

A TENTATIVE COURSE OF STUDY IN HEALTH EDUCATION FOR
GIRLS IN THE JUNIOR HIGH SCHOOL

A THESIS

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A TENTATIVE COURSE OF STUDY IN HEALTH EDUCATION FOR
GIRLS IN THE JUNIOR HIGH SCHOOL

A THESIS

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in Partial Fulfillment of the Requirements
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MASTER OF ARTS

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By

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E. F. E.

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CHAPTER I

INTRODUCTION

Organization and Administration of the Health Education Program in the Huntsville Public Schools

Health service, health instruction, and healthful school living should constitute the health education program in the schools. The health-education program of the Huntsville Public Schools includes these three aspects.

Health service in the Huntsville Public Schools includes protecting the health of the child, individual health conferences with the child, and education of the parent in regard to child health, home and community hygiene, and parental responsibility. Under the supervision of a regularly employed school nurse, the school administrators and teachers cooperate in the varied activities of school health service. The work done with the majority of boys and girls is chiefly preventive. For the child who is physically below standard or poorly adjusted mentally or emotionally, a careful study is made of his individual health problem and advice is given to parents concerning treatment by the family physician. The correction of eyes, tonsillectomy, and other corrective or diagnostic work for indigent children are made possible through contributions of various civic organizations. The Parent-Teachers' Association provides free hot lunches to these children in the elementary and junior high schools.

An annual health inspection is given by the nurse to all pupils from the first grade through senior high school. Ordinary defects of feet and arches, chest, eyes, ears, nose, throat, teeth, lungs, skin, glands, nutrition, posture, scalp, and hair are noted on the health record form. The results of these inspections are sent to parents and cases demanding attention are followed up by the school nurse until a satisfactory conclusion is reached, if possible.

In addition to this follow-up work, the nurse gives first aid for minor illnesses and injuries, assists teachers with room inspections, gives individual health instruction to children, and confers with teachers, principals and parents. She is also responsible for the filing of health data on the pupils' cumulative records. Together with the record for each child is kept his parents' authorization of the services of a family doctor in case of accident or sudden illness while at school. These files are kept in the principal's office in order to afford accessibility.

Education of the community in health is accomplished through explanation and application of various health measures. Prevention of the spread of communicable disease is aided by securing from parents a list of diseases that each child has had, by excluding from school those children who have contagious diseases, and by requiring each child to be checked by the nurse before he is allowed to re-enter the classroom after absence due to illness. Immunization against diphtheria is required of all elementary school students. Vaccination against smallpox is required of all students in the elementary school and

junior and senior high schools.

Health instruction is given by the homeroom teacher in the elementary school at various periods throughout the week when health learning situations arise in the day's living at school. Specialized teachers of health and physical education are provided in the junior and senior high schools. One fifty-five minute period per week is allotted to health instruction in the regular schedule of junior and senior high school classes. All students whose band classes do not conflict with the health teaching schedule are required to take this course in personal hygiene.¹

The method of classification of students presents a teaching problem in the junior high school. Students from each of the three years of the junior high school are usually included in one health class. Therefore, it is most important that the teacher of health plan a desirable sequence of topics and provide materials for all levels of accomplishment. In this way overlapping is prevented, health knowledge is acquired, and health practices are stimulated.

Health instruction in the elementary school emphasizes the cultivation of proper health habits, behavior, and attitudes. In the junior and senior high schools health habits, behavior, and attitudes are still important but more emphasis is placed on finding and using facts in understanding the reason for good personal hygiene. Emphasis

1 This administrative arrangement is not in accord with the philosophy of health education set out in Chapter II.

is placed on solving personal health problems and problems peculiar to the community in which they live. Since meaningful health is best learned through experiences growing from particular situations, every teacher is encouraged to be alert to incidental opportunities for health education. Some situations arise naturally, and others are an integral part of a larger learning situation where the child is not necessarily conscious of the health objective. The specific courses in hygiene concern themselves with direct instruction in different phases of personal health in the junior high school, and in the senior high school, with the broadened aspects of school, home, and community health. These courses are organized in unit form, and the subject matter is planned for separate and regular weekly class periods.

Materials for pupils in the health teaching program consist largely of source books, texts, charts, pamphlets, films, and other materials available. Student activities in the form of discussions and of listening to lectures prepared as oral topics provide interest. Displays, contests, dramatizations, and field trips supplement class discussion. Specially planned programs, plays, and demonstrations present timely aspects of health to a large number of students at assembly.

Many of the requirements for the most healthful school environment can not be met in the present junior high school plant. Inadequate space and equipment do not provide the greatest comfort and safety of students and teachers, and governmental restrictions prevent

improvement at this time. However, administrators and teachers alike do all that is possible to contribute to the child's healthful environment. Lighting and seating are adequate and well-arranged in the space provided. Heating and ventilation are carefully checked at all times. The junior high school building is equipped with facilities for toilet, hand-washing, and drinking, but they are inadequate. Means of exit from the third floor of the building are not adequate to insure safety, but periodic fire drills have demonstrated that evacuation of all students is possible in less than two minutes. The interior of the building is clean and an effort is made to keep all rooms as neat and attractive as possible.

The effect of the various details of routine upon the health of the individual pupils is a primary concern of the principal. An effort is made to prevent overcrowding of classes. Recreation periods in the form of physical activity are planned for students two days each week. Individual corrective exercises for remedial postural defects are included in the activity program. Classroom teachers cooperate in making special seating arrangements and program adjustments. Other considerations for special cases include rest periods on cots provided for that purpose.

Need for a Course of Study

The present written plan of work in health education includes briefly stated general objectives, together with suggested content, materials, and source readings for one year. This plan affords guidance for the teacher in charge, but the need for a carefully

planned course of study is great. A three-year plan will eliminate overlapping of content materials and will provide a well-rounded junior high school health program.

Economic forces and governmental regulations of a nation at war are affecting our way of living and changing the emphasis placed on health education and physical fitness. The philosophy of health education and a newer course of study must meet these needs.

For the past two years a school nurse has been employed and it is expected that her services will be extended when she is given a complete view of the school health program. Since supervision of the practice teachers from Sam Houston State Teachers College is the responsibility of the Huntsville Public Schools, a thoroughly planned course of study is essential.

The Problem

This study undertakes the development of a tentative three-year course of study in health education for girls in the Huntsville Junior High School. The problem involves the statement of a philosophy of health education, the statement of the general objectives of the program of health, and the development of a number of informational units. Although school health education includes three main divisions: health service, health instruction, and healthful school living, this course of study is limited to the division of health instruction.

The problems which constitute, in general, the considerations of this study are: the place of health education in education; the

underlying principles and policies that should guide in the development and use of a course of study in health; the objectives of health education and the activities needed to meet these objectives; suggestions for correlation; and the evaluation of pupil growth resulting from experiences gained in the teaching-learning units.

Limitations of the Study

As previously stated in this chapter, this course of study limits its contributions to the division of health instruction. The units of instruction within this course of study were selected by the writer. They have not been evaluated or tested by experiment, but were selected with the criteria presented in Chapter II as a basis. They are tentative both in selection and in organization.

The suggestions for evaluation included in each unit are in the form of suggested methods. Types of tests are given but the preparation of specific unit tests is left to the teacher in charge.

Organization of the Study

The study is presented in six chapters. In Chapter II a philosophy of health education is developed, together with the general objectives of the program, the general principles of evaluation, and suggestions for correlation. In Chapters III, IV, and V are presented the first year, second year, and third year portions, respectively, of the three-year course of study in health education for girls in the Huntsville Junior High School. The study is summarized briefly in Chapter VI.

CHAPTER II

PHILOSOPHY AND GENERAL OBJECTIVES OF HEALTH EDUCATION

Changing Emphasis on Health Education

During the era following World War I and until the past three-year period of our country's history, the public school health program emphasized the cultivation of attitudes toward and skills in informal activities most needed for healthful, happy, and sane living. Good mental health, social adaptability and happiness, and emotional balance received major consideration. Healthful living included good physical health, but emphasized good mental health, wholesome leisure and recreation, and the social values of these accomplishments.¹ This may be considered in part the effect of the report of the National Education Association committee on objectives in secondary education in which the first objective was stated to be health.²

Since December 7, 1941, the situation has changed. The health educators are still concerned with "better leisure time activity, mental health, and other conditions relative to the full life of a prosperous people."³ This philosophy is important, but it is not

1 W. L. Hughes, Administration of Health and Physical Education in Colleges, p. 6.

2 National Education Association, "Report of the Commission on the Reorganization of Secondary Education," Proceedings of the Fifty-Ninth Annual Meeting, vol. LIX, 1921, p. 165.

3 R. T. Dewitt, "War and the Philosophy of Education," Peabody Journal of Education, vol. XX, July, 1942, p. 25.

geared to a nation at war. Today our country is calling for citizens who have better eyesight, who have better hearing, who have more endurance, who have more stamina, who have more mechanically and scientifically trained minds, and who have more intelligence.⁴ It must be realized that an adequate program of health education should build the next generation of men and women so that they are prepared physically to meet the needs of a war-torn world and to be ready and willing helpers in post war reconstruction. If health and efficiency are needed for a nation at war, they are equally or even more needed in reconstruction and in the periods of peace that follow. It is the school's responsibility to aid students in improving nutritional status, to offer measures of health protection, to aid in the correction of remedial defects, and to encourage development of strength, vigor, and bodily efficiency. The accomplishment of these objectives together with the attainment of sane attitudes of truth and courage and the cultivation of spirit and deliberation in thinking and doing constitutes the major emphasis to be placed upon health education today.

Place of Health Education in The Curriculum

Educational administrators recognize the importance of and are much interested in the proper organization and administration of health education which concerns all school children. Physical and health education programs are being broadened. More activities are being

⁴ Ibid., p. 28.

included in order to give equal attention to the child who is not skilled in the major sports. Modern civilization makes it difficult for children to keep physically fit, and, therefore, health education in our school program becomes of increased importance. "It is the one phase of education that reaches all the children, all the time through all the ages and all the grades; hence it necessitates an intelligent and sane program."⁵

The total problem of health education is the responsibility of the whole school personnel and the outcomes of health are influenced by the entire curriculum.⁶ An encouraging sign of present developments in health education lies in the fact that, positive health instruction is being increasingly recognized as one of the most valuable parts of the educational process, and administrators are becoming interested in selecting teachers who have been trained in health education as well as in athletics. Much is being done to correlate health education materials with other phases of the curriculum and recognition is being given to the basic principle that health must be practiced to be effective. The physical environment, the day's program, the class activities and relationships of the pupils and teachers, and the school health service are all opportunities for influencing the health of pupils.

5 James E. Rogers, "The School Health and Physical Education Program," The School Executive, vol. LVIII, January, 1939, p. 10.

6 Ibid., p. 11.

The program in health education is not limited to physiology or anatomy. It involves healthful living and covers such fundamental problems of daily living as food, clothing, ventilation, rest, protection, and bodily efficiency. The modern program of health education is based upon individual needs, and students are measured according to ability, capacity, and achievement.⁷

The evidence is unmistakable that people are growing more interested in health problems and their solutions. Daily health columns appear in many newspapers. Articles concerning healthful living appear more frequently in popular periodicals. Libraries are experiencing increased demands for books on personal hygiene. This demand for health information evidences a growing popular interest that has influenced many changes in the courses of study in school health education.⁸ There has been steady improvement in arrangement and content of such courses. New texts are constantly being published. Teaching methods have improved. Programs are based upon educational trends. Better curriculum-making procedures are followed. The materials of instruction are graded in order that interest and understanding may grow from year to year. Physical and health education are required courses of instruction that are offered throughout the child's life.⁹ It is

7 J. F. Williams and C. L. Brownell, The Administration of Health and Physical Education, p. 287.

8 J. F. Williams, Personal Hygiene Applied, Third Edition, p. 12.

9 Mabel E. Rugen, "Needed Curriculum Revision in the Field of Health Education," The Journal of Health and Physical Education, vol. XI, September, 1940, p. 532.

hoped that with all these efforts being made to improve the health of children there will be fewer signs of nervousness, underweight, late hours, poor eating habits, and use of alcohol and tobacco. The eradication of such practices among youths today will strengthen the race of tomorrow.

Philosophy of Health Education

A philosophy of health education is both a part and a natural outgrowth of a general philosophy of education. It is the formulated statements of systematically evaluated goals and ways of healthful living. Such a philosophy of health education underlies the statement of aims and conceives its value as correlative to social needs. Thus the foundation of the health education program should be consistent with the school's philosophy of secondary education. The greatest contribution a teacher of health education can make is the development of an appreciation within the child of personal and social health problems, their causes, and their solutions. It is the mission and obligation of the school to equip each child intellectually, physically, socially, and emotionally to contribute to life his greatest achievement and to extract from it the potential happiness it holds. The ideals of democracy require that all individuals be given equal opportunity to develop to the greatest possible extent. The methods of democracy require that all individuals be intelligent participants in the affairs of social life. For citizenship in a democracy, there must be the expression of individual initiative in terms of the group.

