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Courses of Study for
High Schools

HEALTH AND PHYSICAL
EDUCATION FOR GIRLS

Issued by the Department of Public Instruction
AGNES SAMUELSON, *Superintendent*

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Published by
THE STATE OF IOWA
Des Moines

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FOREWORD

This course of study is one of a series of curriculum publications to be presented to the high schools of the state from time to time by the Department of Public Instruction. It has been prepared by a subject committee of the Iowa High School Course of Study Commission working under the immediate direction of an Executive Committee. If it is of concrete guidance to the teachers of the state in improving the outcomes of instruction, the major objective of all who have contributed to its construction will have been realized.

From the start the need of preparing working materials based upon cardinal objectives and adaptable to classroom situations was emphasized. The use of the course of study in the development of proper pupil attitudes, ideals, habits, and skills was the criterion for selecting and evaluating subject matter material. At the same time it was important to consider the relation of the single course of study unit to the variety of textbooks used in the high schools of the state. The problem before the committees was that of preparing suitable courses of study representing the best in educational theory, practice, and research, and organized in such a way as to guide the teachers in using the textbook to greater advantage in reaching specified outcomes of instruction.

The selection of texts in this state is a function of the local school boards. The Department of Public Instruction and the committees do not recommend any particular text as essential to the working success of this course of study. The titles listed on the following pages are not to be interpreted as having official endorsement as against other and newer publications of value. They were found upon investigation to be in most common use in the high schools of the state at the time the units were being prepared; a follow-up survey might show changes.

Although many valuable studies have been made in the effort to determine what to teach and how to teach it, and to discover how children learn, these problems have not been solved with finality. For that reason and because no fixed curriculum can be responsive to changing needs, this course of study is to be considered as a report of progress. Its revision in accordance with the enriched content and improved procedures constantly being developed is a continuous program of the Department of Public Instruction. Your appraisal and evaluation of the material as the result of your experience with it are sincerely requested.

ACKNOWLEDGMENTS

The Department of Public Instruction takes this opportunity of thanking the many college specialists, school administrators, and classroom teachers who have helped with this program. Without the active coöperation of the educational forces of the state it could not have even been attempted. It has had that coöperation both in general and specified ways. The support given by the Iowa State Teachers Association and High School Principals' Section has enabled the Executive Committee to meet and also to hold meetings with the Commission as a whole and with the chairman of subject committees.

Special acknowledgment is given the Executive Committee for its significant leadership in organizing the program and to Dr. T. J. Kirby for his valuable services in directing its development. Sincere gratitude is also expressed to the various committees for their faithful and skillful work in completing the subject matter reports assigned them and to Dr. C. L. Robbins for his careful and painstaking work in editing the manuscripts. The state is deeply indebted to the High School Course of Study Commission for its expert and gratuitous service in this enterprise. Credit is due the publishers for making their materials accessible to the committees and to all who served in advisory or appraisal capacities. Many of their names may not have been reported to us, but we acknowledge our appreciation to every one who has shown an interest in this significant program. Special acknowledgment is given to Veva Kummer, Wilda Long, Alice Sherbon, graduate students at the University of Iowa, 1931-32, for their assistance in the final revision of the Physical Education sections of this course of study.

In the following committee list, the positions held by members are given as of the school year 1928-29.

IOWA HIGH SCHOOL COURSE OF STUDY COMMISSION

Executive Committee

Thomas J. Kirby, Professor of Education, State University of Iowa, Iowa City,
Executive Chairman
A. J. Burton, Principal, East High School, Des Moines
H. M. Gage, President, Coe College, Cedar Rapids
M. S. Hallman, Principal, Washington Senior High School, Cedar Rapids
O. R. Latham, President, Iowa State Teachers College, Cedar Falls
E. E. Menefee, Superintendent, Public Schools, Hawarden
Theodore Saam, Superintendent, Public Schools, Council Bluffs
F. H. Chandler, Superintendent, Public Schools, Sheldon

Health and Physical Education

M. G. Davis, Chairman, Superintendent, Public Schools, Ames
Luella Hightshoe, Sub. Chairman, Ottumwa High School, Ottumwa

Clara Julia Andersen, Grinnell College, Grinnell
Marjorie Camp, University of Iowa, Iowa City
Erna Driftmier, Creston Public Schools, Creston
J. F. Edwards, M. D., Iowa State College, Ames
Elizabeth Halsey, University of Iowa, Iowa City
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Blythe H. Schee, University of Iowa, Iowa City
Belva Swalwell, Iowa State Teachers College, Cedar Falls
Winifred R. Tilden, Iowa State College, Ames
Monica Wild, Iowa State Teachers College, Cedar Falls

* Deceased.

GENERAL INTRODUCTION

At the first general meeting of the various subject committees a suggestive pattern for the courses of study, embodying the fundamental needs for teaching, was projected. Four crucial factors that should be emphasized in any course of study to make it an instrument that would cause teachers to consult it for guidance in the performance of their daily work were set forth as follows: objectives, teacher procedures, pupil activities, and evidences of mastery.

Objectives—The meaning of objectives as here used is those concepts which are set up for pupils to achieve. As used in current practice, there is a hierarchy of objectives as shown by the fact that we have objectives of general education, objectives for various units of our educational system such as those proposed by the Committee on Cardinal Principles, objectives for subjects, objectives for a single lesson. In each level of this hierarchy of objectives a constant element is expressed or implied in the form of knowledge, a habit, an attitude, or a skill which pupils are expected to acquire.

In the entire field of secondary education no greater problem confronts us than that of determining what these fundamental achievements are to be. What shall be the source of those objectives, is a problem of too great proportions for discussion here, but it is a problem that each committee must face in the construction of a course of study. A varying consideration of objectives by the various committees is evident in the courses of study they have prepared. The value of the courses varies in terms of the objectives that have been set up, according to the value of the objectives in social life, according to the type of mental techniques which they stimulate and exercise, and according to the objectivity of their statement.

Pupil Activities—In our educational science we are attaching increasing significance to self-activity on the part of the learner. Recognition is made of the fundamental principle that only through their own activity pupils learn and that the teacher's role is to stimulate and direct this activity. No more important problem faces the curriculum-maker than that of discovering those fundamental activities by which pupils learn. In a well-organized course of study, that series of activities, in doing which pupils will attain the objectives set up, must be provided. These activities must not be chosen in a random fashion, but care must be taken that appropriate activities for the attainment of each objective are provided.

Teacher Procedures—With the objectives determined and the activities by which pupils learn agreed upon, the function of the teacher in the pupil's learning process must be considered. In a course of study there should appear those teacher procedures of known value which make learning desirable, economical, and permanent. Here our educational science has much to offer. Where research has demonstrated with a high degree of certitude that a given technique is more effective in the learning process than others, this technique should be included in a course of study. Common teaching errors with sug-

gested procedures to replace them may be included in a course of study. (Common teaching errors with suggested procedures to replace them may be included.) Pupil difficulties which have been discovered through research should be maintained and methods of proven value for meeting those difficulties should be included. Suggested ways of utilizing pupils' experiences should be made. And as important as any other feature is the problem of motivating learning. Whatever our educational research has revealed that stimulates the desires of pupils to learn should be made available in a course of study. Valuable types of testing should be incorporated as well as effective type assignment. The significance of verbal illustrations as evidence of comprehending the principle at issue should be featured as a procedure. Where there is a controlling procedure of recognized value such as is recognized in general science—bringing the pupil into direct contact with the phenomena studied—forceful effort for the operation of this procedure should be made.

Evidences of Mastery—What are to be the evidences of mastery of the objectives set up? There are all degrees of mastery from the memoriter repetition of meaningless terms up to a rationalized comprehension that shows both grasp of the controlling principles involved and the basic facts necessary to a clear presentation of the principles. These evidences of mastery may be in the form of dates to be *known*, *formulae* to be *able to use*, types of problems to be *able to solve*, quality of composition to produce, organization of materials to be *made*, floor talks to be *able to give*, papers to be *able to write*.

In no part of educational procedure is there need for more effort than in a clear determination of those evidences, by which a well-informed teaching staff can determine whether a pupil has a mastery of the fundamental objectives that comprise a given course. As we clarify our judgments as to what comprises the essential knowledge, habits, attitudes, and modes of thinking involved in a certain course, we can set forth with more confidence the evidences of mastery. Teachers are asking for the evidences of mastery that are expected of pupils, and courses of study should reveal them.

While these four elements constitute the basic pattern, the principle of continuity from objective to pupil activity, to teacher procedure, to evidence of mastery was stressed. The maker of a course of study must bear in mind that what is needed is an objective having accepted value; a pupil activity, in performing which, pupils gain a comprehension of the objective that is now being considered; that a teacher procedure is needed which evidence has shown is best adapted to stimulating pupils to acquire this objective for which they are striving; and that evidences of mastery must be incorporated into the course by which to test the degree of comprehension of the objective now being considered.

The courses of study vary in the degree to which these four fundamental features have been objectified and in the degree to which the principle of continuity from objective to evidence of mastery has been cared for. On the whole they will provide effective guides which teachers will use.

Realizing that these courses of study were prepared by school men and women doing full time work in their respective positions, one fully appreciates the professional zeal with which they worked and the splendid contribution to high school education which they made.

THOMAS J. KIRBY,
Chairman of the Executive Committee

INTRODUCTION TO COURSE OF STUDY IN PHYSICAL EDUCATION AND HEALTH FOR GIRLS

Physical education is required by law in the State of Iowa for all public elementary and secondary schools. The stipulated program includes health supervision and instruction and modified courses for those pupils physically or mentally unable to take the courses provided for normal children. A minimum weekly allotment of fifty minutes is prescribed.

The value of any program of physical education will depend upon its method of presentation. The laws of learning which operate in all fields of education are equally applicable in physical education; interest is important if the department is to contribute to the life equipment of the individual. It cannot be too strongly urged that intelligent planning of physical education programs is most possible when adequate medical and physical examinations form the basis of activity and schedule arrangement. Consistent follow up of examinations will do much for the development of positive habits and attitudes of health.

Objective tests are being studied in this as in other fields of education and while such study is practically at its beginning, capacity, skill and posture tests will aid in the more homogeneous grouping of students.

There is also a widespread movement toward the use of the more natural activities and performance out-of-door whenever possible, with emphasis upon activities that may carry over into leisure time after school.

Curriculum making and revision must be a continuous process. It is too much to expect that any course of study, no matter with what care and expert guidance it may be constructed, can embody all that has been learned about the subject and its method of presentation. The best course that can be constructed then will be imperfect, and as long as society is changing, and as long as the science of education is developing, adjustments and improvements will have to be made.

This course of study is not proposed with any sense of finality but rather as a guide for suggestions and material in planning physical education programs to fit local conditions. It is commended to teachers and school administrators in the hope that its contents will be found helpful in the task of turning out young citizens who are full of the joy of living.

HEALTH EDUCATION PROGRAM FOR HIGH SCHOOL PUPILS

INTRODUCTION

A complete school health program should include the following activities:

1. Sanitation of the school plant
2. Control of communicable diseases in the school
3. Medical examination for physical defects and health impairments and the institution of measures for their correction
4. Maintenance of high health standards for teachers
5. Health instruction and training in the formation of dependable health habits.

1. The School Plant.

The school buildings and their surroundings should be made as healthful as possible. Sanitary conditions should be maintained. Satisfactory heating and ventilation are indispensable to health. The open-window-gravity method of mechanical ventilation except in larger rooms where window space may be wanting is efficient. Adjustable or movable seats and desks should be suited to the pupils.

2. Control of Communicable Diseases

Exclusion from school of all children who have communicable diseases or have been especially exposed or who have signs pointing thereto is essential. Re-admission should be granted only after they are free of infection or after the suspicious signs have cleared up.

3. Physical Examination and Correction of Remedial Defects or Health Impairments

This is a most important part of school health work. Many children are so handicapped by physical defects that they are not able to get the most out of their school work. The object of physical examinations is to detect such defects and to correct those that are remedial. Yearly examination of all pupils is essential. Examine malnutrition cases at the time of weighing and measuring. When possible have full time physicians, dentists and nurses. This is practicable as yet, only in the larger cities. In the smaller cities and towns, nurses and part time physicians are practicable. In rural districts the teacher can do much examination work of value, but the annual examination should be done by local physicians. The legislature has now authorized the formation of county health units, which, when organized, may be consulted in the school health program. The teacher should be able to recognize the more conspicuous defects, such as, defective vision and hearing, enlarged tonsils and adenoids and pronounced postural defects, dental defects and malnutrition. When physical defects or health impairments are found, the parents or guardians should be notified and urged to take the child to

their physician for correction. These cases should be followed up closely. If a nurse is available she can best do this by home visitation. If not, the teacher should follow up by correspondence or by appointment of home visitors through a Parent-Teacher Association. In many places the local farm bureau may be called upon.

Keep records of each child through entire school life, including all physical examinations data, such as, date of vaccinations and of infectious diseases, corrective work and health progress. Special effort should be made to find and help children, who are markedly under-weight and who appear under-nourished.

4. Maintenance of High Health Standards of Teachers

Teachers owe it to themselves and to their employers and their pupils to maintain themselves in good health. To this end a periodic health examination each year is necessary, as are also proper condition of living and facilities for recreation.

5. Health Instruction and Training in the Formation of Dependable Health Habits

This point is covered quite fully in the outline of the course of study.

Health education in the high school must be given from a scientific angle. The average high school pupil wants a valid reason for the things taught and has the ability to separate the true from the false. Health chores, fairy tales, slogans, and time worn precepts no longer appeal. They want to be shown.

The health course which follows is organized into eight units, and is the same as that for boys. The other units are for girls alone.

