drinking and Driving, (k) Highway Driving, (l) Night Driving, (m) The Driver and the Law. (16mm, sound, 5)
(F-26)	STYLING THE MOTOR CAR. (20 min.) Shows motor car designing from artist's sketch to final still production. (16mm, sound, color, 8)
(F-27)	TEACH THEM TO DRIVE. (20 min.) Plea for establishment of driver-training courses in the high schools. (16mm, sound, 2)
(F-28)	TRAFFIC WITH THE DEVIL. (21 min.) Shows the duty of the traffic control officer in Los Angeles, and the magnitude of present day traffic problems compared with 40 years ago. (16mm, sound, 15)
(F-29)	TROUBLE SHOOTING YOUR CAR. (12 min.) Locating the correct car trouble, proceeding in checking cause when car will not start, recognizing symptoms of impending trouble. (16mm, sound, 5)
(F-30)	UNDERSTAND YOUR EMOTIONS. (14 min.) What emotions are, what they do, how they are changes. (16mm, sound, also color, 9)
(F-31)	WE DRIVERS. (11 min.) Problems of the driver and good driving practices. (16mm, sound, 8)
(F-33)	WHERE MILEAGE BEGINS. (20 min.) Assembly automobile motor, function and parts. (16mm, sound, 8)
(F-34)	X MARKS THE SPOT. (20 min.) Relates the traffic experience of a somewhat whimsical, although typical driver and pedestrian who goes into a number of situations that are typical of current traffic problems. (16mm, sound, 13)
(F-35)	YOUR DRIVING HABITS. (15 min.) Shows elements of good driving, how to start engine, use clutch, and shift gears; how to use brakes, drive on curves, in mountains, on ice, snow, and mud; how to park a car. (16mm, sound, 5)

"Filmstrips"

The titles of filmstrips which follow is very incomplete, and many other titles may be found by reference to **Filmstrip Guide** compiled by Katharine M. Holden, and published by the H. W. Wilson company, New York.

- (F-36) **CONTROLLING THE CAR.** (15 min.) One of a series which includes driver qualification, functioning and care

Reference Code	Title Title of Materials
	of the automobile, basic driving techniques and advanced driving skills. (35mm, 60 frames, 8)
(F-37)	DEFENSIVE DRIVING. (20 min.) Two newspaper reporters are given the assignment to find out why truck operators are able to drive such big vehicles with so few mishaps. (35mm, sound, 12)
(F-38)	DRIVER FITNESS AND ATTITUDE. (15 min.) One of a series which includes driver qualification, functioning and care of the automobile, basic driving techniques, and advanced driving skills. (35mm, 60 frames, 8)
(F-39)	DRIVING STRAIGHT AHEAD. (15 min.) One of a series which includes driver qualification, functioning and care of the automobile, basic driving techniques and advanced driving skills. (35mm, 60 frames, 8)
(F-40)	IF IT HAPPENS. (20 min.) Explains and demonstrates what to do after an accident. (35mm, sound, 12)
(F-41)	INERTIA. (15 min.) Explains inertia in simple terms and analogies. Describes the effect of inertia on the operation of an automobile, in driving straight ahead, centrifugal force, and driving around curves. (35mm, 60 frames, 15)
(F-42)	IN CASE OF ACCIDENT. (15 min.) One of a series which includes driver qualification, functioning and care of the automobile, basic driving techniques, and advanced driving skills. (35mm, 60 frames, 8)
(F-43)	MARY JONES GOES TO COURT. (20 min.) Designed to acquaint the public with the many things a typical city police department does to prevent traffic accidents. (35mm, sound, 12)
(F-44)	NIGHT DRIVING. (15 min.) Presents the difficulty of seeing at night, effect of glare on the eyes, effect of fog and rain on head lights, stopping distances at night, suggestions for safe night driving. (35mm, silent, 73 frames, 16)
(F-45)	NO USE SKIDDING. (20 min.) Illustrates the major causes of winter traffic accidents. Tells the driver what he can do to avoid skidding hazards. (35mm, sound, 12)
(F-46)	ON RECORD. (20 min.) Reveals important facts concerning the way traffic accident records are compiled and used by states and cities. (35mm, sound, 12)
(F-47)	ROAD EMERGENCIES. (15 min.) One of a series which