"Discernment, reflection, judgment, and tolerance are necessary in order to participate intelligently in democratic freedom."¹⁰ Since the perpetuation of democracy should be the first and largest purpose of the health program in the junior high school, the health program should provide opportunities for the cultivation of good habits of living, for understanding and appreciating the body and its needs in order to maintain sound mental and physical health, and for recognizing personal responsibility in applying these knowledges in community living. These sound knowledges, attitudes, and habits, coupled with a joy and satisfaction in living and growing, and a spirit of social sensitivity and responsibility, all contribute to the goal of health education: wholesome living.

Basic Principles of Health Education

A program in health education should be based upon sound principles of technical sciences, human relationships, social values, and moral standards.¹¹ The administrator or teacher who is confronted by the problem of organizing or conducting a program of health needs basic principles on which he can rest his decision and to which he can appeal for criteria by which to judge what he does.¹² It is necessary, therefore, to consider such problems as study of individuals, economic

10 T. D. Wood and R. R. Cassidy, The New Physical Education, p. 29.

11 J. F. Williams, Principles of Physical Education, p. 6.

12 J. F. Williams and C. L. Brownell, op. cit., pp. 66-67.

limitations placed upon the program, social controls effective, political purposes behind many sanctions, availability of facilities, and selection of content and activities.¹³

A Study of Individual Pupils. Attempted analyses of individuals are always subject to the criticisms of scientific research. It is accepted that the individual is a unity and that response is always in relation to the total situation.¹⁴ The teacher of health education should study individual pupils through observation and informal survey of the situation. It is the opinion of the writer that the following suggestions gained from her teaching experience and from authorities in health education may contribute valuable information toward this end:

1. Examination of health habits gives insight into the health needs of individual children and thereby furnishes material for instruction. Which children seem to be or not to be happy, healthy, and well-adjusted with friends, teachers, and at home? Who do or do not make satisfactory progress in growth and development, carry themselves well, and have good endurance in work and play? Which pupils seem to have good vision? Which ones have glasses? Do they wear them? Which pupils seem to have good hearing? Which children seem to have

13 J. F. Williams and Fannie B. Shaw, Methods and Materials of Health Education, p. 176.

14 J. F. Williams and C. L. Brownell, op. cit., p. 68.

good teeth? Who are in need of dental care? Which members of the class breathe with the mouth open? Which children are notably free from colds, sore throats, and other infections and which pupils suffer from illness? Which children do or do not have clean, clear, healthy skins free from skin disorders? Which children are or are not neat, clean, and attractive in appearance?

2. The increased interest in personal hygiene shown by girls of the junior high school age furnishes a guide for the type of material to be included in the units of instruction in the junior high school course of study.¹⁵

3. The state and community resources, such as city water supply, hospitals, Red Cross, fire and police departments, penal institutions, and the like furnish subject matter of interest to students.¹⁶

4. Examination of guidance information concerning the student in her home, her likes, interests, capabilities, facilities, duties, economic status, and health problems suggests student needs and interests.

5. Conferences with the school nurse and examination of the cumulative health and behavior records reveal capacities and deficiencies of individuals.

6. An analysis of the individual's daily schedule, record of attendance, and the causes of absences all offer suggestions in planning

15 J. F. Williams, op. cit., p. 96.

16 Ibid., p. 144.

experiences in healthful living.

Economic Limitations Placed Upon The Program. The economic influences of capital and enterprise must not overshadow the influences of the uncoordinated efforts of developing community life. Because of industrialization, shifts and growth in population, life is concentrating in the cities. As city life develops, it brings with it jails, hospitals, clinics, reformatories, asylums, and other signs of care for human maladjustments. The swing to city life, also, calls attention to housing problems and limitations of industry. With the advent of the second world war, women are drawn into defense plants and associated activities. In many instances their homes and their children are deprived of adequate care. Health education in the school should reflect and make provisions for the dominant ideas, customs, and traits of American life in order to meet the hazards produced by the influence of economic forces in society.¹⁷

Social Controls Effective. Economic success must not be interpreted as a measure of social worth or personal fitness. The social ideals of our democracy demand that health and physical education should be "joyous, expressive, and developmental of the whole person...The modern economy of the power age produces weakness, degeneracy, delinquency, and boredom in man who can be rescued from these dire results only by forms of living which are revitalizing, energizing, and motivating to

17 Ibid., pp. 193-203.

wholesome behavior."¹⁸

Political Purposes Behind Many Sanctions. The political power of our democracy designates the states as determinants of policies and the responsibility of financial support. The state controls licenses for teachers, enacts compulsory attendance laws, and sets standards for school buildings, curricula, and credits.¹⁹ There remains, however, in the local community the conviction that the schools belong to the people and the type of school provided reflects the desires of the community. It is evident, particularly in this age of total war effort, that public schools are not serving fully the pressing needs of youth. The Federal Government is greatly extending its influence in suggestions for better physical development and more healthful living. It will continue to be a powerful force in shaping health and physical education in relation to war, military drill, mass exercises, and recreation, as well as through promotion of such programs as conservation, production, and nutrition.²⁰

Availability of Facilities. The physical environment of the school should offer an important factor governing the realization of objectives.²¹ Inadequate, unhygienic, and limited facilities present many opportunities for improvement and should furnish challenges to

18 Ibid., p. 203.

19 Ibid., p. 221.

20 Ibid., p. 136.

21 Ibid., p. 69.

both student and teacher.²² Equipment such as health charts, motion pictures, and opaque projectors provides excellent illustrative materials for presentation of health knowledges and practices. The school cafeteria and the provision of free lunches for underprivileged children should be available, promoting a situation around which social living may be practiced; cleanliness and sanitation may be observed; garbage disposal may be emphasized; and selection, care and handling of food may be studied. Inadequate hall space and stairs and the nearness of a highway necessitate promotion of safety measures. Adequate comfort and care in case of emergency require that the school plant maintain a sick room with cots and first aid cabinet. Adequate light, heat, and ventilation promote a more healthful school environment. Seating in relation to posture and comfort should be accomplished through the coordinated efforts of teacher and administrator. The condition and size of the rest room should afford opportunity for the student to assume responsibility in its care.²³

Selection of Content and Activities. Activities selected and teaching procedures followed should require careful consideration. Some are more important, demand more concentrated effort, and extend over longer periods of time than do others. The following standards

22 J. F. Williams and C. L. Brownell, The Administration of Health and Physical Education, p. 69.

23 Ibid., p. 70.

should be used in guiding the selection of activities and teaching procedures:²⁴

1. Needs and interests of the student must be of primary concern.
2. The activity must have useful meaning and significance for the student.
3. Each activity should possess carry-over value for life later or higher education as well as for its present meaning.
4. Possible correlations are considered but the correlative value must be direct.
5. Situations must be provided wherein the student may realize her position as one of a social group.
6. Pupil participation in selection of content and provision of activities insures interest and greater confidence.
7. Sequence and selection of content is made and activities, references, and measurement of outcomes are determined according to the individual student's ability, capacity, and progression.

General Objectives of Health Education

The objectives are steps, advances, and realities in relation to the philosophy.²⁵ The general objectives of health education which

24 Marguerite M. Hussey, Teaching of Health, p. 93.

25 J. F. Williams and C. L. Brownell, op. cit., p. 68.

follow are presented as a basis for the health education program in the junior high school. These objectives are stated in terms of abilities that the students are encouraged to master.

1. The ability to have appropriate habits related to the different aspects of health--personal, racial, home, and community, mental and emotional, and social.

2. The ability to understand the structure and function of the body machine and a desire to care for it.

3. The ability to adapt health practices to meet the demands of a given situation.

4. The ability to adjust to physical and emotional changes attending adolescence.

5. The ability to develop respect and appreciation for the human organism and the life process, an understanding of problems that confront youths in building and maintaining their health and a disposition to meet life's situations in a sane and wholesome manner.

6. The ability to develop and maintain an attitude of responsibility toward personal hygiene and safety, and the protection one owes one's self as well as others, against unnecessary exposure.

Evaluation

While it is essential for one who is teaching to evaluate, there is often a tendency to evaluate in terms of results that are desired rather than those that are obtained. The actual results of health teaching are most difficult to measure. In attempting such a task

one must be conscious of changes in behavior, attitudes, and practices as well as acquiring of specific health knowledge.

As long as pupils are graded solely on the basis of the number of books they have read, the rules they have memorized, the number of health clippings they have pasted in their notebooks, and the physiological terms they have learned, measurement is no problem. However, these do not constitute "living most and serving best," and to evaluate the pupil's progress on this basis is to depart from the philosophy of health education as accepted in this study.

The following questions as set forth by Leonard and Eurich may be used as a guide in evaluating health instruction:

To what extent are pupils made aware of undesirable practices involving diet, personal appearance and comfort, physical and chemical hazards. . .? To what extent are pupils becoming more adequately informed concerning health problems? To what extent are pupils informed about and able to appraise the quackery or irrelevance of methods or devices advertised or promoted in newspapers, magazines, and the radio?²⁶

With these questions in mind the methods of evaluation of health education may be divided into five classifications:

1. Anatomical and physiological measures of health status.
2. Paper and pencil tests of health knowledge.
3. Paper and pencil tests of health attitude.

26 J. Paul Leonard and Alvin C. Eurich, An Evaluation of Modern Education, p. 188.

4. Continuous observation of pupil activities.

5. Self-checking on health practices.²⁷

In measuring the health status of the pupil one needs the services of a physician and school nurse, but certain of these observations can be made by the teacher in the classroom in an informal way. Teachers can note, in general terms, changes in the same individual from day to day. Color and condition of the skin, vigor and vitality, posture, cleanliness, height and weight, signs of good or poor nutrition, loss of sleep, and other outward appearances will give the teacher indices of the health status of the individual.

The task of measuring pupil's knowledge of health is not difficult, yet when one is testing knowledge there is no assurance of attaining the measure of anything except knowledge. The results cannot be used as though they were a measure of conduct and behavior. The fact that a child knows the teeth should be brushed does not necessarily mean that he brushes them. However, knowledge of good health often stimulates practices of good health habits.

Knowledge of health facts may be measured by a variety of methods. In addition to essay examinations there are the true-false, completion, multiple choice, and matching tests. In recent years standardized tests have appeared which aid in instruction by calling to the attention

27 Joint Committee on Health Problems in Education, Health Education, A Program for Public Schools and Teacher Training Institutions, 1930, p. 146.

of the teacher deficiencies in health knowledge among pupils, by indicating which facts the majority of the class know and which need to be taught, and in determining the progress made by the class in health knowledge over a given period.

Paper and pencil tests concerning the pupil's attitude may be of two kinds: (1) tests of what one believes or thinks, and (2) tests of how one feels. In the first type would be included tests which ask the child to state what she believes ought to be done in certain situations. In the second type one may ask the child what he likes or dislikes in the way of food, activities, and customs.

Continuous observation of the pupil in the classroom and in other situations should give the teacher a fair basis for evaluation. Most health practices such as habits of bathing, eating, sleeping, and the like can best be checked on in the home. However, these practices are evidenced by the child's appearance and activities in the classroom.

Self-checking on health practices may be accomplished by means of a prepared check list. The child may be asked to observe her own behavior and record it on the check list. Such questions as: "Did you brush your teeth last night? Did you drink at least six glasses of water yesterday? Do you visit the dentist regularly?"--and the like should comprise the list. In the matter of self-rating it is well known that there is a tendency to overrate oneself on desirable habits. On the other hand, if not used too frequently and if suitable forms and directions are prepared, it is possible to make valuable use of

self-rating methods in determining some of the more obvious outcomes of health instruction.

Through a combination of these methods of evaluation the teacher should be able to test, to a certain degree of satisfaction, the results of health instruction. But,

Whatever the method employed, whatever the course of study pursued, the teacher may consider her efforts successful if she has succeeded in building in youth respect and appreciation for the human organism and the life process, an understanding of the problem that confronts him in building and maintaining his health, and a disposition to meet life's situations in a sane and wholesome manner.²⁸

Grades and Report Cards. At the close of each six-weeks period the pupil is given his physical education report card. These reports in the Huntsville Junior High School are of the traditional A-B-C type. Since the benefit which a pupil receives from the health program of the school and home can best be measured by the habits which she establishes and the improved health which results, an additional record is kept by the teacher to assist her in determining the mark to be placed on the report card to the parent. This record which the teacher keeps on each child is of the following type:

RATING SHEET IN HEALTH						
Name						
	Weeks					
	1	2	3	4	5	6
1. Condition of gym suit						
2. Showers						
3. Posture						
4. Habits of cleanliness						
5. Attitude						

²⁸ Twentieth Yearbook of the American Association of School Administrators, Health in Schools, p. 78.