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I. PERSONAL HABITS

Unit Objective

To realize the importance of and to acquire the knowledge for building individual health

Specific Objectives

1. To acquire scientific information concerning the structure, the function and the care of the various parts of the body, and to think about what to do for the body to maintain or improve health
2. To set up ideals of health for which to strive
3. To accept right attitudes toward health, both personal and community
4. To acquire certain definite habits which are conducive to healthful living

Teacher Procedure

1. Strive to present the work in hygiene in such a fashion that it will be connected with the lives of the pupils
2. Present only enough anatomy and physiology to give a background for the presentation of the care of the various parts of the body
3. Always remember that the object of the course is to enlighten the pupils on how to care for their bodies
4. Place the emphasis on prevention rather than on cure
5. Discuss with pupils the following groups of topics:
 - a. Bathing: kinds of baths and value of each kind
 - b. Care of skin, hair, nails
 - c. Care of ears, eyes, nose, teeth, throat, feet
 - d. Value of rest and sleep
 - e. Important positions: lying, sitting, standing, walking, and how each should be maintained
 - f. Value of good posture: social, economic, hygienic, spiritual
 - g. Causes of bad posture: disease, clothing, attitude, seats, habit
 - h. Value of rest and play
 - i. Types of exercise for normal activities: work, play
 - j. Value of rational exercise: increases circulation, respiration, elimination, metabolic changes, and neural activity
 - k. Systems of the body: respiratory, circulatory, digestive, excretory, nervous
 - l. Social aspects of life
 - m. Importance of mental control
 - n. Glands of internal secretions
 - o. Relation of weight to health
 - p. Value of health examinations
 - q. Types of diseases: communicable diseases, diseases of nutrition,

acute poisons, chronic diseases of middle life, functional nervous diseases, local infections, cancers and tumors

- r. Harm of patent medicines
- s. Importance of establishing good health habits
- t. Harm of narcotics and stimulants to the body

Pupil Activities

1. Weigh and find height and compare with chart to determine if they are in the normal weight group (one is considered in the normal weight group unless he is 20% above the average given on the chart or 10% below)
2. Keep a record of the activities indulged in during twenty-four hours and figure out the hours devoted to sleep, sitting, walking, light exercise, severe exercise and very severe exercise. Depict the findings by a graph or chart
3. Determine from a health standpoint why one should walk with his toes pointing straight ahead
4. Make a list of abnormal conditions of the feet which develop from wearing improper fitting shoes
5. Give the important things the doctor checks when giving a health examination
6. Collect advertisements purporting to cure certain ailments and tell what is stated that is not based upon facts

Evidences of Mastery

1. A fair knowledge of the structure of the various organs of the body
2. A good comprehension of the function of the various systems of the human body
3. A definite understanding of how the various parts of the body should be cared for in order that they may function properly and so help promote good health
4. A realization that the responsibility mainly rests with the student for his happiness, well-being and efficiency
5. A disposition to accept the social responsibility of always living at one's best
6. Habits of caring for the body established so that at least 80% could be made on any day after the course is finished on the following check up. Give one point to each item that can be answered by "yes" and no credit for those which cannot be
 - a. I had a window opened in my bed-room last night
 - b. I slept at least eight hours last night
 - c. I slept without a pillow last night
 - d. I changed my underclothing for night garments last night
 - e. I brushed my teeth before I went to bed last night
 - f. I have had my teeth cleaned and examined by a dentist within the last 6 months
 - g. I have had my hair washed within the last four weeks
 - h. I cleaned my finger nails within the last 12 hours

- i. I have had a bath within the last 48 hours
- j. I have had a change of clean underwear within a week
- k. I have on shoes with heels not over $1\frac{1}{4}$ inches high
- l. I walked at least 2 miles yesterday
- m. I had at least 30 minutes of work yesterday which required big muscle activity
- n. I am now sitting with my feet flat on the floor
- o. I have had a bowel movement without the aid of medicine within the last 24 hours
- p. I drank not less than 4 glasses of water yesterday
- q. I did not eat meat more than once yesterday
- r. I ate some fruit yesterday
- s. I ate some fresh raw vegetables yesterday
- t. I ate some bread that was not white yesterday
- u. I did not eat between meals yesterday
- v. I ate at least one warm meal yesterday
- w. I ate breakfast yesterday morning
- x. I have not been angry within the past 24 hours
- y. I have had a medical examination within the past 12 months

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Note: Some general science textbooks contain material on health of the human body.

II. FOOD

Unit Objective

To learn the main factors involved in selecting and using the foods that will best build up the body and meet its energy needs

Specific Objectives

1. To realize the important relationship which food bears to health
2. To learn the food needs of the body and the classes of food which will supply each need
3. To know what constitutes a balanced diet
4. To learn how to select, buy, prepare, and serve wholesome food
5. To know the sanitary measures which should be employed regarding foods
6. To establish food habits conducive to health

Teacher Procedure

The following topics should be presented to the class:

1. Classes of food: protein, fat, carbohydrates, water, minerals, vitamins, roughage
2. Use body makes of various kinds of food stuffs
3. Calories and their application to selecting a nutritious diet
4. Selection of an adequate nutritious diet for self and family
5. How to prepare simple, well balanced meals
6. How to preserve food: storing, refrigeration, canning, preserving, pickling, drying
7. Sanitary care of food in the home
8. Attributes of a clean, sanitary shop or store
9. Economical buying of food
10. Value of weight as an indication of health
11. Essential elements of digestion
12. Methods of avoiding common digestion disorders
13. Value of cheerfulness and pleasant conversation while eating
14. Hygienic method or manner of eating

Pupil Activities

1. Secure some white rats and experiment by feeding them various diets
2. Keep a list of all the different food you ingest in twenty-four hours and figure from a standard table the number of calories involved
3. Visit a bakery, butcher shop, grocery store, and a dairy or milk distributing station to observe sanitary measures employed
4. Look up the State and National Pure Food Laws to learn how your food is protected from adulteration

5. Pasteurize milk by using equipment found in an ordinary home
6. Think of all the uses the various parts of your body makes of the 4 to 6 glasses of water which you should drink daily
7. Make a list of foods that would be classified as roughage.
8. Make two lists (one vegetable and one animal) of fats which we include in our diet
9. Make a chart showing various foods high in each of the vitamins
10. Make a chart showing different foods high in protein, carbohydrates, and fats
11. Secure menu cards from various types of eating houses and write out orders for different meals which will be nutritious, well balanced, and not too expensive
12. Plan, cook, and serve at home, meals for a week for your family
13. Help prepare a few hot lunches or meals (not banquets) at school
14. Figure out what three articles of food you would buy for a lunch that would be clean, wholesome, and well balanced in regard to food requirements if you had to eat at an eating house that showed much evidence of lack of sanitation

Evidences of Mastery

1. A realization of the importance of buying food economically for self and for family and only in places where it is handled in a sanitary manner
2. A disposition to care for food in a sanitary fashion
3. The habit of eating a well balanced breakfast every morning, which contains a cereal (preferably unrefined)
4. The avoidance of excessive use of proteins and sugars
5. The selection of a nutritious and properly varied diet in any situation where they must make a choice of food
6. The ability to prepare or help prepare and serve well balanced, nutritious meals for own family
7. The avoidance of food that is rendered less digestible through preparation
8. Eating at least two kinds of vegetables daily besides potatoes (one green leafy vegetable)
9. Consuming a pint of milk a day through various means
10. Eating some fruit daily
11. Eating hard breads, or other food requiring vigorous mastication daily
12. Eating candy and sweets only in moderation and only after meals
13. Eating tissue-building foods more than once a day
14. Drinking 4 to 6 glasses of water daily, not all at meal time and never when there is a solid food in the mouth
15. Not drinking ice cold water or other iced drinks in excess and never at the beginning of a meal
16. Eating three meals daily according to regular schedule
17. Drinking no tea or coffee
18. Taking small bites and mouthfuls and eating slowly allowing time for meals
19. Washing hands before eating or handling food
20. Having an increased sense of responsibility and appreciation of the duties of citizenship in regard to cooperating in enforcement of public health regulations concerning food

21. Accepting increased responsibility for selecting own diet
22. Accepting increasing responsibility in helping to order, prepare, and select food in the home
23. Having a fully developed preference for simple prepared nutritious food in place of elaborate indigestible foods
24. Preferring to be strong, well developed and of the proper weight, rather than to be fashionably thin and underweight
25. Applying scientific knowledge to the problem of selecting a diet rather than selecting a diet merely on the basis of taste and whim
26. Self-control with regard to the kind, amount, and time of eating
27. A preference for eating in clean places with neat surroundings and where quietness prevails

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2. Gotchell and Helbing, *Handbook for Menu Planning*, Smith and Hammond, Atlanta, Georgia, 1927
3. Harris and Lacey, *Every Day Food Facts*, Houghton Mifflin, Chicago, 1927
4. Kinney and Cooley, *Foods and Household Management*, Macmillan, New York City, 1923
5. Willard and Gillett, *Dietetics for High Schools*, Macmillan, New York City, 1928

Note: Consult health texts and science texts for chapters on food.

III. CLOTHING

Unit Objective

To learn how the wise choice of clothing aids in promoting the health, comfort and attractiveness of the body

Specific Objectives

1. To learn how the materials, fitting and manner of wearing clothing may affect health
2. To establish standards for buying suitable clothing, the wearing of clothes, and of keeping neat and clean
3. To develop an appreciation of being well dressed

Teacher Procedure

The following topics concerning clothing should be discussed with both boys and girls

1. Purpose of clothing
2. Suitable dress for various occasions
3. How to know and test materials
4. Power of materials to absorb moisture or to conserve or conduct heat
5. How to choose materials suitable for dresses and suits: cost, serviceability, healthfulness, ease of keeping clean, cleaning qualities
6. Selection of color and design
7. Dressing for indoor work
8. Outdoor dress: outer and under garments, hats, rubbers or galoshes, umbrellas
9. Danger of wearing damp clothing
10. Cause of shivering
11. Changing day clothing for night garments
12. Bed clothing: mattress, covers, pillow
13. Undergarments: amount, material, cleanliness
14. Desirability of loose fitting clothing: hats and caps, collars, corsets, belts, shirt bands, garters and supporters, stockings, shoes
15. Hose: material, cost, color, durability, size, cleanliness
16. Shoes: material, color, suitability, cost
17. Requirements of a good fitting shoe: length, width, inside line, flexible shank, low and broad heel
18. Value of wearing aprons, smocks, or coveralls
19. Economy in having clothing mended and remodeled
20. Care of clothing: removing spots, pressing, cleaning, mending, hanging
21. Methods of cleaning different fabrics and dangers of some cleaning processes
22. How to protect clothing from moths

Pupil Activities

1. Each one figure up the initial cost and upkeep of his clothing for one year
2. Make a class chart of materials for girls' dresses and boys' suits
3. Visit a laundry, a modern dry cleaning establishment, men's clothing store and women's ready to wear shop
4. Make a survey of the height of heels worn by observing the shoes worn by fifty women. Classify the heels noticed into two groups (high and low)
5. Make a foot and shoe drawing to determine if shoes being worn are good for health. Check drawing for the following points: height of heel, bottom surface of heel, straight inside line, width of shoe and transverse arch of foot, length of shoe in relation of toes, shape of foot and shoe
6. Each student prepares a talk or paper on the dress of the people of some country
7. Practice sewing on buttons, hooks and eyes, mending hose, mending a rent
8. Pack a bag for a journey
9. Demonstrate how dresses or suits should be hung or folded
10. Debate: Resolved that boys dress more healthfully than girls

Evidences of Mastery

1. Knowing the contribution which clothing has to offer to health
2. Selecting suitable clothing
3. Wearing suitable clothing
4. Knowing what factors should be considered in determining whether an individual is well dressed

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IV. HOME HYGIENE

Unit Objective

To learn the relationship of the home and its environment, to the health of the individual and the family

Specific Objectives

1. To learn how the home contributes to the health of the members of the family
2. To acquire an appreciation of the proper sanitary measures for the home
3. To learn the responsibility as one of the members of a family for the promotion of family well-being
4. To develop an appreciation of the home and worthy home membership

Teacher Procedure

Discuss the following topics applicable to the vacant house selected by the students for study

1. Location and site
2. Lawn: shade trees, vines, shrubbery, grass, walks, drainage
3. Windbreak: trees, buildings
4. Barns and other buildings (outside toilet)
5. Orchard and vegetable garden
6. Well: kind, location, covering
7. Water supply: source, amount, purity
8. Plumbing: cesspool or sewer
9. Garbage: container, disposal, kitchen slops
10. Attic, basement, porches, steps
11. Rooms: kitchen, living-room, bed-rooms, bath-room
12. Bath-room: tub, stool, lavatory
13. Bed-rooms: beds, mattresses, covers
14. Floors: material, coverings, care
15. Furniture: useful, comfortable
16. Windows: storm windows, shades, curtains
17. Lighting: natural, artificial
18. Heating systems
19. Cleaning: scrubbing, sweeping, dusting
20. Insects: flies, mosquitoes, bedbugs, roaches, ants

Pupil Activities

Locate a suitable vacant house in the neighborhood and secure permission of the owner for the class to inspect it for the purpose of studying it to determine how it could be made into a desirable home in which to live. Study the

house in relation to the various items listed under Teacher Procedure.