Reference Code	Title Title of Materials
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| | includes driver qualifications, functioning and care of the automobile, basic driving techniques and advanced driving skills. (35mm, 60 frames, 8) |
| (F-48) | STARTING THE CAR. (15 min.) One of a series which includes driver qualification, functioning and care of the automobile, basic driving techniques and advanced skills. (35mm, 60 frames, 8) |
| (F-49) | STOP, LOOK AND LIVE. (15 min.) Shows safe walking and walking hazards, the right and wrong things to do when walking. Situations confronting pedestrians on country roads. (35mm, sound, 88 frames, 16) |
| (F-50) | SWITCHES, INSTRUMENTS AND CONTROLS. (15 min.) One of a series which includes driver qualification, functioning and care of the automobile, basic driving techniques and advanced driving skills. (35mm, 60 frames, 8) |
| (F-51) | TURNING. ..One of a series which includes driver qualification, functioning and care of the automobile, basic driving techniques and advanced driving skills. (35mm, 60 frames, 8) |

Film Sources:

The films and film strips listed in this section can be secured from these sources. Write for catalogues and terms.

1. **Aetna Life Affiliated Companies**, Motion Picture Bureau, 151 Farmington Avenue, Hartford, Connecticut.
2. **American Automobile Association**, Washington, D. C.
3. **American Transit Association**, 292 Madison Avenue, New York 17, New York.
4. **Association Films, Inc.**, 79 East Adams Street, Chicago 3, Illinois.
5. **Castle Films, Inc.**, 1445 Park Avenue, New York 29, New York.
6. **Calvin Company**, 1105 Truman Road, Kansas City 6, Missouri.
7. **Ford Motor Company**, Film Library, 300 Schaefer Road, Dearborn, Michigan.
8. **General Motors Corporation**, Department of Public Relations, Film Section, Detroit 2, Michigan.
9. **Ideal Pictures Corporation**, 65 East South Water Street, Chicago 1, Illinois.

10. **McGraw Hill Book Company**, Test Film Department, 330 W. 42nd Street, New York 18, New York.
11. **Modern Talking Picture Service, Inc.**, 45 Rockefeller Plaza, New York 2, New York.
12. **National Safety Council**, 425 N. Michigan Avenue, Chicago, Illinois.
13. **New Jersey Division of Motor Vehicles**, State House, Trenton 7, New Jersey.
14. **Shell Oil Company**, Public Relations Department, 50 West 50th Street, New York 20, New York.
15. **Teaching Films, Custodians Inc.**, 45 West 43rd Street, New York 18, New York.
16. **The Jim Handy Organization**, 2821 E. Grand Blvd., Detroit 11, Michigan.

Film Libraries and Depositories Serving Kentucky Areas

The following is a list of local film sources serving areas in Kentucky. Schools near these film libraries may avail themselves of the services they offer. Many of the films listed in this section may be secured from these sources. Write for catalogues and listings.

Charleston, West Virginia

Pavis Electronics and Supply Co., P. O. Box 6095, Charleston 2.

Cincinnati, Ohio

Ideal iPictures Corporation, 125 E. 6th, Cincinnati 2.
Ralph V. Haile and Associates, 215 Walnut Street.

Indianapolis, Indiana

Ideal Pictures Corporation, 815 N. Pennsylvania Street, Indianapolis 2.

Knoxville, Tennessee

University of Tennessee, Extension Division.

Lexington, Kentucky

D. T. Davis Company, 178 Walnut Street, Lexington 34.
University of Kentucky, Department of Extension.

Louisville, Kentucky

Ideal Pictures Corporation, 422 West Liberty Street, Louisville 2.

Memphis, Tennessee

Ideal Pictures Corporation, 18 South 3rd Street, Memphis 3.

Nashville, Tennessee

University of Tennessee, Extension Division, 2321 West End, Nashville.
A-V Department, Methodist Publishing House, Nashville 2.

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Richmond, Virginia

Ideal Pictures Corporation, 219 E. Main, Richmond 19.

St. Louis, Missouri

Ideal Pictures Corporation, 5154 Delmar Blvd., St. Louis 8.

The following two references are among the best recognized authority on general listing of educational films.

Educational Film Catalogue. Compiled by Dorothy E. Cook and Eva Rabbek-Smith. Published by H. W. Wilson Co., New York, subscription price \$2.00 a year; includes three quarterly supplements.

The Blue Book of 16mm Films. Get the latest edition published by The Educational Screen, 64 East Lake Street, Chicago, Illinois.