This sheet is marked each week. If the pupil has appeared in a clean gym suit each class period she is given two points for that week, two points for a shower each time, two points for good posture, two points for habits of cleanliness, and two points for attitude. It is possible for a pupil to score sixty points each six-weeks period. The score on the rating sheet together with the average on tests for knowledge, class reports, solving practical problems, and physical activity determine the grade for the report card. The score on the rating sheet is given more value in determining the grade due to the fact that proper behavior, attitudes and habits are the desirable outcomes of the health education program.

In order to provide a more meaningful report to the parents the following type of report is proposed:

Report of _____ in Health and Physical Education							
	<u>Six-Weeks Period</u>						<u>Comments</u>
	1	2	3	4	5	6	
Habits of cleanliness							
Attitude							
Physical energy							
Posture							
Growth in height and weight							
Skill in activity							
Days absent							
S---satisfactory U--unsatisfactory I---improvement							

Correlating Health with Other Subjects

Correlated teaching when well done leads to integrated learning. Integrated learning enables one to see things as a whole rather than in parts. The school health program, to be most effective, must be integrated with all curricular activities. Williams and Brownell say that,

Health facts may be taught by direct instruction, but if other fields of subject matter and other activities contribute facts that will further illustrate and strengthen health values and will fix more firmly the attitudes and habits being developed, then correlation has a definite place in the health teaching program.²⁹

The correlation of health work is of two general types: (1) incidental and (2) direct. Incidental health correlations are those in which instruction in health is given at that moment when a topic in health presents itself in another subject. Direct correlations are those in which another subject is used expressly for the purpose of giving health instruction. The subject of health is most productive of results through correlation, incidental and direct, and through constant checking by all instructors. Even where health receives sufficient time in class instruction, correlation is a means of emphasizing the work and reenforcing it. The correlation of health with the ever-expanding courses of various curricula offers new and fresh approaches to the same topics.

Correlation has much to offer to a health program, but it does not constitute a full health program. Definite instruction in health is, therefore, eminently necessary in school work. The health courses will serve as a backbone or foundation upon which to build the work of correlation.

The suggestions which follow are ways in which health may be taught in various subjects.

Social Studies

1. The luxury, dissipation and extravagance of the Romans, and

29 J. F. Williams and Fannie B. Shaw, Methods and Materials of Health Education, p. 225.

the love of sports and simple living of the Greeks

2. The health work of the United States Government in her possessions and protectorates

3. Health of early Rome--exercises, baths, massages and rest periods

4. Poor living conditions, food, lack of clothing, exposure and hardships of Colonial America

5. Comparison of health examinations of the World War I and World War II

6. The relation of invention and discoveries to health and happiness

7. Famous or national characters as health exponents or heroes-- a study of their lives as relates to health: Roosevelt, Pasteur, Florence Nightengale, Jenner, Lister, Reed, Gorgas, and others

8. History of Pure Food Laws

9. "Conquering the West," Pioneer life, its requirements and effects on health

10. Organization and operation of city, state, and national departments of health

11. Laws: city, state and national

a. The Pure Drug Act

b. Fishing, canning and meat packing regulations

c. Quarantine laws

d. Immigration laws

e. Child labor

f. Workmen's Compensation Act

g. Sewage disposal

h. Traffic laws

12. The relation of public grounds and buildings to health

13. Races and localities

a. The Southern States, their climate and its effect on health

b. The Eskimo, how he lives, his clothing, and his food

c. India--poor sanitation, superstitions, bubonic plagues

d. The American Indians--their sports, posture, clothing, sleep, food, strength, and endurance

e. China--crowded living conditions, constricting the feet, high infant death rate, rice, and beriberi

f. Africa--poisonous reptiles, dangers to life, food, clothing, effect of climate, fruits, and the fly which causes sleeping sickness

g. Switzerland--mountain climbing, outdoor life, goat's milk, resort for tuberculosis patients

h. Spain--love of sports, bull fighting, olives, midday rest period

14. Vocations and their relation to health, as farming, factory work, mining, etc.

15. Occupations which demand (a) good eyesight, (b) good ears, (c) strong muscles, (d) good voice, (e) good feet and legs, (f) good posture and gait, dignity, and bearing

Art

1. Poster making

2. Cartoons

3. Illustrations, charts, graphs of health material
4. Lettering health slogans, signs and placards
5. Modeling fruits, vegetables, good posture

Language Arts

1. Writing fire prevention themes
2. Spelling names of fruits, vegetables and words taken from a hygiene text
3. Synonyms and antonyms for health words
4. Writing letters to health organizations or interested persons for information about health
5. Writing health plays
6. Dramatizing health stories
7. Essays and compositions on health topics
8. Comparison of living conditions described in one selection of literature with those described in others
9. Making health riddles and writing health rhymes
10. Dictation in health literature
11. Reading health stories and poems
12. Writing a health column in the school newspaper

Music

1. Study and selection of appropriate tunes for health rhymes
2. Health songs
3. Good breathing and posture while singing or playing an instrument

4. Writing tunes for health songs
5. Effect of respiration on voice control

Mathematics

1. Computing the per cent of underweight for class or school
2. Keeping and checking of height-weight records
3. Graphs to show various phases of growth, or class progress
in health measures
4. Cost of sickness in school covering a stated period
5. Per cent of children out of school from illness during a
stated period
6. Per cent of children with A, B, C, and D postures
7. Prices of school lunches
8. Working out a family budget, computing the amount of money
spent for milk, doctors, medicine, clothing, recreation, etc.
9. Figuring profits and losses in school lunch room
10. Figuring caloric requirement daily for boys, girls, men, and
women of different ages, at different work
11. Computing calories in a given meal
12. Average number of hours of sleep and rest daily
13. Comparing the cost of cleanliness and health with uncleanness
and ill health
14. Computing the cost to our country of various preventable
diseases
15. Constructing problems in lung capacity, pulse rate, etc.

Home Making

1. Studying food values
2. Arranging diets
3. Clothes--their relation to health
4. Nutrition classes, weighing and measuring
5. Cleanliness, neatness of appearance, etc.
6. Home nursing
7. The chemical compositions of foods
8. Meal planning--balanced meals
9. Attractive meals
10. Preparation of school lunches
11. Good table manners, cheerfulness while eating, its effect upon digestion
12. Values of raw fruits and vegetables
13. Importance of well cooked food

Science

1. Production of energy in the body from food
2. Body use and need of oxygen
3. Operation of a city water system
4. The lay-out of the city sewage system
5. Analysis of water, milk, and other foods
6. Composition of cosmetics, certain drugs, and perfumes
7. Temperature--humidity, their relation to health
8. Heating, ventilating, and lighting homes and school

9. Alcohol as a poison, a stimulus, a drug
10. Care and preservation of food
11. Dangerous gases to man
12. Disinfections, sterilization--uses and needs
13. Growth of bacteria
14. The sun's rays--germ killing, warmth, etc.
15. The X-ray and its contributions to health
16. How glasses correct different errors in vision
17. Comparison of the eye to a camera
18. Minerals and vitamins in our diet
19. Our insect enemies
20. Poisonous animals and plants
21. The mosquito and the fly, and the diseases they cause
22. Work of scientists in prevention of disease

Summary

In this chapter has been presented a discussion of the changing emphasis on health, the place of health education in the curriculum, a statement of philosophy and the basic principles of health education, and the general objectives for this course of study. Methods of evaluation have been divided into five classifications and each classification discussed. Suggestions for correlation with other fields of instruction have been given.

CHAPTER III

UNITS INCLUDED IN THE FIRST YEAR OF THE THREE-YEAR COURSE OF STUDY IN HEALTH EDUCATION FOR JUNIOR HIGH SCHOOL GIRLS

In recognition of the pupil's interest in and need for health, this course of study in health education for girls is offered. It is intended to provide opportunity for the education in health of the girls in all three grades of the Huntsville Junior High School without overlapping of material within the three years. The course of study is tentative and will need to be changed and revised as its use reveals its inadequacies in meeting the needs of the pupil, the school, and the community. The main purpose of this course of study is to offer a program in health education for girls that will enable them to "live most and serve best."

Each unit presented in this course of study includes specific objectives, an outline of the subject matter, suggested activities, a list of illustrative materials, references for both teacher and pupils, a list of desirable outcomes, and suggestions for evaluation.

It is expected that the units in Chapter III will be given the first year, those in Chapter IV the second year, and those in Chapter V the third year. It is also expected that parts of some units will be repeated each year as the need becomes evident. The units in the three-year course are numbered from I to XVI inclusively. Those tentatively included in the first year are as follows:

1. Ways and Means of Caring for Your Body
2. Habits of Cleanliness Help You to Grow
3. Preventing and Controlling Communicable Disease
4. Body Defense Against Disease
5. Respiration
6. The Eyes
7. Ears That Hear

Unit I

Ways and Means of Caring for Your Body

The estimated time to be spent on this unit should be two sessions of fifty-five minutes each.

It is the purpose of this unit to interest the pupils in the values of good health, encourage them to develop practices which will aid in keeping healthy bodies, and help them to appreciate the services of doctors, nurses, and hospitals.

Specific Objectives

1. The ability to know the values of a health examination
2. The ability to appreciate the work of doctors, nurses, and hospital staffs
3. The ability to make a sick room attractive and comfortable
4. The ability to read a clinical thermometer
5. The ability to know the services and equipment available at hospitals

Content

- I. Physical examinations show us danger zones
 - A. Tools used in examining
 - B. Discussion of points noted in examining
 1. Height and weight
 2. Growth
 3. Carriage
 4. Skin and hair
 5. Eyes and ears
 6. Teeth, throat, and breath
 7. Heart and lungs

8. Neck, chest, and back
9. Legs and feet
10. Clothing

II. Who are the helpers in caring for your body?

- A. Doctors--Why do we have them?
- B. Specialists and surgeons are ready to assist
- C. The dentist is your friend
- D. Oculists, opticians and optometrists care for eyes
- E. The nurse does her work
- F. Health departments of the city and state serve you

III. Taking care of the sick at home is partly your duty

- A. Read the thermometer
- B. Keep the sick room clean
- C. Disinfect regularly
- D. Prepare proper food
- E. Give the patient quiet, rest, and cheer

IV. Hospitals are necessary

- A. They provide services often not available at home
- B. Many types of specialists and equipment are available there
 1. Doctors, specialists, surgeons, etc.
 2. Oxygen tents
 3. X-ray machines
 4. Adjustable beds
 5. Wards
 6. Operating rooms
 7. Laboratories
 8. Dietitians

Suggested Activities

1. Discuss points to be checked on examinations made by school nurse.
2. Examine eye charts, stethoscope, tongue depressers, etc.
3. List persons who care for us in time of illness.
4. Visit a clinic.
5. Compare the work of an oculist, optician, and optometrist.
6. Discuss work of specialists.
7. Take the temperature of a pupil and read the thermometer.
8. List disinfectants that are commonly used in the sick room.
9. Visit a hospital and note the cleanliness, quiet, and services of it.
10. Plan individual growth charts on which to keep records of your growth in the year.
11. Invite the school nurse or the school doctor to talk to the class.
12. Find out what work the city and state health department does in your school.
13. Secure examination records of the previous year from the office of the principal and check each student to see what efforts have been made to correct any of the defects.
14. List things to be remembered when caring for someone who is ill.

Illustrative Material

1. Record form for health examinations
2. Thermometer (clinical)
3. Pictures of hospital rooms
4. Advertisements of disinfectants
5. Eye chart
6. Stethoscope
7. Pictures of hospital equipment

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"The Body as a Whole," pp. 20-29.

Desirable Outcomes

1. A greater appreciation for those professional people who care for our health
2. Each pupil capable of taking her own temperature
3. More pupils assisting in the care of those persons who are
4. All pupils respecting the "quiet zone" near a hospital

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Essays written on such subjects as:
 - a. "Who Cares if I'm Sick?"
 - b. "People Who Help Me to Stay Well"
 - c. "Specialists" -- etc.
3. Reports or affirmation of having done some of the activities suggested since beginning the study

Unit II

Habits of Cleanliness Help You to Grow

The estimated time to be spent on this unit should be eight sessions of fifty-five minutes each.