Evidences of Mastery

1. Sharing in more of the responsibilities of the home
2. Showing increased proficiency in certain skills involved in helping keep their homes and premises clean and neat
3. Realizing that a happy, cheerful home depends much upon the healthful conditions existing in the home and its immediate surroundings
4. Appreciating the fact that both responsibility and privilege are involved in making a home, and being a member of a home
5. Looking forward with dignity to assuming the responsibilities of making a home

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V. COMMUNITY HYGIENE AND SANITATION

Unit Objective

To learn how health may be promoted and protected by community measures and to learn that cooperating in such measures is a part of citizenship

Specific Objectives

1. To extend the scope of health responsibility beyond self and home
2. To acquire ability to recognize conditions in the environment which are detrimental to health
3. To learn ways to cooperate in improving bad environmental conditions

Teacher Procedure

The following should be discussed:

1. Water supply
2. Garbage and sewage disposal
3. Drainage of low land
4. Destroying flies and mosquitoes
5. Milk supply
6. Importance of testing cattle for tuberculosis
7. Lighting and cleaning of city streets
8. Duties of the local and state department of health
9. Play grounds, parks, amusement places
10. Police and fire protection

Pupil Activities

1. Visit city water works
2. Inspect the sanitary conditions at a dairy or milk distributing station, a butcher shop, grocery store, city market and city dumping grounds
3. Find out who the food inspector of your district is and what his duties are
4. On an outline map of Iowa indicate the counties which test cattle for the eradication of tuberculosis
5. Take a trip through a factory to learn how employees are guarded against accidents
6. Make a list of official and voluntary health agencies (local, state or national)
7. Designate fifty laws (either state or national) which aim to protect health or life
8. Visit a barber shop to learn what requirements must be met if the place is given a high rating by the state inspector

9. Visit the president of the local board of health to learn the duties of the board in protecting health in the community
10. Plan and conduct a Clean-Up Campaign in your district

Evidences of Mastery

1. Having knowledge of conditions in the community which are detrimental to health
2. Appreciating what is provided for health by local, state, and national agencies
3. Cooperating readily in any practical undertaking which would help to promote health

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VI. SAFETY FIRST AND FIRST AID

Unit Objective

To learn how accidents may be avoided, and what to do when accidents and other emergencies occur

Specific Objectives

1. To learn the safety first idea
2. To know how to relieve suffering, or possibly, to save a life where there is an occasion for such services to be rendered

Teacher Procedure

Teach symptoms, causes and treatment of the following

1. Insect stings, snake bite, and dog bite
2. Sunstroke, heat exhaustion, and frost bite
3. Croup, hiccough, and choking
4. Swallowed objects and poisons
5. Asthma, hay fever, hives, and poison from ivy
6. Broken bones, and dislocations
7. Sprains, bruises, and blows on the head
8. Splinters and thorns
9. Objects in ear or eye
10. Nose bleed, and internal bleeding
11. Teeth knocked out or broken
12. Sunburn, blister, burns, scalds
13. Wounds and cuts
14. Shocks due to accidents, live wires, and lightning
15. Fainting and fits
16. Suffocation by gas, water, dust

Pupil Activities

1. Learn the poisonous snakes and plants in your locality
2. Make a list of the ten most essential things for a first aid kit
3. Class make a safety first alphabet
4. After each student has prepared a list of safety first rules and slogans, have a committee sort them and classify under separate headings as water, traffic, fire, etc., and make into a Safety First Rule Book
5. Each pupil be responsible one morning for putting on the bulletin board something for safety first
6. Cut, date and paste in folders all newspaper accounts of deaths caused by carbon monoxide

7. Find out the make up of a chemical fire extinguisher and how to operate one
8. If a person has been bitten by a dog, and there are reasons to suspect it is mad, what should be done with the dog and with the person?
9. Practice the following:
 - a. Artificial respiration
 - b. Various methods of bandaging
 - c. Carriers for the injured
 - d. How to rescue one from an electrified wire
 - e. How to revive one who has fainted
 - f. How to make and apply a tourniquet

Evidences of Mastery

1. Avoiding chances if there is an element of danger involved
2. Acting quickly and intelligently in an emergency
3. Know how to treat and care for simple emergencies
4. Using the nine general principles which should always be borne in mind in dealing with emergency cases
 - a. Keep cool
 - b. Think clearly
 - c. Get someone older or more skilled than you are to help you as soon as you can if you find that you cannot handle the case alone
 - d. Send for a physician if no one else is there to do it unless you know the injury to be slight
 - e. Do only that which is necessary for the safety and comfort of the patient until help comes
 - f. Remember that an unconscious patient cannot swallow so do not try to give him anything to drink
 - g. Study the injury carefully before treating it
 - h. Treat the most severe injury first (a hemorrhage before a bruise)
 - i. Administer first aid only when you are sure you know what should be done

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VII. CARE OF THE SICK AND OTHERS IN THE HOME

Unit Objective

To gain a knowledge of how to make the best of home conditions in caring for those needing attention during sickness and convalescence

Specific Objectives

1. To learn the ideals and attitudes for the conservation and promotion of health in the home
2. To gain a general knowledge as to cause of various ailments and the possibility of caring for some patients in the home
3. To learn how to recognize common abnormal conditions in individuals
4. To recognize the seriousness of certain physical conditions in individuals
5. To learn the proper and intelligent care of infants, young children, bed patients, and old people in the home
6. To know the importance of healthy fathers and mothers

Teacher Procedure

1. Keep constantly in mind the limitations of the course. Remember always that it is only an elementary knowledge of nursing which you are seeking to impart
2. The following topics should be presented:
 - a. Indications of sickness, temperature, pulse, respiration, color, appetite, disturbed sleep, mental condition, pain
 - b. Meaning of symptoms
 - c. Importance of observation
 - d. General appearance: skin, eyes, posture
 - e. Possibilities of home care
 - f. The attendant: personality, personal hygiene, responsibility, conservation of strength of self and of patient
 - g. Daily care of patients: body, food, baths, bed and bedding, administering medicines, keeping records as advised by physician
 - h. Daily care of room: cleaning, dusting, temperature, light
 - i. Babies and young children: surroundings, clothing, habits, baths, regular schedule of food, sleep, exercise and elimination, normal growth and development, general care, responsibility of parents, prevention of communicable diseases, caring for remedial abnormal conditions
 - j. Care of convalescents and the aged: cheerful atmosphere, bodily comforts, suitable daily care, entertainment

Pupil Activities

1. Application outside of school as much as possible of what has been learned in class

2. Demonstrations of simple nursing procedure such as the following:
 - a. Give a baby a bath
 - b. Dress a baby or young child
 - c. Make an occupied or unoccupied bed hospital style
 - d. Make hot and cold compresses
 - e. Make mustard poultice
 - f. Shake down clinical thermometer, take temperature, and sterilize thermometer
 - g. Count pulse rate and respiratory rate
 - h. Write menus for various meals for an old person, a sick adult, a school child, a baby
 - i. Prepare a tray for a patient
 - j. Use simple method of pasteurizing milk
3. Read the story of Florence Nightingale
4. Visit a clinic or hospital if possible

Evidences of Mastery

1. Ability to:
 - a. Select sick room in relation to bath-room, exposure, lighting, heating, furniture
 - b. Ventilate room properly without exposure to patient
 - c. Make bed neatly and quickly with conservation of energy of self and patient
 - d. Move and lift patient, giving proper support
 - e. Give sponge bath quickly, and prepare for and give a baby a bath
 - f. Weigh baby correctly
 - g. Prepare hot and cold applications, hot water bottle and ice cap
 - h. Read thermometer and count respiration and pulse accurately
 - i. Feed helpless patients
 - j. Select, prepare, and serve attractively a suitable meal for a patient
2. Knowing:
 - a. When to seek medical aid
 - b. How to recognize dangerous symptoms
 - c. Importance of following orders of physician
 - d. Some of the contributions of science to disease prevention
 - e. What precautions to take in applying heat and cold
 - f. How to improvise equipment
 - g. The common disinfection agents
 - h. How to care for utensils, apparatus, and other things used in the sick room
 - i. The meaning of liquid, soft and full diet
 - j. How to choose and care for milk for baby
 - k. How to arrange a feeding and living schedule for a child
 - l. What constitutes a healthy body and healthful environment for a child
 - m. Health needs of old people
 - n. When patient should be isolated
 - o. Rules and regulations of state and local boards of health regarding quarantine and placarding and what constitutes proper observance of same

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VIII. COMMUNICABLE DISEASES AND THEIR PREVENTION

Unit Objective

To learn the facts concerning communicable diseases, how to avoid these diseases and protect others from them

Specific Objectives

To know that there are certain diseases which can be passed from one individual to another and they are quite detrimental to one's health and can be avoided if intelligent care is exercised

Teacher Procedure

1. To present the facts that there are tiny organisms called bacteria which influence health
 - a. Size: microscopic
 - b. Shape: round, rod shape and spiral
 - c. Grouping: scattered, pairs, clusters, chains
 - d. Use: harmful, beneficial
 - e. Growth requirements: temperature, humidity, food
2. To outline the cycle of infection so that pupils will understand how communicable diseases get from one person to another
 - a. Definition of communicable diseases
 - b. Causes: animal, plant, unknown
 - c. Sources: man who can be case or carrier, and animal
 - d. Sites of diseases in body: part attacked depends upon disease
 - e. Infectious discharges: blood, pus, saliva, sputum, feces, urine, tears
 - f. Vectors of infection: fingers, insects, food droplets, fomites
 - g. Portal of entry into body: respiratory tract, digestive tract, skin, mucous membrane
 - h. How the body recovers from infection and establishes immunity
 - i. Artificial methods of conferring immunity: vaccination
3. To indicate how it is possible to avoid having communicable diseases:
 - a. Predisposing factors: environment, heredity, age, sex, habits
 - b. Immunity: natural and artificial
 - c. Disinfection of infected material: burning, boiling, exposure to sunshine and fresh air, chemicals, soap and water, common sense
 - d. Avoid contact: isolation, quarantine

Pupil Activities

1. Make two lists of bacteria: one including those which are beneficial to man and the other those which are harmful

2. Work out the following experiment in class: Take two glasses and fill each half full of lukewarm water. Crumble into each a quarter of a cake of compressed yeast. Leave one glass with just the water and yeast in it, but into the other put one teaspoon of sugar and six heaping teaspoons of flour. Beat the contents of the second glass until well mixed. Place both glasses in a warm place and observe at intervals during the day. Decide what makes the material in the second glass behave as it does
3. Have a doctor, nurse, or science teacher help prepare five petri dishes with culture media. The class will get some idea of the presence, the size, the mode of transfer and the result of bacterial growth if the following experiment is carried out by using the five dishes. Let one remain with the cover on it so that nothing can get into it. Expose one to the air by removing the cover and leaving it off for an hour or two. Let someone who thinks he has clean hands remove the cover from one of the other dishes and gently press the balls of his finger tips on the material in the glass. Care should be taken that the finger nails do not come in contact with the material and that the cover is replaced on the dish as soon as possible. In the next dish quickly put in a fly which some one has secured for the purpose and let it walk around over the material for an hour or two before taking him out. Let someone in the class who has a cold hold the remaining dish close to his mouth and cough hard with his mouth close to the material several times. The cover should be replaced as soon as possible on all the dishes and left there. Place all of the dishes in a warm place and watch what happens in each of them in the next eight days
4. Write on the board the names of a number of diseases. After the list is made indicate which ones are communicable and which are not
5. Find out who Typhoid Mary is and why she has cost the United States so much money and why she can't be sent back to Russia
6. Make a list of ten communicable diseases and after each indicate its location in the human body. Notice the numbers which locate along the respiratory tract
7. Get a record of all absences at school due to sickness for a given period and classify as to cause. Determine the per cent due to communicable diseases
8. Get on the mailing list of the State Department of Health for "The Weekly Health Message" to learn the number of cases of each communicable disease reported for each week for the state. Check the number reported from your county against those from other counties
9. Make a survey of the class to determine what per cent have been vaccinated against smallpox. Determine why health workers call the vaccination scar a badge of intelligence
10. Secure from the State Department of Health data regarding the number of deaths and their cause in the state for the year just passed. Each make a graph showing the distribution of causes
11. Name the discharges of the body which might carry infection when one is ill and decide how each should be handled to prevent the spread of disease
12. Each think of five things in his environment which might make it easier

- for him to contract a communicable disease. Discuss how these conditions could be remedied
13. Report on the life of someone who has tried to lessen the number of cases of communicable diseases; such as, Jenner, Pasteur, Koch, Trudeau, Reed, Lazear, Gorgas, Behring, Schick and Dick
 14. Look up the account of why and how anti-toxin was carried to Nome, Alaska
 15. From the dictionary find out what is meant by a plague, a pestilence, an epidemic, and a pandemic, and give an illustration from history of each
 16. Figure out why one can give someone else a communicable disease before he knows that he has the disease
 17. Send to the State Department of Health for a copy of the Communicable Disease Chart and study incubation period and isolation period of the diseases given
 18. Secure a sample of each of the placards used by your local health officer to find out what is written on each
 19. Make a list containing brief statements of twenty-five state laws which in some way aim to prevent the spread of communicable diseases
 20. Find out why and how immigrants are inspected before they are allowed to land in the United States
 21. Class make a booklet of health habits which will help keep one from contracting communicable diseases

Evidences of Mastery

1. Knowing which diseases are passed from one person to another and which may cause impairment of health and even death
2. Having so strong a determination not to acquire any communicable diseases, when it is possible to avoid them, that artificial immunity is secured in the cases possible, and habits are established which will care for the body and the environment so that it will be impossible to contract such diseases
3. Having as an ideal of a good citizen one who never knowingly exposes himself or others to a communicable disease and who will isolate himself or go into quarantine for the sake of others
4. Knowing the correct answer to each of the following questions:
 - a. Which one of the following eye troubles is considered a communicable disease?
 - myopia
 - astigmatism
 - zerophthalmia
 - ophthalmia neo natorium*
 - b. Vaccination will make one immune to which of the following?
 - whooping cough
 - typhoid fever
 - small pox*
 - scarlet fever
 - c. If one wakes up in the morning with a headache, a sore throat and is slightly nauseated which of the following had he best do?

- go to the doctor's office
- go to his usual work
- lounge about the house
- stay in bed*
- d. To determine if one has typhoid fever which should be given?
 - Schick test
 - Wassermann test
 - Widal test
 - Dick test*
- e. Rod shaped organisms called bacilli are the cause of?
 - tuberculosis*
 - gonorrhoea
 - syphilis
 - chickenpox
- f. Which placard will the health officer place on the home where the doctor has reported a case of measles?
 - temporary
 - warning*
 - carrier
 - quarantine
- g. Scabies is a communicable disease which selects for its site the following part of the body?
 - skin*
 - bones
 - blood stream
 - respiratory tract
- h. Which vector of infection is most likely to transport malaria from one person to another?
 - milk
 - droplets
 - fingers
 - mosquitoes*
- i. The portal of entry through which a tetanus spore would be most likely to gain entrance into one's body is?
 - the nose
 - the mouth
 - the skin*
 - the mucous membrane
- j. The discharge which will be most likely to carry the disease from the body of a patient with mumps is?
 - feces
 - pus
 - tears
 - saliva*
- k. The mode of disinfection which one should use in destroying possible infection on the dishes of a patient suffering with scarlet fever is?
 - by boiling*
 - by burning
 - by fumigation
 - by using chemicals

- l. If one is suffering from diphtheria which one of the following should be administered?
 - toxin
 - anti-toxin*
 - toxin-anti-toxin
 - Schick test
- m. If there were reasons to suspect that a dog had hydrophobia and all the following could be done which should it be?
 - pen him up*
 - give him poison
 - chase him away
 - shoot him through the head
- n. If one has gotten trichinosis it is most likely to have been contracted by:
 - running a rusty nail in his foot
 - eating pork that was not well done*
 - being in contact with someone who had it
 - drinking water from a doubtful source
- o. The people most immune to tuberculosis are:
 - the Jews
 - the Irish*
 - the Indians
 - the Negroes

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Notes by Teacher

IX. FUNDAMENTALS

This term applies to the teaching of principles, facts, and skills which lead to the effective use of the body in all forms of activity. This essential material may be taught in connection with specific activities, i.e., sports, rhythms, gymnastics. If put together into a course such as the one outlined here, it is very important that enough activity be given, that principles be applied to real situations, and that definite achievements be outlined so that students may have a real feeling of accomplishment.

The method of teaching, is, of course, informal with class discussion, individual squad and group activity in almost every lesson. The group activity should include enough vigorous exercise to give the organic stimulation essential.

Unit Objective

To understand individual needs and the possibilities of developing the all-round efficiency of the body to an optimum point

Specific Objectives

1. To interpret physical examination so as to understand own points of strength and weakness
2. To acquire the abilities tested in the Iowa Posture Test

Teacher Procedure

1. Interpretation of physical examination may well be held in the class room in street clothes. Each girl has a copy of her own record. Explain the importance of each item, and its relation to an exercise program. Answer questions
2. With a large group student leaders may be trained to be examiners. The test is subjective and so is best given by a trained person. All items are recorded, + passing, - failing

If possible divide class into groups of ten. Each group starts sitting in a row (rank formation) of chairs. Examiner writes names in order and requests group to keep same order during whole test. She then explains points in the walking test as follows: *Feet*—keep toe straight ahead, keep weight in middle of foot without allowing long arch to sag, springy heel-toe action. *Body segments*—keep alignment straight, without stiffness, head and chest erect, abdomen controlled, spine showing normal curves, not exaggerated; pelvis slightly inclined. Keep weight line straight, very slight-

Pupil Activities

1. Keep a copy of record of physical examination for a "Gym Scrap Book." Write a comment on it
2. Squad leaders have special meeting, take the posture test and learn how to give it. Later give to members of own squad

Evidences of Mastery

1. Ability to give either orally or in writing a brief, clear discussion of own physical condition as shown by examination

2. Ability when walking to keep body in vertical line with smooth, easy swing, and feet toeing straight ahead, no pronation, heel-toe action

Ability when sitting on camp chair:

- a. To sit easily erect, head and chest high, shoulders easy, hips and shoulders back against chair; feet well under the knees, one slightly in front of the other, rising and walking forward easily with a minimum of weight adjustment; abdomen held up by contraction of lower part
- b. To lean forward, at least to 45-degree angle, without losing straight line of upper back

- c. To rise and walk forward easily without losing vertical line position (optional)

Ability when doing exercises for upper back control to keep the feet two foot-lengths apart and the arms overhead while bending the body

Specific Objectives

3. To use feet correctly in:
 - a. Ordinary walking
 - b. Running
 - c. Jumping
 - d. Running or "court covering" used in basketball, tennis, and other similar games
4. To recognize points of a good shoe and to know whether one's own shoe is suited to needs

Teacher Procedure

ly forward, easy transference from one foot to other without swaying sideways. The group then walks around row of chairs while examiner, after seeing from front and side both, checks each point. She writes above the sign under "body segments" column the reason for failure

The group then sits, the examiner explains to them the points in the sitting test. Sit with hips and shoulders touching chair, head and chest easily erect, abdomen controlled, shoulders relaxed, one foot slightly in front of the other. Examiner checks each. She then explains points about leaning forward. Head and upper back are in line with no rounding of upper back. She then asks each to lean forward as she comes down the line and checks

While the group is sitting the examiner demonstrates the forward bend, arm overhead test. She stands with feet two foot-lengths apart, arms overhead, trunk bent forward to a right angle. She keeps the upper back, head, and arms in a straight line, the knees straight. She then asks each to take the position, and checks

She then demonstrates the stretch toe stand position. She raises the arms slowly overhead until the body is lifted up on the toes, contracts abdomen and keeps lower back from hollowing. Arms, head, and body are kept in a straight line. She then asks each to take the position, and checks

3. Discuss structure of feet, and apply principles directly to activity. Use fatigue relief measures such as: foot and leg massage, lying on back with feet in air, etc., between running and jumping so as to avoid muscle soreness
4. Get samples of good and poor shoes, having former new, latter slightly worn. Explain points. Have class use paper

Pupil Activities

3. Learn how to draw up inner border of foot in standing and walking, how to cup feet in "court covering", how to land on toes with controlled "give" in ankle, knee, and hip joint while running and jumping

4. Find out whether own shoe fits foot and probable consequences of continuing to wear badly fitting or poorly designed shoes

5. a. Practice "trained cat," *i. e.*, get down on hands and knees, hollow whole back with head up, hump whole back with head down, then try to hollow just upper back while lower back is kept humped. From hollow back position try to hump lower back, keeping upper back hollowed. Same in partners, one girl standing behind and pushing on spine at lower hip region while other pushes up against the resistance
 Practice chest lift, *i. e.*, sit down, relax upper back and let head drop. Slowly lift the chest and stretch up until head and upper back are in line

Evidences of Mastery

- forward, keeping the arms, trunk, and head in a straight line of the trunk and legs
3. Ability after practice to run with correct use of feet and then to run flat-footed so as to see difference

 4. Purchase of the correct type of shoe by student

 5. c. Ability to take hollow back position standing, and to correct it. NOTE: The corrected position should *not* show a flat lumbar spine; it should curve in at the waist slightly
 Ability to do "folding and unfolding" showing at end of extension a complete stretch upward of body in

Specific Objectives

5. To know simple facts and principles of body mechanics
6. To apply this knowledge of body mechanics to problems of efficiency in physical activity
7. To explain balance of factors which are important in good posture, *i.e.*,
 - a. Flexibility
 - b. Strength
 - c. Skill or control
8. To demonstrate proper performance of the exercises for flexibility, strength, and skill
9. To select, under supervision of instructor, exercises which would be suitable for one's own daily dozen
10. To recognize beauty of line as demonstrated by fine carriage of the body
11. To select from magazines and rotogravure sections studies of classical

Teacher Procedure

- and pencils. Ask class to place foot without shoe on paper and trace around it, then to place shoe on this outline and draw around it. Discuss appropriateness of different shoes for different occasions
5. Bring out by discussion simplest principles such as:
 - a. Spine is flexible. Normal curves are important as shock absorbers and stabilizers, and also for beauty of line
 - b. Flexibility without muscle tone means weakness and danger of lateral curvature
 - c. Round back and hollow back are abnormal exaggerations of spinal curves and interfere with space and pressure relations of chest and abdominal organs. May lead to deformity
 - d. Muscles have strength in proportion to cross section, therefore, when power is needed use larger muscle groups
 - e. Leverage acts in body by various arrangements of muscles, bones, and joints
 6. Set mechanical problems. Ask squads to work out answers
 7. Give exercises for:
 - a. Flexibility of shoulder joint, hip joint, and spine
 - b. Strengthening of abdominal, upper back, foot muscles
 - c. General control
 Explain purpose as they are done
 8. and 9. Divide class into squads on basis of needs as shown by physical examinations and posture tests. Ask each squad to work out a good, vigorous daily dozen, using exercises needed for their defects, chosen from those given above
 10. Have good carriage contest by squads.

Pupil Activities

- b. Try rope climbing without knee grip using arms and pectorals and with knee grip using hip and knee joint extensors
- c. Partners make a chair of hands and lift third girl in two ways: first they stand away from her, keep knees straight, bend at hips, and try to lift her with back muscles; second, they get close, bend knees, and lift her with leg extensors
- 6. Each squad takes one problem, goes to apparatus, practices different ways of doing the activity, and reports answer
Example:
 - a. Why is front somersault on box or mats easier than back somersault?
 - b. Is it easier to get up on the box, horse or buck, at shoulder height than on the parallel bars? Why?
 - c. What is the best way to pick up a tray of heavy dishes from a table waist high?
 - d. What is the best way to open a window that sticks?
 - e. What is the best way to pull an opponent over the line? To push her over?
- 7. Write down descriptions and purpose of exercises outside class hours. Hand in
- 8. and 9. Each girl contributes some exercise which she enjoys doing and thinks of value. Squad discusses how to put them together, keeping in mind:
 - a. Gradual warm-up, *i.e.*, avoiding placement of most vigorous exercise first
 - b. Variety, *i.e.*, avoiding succession of two or three exercises using same muscles
 - c. Special defects of group and individual variations
Practice exercises individually and as group under direction of squad leader. Demonstrate to rest of class and explain purpose. Other squads ask questions and criticize

Evidences of Mastery

- vertical alignment
- d. Ability to cling with knee grip so that feet do not slip as legs are straightened
- e. Ability to lift person's own weight with ease, working in pairs, and to explain mechanical advantage of getting close to weight to be lifted
- 6. Disposition of the girl to take part in discussion in squads:
 - a. Active interest of squads in discussion
 - b. Correctness of the solutions worked out by squads
 - c. Ability to give reasons for solutions
- 7. Accuracy in choosing lists of exercises for a given purpose
- 8. and 9. Ability of squad leaders in keeping the group together in demonstration. Ability of group to do exercises in good form, showing results of serious practice
Disposition of class to ask good questions, or respond well to provocative questions from teacher
Ability of the demonstration squad to defend their choice and arrangement of exercises when questioned

Specific Objectives	Teacher Procedure
beauty of line and physical poise	11. Hold squads' poster contest. Get cooperation of drawing teacher
12. To know the optimum use of activity in daily life:	12. Give whole time for a week to discussion and questions. Meet in street clothes in recitation room
a. In relation to physical health	13. Give instruction on relaxation to the group as a whole in lying position. If there is difficulty in getting feeling of relaxation, use strong contraction of muscles for contrast
b. In relation to mental health	14. In same lesson teach forward roll, tortoise roll, (Rodgers, <i>Handbook of Stunts</i> , p. 280) approach swing (use wands if have no golf irons). Emphasize relaxation
c. In relation to menstrual health	15. In presenting rhythm patterns, methods will depend on facilities. Possible instruments are piano, castanets, drum, tom-tom, or merely two resonant wooden sticks. Singing may be used
d. In relation to special conditions such as underweight, overweight, constipation, etc.	If possible start with the rhythm of waltz, and contrast it with the 4/4 rhythm of march. Then take uneven rhythms such as the skip and gallop
13. To be able to relax the body totally and segmentally	Progress to use of arms to indicate rhythm, then whole body. Then do simple sport skills, such as tennis drive, basketball free throw, pivot, bounce, and pass. Get class to analyze rhythms and then have group practice as a whole. Ask squads to take different sport skills as projects
14. To use relaxation in specific skills, such as basketball, goal shooting, golf drive, use of the foot in clogging, forward roll, swimming, etc.	16. Demonstrate and set rhythm for demonstration group practice of skills
15. To recognize and respond to simple rhythm patterns	17. Have class practice relaxation lying on back. Teach arm, leg, hip, shoulder, and head leads as means of rolling over.
16. To use rhythm in learning sport skills, tumbling, etc., as well as specific rhythmic activities such as clogging	Try stunts of complex localization which imply quick and accurate connections. Tell class to lie with knees half bent, feet on floor and arms bent, hands on shoulders. Vary signals such as:
17. To localize muscular contraction in coordinations of progressive difficulty	"Left leg stretching, go; stop"
18. To apply localization to sport skills, tumbling, swimming, etc.	
19. To demonstrate certain other principles underlying sport skills such as:	

Pupil Activities

10. Each squad chooses two judges. All meet in street clothes, walk up and down gymnasium informally as if on street. Judges pick out best in own squad on basis of good carriage, ease and grace in walking. These representatives together with judges then compete. Whole class watches and votes for first and second places
11. Everyone watches for and brings to squad meeting illustrations of good posture. Squads select best material for a poster and submit finished poster for contest
12. Draw up an optimum program of work, play, rest, to meet own needs
13. Lying on floor let go of muscles; have a feeling of sinking heavily on to floor. Stiffen whole body and then stop stiffening. Stiffen whole body and relax gradually, beginning at toes and letting it go up through the legs, body, and arms
14. Have same feeling of loose muscles in doing sport skills. Just before throwing a basket, take in a deep breath and *breathe out*
16. After learning that activities may be done in rhythms which are fast or slow, even or uneven, smooth or accented, try to feel rhythm pattern of particular sport skill. Watch girls who can do it best and use their rhythms
17. In rolling over from relaxed position try to feel just muscles of leading part of body working, all else is relaxed
In localization stunts concentrate on part of body mentioned in teacher's signal—keep relaxed
19. Practice sport skills assigned to squad—pool coaching hints and knowledge of how to do skills
21. and 22. Squad project work as before

Evidences of Mastery

10. General agreement in voting on good walking posture
11. Ability to make attractive posters which bring out point of good posture
12. Ability to make acceptable scores on objective test devised by teacher, covering material presented
13. Ability to relax so that if moved the body or limb will flop back to floor rather than staying stiff in new position
Ability to avoid any resistance if an arm or leg is lifted or moved
14. Freedom from tenseness which is evidenced by jerky, spasmodic movements
16. Ability of class to keep together following demonstrated rhythm in group practice of a sport skill
17. Ability as body rolls to let the rest of it drag while leading segment moves
19. Ability of class to work out essentials as listed in objectives
21. and 22. Ability of class to show retention and understanding of mechanical principles previously discussed and to make correct applications

Specific Objectives	Teacher Procedure
a. Preparatory movement and follow through	"Right arm stretching, go; stop"
b. Keeping eye on the ball	"Head bending upward, go; stop"
c. Use of body weight and balance	"Right leg and left arm stretching, go; stop the arm movement"
d. Emphasis at moment of hitting or throwing	"Begin the arm movement, go; stop the leg movement; change to right arm, go," etc.
20. To apply these principles to a number of specific sport skills	18. Give group work on nose dive emphasizing position of arms and rear leg. Work on land drill of crawl emphasizing details of correct arm position
21. To recognize mechanical problems involved in skills of daily life such as:	19. In squad projects, provide sport implements and assign to each squad certain sport skills. Ask each captain to write down certain coaching hints the squad would agree were important in developing skill. Have general discussion to find out if any of these coaching hints are the same in all sports
a. Lifting and carrying heavy weights	20. In squad project, take up new sport skills and see if same principles apply
b. Going up and down stairs	21. and 22. In squad project what is best way to do these skills of daily life?
c. Getting on and off moving objects	Each squad takes a problem, works out best way to do it and why, presents solution to rest of class and answers questions and criticisms
d. Pushing, pulling heavy objects	Class criticizes and agrees on correct solution
e. Hiking and hill climbing	
f. Exercises of endurance; maintaining a position or continuing an activity over long periods of time	
22. To know reasons for given solution of each of these problems and to be able to demonstrate the solution	