Specific Objectives

1. The ability to keep bodies clean both internally and externally
2. The ability to appreciate values of a good bath
3. The ability to use the proper bath for the right purpose
4. The ability to recognize the offensiveness of body odor and bad breath and attempt to eliminate them
5. The ability to develop an interest in personal appearance
6. The ability to give daily attention to the care of the hands, nails, teeth, hair, skin and feet
7. The ability to make health habits out of health rules
8. The ability to observe clean and unclean things
9. The ability to establish the habit of brushing teeth daily
10. The ability to use and care for a tooth brush properly
11. The ability to develop a wholesome attitude toward cleanliness

Content

- I. Remove waste from clogged cells and pores
 - A. Perspiration carries away waste
 - B. Bathe often to keep pores open
- II. There are baths for many purposes

- A. The tonic bath
 - B. The bath as a sedative
 - C. Baths can stimulate
 - D. Baths promote skin activity
- III. Baths of Ancient Rome and Greece were magnificent
- IV. Avoid body odor and bad breath
- V. Clean bodies must have clean clothes
- VI. Keep your home clean
- VII. Take care of your:
- A. Hands and nails
 - B. Teeth
 - C. Hair and scalp
 - D. Feet
- VIII. A clean mind is as necessary as a clean body

Suggested Activities

1. Observe a piece of skin under the microscope. Observation of the pores should give reasons why the skin should be kept clean.
2. Discuss the baths of Ancient Rome and Greece.
3. Give class reports on the different kinds of baths, their purposes and the benefits derived from each.
4. Discuss the unpleasantness of body odor and bad breath. Explain the causes and list remedies.
5. Collect advertisements of skin applications and remedies.
6. List daily occasions in school when hands should be

hygienically clean.

7. Make comparison of cost of soap, water, and sanitary towels with cost of illness which may be spread by unclean hands.

8. Discuss and demonstrate manicuring nails and giving a shampoo.

9. Learn to make drinking cups of paper.

10. Experiments:

a. Keep milk at school for a week and note changes.

b. List means of preserving foods.

c. Make culture mediums to show presence of bacteria on unwashed hands.

11. Make two lists of mental traits--one healthful, and the other undesirable.

12. Demonstrate proper method of brushing teeth.

13. Examine teeth in mirror and note appearance.

14. Make a scrapbook on cleanliness by collecting pictures and health slogans.

15. Appoint committee to investigate condition of rest rooms. Set up standards for keeping them clean.

16. Test yourself for habits of cleanliness.

Illustrative Materials

1. Charts

2. Microscopes and prepared slides of germ cultures

3. Advertisements of skin applications, deodorants, and soap

4. Posters

5. Pictures of famous Greek and Roman baths
6. Slogans
7. A good tooth brush

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Desirable Outcomes

1. Improved habits of cleanliness
2. Increased number of children going regularly to the dentist
3. Consciousness of dangers of body odor and halitosis and a
desire to eliminate them
4. Knowledge of the benefits received from baths at varied
temperatures
5. Recognition of the value of well-kept hands and nails, clear
eyes, clean teeth, and well-groomed hair in improving personal
appearance
6. Knowledge of the causes of and treatment for minor diseases
of the skin and scalp
7. Neater and more attractive appearance through wearing of
clean and appropriate clothes
8. A cheerful outlook which promotes a wholesome attitude toward
friends and classmates

Suggestions for Evaluation

1. Paper and pencil tests for knowledge

2. Self-checking list for habits of cleanliness practiced
3. Continuous observation by teacher
4. Test for attitude

Unit III

Preventing and Controlling Communicable Disease

The estimated time to be spent on this unit should be six sessions of fifty-five minutes each.

Communicable diseases are those diseases which are kept alive by being carried in one way or another from a sick person to a well one. They are the "catching" diseases and still play a very important part in causing sickness and death, although more progress has been made in their prevention than in any other class. The method of control and prevention of the more common of these diseases is the problem to be studied in this unit.

Specific Objectives

1. The ability to realize our responsibility in the control and prevention of communicable disease
2. The ability to recognize early symptoms of these diseases and give them immediate attention
3. The ability to appreciate the importance of quarantine laws and to aid in supporting these laws
4. The ability to keep bodies clean and in a healthful state in order that we may be able to ward off disease
5. The ability to abolish the habit of prescribing medicines for one's own ills, of taking the advice of others
6. The ability to appreciate the worth of sunshine, pure water, exercise and good food in the prevention of disease

Content

- I. Preventing and controlling communicable disease is our problem

- A. The cost in lives and money caused by disease can be lessened
- B. Sanitary living conditions are our first requirement
- C. We have personal and public responsibility in the warfare against disease

II. Doctors, nurses, and scientists are our friends

- A. The role of the doctor is important
- B. Great discoveries in the prevention of disease were made by:
 - 1. Edward Jenner
 - 2. Louis Pasteur
 - 3. Walter Reed
 - 4. Edward Trudeau
 - 5. Robert Koch
 - 6. Marie Curie
 - 7. Florence Nightingale

- C. Quacks and nostrums must be avoided

III. Do your part in the control and prevention of disease

- A. Check on contacts and other sources of infection

- 1. Food
- 2. Flies
- 3. The hands
- 4. Water
- 5. Mosquitoes
- 6. Sputum
- 7. Dogs and cows
- 8. Scratches and other wounds
- 9. Rats and fleas
- 10. Coughs and sneezes
- 11. Faecal matter
- 12. Urine
- 13. Human carriers

- B. Regard cleanliness and sanitary measures

- 1. Waste disposal
- 2. Pure food laws
- 3. Water purification
- 4. Eradication of insects which transmit disease
- 5. Garbage disposal

6. Housing regulations
7. Street cleaning
8. Bathing facilities

C. Follow specific disease prevention measures

1. Quarantine
2. Sterilization
3. Disinfection
4. Isolation
5. Immunization
6. Vaccination
7. Inoculation
8. Toxin and toxin-antitoxin
9. Serums
10. Schick, Dick, Tuberculin and other tests

D. Keep up physical resistance

1. Fatigue
2. Injuries
3. Exposure
4. Improper diet
5. Ignoring medical aid
6. Poorly lighted sleeping rooms
7. Dissipation, excesses, etc.

E. Cooperate with organizations which aid in the prevention and control of disease

1. State, County, and City Health Departments
2. American Red Cross
3. American Tuberculosis Association
4. Federal government departments
 - a. Labor
 - b. Agriculture
5. American Dental Association
6. American Medical Association
7. National Youth Administration
8. Childrens' Bureau
9. United States Public Health Service

IV. Recognizing symptoms and learning prevention and latest treatment and care of disease are of great importance

A. Common cold

B. Influenza

- C. Diphtheria
- D. Whooping cough
- E. Measles
- F. Small pox
- G. Chicken pox
- H. Malaria
- I. Typhoid
- J. Impetigo
- K. Typhus fever

Suggested Activities

1. Discuss unsanitary conditions of own locality.
2. Make spot maps of the breeding places of mosquitoes and flies in the community.
3. Conduct an anti-fly and anti-mosquito campaign.
4. Make visits to the city clinic, sewage disposal plant, and water plant.
5. Make reports and keep records of all illness among class members.
6. Assign reports on the symptoms, care, and prevention of the more common communicable diseases.
7. Study methods used in your city for (a) disposal of garbage, (b) disposal of sewage, (c) cleaning streets, and (d) destroying dangerous and diseased animals.
8. Write slogans and make posters.

9. Keep notebooks, in outline form, including symptoms, care, treatment, and method of communication of the various diseases studied.

10. Visit food markets and observe measures taken to protect foods.

11. List values derived from the enforcement of pure food laws.

12. Inspect school water fountains and list sanitary and unsanitary points.

13. Study the fly's foot under the microscope.

14. List ways of destroying mosquitoes.

15. Read the accounts of the discoveries of the scientists, Jenner, Pasteur, Reed, and Trudeau and list their contributions to the prevention of disease.

16. Test water for purity.

17. Conduct an experiment to show the stages in the life of the mosquito. Be sure to keep the mosquitoes within the bowl and destroy them at the close of the experiment.

18. Check class for vaccinations and other forms of immunization.

19. Post a chart in the classroom giving (a) the disease, (b) incubation period, (c) early signs, (d) time to observe exposed children, (e) length of acute stage, (f) common complications, (g) period disease remains communicable, and (h) preventive measures.

20. Make a list of diversions for the sick.

21. Discuss advertisements of patent medicines.

22. View films "Tuberculosis," "Control of Pneumonia," and "City Water Supply."¹

Illustrative Materials

1. Charts
2. Diagrams of sewage plants
3. Health hero stories
4. Prepared slides on bacteria and insect carriers
5. Posters and slogans
6. Films: (a) "Tuberculosis," (b) "Control of Pneumonia,"
(c) "City Water Supply"
7. Pictures of well-ventilated rooms
8. Pictures of well-equipped sick rooms
9. Advertisements of "cure-alls"

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"Bringing the Outdoors In," pp. 107-120.

"Six-Legged Enemies," pp. 121-133.

"We Need Water," pp. 134-147.

"Friends or Enemies," pp. 163-172.

"Common Sense for Horse Sense," pp. 173-190.

Desirable Outcomes

1. Decrease in absence due to disease
2. A greater appreciation of doctors, nurses, and scientists
3. A realization of the truth that "an ounce of prevention is worth a pound of cure"
4. More interest in clean-up campaigns
5. Fewer children nursing colds
6. Better habits of cleanliness to prevent spread of disease
7. More pupils consulting doctors at early signs of disease

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Practical problems
 - a. Plan a clean-up campaign
 - b. Formulate rules to follow in prevention of communicable disease

3. Continuous observation of pupils by teacher

4. Test for attitudes

Unit IV

Body Defense Against Disease

The estimated time to be spent on this unit should be four sessions of fifty-five minutes each.

Even with the greatest care taken to guard the portals of the human body, somehow and sometimes disease germs will enter. Fortunately for us, the body has a number of ways of resisting germ attacks. This resistance varies greatly with individuals. However, each of us can aid our bodies in resisting disease by keeping them in a healthful state.

Specific Objectives

1. The ability to know ways our bodies fight disease
2. The ability to know difference in natural and acquired immunity
3. The ability to appreciate antibodies supplied by the blood stream
4. The ability to care for wounds properly to avoid infection
5. The ability to know the ways in which disease germs are spread
6. The ability to know the work of vaccines, toxins, and anti-toxins
7. The ability to know the values of exercising, proper foods, adequate sleep and rest, and proper elimination which strengthen the body's first line of defense

Content

I. Disease germs enter the body

- A. Germs may enter through the nose or mouth and other

openings

- B. They may enter through open wounds
- C. They may enter with our food

II. The body has three lines of defense

- A. The skin keeps out germs
- B. Lymph nodes fight germs
- C. Germ killing substances are in the blood stream
 - 1. White corpuscles
 - 2. Anti-toxin
 - 3. Natural immunity

III. There are types of acquired immunity

- A. Vaccines have been discovered
- B. The use of serums and anti-toxins have been developed by physicians
- C. Having had a disease renders the body immune for some time against the disease

IV. By practicing healthful habits we may aid the body in its fight against disease

- A. Eat good, nourishing food
- B. Get vigorous out-door exercise
- C. Get adequate rest and sleep
- D. Keep the body clean inside

V. Tests are given for immunity

- A. Schick test
- B. Dick test

Suggested Activities

1. View the film, "Body Defense Against Disease."

2. Look at prepared slides of disease germs obtained from the school science laboratory.

3. Have a pupil give a report on the life and works of Edward Jenner.

4. Discuss natural and acquired immunity.

5. Discuss dangers of infection of open wounds.

6. Look at prepared slides of white corpuscles from the science laboratory.

7. Study the life and works of Louis Pasteur from the booklet Health Heroes, published by Metropolitan Life Insurance Company.

8. Prepare media and grow germ cultures. (a) Touch stairway rail, touch hand to media, cover and put in a warm place; (b) touch one with pencil point; (c) put saliva on a third; (d) wash hands with soap and touch the fourth. Place all of them in a warm place and observe growth. Examine a speck of each under the microscope.

9. Discuss tests for immunity. If a child has been given one or more of these tests, request her to tell the class how it was given.

10. Prepare a list of diseases against which we can acquire immunity.

Illustrative Materials

1. Film, "Body Defense Against Disease"
2. Prepared slides of bacteria
3. Prepared slides of white corpuscles

4. Anatomical chart
5. Culture media
6. Health-Hero booklets

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Desirable Outcomes

1. More students being vaccinated against disease
2. An attempt by each student to keep bodies in best of physical health
3. All students applying disinfectants to wounds made in the skin

4. No open wounds without bandages to protect them

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Continuous observation by teacher
 - a. Uncovered wounds or breaks in the skin
 - b. Using fingers to pick at pimples or blackheads
 - c. Plenty of outdoor exercise for all pupils
3. Paper and pencil solutions of problems

Example: There is an epidemic of diphtheria in the community. What precautions must I take? Or, Jane has cut her finger on a can. What should be done?

Unit V

Respiration

The estimated time to be spent on this unit should be four sessions of fifty-five minutes each.

Breathing is the process of taking air into the lungs and forcing it out again. When a person takes air into the lungs, he is said to inhale, and when he forces it out, he is said to exhale. The first of these processes is known as inspiration, and the second as expiration. Together they are known as respiration. Breathing is a part of the house cleaning and heating systems of the body. It is the purpose of this unit to give to the student a knowledge of the structure and care of this vital system.