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X. GAMES AND SPORTS

Unit Objective

To acquire the ability to play a variety of vigorous games with enjoyment

Specific Objectives

1. To increase organic vigor
2. To acquire wholesome social relationships and ideals
3. To acquire skill in the games to the degree of receiving satisfaction in playing
4. To acquire ability to play with others
5. To acquire individual initiative
6. To acquire proper attitudes of sportsmanship
7. To acquire leadership and fellowship qualities
8. To acquire group loyalty
9. To acquire a love for physical activities
10. To understand fundamental principles of skill which apply to all physical activities, *i. e.*, relaxation, continuity of movement, rhythm, localized control, etc., and to be able to apply these principles in learning a new skill
11. To see problems of strategy in games and to develop the habit of thinking through to the solution quickly enough to be effective in strategy
12. To have enough experience in planning, organizing, and officiating different games to be able to initiate recreative activities in situations other than those of the school

Teacher Procedure

1. Provide opportunities for each girl to play under suitable conditions and with necessary supervision
2. Become acquainted with the games that will best serve the needs of pupils
 - a. Divide games into two groups—low organization and high organization
 - b. Adapt to suit large and small groups
 - c. Provide games that will interest an individual player where the increased skill of the player becomes the incentive to continue
 - d. Provide other games to fit needs of those individuals who are physically handicapped
3. Understand every phase of the game in detail
4. Diagram fields, formations, plays, etc., but use with discretion and be accurate
5. Present the game simply and clearly. Give the class the general object of the game—just enough to get them started. Introduce and explain the more technical parts as the game proceeds

6. Give coaching hints and pointers at strategic moments. Encourage self-criticism. Encourage the class to give coaching pointers
7. Let the class discuss reasons for that group's success
8. Play a game long enough so the players develop skill and see the possibilities of improving strategy. Change when no further progress in interest or playing ability is possible.
9. Coach one thing at a time. Pick out the most important points and stress one at a time
10. Place eight or less in a row in all relay games. Take care of a large number of players by making more rows
11. Divide the class into two or more groups when there are a large number of players and divide the available space in two or more fields and then let several games proceed simultaneously. Be careful to keep the numbers to a minimum where there are definite positions as in baseball, captain ball, etc.—in such games as volley ball, the larger the number playing on one side, the less activity the group will get
12. Take up games in progression as to difficulty. Each major sport needs preliminary games and practice in technique
13. Use charts to score achievement in technique skills such as basket shooting, volley ball serve, etc.
14. If facilities are lacking for individual sports such as tennis and golf, teach parts of the technique such as serve, forehand and backhand drives, etc. Prepare yourself carefully to teach these techniques
15. Set the stage for concomitant learnings—character development in cultivation of attitudes

Pupil Activities

1. Play games of low organization
 - a. Active games suitable for small or large groups:

Ante over	2*
Pig in the hole	1
One o' cat	2
Base cruck	3
Duck on a rock	1
Long ball	3
Bat ball	3
Bowl Club ball	2
Hemenway ball	2
Net ball	3
Newcomb	3
Hit pin baseball	3
Kick ball	3
Soccer baseball	3
End ball	
Nine-court basketball	3
Flash ball (A. P. E. R. Jan. '28)	
Rope jumping	
 - b. Court Games:

*Numbers refer to references

Paddle tennis
 Deck tennis
 Ring tennis
 Serve us all

c. Relays:

All up	1
Arch ball	4
Basket shooting	4
Bounce and pass	4
Circle race	1
Crawl and run	4
Dizzy relay	1
Double rope skip	4
Down and up	4
Human croquet	3
Jump stick	3
Kangaroo	4
Over the robe	4
One hand ball	4
Submarine	3
Basketball over and under	
Indian club	
Shuttle	

d. Tag Games—all kinds:

Regular tag
 End
 Japanese
 Couple
 Line

2. Play highly organized games listed with games leading up to them

a. Volley Ball

b. Soccer

Side kick
 Modified soccer
 Corner ball
 Line soccer
 Relays
 Indian club
 Passing
 Dribble

c. Speedball

d. Baseball

Relays
 Running
 Shuttle
 All including baseball throwing
 Games
 Old cat
 Hit pin baseball

- Triangle ball
- Work up
- Beat ball
- Techniques
- e. Hockey
 - Relays
 - Hockey dribble
 - Hockey goal shoot
 - Passball
- f. Basketball
 - Relays
 - Over, under and goal
 - Zig-zag using passing, pivot, bounce, juggle
 - Games
 - Newcomb
 - End ball
 - Keep away
 - Bounce, pass, keep away
 - Corner ball
 - Captain ball
 - Nine-court basketball
 - Individual skills and techniques
 - Teacher and class
 - Twenty-one
 - Circle pass
 - Technique drills
- g. Track and field
 - Short dashes (up to 50 yds.)
 - Throwing events
 - Basketball
 - For distance
 - For accuracy
 - Baseball
 - For distance
 - For accuracy
 - Jumping Events
 - (Be sure of good landing pit)
 - Standing broad
 - Running high
 - Hurdles (low)
 - Obstacle races
 - Short relay races
 - Novelty events
 - Hop, skip, and jump
- h. Golf
 - Clock golf
 - Approach shots
 - Putting contests
 - Driving tethered golf balls (attached by elastic to tee)

i. Tennis

Backboard practice—keeping ball in play

Couple practice—one tossing balls to other for forehand and backhand drives

Serve practice—at a target

j. Archery

Target shooting

Informal cross country "Rovers"—setting up any targets along the way

Distance shooting

Bonarrow or archery golf

Evidences of Mastery

In games of low organization there are few objective tests available. The teacher must check on learning of pupils by critical observation of game behavior. Some evidences of mastery are:

1. Increasing number showing alertness and zest in a playing situation
2. Increasing number showing ability to think of strategy while playing
3. Proper response of the group to situation where facilities and equipment are available but the teacher is not present
4. Ability of group to play technique games such as zig-zag relays without an error, *i.e.*, no fumbling
5. Ability of group to perform stunt relays without an error
6. Increasing number showing fundamental bodily control in tag games, stunt relays, etc.
7. Increasing number showing fundamental sport skills (throwing, catching, batting, etc.) in games and relays

In games of higher organization it is possible to use objective standards for measuring skills. There are not many, however, that have been so well standardized as to be acceptable as "national" or "universal" scoring schemes

In most situations the teacher can set up local standards which will serve to give some measure of progress to player and coach as well. Play behavior also should be carefully checked in:

Volleyball by ability to:

1. Serve accurately ten times
2. Return when working in pairs as shown by the number of volleys made in 30 seconds
3. Volley against wall with a line drawn at height of net

Soccer by ability to:

1. Kick
 - a. Distance
 - b. Accuracy (goal)

Baseball by ability to:

1. Hit target
 - a. Underhand
 - b. Overhand
2. Get distance
3. Throw and catch rapidly and accurately as measured by number of throws made in 30 seconds when working in pairs

Hockey by ability to:

1. Dribble with speed
2. Drive with
 - a. Distance
 - b. Accuracy
3. Pass accurately and rapidly as measured by number of drives made in 30 seconds when working in pairs

Golf by ability to:

1. Putt for accuracy
2. Drive tethered ball as measured by number of times the ball is squarely hit in 10 tries
3. Approach for accuracy

Tennis by ability to:

1. Serve accurately to an outline target above net height on back board as measured by number of successes out of ten tries
2. Keep the ball in play as measured by the number of rallies without error
3. To drive accurately at target using forehand and backhand strokes

Archery by ability to:

1. Score according to any local standards which have been set up

Basketball by ability to:

1. Make free throws
2. Make field goals in a given time, for example, 30 seconds
3. Pass with
 - a. Girls 10 feet apart
 - b. Girls arranged in teams

Track by ability to:

1. Make scores in the events

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XI. GENERAL RHYTHM TRAINING

Unit Objective

To understand the place of rhythm in art and movement; to develop, through experience in rhythmic activity, an appreciation of the body as a fine instrument of expression

Specific Objectives

1. To recognize different rhythms
2. To respond to different rhythms by locomotion, body movements, and combinations of the two, not as an interpretation of music but as pure rhythm to drum beats, foot beats, clapping, etc.
3. To enjoy rhythmic movement
4. To recognize and respond accurately to even or uneven rhythms
5. To move freely to music
6. To recognize rhythm pattern of a movement done without sound accompaniment
7. To apply principles of rhythm to sport skills

FOLK DANCING AND CLOGGING

1. To do dances with enjoyment
2. To know the customs, people, etc., of the country from which each dance comes
3. To acquire skill in the dances studied
4. To apply steps already learned to new dances
5. To acquire as much knowledge contributing to understanding of each dance as possible
6. To work in groups as well as individually
7. To express dramatic situation or character of each dance
8. To invent original clogs, or new combinations of folk dance forms
9. To develop accuracy and good taste in costuming folk dances

Teacher Procedure

1. Have pupils work out for themselves through discussion and practice (under the teacher's guidance) the fundamentals of rhythm. All of the qualities can be illustrated with drum beats, clapping, or foot beats, to get pure rhythm and not just the interpretation of the music

Have pupils study:

Relative time intervals, long values and short values

Tempo, fast and slow

Accent, which marks the beginning of a group and comes always on the first beat

- Stress, a second accent which marks the syncopated rhythms
Intensity, loud and soft
Grouping, division into measures and phrases
2. Work out the basic steps and* movements:
 - a. Locomotion
 - Even rhythm
 - Walking
 - Running
 - Leaping
 - Jumping
 - Hopping
 - Uneven rhythm
 - Sliding
 - Galloping
 - Skipping
 - b. Combinations into
 - Waltz $3/4$ time
 - Polka $2/4$ time
 - Polka $6/8$ time
 - Two step $2/4$ time
 - Schottische $4/4$ time
 - Mazurka $3/4$ time
 - Fox trot
 - Tango
 - c. Body movements
 - Simple shoulder movements
 - Let movement follow into the arm—arm swinging in pendular fashion, lifting, circling
 - Leg swing, lifting, circling
 - Body rotation lying on the floor
 - Roll with different leads: shoulder, hip, head
 - d. Combinations of steps and body movements
 - Combine skipping, sliding, etc., with arms lifting, circling, swinging
 - Arms swinging, carrying body around on the feet
 - Leg swinging and carrying body into a turn on the feet
 - Body roll on the feet, letting the movement follow through from one part of the body to another
 3. Give simple combinations of steps in formations and patterns of simple dances
 4. Let the pupils make own combinations into dances
 5. Give opportunity each lesson for free activity to music
 6. Let the pupils work out their rhythm patterns on the drum and move to them

FOLK DANCING AND CLOGGING

1. Give the dance atmosphere. Tell the name, nationality, folk customs, legends related to it, and story of the dance. Tell the pupils all that you can about the people. Show them the type of costume worn. Whenever possible have girls bring pictures and costumes
2. Have the music played

XI. GENERAL RHYTHM TRAINING

Unit Objective

To understand the place of rhythm in art and movement; to develop, through experience in rhythmic activity, an appreciation of the body as a fine instrument of expression

Specific Objectives

1. To recognize different rhythms
2. To respond to different rhythms by locomotion, body movements, and combinations of the two, not as an interpretation of music but as pure rhythm to drum beats, foot beats, clapping, etc.
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5. To move freely to music
6. To recognize rhythm pattern of a movement done without sound accompaniment
7. To apply principles of rhythm to sport skills

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 3. Give simple combinations of steps in formations and patterns of simple dances
 4. Let the pupils make own combinations into dances
 5. Give opportunity each lesson for free activity to music
 6. Let the pupils work out their rhythm patterns on the drum and move to them

FOLK DANCING AND CLOGGING

1. Give the dance atmosphere. Tell the name, nationality, folk customs, legends related to it, and story of the dance. Tell the pupils all that you can about the people. Show them the type of costume worn. Whenever possible have girls bring pictures and costumes
2. Have the music played

3. Describe and demonstrate the first step. If the rhythm is difficult have the pupils clap the rhythm first
4. Teach by musical phrases rather than by counts. Use "Slide until the music changes," rather than, "Eight slides to the right." If this proves difficult have them listen to the music and clap when they hear the change
5. Teach all of the steps except extremely simple ones in a slow tempo at first. Difficult steps such as the polka, schottische, waltz, etc. should be made familiar in rhythm work before they are presented in a dance
6. As soon as one step is learned put it with other steps previously learned, thus preserving the continuity of the dance
7. Introduce pantomime and dramatization based upon the pupils' ideas, in presenting the dramatic rhythm and singing games
8. Encourage freedom and a great variety of expression in all rhythms
9. Remind the children that their singing should be sweet and soft
10. Review all dances often for the better known a dance is, the more it is enjoyed
11. Put responsibility for perfection of steps and sequence upon class. Challenge them to do the dance through as far as learned with no help but no mistakes

Pupil Activities

1. Discuss and demonstrate by practical work the fundamentals necessary to rhythm such as
 - Tempo
 - Relative time intervals
 - Accent
 - Stress
 - Grouping in:
 - Measures
 - Phrases
2. Practice rhythm divided into even and uneven rhythms
3. Do rhythmic movement by:
 - a. Locomotion using.
 - Even movements as in: walking, running, leaping, jumping and hopping
 - Uneven movements as in: sliding, galloping, and skipping
 - b. Combinations of steps into waltz, two step, polka, schottische, mazurka, fox trot
 - c. Body movements as seen in:
 - Simple shoulder movements
 - Arm swinging, pendular, lifting, circling
 - Leg swinging, pendular, lifting, circling
 - Rolls
 - Folding and unfolding
 - d. Combinations of body movements and locomotion steps with:
 - Feet slide, the body and arms lifting, "slide and lift, slide and lift"
 - Arm swinging, turning the body on the feet
 - Leg swinging, turning the body on the feet
 - Roll on feet