Specific Objectives

1. The ability to know the organs of respiration
2. The ability to care for the nose and lungs
3. The ability to breathe through the nose and to breathe deeply
4. The ability to know the importance of plenty of fresh air
5. The ability to administer artificial respiration
6. The ability to know the common disorders of the respiratory system

Content

- I. How does air reach the lungs
 - A. Organs of respiration include

1. Nose
2. Pharynx
3. Epiglottis
4. Esophagus
5. Trachea
6. Bronchi
7. Lungs

B. Other organs in the tract include

1. Tongue
2. Tonsils
3. Larynx
4. Eustachian tubes
5. Sinuses

II. Care must be given the respiratory system

- A. Breathe deeply
- B. Exercise lungs by exercising the whole body
- C. Avoid dust
- D. Avoid tobacco
- E. Remove adenoids and diseased tonsils
- F. Ventilate living quarters
- G. Air moisture is important
- H. Keep nasal passage clean
- I. Get rid of colds
- J. Avoid mouth breathing
- K. Rest and sleep regularly

III. Disorders of the respiratory tract need correction

- A. Remove adenoids
- B. Remove diseased tonsils
- C. Sinus infections need treatment

D. Colds hinder breathing

E. Bronchitis injures the air passage to the lungs

F. For tuberculosis and pneumonia an early diagnosis will pay

IV. At times artificial respiration should be administered

Suggested Activities

1. Study the anatomical chart of the respiratory system.
2. View the film, "Respiration."
3. Demonstrate artificial respiration, then require pupils to practice.
4. Discuss the value of cilia in the nasal passage.
5. Study a prepared slide of cilia under the microscope.
6. Measure the width of your chest. After inhaling, exhaling, during normal breathing, and during deep breathing note the changes.
7. List activities from which you get deep breathing.
8. Dissect an animal and study the organs of breathing.
9. Study the ventilating system of the school room.
10. Check health examinations to see which students had diseased tonsils and adenoids. Have they had them removed?
11. Study a gas mask. Note its structure.
12. Test your outgoing breath for carbon dioxide by exhaling into a test tube partly filled with lime water.
13. Demonstrate a breathing exercise used in teaching singing. Discuss its value.
14. Get a piece of sheep lung from the butcher, examine its

structure, and note how it floats in water. Why?

15. Stop up your nose for a while and breathe through the mouth.

Notice how dry the mouth becomes.

16. Test your lung capacity with a spirometer.

17. Discuss ways of humidifying the air in a room.

Illustrative Materials

1. Film, "Respiration"
2. Anatomical chart of respiratory organs
3. Gas mask
4. Spirometer
5. Lung of sheep
6. Prepared slide of cilia

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Desirable Outcomes

1. No children wearing clothing that is uncomfortably tight
2. Better ventilated rooms
3. Removal of all adenoids and diseased tonsils
4. No children breathing through the mouth
5. All children carrying clean handkerchiefs
6. More children protecting their nose when in dusty places
7. All children taking the tuberculin test

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Measures of health status and examination by nurse
3. Continuous observation by teacher
 - a. Pupils who have colds
 - b. Pupils who breathe deeply
 - c. Proper ventilation
 - d. Removal of wraps in the house
 - e. Mouth breathing
 - f. Use of clean handkerchiefs or kleenex, etc.
4. Self-checking lists on care of respiratory system

Unit VI

The Eyes

The estimated time to be spent on this unit should be three sessions of fifty-five minutes each.

Your eyes are a delicate part of your body that you cannot afford to abuse or neglect. They deserve good treatment by you, and the most skilled medical care.

Thousands of persons with defective vision are uncounted whose sight could have been conserved if they had received adequate eye-care in time. In addition, there are approximately 200,000 men, women and children in the United States who have lost their sight completely through disease or injury. The tragedy of such loss, with its attendant suffering, lies in the fact that most of this blindness would not have occurred if proper precautions had been taken at the right time.

It is the purpose of this unit to give the child a knowledge of the importance of proper care of the eyes and to encourage them to consult an oculist at the early signs of defective vision.

Specific Objectives

1. The ability to appreciate the values of vision
2. The ability to use proper lighting for reading, sewing, and other work that requires good eyesight
3. The ability to recognize signs of eye trouble
4. The ability to practice the following hygienic principles which relate to the eye

- a. Use individual towels and wash cloths
 - b. Keep dirty hands away from eyes
 - c. Refrain from working or reading in a glare
 - d. Refrain from reading in a flickering light
 - e. Work or read in such a way as not to face the light
 - f. Refrain from reading on moving cars
 - g. Refrain from reading while reclining
 - h. Prevent overtaxing the eyes with long periods of close work
 - i. Use a clean handkerchief for wiping the eyes
 - j. Wear glasses if you have been advised to do so by an oculist
 - k. Use medicines or washes for the eyes only on a physician's advice and direction
 - l. Consult a physician whenever redness or "sore" eyes persist longer than a day
5. The ability to use every precaution to prevent eye injury

Content

- I. How much do you appreciate your eyes
 - A. Your eye is most valuable to you
 - B. Protect your eyes
- II. How do you see
 - A. The eye is like a camera
 - 1. The parts of the eye: cornea, iris, pupil, lens, retina, optic nerve, blind spot
 - B. Good focus gives good vision
 - 1. Movements of eye are controlled by muscles

2. The size of the pupil affects focus

3. Both eyes should focus alike in healthy eyes

III. Visual defects need correction

A. Watch for symptoms of poor vision

B. Are you color-blind

C. Far-sightedness and near-sightedness are common defects

D. Astigmatism results in a blurred image

E. Crossed eyes are due to muscular imbalance

IV. Avoid infections and diseases

A. Be careful with a sty

B. "Pink Eye" is contagious

C. Remove foreign particles immediately

D. Bacterial infections need the immediate attention of a physician

V. Care for your eyes

A. Rest and sleep

B. Bathe them properly

C. Avoid eyestrain

D. Secure proper lighting

E. Test your eyes

F. Use glasses if necessary to see well

Suggested Activities

1. Ask the nurse to test eyes of the students or do so yourself, using the eye chart.

2. Compare the eye to a camera by using a diagram of each.

3. Secure the eye of a calf from the butcher and study it.
4. Look about the classroom and list signs of eye strain.
5. Study seating and lighting of your own school and make any suggestions you can for changes that might aid in better lighting.
6. A study may be made of the various types of artificial lighting.
7. Make a list of toys and other objects or instruments with which the pupil plays that may be dangerous to the eye.
8. Give the test for color-blindness.
9. Thread a needle with both eyes open, then close one eye and try it. It is harder to do? Why?
10. List symptoms of eye trouble.
11. Allow some student to demonstrate a good place in the room to read. Tell why it is good.
12. Draw a plan of your study nook at home. Show the position of your table, your light, your chair. Discuss the arrangement in class.
13. Study an electric light bulb.
14. Discuss the value of sun glasses.
15. Report by class members the ability of animals to see at night.
16. Secure, from your local light company, a light meter and measure the light which falls on your desk.
17. Test for glare on your book by placing a mirror on the book. If you can see a source of light, or a brilliantly lighted surface

reflected in the mirror there is a glare.

18. Stand on one foot with the other foot placed on the knee of the leg on which you stand. Close your eyes and continue to try to balance. It is difficult to stand steadily. This demonstrates the part played by the eyes in keeping one's balance.

19. Look into a mirror. Bring a light close to the eye. What happens? Take the light away. What is the result?

20. Make posters showing some rules for care of the eyes.

21. View film, "Preventing Blindness and Saving Sight." (Available at Gibson and Doty, Buffalo, New York).

Illustrative Materials

1. Charts of the eye
2. A camera
3. Eye of an animal
4. Diagrams of eye and camera
5. Eye testing alphabet chart
6. Chart to test for color blindness
7. Colored glasses
8. Flash light and mirror

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Desirable Outcomes

1. Fewer children reading with poor light
2. A greater appreciation of glasses
3. Better lighting in schoolroom and in the home
4. An increased number of children who receive needed medical attention for their eyes
5. No children reading on the bus or in other moving vehicles
6. More pupils holding books properly for reading
7. Fewer signs of eyestrain in the classroom

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Continuous observation of pupil by teacher--Do students hold book at the best angle and distance? Do the pupils squint when reading? Are the eyes red? Do pupils rub their eyes, etc.?

3. Measure health status

- a. Eye chart
- b. Records of health examinations by nurse

Unit VII

Ears That Hear

The estimated time to be spent on this unit should be three sessions of fifty-five minutes each.

Second in importance only to sight, our hearing is vital to our happiness, safety, and success in life. The person with ears that do not hear is dreadfully handicapped.

If we would conserve the blessing of hearing with which nature has endowed us, we must learn about the ear and the manner in which we hear. It is important, too, that every one of us knows about the modern hearing-aids that give so much help to the partially deafened person.

Specific Objectives

1. The ability to recognize warnings of ear trouble
2. The ability to keep ears clean and free from infection
3. The ability to appreciate the values derived from good hearing
4. The ability to use proper instruments when cleaning the ear
5. The ability to appreciate hearing-aids devised for the partially deaf
6. The ability to protect ears against loud noises
7. The ability to use precautions while swimming to prevent ear infection

Content

- I. Ears are a receiving set

A. What its parts are

1. Outer ear receives sound
2. Middle ear relays sound
3. Inner ear transmits sound to the brain
4. Semicircular canals help to maintain body balance

B. How we hear

II. Safeguard your hearing

A. Keep ears clean

1. Remove excess wax
2. Remove an insect immediately

B. Avoid injury

1. Do not use hard instruments
2. Avoid high diving
3. Avoid boxing or slapping of ears
4. Avoid loud noises
5. Dry the ears well

C. Prevent infection

1. Watch that cold and throat infection
2. Consult a physician early if earache occurs
3. Never put small objects in the ear
4. Swim in unpolluted water
5. Keep dirty fingernails out of the ear

III. Watch for warnings of ear trouble

- A. Dullness of hearing or blocked feeling
- B. Pain or heat in or about the ear
- C. Head noises such as buzzing, hissing or ringing
- D. Moisture or running discharge about the ears
- E. Asking for words to be repeated

IV. Test your hearing

- A. Use the whisper test
- B. Listen to the watch tick

- C. Use an acoumeter
- D. Use the audiometer test

VI. Hearing aids help many

- A. Lip reading helps
- B. Electrical hearing aids can be used
- C. Consult physician before using an aid

Suggested Activities

1. Test the hearing of pupils using the watch test, whisper test, or an audiometer.
2. Visit a school for the deaf if possible and see how they learn.
3. Seat near the front all pupils who have defective hearing.
4. Listen to speaking voices and help those who need to improve their voices. Let the comments be constructive criticism by class members.
5. Examine ears to note any signs of infection.
6. Prepare a list of warning signals of ear trouble and discuss them.
7. Discuss effects of head colds, sinus trouble, tonsils, adenoids, and other diseases on hearing.
8. Let some pupils demonstrate methods of communication used by deaf persons, as sign language, lip reading, etc.
9. The pupils may make outlines for report and discussion on these topics:

- a. Those occupations in which the deaf cannot succeed
- b. Those in which fair success may be expected
- c. Those in which success is possible

10. Let the pupils experiment by partly stopping both ears, or by stopping one, or by completely stopping both ears to see how well they could get along with defective hearing.

11. Discuss dangers of putting things into the ears.

12. Study the structure of patent ear stoppers used in swimming. Discuss the merits of them.

13. Study pictures of famous prize fighters. Why are their ears enlarged? Discuss dangers of boxing the ears.

14. Discuss reasons for people of the north wearing ear muffs.

15. Request some pupil read The Story of My Life, by Helen Keller, and give a review for the class.

16. Compare the ear to a telephone receiver.

17. Discuss reasons for opening mouth when there is an extra loud noise.

18. Allow a pupil who has had an airplane ride to tell the class how it affected the hearing.

19. Discuss the purpose of ear wax, and the dangers of allowing the excess to remain in the ear.

20. Let the pupils make diagrams of the ear and label the parts.

Illustrative Materials

1. Diagrams of the ear and its parts
2. Telephone receiver

3. Watch for watch-tick test
4. Audiometer
5. Different types of ear-stoppers used in swimming
6. An electrical hearing aid

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Desirable Outcomes

1. A better seating arrangement in classrooms in order that those having defective hearing may hear
2. Cleaner ears among pupils
3. More children using protectors when swimming
4. More pupils protecting their own ears and those of others
5. No children using sharp instruments in cleaning ears
6. An appreciation for hearing aids
7. Increased interest in medical attention needed for protecting hearing

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Continuous observation by teacher for evidences of ear trouble and care of ears
3. Measures of health status: whisper or watch-tick test for hearing
4. Tests to determine pupils attitude toward those who are hard of hearing

CHAPTER IV

UNITS INCLUDED IN THE SECOND YEAR OF THE THREE-YEAR COURSE OF STUDY IN HEALTH EDUCATION FOR JUNIOR HIGH SCHOOL GIRLS

The units included in Chapter IV are tentatively placed in the second year of the three-year program. It is expected that portions of some of the units from the first year will be repeated as a need arises.