4. Make own combinations into patterns and dances
5. Improvise free movement to music

FOLK DANCING AND CLOGGING

Pupils will learn and practice the dances given in the following references:

Scandinavian

- Ace of Diamonds 5, 24, 9
- Gustof's Skoal 3, 24, 19, 10
- Clap Dance 4, 12, 9
- Ploughman's Waltz 6
- The Pretty Sister-in-Law 6
- Fist Polka 6, 24
- The Crested Hen 3, 24, 12, 19
- Tretur 5, 19
- Little Man in a Fix 5, 19, 12
- Gossiping Ulla 6
- Oxdansen 19, 9
- Fryksdalspolska 19, 10
- Mallebrot 5, 19
- Goltand's Quadrille 3
- Linen Dance 5

Russian

- Kamarinskaia 19

German

- German Hopping Dance 9
- German May Dance 12
- Bummel Schottische 4

Dutch

- Dutch Couples 19
- Auf der Zyder Zee 25
- The Villagers 25

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- The Vineyard 12, 19, 9
- Minuet 19

Hungarian

- Csardas 4, 12, 19, 9
- Csebogar 19, 24
- Komano 4

Czecho-Slovakian

- Janko 19
- Butcher's Dance 19

Irish

- Irish Jig 9
- Irish Lilt 19, 24, 9

Scotch

- Highland Schottische 9, 19, 24
- Highland Fling 4, 12, 19

English

- We Won't go Home till Morning 8, 19

- Sellenger's Round 8, 19
 Jamaica 8
 Gathering Peascods 8, 19
 Butterfly 8, 19
 Sweet Kate 8, 19
 Bean Setting 8, 19
 Hunsdon House 8
 Flamborough Sword 8, 19
 English Hornpipe 3, 12
- American
- Sicilian Circle 1, 19
 Virginia Reel 1, 12, 19, 24
 Old Dan Tucker 1, 12
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 Birdie in the Center 19
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 Pop Goes the Weazel 1, 12, 19, 24
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- Country Dance 12, 19, 15
 Buck and Wing 19, 27
 Swanee 15
 Dixie 14
 University High Clog 19, 27
 The Georgian Male Quartette 4
 Newsboy Clog 18
 Billy Magee 18
 Liza Jane 14
 The Carolinas 26
 Pirates 26
 Lindy Lee 15, 27
 Sweet as Sugah 26
 Con Tagueous 13
 Irish Jig 14
 On Deck 14
 Arkansas Traveller 18

Evidences of Mastery

1. Ability to respond by walking and running to change in tempo
2. Ability to distinguish rhythm and perform well the waltz, two step, polka, schottische, mazurka, etc.
3. Ability to do a sport skill accurately to a set rhythm pattern, *i. e.*, to 6-beat and 8-beat crawl, land drill, step in place with feet as arms go through crawl movements, etc.
4. Ability to watch a skilled performance of some movement, either in sport or dancing, and tell what the rhythm pattern is
5. Ability of each member of group to respond to characteristic rhythmic movements, without suggestion from teacher

6. Ability of group to work out combined appropriate response to music without help from instructor

FOLK DANCING AND CLOGGING

1. Ability to go through learned dances without mistakes
2. Ability to learn dances so well that attention is directed to expression and spirit rather than sequence
3. Ability to plan program, learn dances, make costumes, and present whole at meetings

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XII. SELF-TESTING ACTIVITIES

Unit Objective

To acquire through squad organization in naturally interesting stunt activities ability to work together as a group on problems of fundamental skills

Specific Objectives

1. To acquire skill in self-testing activities
2. To improve in physical courage and in self confidence
3. To feel the joy of physical accomplishment through ability to do these stunts
4. To acquire the ability to share responsibility in group undertaking
5. To know stunts well enough to use them for recreation with groups outside school, at camp, picnics, informal parties, etc.
6. To be able to judge activities, apply standards and check scores accurately
7. To measure own progress and meet need for specific improvement honestly and persistently
8. To learn to assist each other in such a way as to minimize danger from accidents
9. To understand and apply fundamental principles underlying physical skill, *i. e.*, relaxation, localized control, balance, rhythm
10. To use ingenuity in planning new stunts, pyramids, formations, etc.
11. To understand danger of certain types of stunts involving strain

Teacher Procedure

1. Select a few, simple stunts of each type to be used by entire class as a test to divide them into small squads of like ability
2. Provide three mats, five by seven feet, two inches thick
3. Keep mats clean, thus encouraging participation. Use covers which may be laundered
4. Plan either for whole lessons or parts of lessons. Whole lessons can be divided into:
 - a. Stunts readily learned which all can do
 - b. Review of stunts which take more practice
 - c. New and more difficult and dangerous ones, and throughout work for relaxation
5. Make guidance outline in the form of an accomplishment chart and make it available to pupils. Plan carefully the organization of the class for each succeeding stunt when class instruction is given
6. Organize the pupils into squads with leaders for practice work, and plan an order of rotation based on use of the equipment and the parts of the body used. Keep pupils busy and willing to persevere in harder stunts by checking accomplishment at the end of the lesson.

Plan carefully the introduction and conclusion of each lesson. Work individual stunts into group activities as soon as possible, for example, have a squad line up side by side, count and do forward roll all at same time. This develops team work and accuracy and lays the basis for smooth sequence of stunts as desired in demonstrations and for work in pyramid building. Conduct all group exercises by definite count. Plan counts carefully and stick to same usage. Set the standard of good posture at the beginning and end of every trial. Have members of class contribute new stunts and original ones

7. Post accomplishment charts
8. Encourage all by frequent squad competitions in which the work of each member of the squad counts
9. Correlate accomplishment in stunts with G. A. A. point system
10. Test squads periodically and check chart and post. Review and relist
11. Have a preliminary class meet to determine entries into an interclass tumbling meet
12. Give a public demonstration and let pupils suggest formations, etc.
13. See that stunts do not involve serious strain
14. Correct form for performing stunts should be understood so corrections can be made
15. Use methods to get everyone into a contest
16. Note: Many of these stunts may be used as relays and many may be used in combinations with other stunts
17. Types of testing
 - a. Check by teacher
 - b. Check by squad leader or squads test one another

Pupil Activities

Pupils will learn and practice the activities arranged here in three groups according to difficulty

Individual Group A

Jumping Jack	5*
Shoulder rest	1
Snail stunt	1
Thru the stick	2
Top	2
Horizontal balance	1-3
Bicycling	5
Monkey walk	5
Mule kick	5-3-2
Rocker	3-2
Dog run	2
Stump walk	2
Heel knock	2
Wicket walk	2
Span	1
Crab walk	2

*Numbers indicate references

Group B	
Frog dance	2
Bear dance	2
Crane dive	2
Under stick	2
Forward roll	2
Chair creeper	2
Knee dip	2
Ankle throw	4
Jump stick	2
Human ball	2
Human knot	2
Corkscrew	2
Cricket walk	1
Group C	
Single squat	2
Tip up	2
Backward roll	2
Headstand	2
Cartwheel	2
Snap up	2
Dives	2
Couple Stunts	
Group A	
Twister	2
Chinese get up	5
Rocking horse	2
Wheelbarrow	2
Tandem	2
Kiddie kar	6
Group B	
Camel walk	2
Elephant walk	2
Stomach balance	1
Group C	
Sitting balance	1
Eskimo roll	2
Knee spring	2
Roll over back	3
Shoulder stand	2
Back spring	2
Back foot-trip	2
Double cartwheel	1-3
Group Stunts	
Group A	
Skin the snake	4
Archway	1
Pyramids	1
Group B	
Centipede	2

	Pedestal	1
	Wheel	4
	Pyramids	1
Group C	Flopper	2
	Triple sideward roll	1
	Triple dive	3
	Pyramids	1
Combative (none are difficult)	Hand wrestle	5
	Stick wrestle	2
	Hand push	5
	Indian wrestle	2
	Stork wrestle	5
	Chicken fight	2
	Pick up	5
	Drake fight	5
	Back to back stick pull away	5
See Skill Tests under sports for target activities		
Suggested combinations:		
	Wheelbarrow	
	Forward roll	
	Tip up	
	Forward roll to squat	
	Backward roll	

Evidences of Mastery

Evidence of mastery in self-testing activities may be checked on a chart on the pass or fail basis, a check on a chart indicating ability to do the stunt and a double check a degree of skill well above the average. Some evidences of mastery are:

1. Ability to do the tests indicated on the chart
2. Ability to do stunts well in a group activity
3. Interest shown by bringing in original combinations of known stunts
4. Steady progress of class illustrated by group accomplishment graph, *i.e.*, a line which rises with additional number of stunts checked for a group at each class period
5. Knowledge of tumbling, pyramid building, and stunts illustrated by pupil-suggested entrance sequences and combinations for public demonstration
6. Satisfaction and pleasure on part of pupils in doing these activities
7. Ability to demonstrate application of principles of relaxation, balance, localized control, etc., to stunts and tumbling

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Notes by Teacher

XIII. GYMNASTICS

Unit Objective	Teacher Procedure
To perform, satisfactorily, group exercises which tend to contribute toward all round organic development	1. Line up class according to height. Let pupils scatter and call together again by whistle 2. Proceed with exercises as given in Unit 1 making purpose of each clear to the class
Specific Objectives	
1. To use full range of movement in joints (flexibility) 2. To use body to support the organs in most favorable position and to control bodily mechanics through muscle tone and strength 3. To coordinate and exhibit neuro-muscular skills including balance and relaxation 4. To work in unison with others (rhythm) 5. To understand commands and to respond accordingly 6. To maintain good posture while in activity 7. To perform in such a way that organic stimulation results, such as, faster heart beat and breathing and increased activity of sweat glands	3. Use each unit three or four times according to the ability and interest of the class 4. Use music, waltz or march tempo, to add to the pleasure of the class 5. Give definite instructions and develop in pupils the proper position of the body during exercises. When difficulty is experienced, have the exercise practiced first in lying or sitting position 6. Do all asymmetrical exercises on both sides 7. Provide good demonstration when necessary. Emphasize correctness plus ease of position with no tension in muscles or joints 8. Secure individual rhythm of movement at first so that later an average class rhythm is possible, guided by teacher 9. Intersperse marching and running steps for purpose of variety and change of formation 10. Use stunts and games of low organization as an accompaniment to these lessons, when no other form of activity is given during the gymnastic season 11. Use and teach the following terminology and definitions: <i>Arm circling</i> —Arms forward, upward, backward, and down, making circle

Pupil Activities

- A. Emphasizing group rhythm and general flexibility
1. Lining up quickly when whistle blows
 2. Easy marching
 3. Easy running
 4. Running with high knee upward bending
 5. Running down center by fours and open order by raising arms to shoulders
 6. Jumping in place
 7. Tailor sitting, dropping head forward to chest, lifting and dropping backward, letting chest follow head. Same letting chest come up first and head follow
 8. Knee standing, trunk bending left and right two bends to each side
 9. Partners sitting tailor fashion with knees touching and hands joined, trunk twisting
 10. Partners crook sitting with toes under each other's knees, rocking backward and forward
 11. Bobbing four counts down, four counts standing in erect position
 12. Hopping twice on left foot at same time flinging right leg to side; same on right foot; later in file formation with right hand on shoulder of person ahead
- B. Emphasizing shoulder flexibility, organic stimulation, and strengthening of abdominal muscles
1. Marching with knee upward bending
 2. Opening order by four lines marching down the center of the gymnasium and raising arms to shoulders; later by side steps left and right
 3. Jumping in place, with foot placing sideways and together
 4. Continuous bobbing

Evidences of Mastery

(Note: The evidences of mastery which are really only descriptions of correct performance are numbered to correspond with pupil activities.)

- A. Of group rhythm and general flexibility
1. Respond quickly and accurately
 2. Push off with toes
 4. Foot of lifted leg directly below knee with weight not too far back
 6. Easy jump from ankles, rest of body in easy straight position
 7. Do exercise with either head or chest leading, the rest of the spine moving later
 8. All the bend lateral, no forward bending, arms hanging at side relaxed
 9. Both twist right and pull right elbow back letting left arm stretch forward and keeping elbow high and letting eyes follow it with trunk erect
 11. Knees straight, movement in lower back
 12. Body erect in easy position, no side bending, light jump from ankle
- B. Of shoulder flexibility; organic stimulation and

Teacher Procedure

Arms across bent—Elbows bent, fingers meeting in front, thumb touching chest, elbows shoulder height

Arms in cross—Arms crossed low in front of body

Arms to fly—Arms to fly out to side a little above shoulder height, elbows straight

Bicycling—Lying position, legs working in "pedaling" motion as though riding a bicycle

Bobbing—Trunk bent forward from waist, arms hanging relaxed, head down. Short series of little springing movements down and up from hips, pulling head toward knees which are straight

Crook sitting or lying—Knees bent with feet flat on the floor

Knee standing—On both knees which are bent at right angles

Long sitting or lying—Legs out straight, feet together

Squat sitting—With knees deeply bent, fingers touch floor between knees, back up straight

Tailor sitting—Sitting on floor with legs crossed

Shoulder standing—From lying position raise the legs and roll up to a position of balance with weight resting on shoulders and back of head. Further support is sometimes given by propping hips up with hands

Folded position—From knee standing position relax, bending sharply at knees and hips, rounding spine, placing hands on floor, and letting head sink down on hands

Pupil Activities

5. Easy arm swinging forward and backward
 6. Crook sitting, head bending backward with chest lifting, then head falling forward
 7. Tailor sitting one hand on legs at point where they cross, trunk twisting with single arm flinging to same side. Repeat on opposite side
 8. Knee standing with one hand on hip, bending to opposite side three or four times increasing the bends
 9. Lying bicycling
 10. Tailor sitting grasping toes, bending trunk forward touching the forehead to floor
 11. Lines facing the side of the room with hands joined, swinging legs forward and backward
 12. Arm flinging from cross to fly
 13. Running with high knee upward bending
- C. Emphasizing shoulder flexibility and abdominal strength
1. Running
 2. Marching, change step
 3. Jumping in place, arm raising sideways
 4. Stride standing with one hand on hip, single arm circling vigorously
 5. Lying alternate knee upward bending in fairly fast rhythm
 6. Crook sitting arm sideways at shoulder height, clapping hands forward and swinging arms back beyond shoulder line in a continuous movement
 7. Crook sitting, trunk leaning backward until lying on the floor and returning slowly to starting position
 8. Jumping in place circling arms as though swinging rope
 9. Stride standing arm swinging between cross and fly
 10. Lying, knee upward bending and lowering slowly; practicing this ex-

Evidences of Mastery

- strengthening of abdominal muscles
1. Trunk erect, push off with toe; foot directly below knee
 2. If moving left, push off with right toe; draw right foot to left with body erect
 3. Easy jump with body easily erect
 4. Head near knees which are straight, body relaxed with finger tips touching the floor
 5. No trunk movement, arms swing from shoulder with elbows easy
 6. Rest of back straight; flexibility of cervical spine and dorsal region
 7. Back erect, arm flung upward and backward; enough twist to see back of room; a stretch upward as twist is made and slight relaxation on return of twist
 8. No forward bend, neck relaxed, bend further each time
 9. Relaxed upper region movement from hip rather than knee
 10. Keep hold of toes
 11. Movement from hip especially as leg moves backward; no trunk bending, upper back erect
 12. Keep head erect and move arm backward with no backward leaning of trunk.