The units tentatively included in the second year are as follows:

Unit

VII. Safety

VIII. Nutrition

IX. Digestive System

X. Circulation

XI. The Excretory System

XII. The Nervous System

Unit VIII

Safety

The estimated time to be spent on this unit should be eight sessions of fifty-five minutes each.

People should not only safeguard their own health and safety, but also the health and safety of others. An accident usually happens because someone did not do some particular thing in a sensible and safe way.

There are two main classes of dangers, (a) unnecessary or useless, (b) necessary and useful. It is our task to rid the world of the first group, and our business to avoid injury by the second group. It is the purpose of this unit to encourage children to be especially watchful to avoid all the unnecessary dangers and make the others less dangerous.

Specific Objectives

1. The ability to prevent unnecessary death from accidental causes
2. The ability to obey all traffic rules, being especially watchful at crossings
3. The ability to recognize dangerous arrangements in our homes and to avoid them
4. The ability to appreciate laws which make for safety of life and property
5. The ability to ride bicycles sanely
6. The ability to practice all safety precautions while riding

the school bus

7. The ability to perform fire drills quickly and seriously
8. The ability to select a safe place to play
9. The ability to know the dangers of electrical appliances

Content

I. The motor age is convenient, yet there are too many accidents

- A. Carelessness is the chief cause of traffic accidents
- B. The pedestrian must be watchful
- C. The skillful cyclist observes all traffic regulations
- D. Traffic laws are made for safety of life and property
- E. The traffic officers are our friends

II. How safe is your home

- A. Electricity may be a friend or foe
- B. Heating systems are often fire hazards
- C. Check the entire house for safety
 1. Hazards in living room
 2. Dining room accidents
 3. Bedroom safety
 4. Kitchen and laundry room
- D. The ill-kept and poorly lighted basement, closets, and attic are dangerous
- E. Keep the stairway clear
- F. Thousands of fatal accidents occur in bathrooms
- G. Yard implements and farm implements should be kept in the right place

III. Safety first should be your slogan at school

- A. Learn the fire drills and take them seriously

- B. Do you recognize fire hazards at school
- C. Keep your playground free from hazards
- D. Be a good pedestrian in going to and from school

IV. Safe play in a safe place is fun

- A. The street is not a playground
- B. Lifeguards are your friends--swim where they can watch you
- C. Roller skate on your own sidewalks
- D. Choose safe playthings

Suggested Activities

1. Study reliable statistics on accidents, noting the chief causes.
2. Keep a record of accidents which occur at school and study the cause.
3. Group of children may be taken to busy street corners to observe traffic regulations.
4. Study the school plant in regard to safety measures: fire hazards, extinguishers, water hose, stairways, rubbish, doors, etc.
5. Prepare a check list for hazards in home and allow each child to check a list for his own home.
6. Invite the traffic officer or highway patrolman to speak to the class.
7. A safety court may be organized. Such a court, conducted by the pupils, would handle infractions of safety rules.
8. Show safety motion pictures.

9. Write themes on "Fire Prevention."
10. Prepare safety posters.
11. Select groups to keep a safety bulletin. Each group is responsible for the board for a week at the time.
12. Keep a safety scrapbook.
13. Appoint a committee to write a code of honor regarding safety.
14. Let each child map out and discuss his safest route from home to school.
15. Select pupils from the class to act as traffic officers at street crossings near the school.
16. List and learn something about as many safety devices as possible which are used in the operation of railroads, street cars, airplanes, swimming pools, games, automobiles, etc.
17. Make note of all safety signs and slogans seen about the streets. Discuss these.
18. Cooperate in the "National Accident Prevention Week" in the spring.
19. Make a safety survey of the community with a view of discovering any conditions which may be dangerous to public welfare.
20. Demonstrate the proper use of the fire extinguisher.
21. Study the test prepared by the State Department of Public Safety which car drivers are required to pass before being issued a driver's license.
22. Collect headlines from the newspapers which tell of accidents.

23. Write playlets on safety and give them in assembly.
24. Prepare a list of safety rules to prevent fires.
25. Visit the fire department and note the equipment.
26. Visit the park or city playground and point out the reasons why these are the places to play.
27. Dramatize in class the more important traffic laws of our state.
28. Experiments:
 - a. Testing gas pipes for leaks promotes methods of safety.
 - b. Show inflammable and non-inflammable materials.
 - c. Give examples of spontaneous combustion, etc.
29. Make a list of ways in which older boys and girls can help safeguard small brothers and sisters.
30. List some hazards of night driving. What precautions would you advise for motorists driving after dark?
31. List safety devices required on all automobiles.
32. View the film, "Safety in The Home."

Illustrative Materials

1. Film, "Safety in the Home"
2. Statistics on accidents
3. Posters and slogans
4. Pictures of safe places to play
5. Prize winning themes and posters on fire prevention
6. Newspaper clippings concerning accidents
7. Traffic signs

8. Diagrams of street crossings
9. Safety matches
10. Electrical appliances
11. Life Belts
12. Fire extinguisher
13. Pictures of highway accidents

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Desirable Outcomes

1. Fewer accidents due to carelessness

2. More attention given to traffic signals
3. More skillful cyclists
4. Less destruction due to fires caused by carelessness, electrical appliances, faulty wiring, etc.
5. Sidewalks free from banana peels
6. Cleaner, safer playgrounds
7. No children playing in the streets
8. Safer stairways free from hazards
9. All children performing fire drills with speed and seriousness
10. No running in halls or on stairways
11. Well lighted halls, stairways, closets, basements, and attics in more homes
12. All matches kept in tin boxes and out of reach of children
13. A desire, in all pupils, to protect the life and property of all.

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Solution of practical problems
 - a. Survey of school plant for hazards
 - b. Formulation of bicycle safety rules
 - c. Fire prevention themes
3. Check list for safety practices

Unit IX

Nutrition

The estimated time to be spent on this unit should be eight sessions of fifty-five minutes each.

The needs of the body must obviously be supplied by the food which we eat. There are, however, other elements in the diet which are not always apparent at the table, but which are equally important from the standpoint of nutrition in its best sense. It is the purpose of this unit to give to the child a knowledge of the food requirements of the body and how to plan meals that will include foods which meet these requirements.

Specific Objectives

1. The ability to determine nutritional needs of the body
2. The ability to plan under guidance, a meal containing all the necessary food requirements in good proportions and adequate amounts
3. The ability to practice good habits of eating and elimination
4. The ability to appreciate the values of nutritious and varied diets
5. The ability to plan intelligently her own school lunch
6. The ability to include sufficient bulky foods in the diet
7. The ability to overcome food prejudices
8. The ability to use good judgment in selecting beverages which are tempting and healthful

Content

1. The needs of the body must be supplied by food

A. Food has many uses

1. Proteins build your body
2. Carbohydrates give you energy
3. Fats warm your body
4. Minerals build bones and teeth
5. Vitamins promote body resistance against disease
6. Bulky foods encourage proper elimination

B. Absorbed foods are used

1. Some foods are stored for fuel
2. Some foods are burning fuels
3. Excess food adds weight
4. Insufficient food causes loss of weight

II. The food you eat changes into you

- A. Good food is important
- B. A balanced diet neglects no part of your body
- C. Select food to suit the season
- D. Eat well-cooked food that is clean
- E. Choose your beverage intelligently

III. Good eating habits are as necessary as good habits of cleanliness

- A. Eat regularly
- B. Eliminate waste regularly
- C. Rest after meals
- D. Choose a good menu

IV. Malnutrition means improper feeding

- A. Causes of malnutrition
- B. Underweight or overweight may be dangerous
- C. Correction and prevention of malnutrition is our responsibility

- V. You should be able to select an appetizing and healthful menu

Suggested Activities

1. Weigh class members and study height and weight charts.
2. Study menu cards and classify foods into "body builders," "body warmers," "energy givers," "bone builders," and "body killers."
3. Keep a record of foods eaten and amounts for one week. Total the calories.
4. Do the following experiments:
 - a. Test food for starches.
 - b. Test foods for protein.
 - c. Test foods for fats.
5. List foods rich in vitamin content.
6. Prepare a list of good eating habits.
7. Study advertised reducing diets and point out dangers.
8. Have a student prepare a report on "Milk, the Perfect Food."
9. Make food posters by using pictures of foods clipped from magazines.
10. Prepare a list of meat substitutes.
11. List foods used for roughage.
12. Make a food scrapbook.
13. List foods which are appetising and healthful eaten raw.
14. Experiment to see the effect of heat, sunlight, moisture, cold, or darkness on decay of food.
15. Study diets of people who live in very cold regions and determine why such people consume so much meat and fat.

16. Experiment with plants to determine the effect of vitamins contained in the advertised plant foods.

17. Plan a school lunch which will contain a sufficient amount of the needed vitamins.

18. List foods slow to digest because of heavy fat content.

19. Make a caloric chart including the more common foods.

20. Keep a list of all foods eaten between meals for one week.

21. Discuss ways of preventing constipation.

22. Look around you and write down the names of several of your friends. Opposite each one's name, write whatever outward signs of good nutrition you can see.

23. List your own eating habits which you think might be improved.

24. Bring to class advertisements of food fads and fancies.

25. Plan a sample menu to suit each of the following conditions:

a. A breakfast, lunch, and dinner suitable for growing children from ten to fourteen years of age.

b. A hot day in the summer and a cold day in the winter.

c. A meal for a person who is overweight.

d. A meal for a person who is underweight.

26. List good beverages for a growing child.

27. Plan a menu for an invalid.

Illustrative Materials

1. Height and weight charts

2. Food value and caloric charts

3. Menu cards

4. Pictures of attractive foods
5. Menu charts for gaining and losing weight
6. Scales (weight)

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Desirable Outcomes

1. Increased knowledge of the value of foods
2. More balanced menus
3. Fewer evidences of improper elimination due to poor diet
4. Fewer children who are overweight and underweight
5. More children eating fresh fruits and leafy vegetables.
6. Better eating habits
7. More children drinking plenty of water
8. More attention given to preparation of school lunches

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Solution of practical problems

a. Prepare a menu for

- (1) Growing child
- (2) A person who is ill
- (3) School lunch, etc.

b. Select beverages for a growing child

3. Continuous observation of pupil by teacher, who notes signs of poor nutrition

Unit X

Digestive System

The estimated time to be spent on this unit should be three sessions of fifty-five minutes each.

The digestive system puts the food that we eat into a liquid form and changes it chemically so that it can pass through the walls of the intestines into the blood. It is the purpose of this unit to learn something of the organs of digestion and how these organs function in order that we can take better care of them that they may perform with maximum efficiency.

Specific Objectives

1. The ability to know the organs of the digestive system
2. The ability to chew our food slowly and thoroughly
3. The ability to appreciate the value of a properly functioning digestive system
4. The ability to keep the intestinal tract clean
5. The ability to rest quietly before and after meals to allow a plentiful supply of blood to flow to the digestive organs that need extra amounts at this time
6. The ability to select food wisely
7. The ability to eat at regular times
8. The ability to drink plenty of water, but not too much at meal time
9. The ability to be pleasant while eating

Content

I. Digestion begins in the mouth

- A. Teeth are grinders for food
- B. The tongue helps to mix digestive juices with the food
- C. Saliva contains digestive juice
- D. The juice of saliva is alkaline
- E. The esophagus is the canal that leads into the stomach

II. The stomach receives food that is swallowed

- A. Tiny gastric glands line the walls of the stomach
- B. Gastric juice contains hydrochloric acid and enzymes called pepsin and rennin
- C. The juice of the stomach is acid
 - 1. Proteins are digested
 - 2. Digestion of starches is halted
- D. The stomach muscles work vigorously

III. The small intestines are one of the busiest and most important parts of the digestive system

- A. Muscles in the walls of the intestine keep the food in motion
- B. Several digestive juices are added in the intestines
 - 1. Pancreatic juice
 - 2. Bile
 - 3. Intestinal juice
- C. Digestion is completed in the intestines
- D. The blood carries food from the intestines

IV. Large intestines receive undigested and unabsorbed parts of the food

- A. Keep the large intestines emptied

- B. Water is absorbed in the large intestines
- C. Body resistance is lessened when the large intestine is crowded

V. We can aid digestion

- A. Remember to drink plenty of water
- B. Chew food thoroughly
- C. Overloading the stomach is unwise
- D. Rest before and after meals
- E. Practice habits of regular elimination
- F. Eat some coarse, bulky foods
- G. Be pleasant while eating
- H. Worry interferes with digestion

Suggested Activities

1. View films "Digestion of Foods," and "The Alimentary Tract."
2. Perform the following experiments: (a) Place about one-fourth teaspoon of cracker crumbs in a small glass, and moisten well with a few drops of water. In another glass place the same amount of cracker crumbs, and moisten thoroughly with saliva. Prepare a solution of a few drops of tincture of iodine in about a tablespoon of water. Place a speck of the moist crumbs from each glass in separate saucers. Put a drop of the iodine solution on each speck. A deep blue color shows the presence of starch. Repeat the test at the end of fifteen, thirty, and sixty minutes. Does as much blue color still appear in the crackers moistened by saliva? What has happened to most of the starch in those cracker crumbs? Can you dissolve starch in water? Does sugar dissolve

in water?