Notes by Teacher

Pupil Activities

- ercise first with one knee, then with both
11. Skipping around the room in any direction; skipping into place when the whistle blows
- D. Emphasizing posture and relaxation
1. Marching with knee upward bending and toe touching
 2. Running
 3. Hopping with toe touching sideways
 4. Lying relaxed, partner testing relaxation by lifting leg and arm
 5. Long lying, rolling with arm lead
 6. Tailor sitting; tapping the fingers on floor out from sides, and then on shoulders three counts each
 7. Standing, relaxing forward until trunk is well bent, returning slowly to straight position
 8. Prone lying with partner supporting the feet, raising the trunk, localizing the lift in the upper spine while tapping the fingers on the floor far forward and out to the side
 9. Lying on back, stretching arms out sideways with palms down, lifting the chest
 10. Walking eight steps, running eight steps
 11. Taking the posture test
- E. Emphasizing coordination and flexibility in legs
1. Marching in line with hands joined, left forward and right back, changing on signal
 2. Marching three steps then knee upward bending
 3. Marching down the center by fours in close formation, then opening by little jumps sideways and then in place
 4. Hopping with toe touching sideways and forward
 5. Long lying, arms at side, changing to long sitting
 6. Long sitting, bobbing with hands moving along lower legs

Evidences of Mastery

- Test:* Mark four lines by measuring four hand spans from wall and stand on fourth line; score two if arms go back to line two; three if they go to line three; four if they go to the wall
- C. Of shoulder flexibility and abdominal strength
1. Light, rhythmic, easy run
 3. Jump with ease, the arm moving from shoulder with body erect
 4. Swing from shoulder with elbow straight; no body movement
 5. Keep resting knee straight; bend knee to an acute angle
 6. Back erect; head well held so that it stays up when arms are back; no forward or backward movement of trunk
 7. Come up slowly; head in line with trunk
 8. Step forward left; draw right foot to left heel; put weight on right and step left; same with right foot
 10. Get lift in whole trunk from arm swing; arms move from shoulders, no stiffness, especially on "cross" position
 11. Knees straight, breathing naturally;

Notes by Teacher

Pupil Activities

7. Partners facing with hands grasped, knee bending and stretching with heels off in one count
 8. Bobbing six times followed by leg swinging forward and backward
 9. Lying, alternate knee upward bending in fast rhythm
 10. Long sitting, joining hands with partner, feet touching, trunk twisting
 11. Skipping eight, sliding eight, galloping eight with partners, inside hands joined
- F. Emphasizing methods of sitting, upper back strength, and relaxation
1. Marching like giants on tip toes, like dwarfs with knees bent
 2. Galloping
 3. Sitting down
 - a. Crossing feet and dropping to tailor sitting
 - b. Bending knees and hips until right hand touches floor
 - c. Stepping forward left, swinging right leg forward, bending left knee, leaning a little forward and sitting
 4. Prone lying, resting the chin on hands with elbows bent, lifting the head slowly
 5. Lying, rolling
 6. Wide stride standing with body bent forward in relaxed position, arm swinging left to right
 7. Folded position, sitting back on heels, with head and chest close to knees; on signal relaxing and falling sideways
 8. Lying, alternate knee upward bending lifting head to touch knee, followed by knee stretching with chest raising
 9. Tailor sitting, arm stretching overhead, with fingers joined, arm moving backward with small pull
 10. Leg swinging forward and stepping forward

Evidences of Mastery

- controlling movement
- D. Of posture and relaxation
1. Perform correctly and easily; bend on *one*, touch toe forward on *two*, step forward same foot on *three*; body easily erect
 2. Perform easily
 3. Feet move sideways alternately
 4. Arm or leg falls easily when dropped
 5. When properly relaxed hip follows arm pull and rest of body follows until it rolls on face
 6. Bounding movement with fingers; trunk stays erect
 7. Straighten lumbar spine first with abdomen in, then let straightening movement travel slowly up spine until whole body is stretched up
 8. Localize lift; strength enough to maintain lift while tapping
 10. Keep head and shoulders on floor; pull in abdominal wall; slow movement
 12. Walk in correct posture
- E. Of coordination and flexibility in legs
3. Hop with arms sideways until hands do not touch; lines straight, and spaces even
 4. Touch left toe sideways while hopping

Notes by Teacher

Pupil Activities

11. Standing arm flinging between cross and fly with heel raising
- G. Emphasizing quickness of response and trunk work
1. Marching and running with quick halts and changes of direction upon signal
 2. Running, dropping quickly to sitting position when whistle blows
 3. Clapping hands and stepping left foot sideways on one count, bobbing for four counts, clasping hands and standing erect bringing left foot to right on sixth count. Same right
 4. Kneeling with hands on floor, weight evenly distributed between hands and knees, single arm flinging with trunk twisting to same side
 5. Long sitting, rolling back to lying position followed by drumming the heels on the floor
 6. In file formation with right hand on shoulder of person ahead, hopping twice on left foot with right leg flinging sideways; same on right; continuing alternately
- H. Emphasizing coördination and balance
1. Marching with alternate knee upward bending and opposite arm swinging forward and backward
 2. Marching with knee upward bending and with hands joined; changing hands upon signal
 3. Hopping with toe touching sideways and forward four counts and down to squat position on count of five
 4. Walking forward five steps, bobbing six counts, walking backward to place
 5. Standing with one knee bent upward, easy arm swinging forward and backward
 6. Crook sitting head relaxed on knees, trunk leaning half way backwards, sliding the hands along the legs

Evidences of Mastery

- on right, then hop on left and touch right toe sideways, then left toe forward, then right toe forward; smooth, easy hop with feet moving correctly
5. Use abdominal muscles, keep head in line with trunk; lean back to lying
 6. Head near knees
 7. Back erect, steady balance
 8. Leg straight in swing and no trunk movement
 10. Knees and back straight, join right hands, keep left out to side at shoulder height, twist to left. Change hands and twist right
 11. Smooth coördination; work from slow to faster and more forceful movement
- F. Of methods of sitting, upper back strength and relaxation
3. a. Not using hands, relaxing into position
b. and c. Easy sinking to the floor
 6. Knees straight, body and arms stay relaxed
 9. Flexibility in shoulders, no head or trunk movement; elbows straight and no movement in them; back erect
 10. Swing from hip for-

Notes by Teacher

Pupil Activities

7. Tailor sitting, arm flinging across chest to fly
- I. Emphasizing posture, upper back, and abdominal strength and organic stimulation
 1. Marching, walking naturally with body and feet held correctly
 2. Running
 3. Trunk bending forward, clap floor twice, two claps at side, two claps overhead
 4. Walking on tip toe with arms stretched overhead and with fingers clasped
 5. Folded position hands clasped behind back, chest lifting with spine straightening and strong backward pulling of hands
 6. Long sitting rocking back to lying position with legs in air
 7. Crook sitting with arms bent across, pulling elbows back with several pulls stretching chest and moving shoulder blades together
 8. Lying, double knee upward bending, stretching to pull hips off floor, then slow lowering of hips and legs
 9. Stride standing, single and double arm circling, eight times with left, eight times with right, eight times with both together
 10. Jumping from squat to stride standing, bringing arms to shoulder height
- J. Emphasizing balance and coördination
 1. Balance walking with knee bending
 2. Free running, stopping at whistle and holding balance in any position
 3. Marching with alternate knee upward bending, trunk twisting and arm circling
 4. Hopping on one foot down center by fours and then opening order by hopping on one foot sideways
 5. Folded position hands clasped behind back, chest lifting with spine

Evidences of Mastery

- ward and step forward
11. Good body position of neck and pelvis; flexibility in shoulders; no stiffness
- G. Of quickness of response and trunk work
 4. Supporting elbow remains straight; gaze follows swinging arms so ceiling toward back of room can be seen; work up to fast rhythm with easy swing
 5. Feet begin to drum up and down when trunk touches floor
- H. Of coördination and balance
 7. Hands relaxed on legs, head to knees; lift head and chest slowly; when leaning backward head in line with trunk
 8. Head held in place, arms relaxed across chest but flung out vigorously
- I. Of posture, upper back and abdominal strength and organic stimulation
 1. Pass test in posture while walking
 2. Natural arm swing, push off from toes
 3. Knees straight when back is bent; back straight when body is erect
 4. Head up, feet pointed ahead, good control over pelvic tilt
 7. Elbows at shoulder

Pupil Activities

- straightening and strong backward pulling of hands
6. Lying double knee upward bending, stretching to pull hips off floor, then slow lowering of hips and legs
 7. Jumping with foot placing sideways and together with hand clapping overhead and raising sideways
 8. Hopping with toe touching sideways and forward, and turn
- K. Emphasizing abdominal strength coördination and rhythm
1. Marching with alternate knee upward bending and opposite arm swinging forward
 2. Skipping with double arm swinging forward and backward
 3. Arm swinging forward and sideways
 4. Heel raising and quick knee bending
 5. Shoulder standing moving legs as if riding a bicycle
 6. Long sitting, rolling back to lying position followed by drumming the heels on the floor
 7. Stride standing single and double arm circling, eight times with left, eight times with right, eight times with both together
 8. Hopping with toe touching sideways and forward; on fifth count jumping to squat, then jumping with quarter turn left, toe touching sideways and forward
 9. Running three steps, jumping with alternate knee upward bending and arm flinging overhead
- L. Emphasizing posture and flexibility
1. Running eight counts with high knee upward bending, then eight counts with kicking heels up in back
 2. Skipping with double arm swinging forward and back
 3. Arm flinging sideways, with leg flinging sideways, eight times left, eight times right
 4. Deep knee bending and stretching with hands on floor

Evidences of Mastery

- height, head erect; flexibility in shoulders
8. Natural breathing; control of downward movement
 9. Vigorous swing from shoulders with trunk twisting
- J. Of balance and coördination
1. Balance kept while stepping forward with one foot and then while bending both knees; then while straightening the knees and stepping forward with other foot, all the time with the weight on the toes
 3. Start step with left foot, then swing right arm in circle and twist trunk easily to right; eyes follow arm up and back
 5. Feet apart, hands clap overhead on count one; feet together, hands at sides, on count two; feet apart and arms out from shoulders on count three; feet together, arms at sides on count four
- K. Of abdominal strength, coördination and rhythm
3. Easy relaxed swing from shoulders, hands touching sides as they pass from forward to sideways and back to forward

Notes by Teacher

Pupil Activities

5. Standing with left toe touching backward and left arm stretching forward with palm down, leg swinging forward and back
6. Crook sitting, holding toes with arms outside knees, knee and back stretching
7. Standing, arms across bent, walking six steps forward at same time pulling elbows back
8. Bobbing six counts then six counts back to place

Evidences of Mastery

- again; elbows easy
5. Elbows on floor, hands supporting lower back, legs move apart and then one leg passes the other so that the one that was up is now down; continuous movement
- L. Of posture and flexibility
3. No trunk movement, legs straight, arms relaxed across low front on return from side fling
 4. Keep at least finger tips on floor; get forehead to knees
 6. Touch toe to hand without moving hand or bending trunk or knees; keep balance
 7. Keep hold on toes, back of legs flat on floor on stretch; stretch as much as possible

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XIV. SPECIAL OR REMEDIAL PROGRAM

Unit Objective	Teacher Procedure
<p>To meet life in school and afterward with maximum physical capacity through a program especially adapted to the needs of the individual</p>	<ol style="list-style-type: none">1. Acquire an understanding of the causes of each individual handicap through consultation with the examining physician2. Win confidence and cooperation of pupil and parents for the proposed treatment3. Acquaint self with individual's ability as revealed by physical examination4. Assign pupils to classes on the basis of the following:<ol style="list-style-type: none">a. Postural defects<ol style="list-style-type: none">(1) Antero-posterior(2) Lateral(3) Feet(4) Poor coordinationb. Orthopedic defects<ol style="list-style-type: none">(1) Cases as above which are structural. In handling such cases the teacher needs the advice and cooperation of an orthopedic specialist(2) Paralysis. Best help is given here if a specialist makes a chart of muscles capable of reeducationc. Functional defects<ol style="list-style-type: none">(1) Cardiac cases(2) Nutritional disturbances(3) Constipation, dysmenorrhea, etc.(4) Post operative injury, recent illness5. Arrange classes so that number of pupils in each class is small enough to allow for individual help and encouragement6. Patiently and sympathetically win each pupil to a knowledge of his own handi-
Specific Objectives	
<ol style="list-style-type: none">1. To appreciate physical capacity, and development of interest in general well being2. To recognize and use correct body mechanics to coordinate and to approach the nearest ideal possible to the particular individual3. To improve existing defects of posture and feet4. To develop habits of hygiene which contribute to correction of functional disorders5. To use principles of relaxation and exercise to meet individual need6. To develop a satisfying type of active recreation	