(b) Place a teaspoon of butter, lard, salad oil or any other fat used for food in a small bottle. Add half a cupful of water, and shake or stir to try to dissolve the fat. Can you do it? Let the mixture stand until the fat separates. Then place the fat and a strong solution of baking soda in a pan, and boil until nearly all the water has gone. What is left is a kind of soap. After it has cooled, shake some of this soap with water. Does it dissolve? Fats and alkaline substances combine to make soap. There are several alkaline substances in the intestinal tract which combine with fats to make soluble substances.

(c) Prepare artificial gastric juice by mixing 1000 cubic centimeters (about one quart) of water with seventy-five cubic centimeters of concentrated hydrochloric acid and one teaspoonful of pepsin. Place small pieces of egg white, meat, cheese, cooked beans or peas in small glasses, cover with the artificial gastric juice, and let them stand. Write a description of what happens.

How does each of these experiments show that digestion changes the food to soluble or liquid foods?

3. Make a list of aids to digestion.
4. Make a diagram of the digestive system and label the organs.
5. Make a chart showing name, source, and action of enzymes.
6. Trace the digestion of a cracker, telling the action of each organ.

7. Reports may be made by class members on the nature and function of each organ of digestion.

8. Compare the digestive system to a factory.

9. List topics of conversation that would add pleasantness at meal time.

10. Dissect a bird, cat, or frog and study the organs of digestion.

11. List foods that are good roughage.

12. Examine the lining of the alimentary canal of an animal.

Describe its appearance.

13. Examine the liver of an animal as sold by the butcher. Note its large size. What indications are there of a plentiful blood supply to the liver?

14. List foods that are easily digested, then prepare a menu for an invalid.

15. Study prepared slides of villi under the microscope.

Illustrative Materials

1. Charts of the digestive system
2. Films, "Digestion of Foods," and "The Alimentary Tract"
3. Prepared slides of villi
4. Liver of an animal
5. Charts of enzymes
6. Advertisements of remedies for indigestion

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Desirable Outcomes

1. Better eating habits
2. Fewer students suffering from ailments due to constipation
3. A knowledge of the physiology of organs of digestion
4. More regular meal times

5. Less eating between meals
6. More pupils taking plenty of time to eat a meal
7. A wiser choice of foods
8. More pupils participating in a cheerful conversation at meal time
9. More children drinking water often

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Self-checking list such as "How I Aid Digestion"
 - a. Do I chew my food thoroughly?
 - b. Do I eat until I am uncomfortably full?
 - c. Do I rest before and after meals?
 - d. Do I take plenty of time to eat?

Unit XI

Circulation--Our Life's Blood

The approximate time to be spent on this unit should be five sessions of fifty-five minutes each.

It is the purpose of this unit to give to the child a knowledge of the physiology of the circulatory system, why blood is necessary, the work that it does, and ways in which we can help the heart to do its work.

Specific Objectives

1. The ability to know the composition of blood
2. The ability to understand how the blood flows to and from the heart
3. The ability to care for the heart
4. The ability to time heart beat by taking pulse count
5. The ability to know the value of exercise in the care of the heart
6. The ability to know the more common heart disorders and how to care for them
7. The ability to know the work that the blood does for our bodies
8. The ability to recognize venous and arterial bleeding
9. The ability to apply a tourniquet

Content

- I. The blood has many important duties
 - A. The blood carries food and water

- B. The blood carries oxygen
- C. The blood carries away waste from the cells
- D. The blood fights disease
- E. The blood helps to control body temperature

II. Blood is thicker than water

- A. The plasma is the liquid part of the blood
- B. Red corpuscles carry oxygen
 - 1. Red corpuscles contain hemoglobin
 - 2. They give the blood color
 - 3. They are made in the bone marrow
- C. White corpuscles fight disease
- D. Platelets in the blood cause it to clot

III. The blood must be kept in motion

- A. The heart is the force pump
 - 1. It is divided into four sections
 - 2. It is a muscular bag
 - 3. Valves operate within the heart
- B. Blood flows from the heart through arteries
- C. The blood returns to the heart through veins
- D. Capillaries are very tiny tubes
- E. Lymph bathes the cells of the body

IV. Good circulation depends upon the health and strength of the heart and blood vessels

- A. Moderate exercise strengthens the muscular heart and improves circulation
- B. Over-exercise and over-work injure the heart
- C. Rest and sleep are beneficial
- D. Tight clothing hinders circulation

- E. Proper posture promotes free circulation
- F. Anger and fright overwork the heart
- G. Avoid infections

Suggested Activities

1. View film, "Heart and Circulation."
2. Secure an animal heart from the market and study its structure.
3. Study a drop of one's own blood under the microscope.
4. Watch the circulation in the foot of a frog under the microscope or in the tail of a tadpole.
5. Look at prepared slides of blood to see red and white corpuscles.
6. Draw diagrams of the circulatory system.
7. Apply a tourniquet on the arm.
8. Locate pressure points of the body.
9. Dissect a live frog and watch the heart beat.
10. Look at a prepared slide of a cross section of an artery and vein and note the structure of each.
11. Secure a stethoscope and listen to the heart beat.
12. Get a hemoglobin test card from a physician. With cotton dipped in alcohol sponge off the finger and prick it. Place a drop of blood on blotting paper and find its corresponding shade on the test card. It is normal if it is above eighty or eighty-five.
13. Prick your finger with a needle and estimate how long it takes your blood to clot.

14. Count your own pulse, or heart beat:
 - a. After having been seated for some time.
 - b. After standing.
 - c. After walking.
 - d. After running.
15. List exercises which strengthen the heart.
16. Bring to class advertisements of "blood pumpers."
17. Bind the arm for a few seconds and notice the veins of the hand.
18. Discuss the effect of alcohol and other stimulants on the heart.

Illustrative Materials

1. Diagrams of heart and blood vessels
2. An animal heart
3. Stethoscope
4. Microscope and slides
5. Film, "Heart and Circulation"
6. Hemoglobin test card
7. Live frog

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"How to Stop Bleeding," pp. 153-154.

Desirable Outcomes

1. An increased knowledge of the organs of circulation

2. An appreciation of the value of proper posture in the work of the heart
3. Better care of minor cuts in order to prevent infection
4. A recognition of the needs for eating foods that build red and white corpuscles
5. More children wearing proper fitting clothing in order to avoid interference with free circulation
6. More exercise in fresh air to encourage good circulation

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Observation of health status (Made by the school nurse or school physician to determine the condition of the pupil's heart and blood pressure)

Unit XII

The Excretory System

The estimated time to be spent on this unit should be three sessions of fifty-five minutes each.

Our bodies should be clean inside as well as out. The human body provides its own system of house cleaning. The liver, kidneys, intestines, skin, and lungs are constantly at work getting rid of waste materials. Some of the waste materials are taken in with food, but most of them are produced within the body itself. We can help these organs to function properly in order that our bodies may be clean within.

Specific Objectives

1. The ability to know the organs of excretion and how they function
2. The ability to use regular habits of elimination
3. The ability to eat foods that aid in elimination
4. The ability to drink plenty of water
5. The ability to keep all pores of the skin free from dirt in order that they may excrete waste
6. The ability to know the value of exercise in the elimination of waste

Content

- I. The health of the body requires the disposal of waste
 - A. Source of waste
 1. Foods

2. Lungs
3. Muscles

B. How wastes are eliminated

1. The kidneys remove waste
2. The large intestine removes waste from food
3. The skin and lungs remove waste
4. The liver aids in elimination

II. Care must be given the excretory system

- A. Avoid constipation
- B. Keep pores open
- C. The kidneys may be overworked
- D. Diet and good habits are better than drugs
- E. Poor elimination is the most frequent cause of illness
- F. Eat regularly and include roughage
- G. Drink plenty of water
- H. Exercise aids in the removal of waste

III. Fakes and false advertising may lead to excretory disorders

- A. Avoid patent medicines to regulate elimination
- B. Avoid kidney "cures"--See a physician

Suggested Activities

1. Study the anatomical chart on the organs of excretion.
2. Discuss values of sweat glands.
3. Visit the sewage disposal plant in your city. Write about your visit, explaining what you saw, and compare parts of the plant to body functions that are similar.
4. Prepare a list of coarse or bulky foods and fruits and fruit

juices which will assist the large intestine in its work of elimination.

Which of these are included in your diet?

5. List reasons (1) for drinking water, (2) for exercising, (3) for restricting food intake.

6. Collect a list of advertisements of medicines for kidney disorders and constipation.

7. Look at your skin under the microscope.

8. Secure a kidney from the butcher shop and examine it.

9. View film, "The Excretory System."

Illustrative Materials

1. Film, "The Excretory System"
2. Kidney of an animal
3. Advertisements of kidney medicines
4. Anatomical chart of excretory organs

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Desirable Outcomes

1. No pupils suffering from constipation
2. More children including bulky foods in diet
3. More children drinking plenty of water
4. No signs of clogged pores in the skin
5. A decrease in kidney disorders
6. No pupils using patent drugs to secure regular elimination

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Observation by teacher for evidences of poor elimination
3. Check list for habits of elimination and care of excretory system. Such items as the following may be included:
 - a. Do you have a daily bowel movement?
 - b. How much water do you drink each day?
 - c. What roughage foods do you eat?
 - d. Do you use soap and water on your skin?
 - e. Do you exercise daily?
4. Tests for attitudes

Unit XIII

The Nervous System

The estimated time to be spent on this unit should be three sessions of fifty-five minutes each.

Health has been defined as a condition of the body in which all parts work harmoniously together. A "working together," or coordination of many different parts is made possible by a system of direction and control. In an industrial plant the executives are responsible for the direction and control of the work. In doing this, they must communicate with their workers, receiving their reports, and issue the necessary instructions. Two essentials of such a system, therefore, are a central control, and a means of communication. In the human body, these duties are performed by the nervous system. It is our duty to do everything possible to keep this system in working order.

Specific Objectives

1. The ability to know the physiology of the nervous system
2. The ability to sleep and rest sufficiently
3. The ability to know the injury to the nervous system caused by the use of alcohol and tobacco
4. The ability to avoid hurry and worry
5. The ability to accept things in a calm manner and perform duties with the least possible nervous strain
6. The ability to act correctly from habit

Content

- I. The nervous system is composed of three parts

- A. The brain directs and controls
- B. The spinal cord is a "trunk line" of nerves
- C. The nerves carry messages and transmit commands
 - 1. Sensory nerves
 - 2. Motor nerves

II. Our movements are due to voluntary and involuntary action

III. The nerve cells perform special work

IV. Habits are formed through actions of the nervous system

- A. Disposition and character are habits
- B. Bad habits are hard to break
- C. Thinking powers must be trained
- D. Youth is the best time to train the nervous system

V. Care must be given to the nervous system

- A. Nerve tissue must be nourished
- B. The nervous system must have rest and sleep
- C. Work hard, play hard, each at its proper time
- D. Alcohol and tobacco---No!
- E. Young bodies should need no stimulants

VI. The nervous system may become diseased

- A. Nervous breakdowns may be called disease
- B. Insanity is a brain condition
- C. Cancer may occur in the brain
- D. Infections are often carried to the brain
- E. Blood clots may form on the brain
- F. Paralysis results from injury to nerves

Suggested Activities

1. Secure a calf brain from the market and study it. Note the different areas.
2. Dissect a frog, locate the brain and study the system of nerves.
3. Look at nerve tissue on prepared slides under the microscope.
4. Study the chart of the nervous system.
5. Look at the backbone of the skeleton and explain how it forms a protective covering for the spinal cord.
6. Observe the knee jerk. Discuss reflex action.
7. Discuss formations of habits.
8. Secure a puzzle and try to work it. Keep account of unnecessary movements. Keep trying, and see how many times you have to work it before you can solve it in the least number of movements.
9. Touch a pin point to the back of your hand. Can you feel it? See if there is any spot on the hand where you do not feel it.
10. With a pair of compasses find out how widely the points must be separated to be felt as two on different parts of the skin (finger tips, back of hand, neck). It is better to have another person set down the compasses on your skin while your eyes are closed. Both points must touch the skin at the same moment.
11. Discuss the brain as the "organ of memory."
12. Discuss cases of extreme nervousness. Stress loss of sleep as a cause.

13. Discuss voluntary and involuntary actions of the nerves.
14. Discuss sensory and motor nerves.
15. List good habits that should be practiced to care for the nervous system.
16. List foods that are labeled "brain food" by public opinion.
17. View the film, "The Nervous System."

Illustrative Materials

1. Chart of the nervous system
2. Brain of an animal
3. Frog for dissecting
4. Prepared slides of nerve tissue
5. Skeleton or a vertebra from an animal
6. Film, "The Nervous System"

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Desirable Outcomes

1. Fewer signs of nervousness among pupils
2. More children getting plenty of sleep and rest
3. No users of alcohol or tobacco

4. More children meeting problems in a calm manner, taking plenty of time and doing things well

Suggestions for Evaluation

1. Paper and pencil tests for knowledge
2. Check list for signs of nervousness (List to include such as:
(a) Do you bite your nails? (b) Do you stand at ease when giving a report? (c) Are you quick to anger? (d) How many hours of sleep do you get at night? (e) Do you drink coffee or tea? How much?)
3. Observation of pupils by all classroom teachers

CHAPTER V

UNITS INCLUDED IN THE THIRD YEAR OF THE THREE-YEAR COURSE OF STUDY IN HEALTH EDUCATION FOR JUNIOR HIGH SCHOOL GIRLS

The units included in Chapter V are tentatively placed in the third year of the three-year program. There are only three units placed in the third year due to the length of time required for the American National Red Cross Junior Course in First Aid, which is given the second semester of the third year.

The units included tentatively in the third year are as follows:

XIV. Posture: Walking, Standing, Sitting, and Lying

XV. Bones and Muscles

XVI. First Aid

Unit XIV

Posture: Walking, Standing, Sitting, and Lying

The estimated time to be spent on this unit should be ten sessions of fifty-five minutes each.

Focusing attention on the importance of good posture and creating an active desire for the correction of postural defects are the important problems to be met in this unit.

Specific Objectives

1. The ability to use good posture while standing, walking, sitting, and lying
2. The ability to take proper care of the feet
3. The ability to wear proper shoes and hose to assure healthy feet
4. The ability to use foot exercises to promote greater foot comfort and efficiency
5. The ability to perform exercises which tend to correct poor posture
6. The ability to appreciate the role of good posture in personality

Content

- I. There is a cause for all your posture faults
- II. Foot health aids good posture
 - A. Structure of the foot
 - B. How the foot functions in walking and running
 - C. Foot defects
 - D. Exercises for feet

E. Aids to healthy feet

F. Proper shoes

III. Posture graphs and the wall test show you how you stand

IV. Good posture results in body balance, poise, assurance, and charm

V. Clothing and furniture affect posture

VI. Take notice and sit up

VII. Good walking posture reflects personality

VIII. Learn to relax correctly

Suggested Activities

1. Stand before mirrors and note posture.

2. Make posture graphs at the beginning and again at the close of the unit.

3. Make comparisons of pictures of good and bad posture.

4. Participate in posture contests.

5. Walk before mirrors and note walking posture.

6. Make a list of points to be remembered in assuming good posture while standing, walking, sitting, and lying.

7. Make posture posters.

8. Make a list of seats and desks which need adjusting to fit the pupil.

9. Make a scrapbook of pictures, sketches, cartoons, poems, slogans, and silhouettes concerning posture.

10. Observe and study posture of soldiers and sailors of different countries.

11. Make footprints.
12. List exercises for correction of foot defects.
13. List contributing causes of flat feet.
14. List qualities of a good shoe for ordinary wear and observe the shoes of the class.
15. Collect old shoes and display them in various classifications, such as:
 - a. Proper shoes for children
 - b. Improper shoes for women
 - c. Correct shoes for boys
 - d. Shoes for athletes, etc.
16. Study the bones of the feet. Bring to class a skeleton, if possible; if not, use a chart with the bones labeled.
17. Discuss sleeping positions.
18. Class demonstrations of good posture, standing, sitting, walking, lying.
19. Perform posture exercises.
20. Check chart for feet and figure your score. (See Brock, Health through Projects, p. 139.)

Illustrative Materials

1. Graded posture graphs
2. Posture graphs of class members
3. Footprints of class members
4. Portraits by famous painters
5. Exhibit: "Posture in Professions" (Use pictures of athletes, movie actors and actresses, works of sculptors, manikins, etc.)

6. Pictures of good posture for sweeping, ironing, lifting, reaching and stooping, lying, carrying loads, etc.

7. Camera for shadow-graphing

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"The Living Skeleton," pp. 44-56.

"Standing up Like a Man," pp. 57-68.

Desirable Outcomes

1. Improved habits of posture
2. Better bodily control in daily activity
3. More intelligent selection of shoes
4. Improved personalities due to better health through better posture
5. Fewer foot deformities due to ill-fitted shoes and lack of proper exercise

6. A realization that good posture results in a body that is hygienically sound, economically strong, socially attractive, and spiritually uplifted

Suggestions for Evaluation

1. Comparison of posture graphs made at the beginning and again at the end of the unit
2. Paper and pencil test for knowledge
3. Observation by teacher (Do the pupils sit, stand, walk, run, stoop, and lie in the proper manner?)

Unit XV

Bones and Muscles

The estimated time to be spent on this unit should be eight sessions of fifty-five minutes each.

The framework of our body may be called the foundation of our bodily house. The muscles are attached to the bones by means of tendons. By the action of these muscles the bones are moved, thus enabling us to move about, stand, sit, or recline. It is the purpose of this unit to give the pupils a knowledge of the bones and muscles of the body and how to care for them.

Specific Objectives

1. The ability to know the bones and muscles of the body, their structure, shape, location, and duty
2. The ability to appreciate the importance of strong, straight bones
3. The ability to use good posture in order that bones may grow straight and muscles may not become tired
4. The ability to eat foods that will build good bones and muscles
5. The ability to perform exercises that use all muscles
6. The ability to know what to do in case of broken bones
7. The ability to know the dangers of fatigue to the muscles

Content

I. Bones are the framework of the body

- A. Three general divisions make up the skeleton

1. Bones of the head and face
2. Bones of the trunk
3. Bones of the limbs

B. How bones grow

1. Bones in youth are tough and flexible
2. Bones in old age are hard and brittle

C. There are four classes of bones

1. Long bones in the limbs
2. Short bones in wrists and ankles
3. Flat bones protect organs
4. Irregular bones of the vertebrae and ear

D. Bones are held together at joints

1. Kinds of joints

- a. Immoveable joints
- b. Limited motion joints
- c. Free motion joints

2. Joints may become diseased

- a. Arthritis
- b. Stiffened joints as result of injury

E. Injuries to bones and joints are frequent

1. Sprains cause much pain
2. A severe jolt may cause dislocation
3. Torn ligaments may result from severe strain

II. Muscles, our means of transportation

A. Our muscles serve us in a number of ways

1. Muscles produce all movements of the body
2. Muscles support the body
3. Muscles give protection to many parts of the body

B. Muscles require food

C. Exercise builds muscles

D. Muscle tissue is repaired as we sleep

E. Fatigue makes sore muscles

III. Care must be given to bones and muscles

A. Food and exercise help

B. Avoid injury

C. Give attention to diseases of muscles

Suggested Activities

1. Bring the skeleton into the classroom and study the bones.
2. Study the anatomical chart of the bones and muscles.
3. Get a piece of bone from the butcher shop and examine its structure.
4. Get a joint from the butcher shop to see how two bones are fastened together.
5. Examine a small piece of beefsteak to see bundles of muscle fiber.
6. Discuss the classes of bones.
7. Contract the biceps muscle of the arm. Contract the triceps muscle. Notice the difference in the hardness of each muscle in the contracted and relaxed condition.
8. Demonstrate different actions in playing games and explain the movements of the muscles.
9. Make a cardboard model of an arm with a joint at the elbow. Use strings to demonstrate the pull of the biceps and the triceps.
10. Watch the movements of the eye when a person is reading or looking out the window of a moving car. Note the speed with which the

eye moves.

11. Describe tendons, ligaments, and muscle tissue.
12. Examine samples of splints used in treatment of broken bones.

How do you account for the variety of sizes and shapes?

13. Study an X-ray picture of a bone.
14. List exercises and activities which build muscles.
15. Carry on an exercise like the deep knee bend until the muscle is tired. How does it indicate that it is tired? Rest a short time. Exercise it again. Does it take as long to become tired this time?

16. Observe the standing and sitting positions of other people.

Are they training their muscles correctly?

17. Dissect a frog and study muscles and tendons.
18. Dissect a bird and look at wing development.

Illustrative Materials

1. Anatomical chart
2. Skeleton
3. Bones from market
4. Frog for dissecting
5. Bird for dissecting

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- "The Living Skeleton," pp. 44-56.
"Standing Up Like a Man," pp. 57-68.
"Work and Rest," pp. 69-80.

Desirable Outcomes

1. A knowledge of the structure of bones and muscles
2. More pupils practicing exercises in body building
3. All pupils having a knowledge of the dangers of fatigue to the muscles
4. All pupils having a knowledge of first aid for broken bones
5. All pupils sitting, standing, and walking straight
6. All pupils including bone and muscle building food in their diets

Suggestions for Evaluation

1. Paper and pencil tests for knowledge (The tests may be of the objective type, either true-false, multiple choice, completion, matching, or a combination of these.)
2. Presentation of practical problems for solution (The problems may be of this type: Mary has a sore muscle from over-exercise. What would you suggest should be done for Mary? Or, Sue has broken her arm. What should I do?)
3. Observation of pupils by teacher to determine evidences of desirable outcomes

Unit XVI

First Aid

In order to satisfy standards as set up by the American National Red Cross, a minimum of eighteen sessions of fifty-five minutes each is suggested for this unit.

This unit consists of the Junior Course in First Aid as given by the American National Red Cross. Instruction should follow the directions set forth by the American Red Cross.

The instructor must have satisfactorily completed the required Red Cross training and hold a card of appointment issued by National Headquarters, or the proper Area Office, authorizing her to instruct and examine junior, standard, and advanced First Aid classes.

The instructor may secure a copy of, Instructor's Outline, First Aid Courses, The American National Red Cross, Washington, D. C. This is an instructor's outline, designed for presenting and teaching the Red Cross Junior Course in First Aid. The content, directions for teaching, demonstrations to be performed, practical problems to be solved, and assignments to be given for each lesson are given in this outline.

The course is based upon the Red Cross First Aid Textbook. There is an adequate supply of these books in the library of the Huntsville Junior High School.

Certificates should be issued to those pupils who satisfactorily complete the course.

CHAPTER VI

SUMMARY

Health and physical education in our public school curriculum is being recognized as an important channel through which the youths of America can acquire better physically fit bodies and more intelligent use of them. Today, keen interest and dire need demand a change from too great emphasis on wholesome leisure to emphasis on physical fitness, embracing development of strength, endurance, and good nutritional status for all occasions. In order to meet this need in the Huntsville Junior High School, this three-year course of study is submitted. This course of study is tentative and it is hoped that inadequacies will be corrected as it is used.

The philosophy which forms a basis for this course of study in health education embodies the changing emphasis on health education, the place of health instruction in the curriculum, the basic principles of health education, and the general objectives. The basic principles recognize the significance of economic limitations placed upon the program, the political purposes, and the social controls effective in shaping local needs and conditions. Further consideration is given the fact that more effective planning results from a study of individuals and an informal survey of the physical environment. The general objectives, stress the development of sound attitudes, habits, and knowledges of wholesome living and physical efficiency directed toward

personal accomplishment and the social ideals of a democracy.

The specific objectives planned, the activities selected, the illustrative materials used, and the references given in each unit of this course are meant to provide meaningful experiences for all pupils throughout their junior high school training. Recognition is given individual differences, and for this reason each unit is planned to meet the needs of pupils with varying interests and abilities as well as varying levels of accomplishment. The pupil references in each unit provide reading material from fourth grade level to that of senior high school. Teacher references given provide background for understanding the scope of the units presented.

Desirable outcomes are offered for each unit of instruction, and suggestions for the evaluation of these outcomes are given by means of measures of health status, tests of knowledge and attitude, observation of health activities, and self-checking on health practices.

Suggestions for correlation are given where the material concerned offers direct correlation with other fields.

The units of instruction developed in this course of study include the following topics:

1. Ways and Means of Caring for Our Bodies
2. Habits of Cleanliness Help You to Grow
3. Communicable Disease
4. Body Defense Against Disease
5. Respiration--The Breath of Life

6. The Eyes
7. Ears for Good Hearing
8. Safety
9. Nutrition
10. Digestion
11. Circulation--Our Life's Blood
12. Excretion
13. The Nervous System
14. Posture
15. Bones and Muscles
16. First Aid--American Red Cross Junior Course

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