Pupil Activities

Evidences of Mastery

1. For posture training pupils will do:
 - a. Exercises for flexibility
 - (1) Prone lying, arms overhead, double arm raising
 - (2) Side lying, single leg raising, (do on both sides)
 - (3) Long sitting, bobbing
 - (4) Sitting, foot circling down, in and up
 - (5) Sitting, pick up small articles with toes
 - b. Exercises to correct faulty positions
 - (1) Hook lying, abdominal contraction and pelvic roll (Lowman)
 - (2) Long sitting, bob and tap floor by toes, sit and tap floor at sides, sit with hands on neck, (four counts each movement)
 - (3) Standing feet parallel, relax forward slowly, straighten slowly
 - (4) Sitting feet parallel on floor, raise arch and draw toes toward heel with strong inversion (ground gripping)
 - c. Exercises to strengthen corrected position
 - (1) Hip (neck) grasp stride sitting (standing) slow trunk bending forward. Same sideways
 - (2) Stand against wall and touch all parts, step away in corrected position
 - (3) Walk toes ahead, with weight on heel
 - (4) Balance walk, step rise on toes, sink weight, etc. (Drew)
 2. For corrective training for orthopedic defects pupils will do:
 - a. General posture training exercises
 - b. Stride sitting, side bending, and twisting toward side of convexity.
1. Active interest in personal condition and desire to reach maximum of beneficial activity
 2. Knowledge of one's own problem of correction, the causes and contributing factors, and an appreciation of why it is important to improve condition
 3. Ability to execute beneficial exercises correctly
 4. Use of body in best mechanical position possible to the individual
 5. Ability to relax
 6. Ability to recognize the limits of one's own strength
 7. Enjoyment of recreational activities

Teacher Procedure

- cap and its remedy, and arouse an interest in the goal
- 7. Give each group a clear idea of good body mechanics
- 8. Give group and individuals exercises which put the theory into practice
- 9. Give individual exercises as needed and progress to others with signs of improvement
- 10. Use much mat work at first to insure best possible mechanical position for work. Proceed to sitting and later to standing exercises as improvement is made
- 11. Develop in all the ability to relax
- 12. Develop as much as possible in each pupil a *normal adjustment* to her world. Wherever possible develop plays and games in which the physically handicapped can excel and get a feeling of success and of equality with others
- 13. Keep careful records of examinations, conferences, and improvements
- 14. Consider individual strength and endurance
- 15. See Drew for typical programs
- 16. For terminology see section on gymnastics

Pupil Activities

- One hand pressed on convexity,
opposite hand on neck
- c. Stride sitting, weight shifting toward side of concavity
 - d. Creeping in large circle convex side of curve toward center of circle. Move forward with one arm outstretched, hand on floor, and opposite knee close under chest. Keep weight low when advancing
 - e. Passive stretching and hanging for round back
 - f. Foot exercises as above
3. For better organic functioning pupils will do remedial exercises
- a. For constipation and dysmenorrhea
 - (1) Crook lying, push up lower abdominal wall and then pull in as far as possible smoothly and with no strain
 - (2) Knee chest position, on knees with hips high and head on folded hands on mat. Touch chest to mat. Add alternate knee stretching backward, upward
 - (3) Long lying, hands clasped on abdomen. Single knee upward bending to cause pressure against hands
 - b. For overweight
 - (1) Carefully prescribed diet
 - (2) Exercises carefully graded to rate of reducing. Start gradually and when system is adjusted to loss of weight increase intensity. General gymnastic exercises may be chosen
 - c. For underweight
 - (1) Diet
 - (2) Relaxation
 - (3) Gymnastic exercises, especially those on mat, may be chosen. There is a need of

Notes by Teacher

Pupil Activities

- beathing exercises and those to improve general muscle form
4. For general exercise as many pupils as are able will swim
 5. For its recreational value and training in balance and coördination pupils will take rhythmic training
 6. For general exercises pupils will play games. References are to books under section on games
 - a. Posture and foot games (Lowman)
 - b. Games for one or more
 - (1) Archery (Spalding Bros.)
 - (2) Bridge board (3)
 - (3) Brist-throwing boomerang—equipment and rules obtained from Brist Mfg. Co.
 - (4) Croquet
 - (5) Darts (Alex Taylor and Co., 22 E. 42nd St., New York)
 - (6) Garden hockey (3)
 - (7) Grace hoops (3)
 - (8) Hockey golf (2)
 - (9) Horseshoe pitching or quoits (Spalding Bros., No. 86R)
 - (10) Ping pong
 - (11) Ring toss (3)
 - (12) Russian hole ball (1)
 - (13) Shuffle board
 - (14) Tether ball (3)
 - (15) Three-hold baseball
 - (16) Target (1)
 - (17) Volley ball
 7. For general improvement, pupils who will not benefit from activity including cardiac cases, convalescents, cases of marked underweight, post-injury, post-operative and tuberculosis tendencies should have an opportunity for rest during school hours. Passive corrective positions may be used if needed
 8. For general information pupils will attend conferences

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Notes by Teacher

XV. SWIMMING

Unit Objectives

1. To acquire the five swimming fundamentals which are:
 - a. Joy
 - b. Relaxation
 - c. Ease and balance in water
 - d. Breath control
 - e. Economy (conservation) of energyThese five result in "at-homeness" in the water and the skills in swimming are built on them
2. To acquire skills in swimming
3. To acquire general knowledge of swimming pool hygiene

Specific Objectives

1. To overcome the fear of the water, through activities which make for "at-homeness"
2. To acquire the ability to swim simple strokes and to progress to more difficult strokes
3. To acquire a desire for participation in water sports
4. To acquire skill in water games (simple as well as in advanced games)

Teacher Procedure

1. Divide the groups according to ability. See Evidences of Mastery for achievement tests for grouping. These tests are not only for classification but may be used as a standard for chart work. Those activities that are starred should be required for passing the test. The others are simply standards and are there for the pupils who get along faster than the average
2. Set up definite achievement tests for definite periods. A chart with pupils' names and activities listed is the easiest thing to use. At the beginning of the class period demonstrate and explain the new activity or activities. Give some group instruction, then let each pupil be responsible for herself for the rest of the class period. The pupil guides her activity by the chart and her own needs; the teacher gives individual help. When the pupil passes an activity she is checked and goes on to something else. The teacher calls the class together for group stunts and games. This method places more responsibility on the pupil and allows for individual differences.

It is important to note here that this method is not so usable in a beginning class for the first six or eight lessons. Use more group work and instruction at first as pupils will do more things if they see everyone else doing them. Allow some time each lesson for individual help
3. Use games and stunts for relaxation, fun, and confidence

Pupil Activities

Evidences of Mastery

BEGINNERS

BEGINNERS

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Discuss and practice correct breathing on land 2. Play simple games such as: chain race, partners introduction, jumping the breakers (see Sheffield) 3. Partners shake hands and make faces and do stunts under the water 4. Practice bubbling 5. Practice bobbing <ol style="list-style-type: none"> a. Circle formation hands joined b. With partner hands joined and bobbing at the same time c. With partners alternate bobbing 6. Practice climbing up on the edge of the pool 7. Pick up objects in shallow water 8. Do the jellyfish float 9. Face float and stand up hanging onto the edge of the pool (emphasize the correct stand up) 10. Take face float position hanging onto the edge, let go, and gradually stand up 11. Push off of the bottom in face float position and glide across pool as far as possible, then stand up 12. Do log rolling 13. Hang onto edge and practice flutter kick 14. Face float and flutter kick across pool 15. Dive through arches made by two other people: <ol style="list-style-type: none"> a. Going over hands b. Going under hands 16. Land drill on back float and stand up 17. Back float and stand up partners assisting | <ol style="list-style-type: none"> 1. Ability to bubble <ul style="list-style-type: none"> 10 times consecutively *20 times consecutively 25 times consecutively 2. Ability to pick up objects stooping 3. *Ability to face float <ul style="list-style-type: none"> With stand up grasping edge With stand up no support With push off With flutter kick Jellyfish float 4. *Ability to back float <ul style="list-style-type: none"> With stand up With push off (one minute) 5. *Ability to change floating positions <ul style="list-style-type: none"> Face to back through stand up Back to face through stand up Face to back via side Back to face via side Back to face to back 6. Ability to do these strokes: <ul style="list-style-type: none"> *Elementary back (2 lengths with a grade of 6) Sculling on back with flutter kick 30 feet *Side stroke 30 feet 7. Ability to do these dives: <ul style="list-style-type: none"> *Under arms *Under legs (through arches) *Surface dive in 4 feet of water *Elementary sitting dive off of the edge |
|---|---|

Specific Objectives

5. To acquire skill in doing water stunts
6. To acquire skills in life saving which will enable the pupil to save his own life as well as the lives of others
7. To acquire favorable attitudes toward swimming as a leisure time activity
8. To acquire ideals of courage and of beauty of form
9. To acquire skill in diving
10. To acquire knowledge of the personal regulations necessary for correct pool hygiene
11. To acquire correct habits of pool hygiene

Teacher Procedure

4. As an essential to success acquire a cheerful, pleasant, confident manner.
Do not be impatient
5. Have as much fun as possible and have an informal atmosphere in the class
6. Be sure that the class is not cold, as cold is apt to cause tenseness. The water should be from seventy-eight degrees to eighty-two degrees for beginners
7. Present things as clearly and simply as possible. Know why things are done a certain way and let the class know
8. Talk clearly and distinctly, do not shout; deeper tones carry better and give confidence to the class
9. Know what to look for and give your corrections clearly and concisely
10. Do not rush your class; it pays in the long run
11. Wherever possible present the stroke or activity as a whole and then work on the elements
12. Use these suggestions for grading strokes:

Perfect stroke	10 points
Body position	1 point
Arms	1 point
Legs	1 point
Breathing	1 point
Progress through the water	1 point
Coördination — How the above five are put together, force and ease.....	5 points
13. In planning lessons mix games, stunts, diving, and stroke work. If possible use music at times
14. Use these suggestions for a year's program:

Fall—All school swimming	Play Day
Winter—Intramural Meet, Interclass Meet, Individual Meet	

Pupil Activities

18. Back float and stand up without assistance
19. Do elementary back stroke
20. Dive through arches:
 - a. Go through legs of partners
 - b. Go through legs of two persons, then three, etc.
21. Do elementary surface dive in shallow water
22. Do elementary sitting dive off of the edge
23. Do sitting dive coming up and continuing across pool with back stroke before standing up
24. Change floating positions
25. Do kneeling dive off the edge
26. Practice elementary treading water
27. Do sculling on the back with flutter kick
28. Do back stroke and change to treading water
29. Change directions while swimming
 Note: The next strokes recommended could be either back crawl (straight arm recovery), face crawl, or side stroke. The more advanced might get this far, but the majority probably will not

INTERMEDIATE

1. Review and polish up the following activities:
 - a. Bobbing alone in five feet of water
 - b. Bobbing alone in seven feet of water
 - c. Bobbing—progressing across the pool
 - d. Back float and stand up
 - e. Face float with push off and glide across tank
 - f. Face float with flutter kick across tank
 - g. Review elementary back stroke

Evidences of Mastery

- Kneeling dive off of the edge
 Standing dive off of the edge
8. Ability to do these stunts:
 - *Tread water (Should be able to tread before swimming in deep water)
 - *Stroke and tread and vice versa
 - *Change directions while swimming
 - Climbing out on edge of pool without assistance
 - *Elementary dive, come up and swim across pool before standing up

INTERMEDIATE

1. Ability to bubble 25 times in succession, also 50 times in succession
2. Ability to bob—progressing 30 feet into deep water
3. Ability to do these strokes
 - *Under arm side stroke—2 lengths with a grade of 7.5
 - *Single over arm—2 lengths with a grade of 6.5
 - *Back crawl—2 lengths with a grade of 6
 - *Face crawl—2 lengths with a grade of 6
4. Ability to do these dives:
 - *Standing front from edge of pool with a grade of 7
 - *Standing front from box in deep water with a grade of 7

Teacher Procedure

Spring — Play Day, Entertaining
other schools, or a Swimming
Pageant

Pupil Activities

- h. Treading water—one minute using hands
- 2. Practice the following:
 - a. Under arm side stroke
 - b. Back crawl (with straight arm recovery)
 - c. Treading (one minute with hands, two minutes without hands)
 - d. Standing dive from the edge of the pool
 - e. Standing dive from box
 - f. Standing dive from board
 - g. Running front dive with correct approach
 - h. Back dive with slight spring
 - i. Racing dive
 - j. Single over arm
 - k. Face crawl
 - l. Distance swimming (any stroke or strokes)
 - 5 lengths
 - 10 lengths
 - 15 lengths
 - 20 lengths
- 3. Practice the following stunts:
 - a. Front somersault
 - b. Surface dive in seven feet of water and recover an object
 - c. Porpoise dive
 - d. Sculling feet first
 - e. Spinning top
 - f. Riding a bicycle
 - g. Double floating
 - h. Back crawl tandem
 - i. Games and novelty races (see Sheffield)

ADVANCED

- 1. Review and polish up the following strokes:
 - a. Elementary back
 - b. Single over arm
 - c. Back crawl
 - d. Treading
 - e. Bobbing
 - f. Standing front dive on box

Evidences of Mastery

- Standing front from board with a grade of 6
- Running front with correct approach
- Back (just falling in with the back arched)
- 5. Ability to do these stunts:
 - Front somersault
 - Porpoise
 - *Sculling feet foremost (length of pool)
 - Spinning top
 - *Surface dive in 7 feet of water and recover objects
 - *Treading water one minute with hands
 - Treading one minute without hands
 - Treading two minutes with hands
 - Treading two minutes without hands
- 6. Ability to:
 - *Swim 10 lengths any stroke
 - Swim 15 lengths any stroke
 - Swim 16 lengths any speed stroke

ADVANCED

Achievement Tests

- 1. Ability to do these strokes:
 - *Elementary back with a grade of 8
 - *Under arm side stroke with a grade of 8
 - *Single over arm with a grade of 7.5
 - *Back crawl with a grade of 7
 - *Breast stroke with a grade of 7
 - Double over arm

Notes by Teacher

Pupil Activities

- g. Standing front dive on board
- 2. Practice the following strokes:
 - a. Face crawl
 - b. Breast stroke
 - c. Spiral (combination of back and face crawl)
 - d. Double over arm (put in last not because it is harder, but because if done before the face crawl is mastered pupil is too apt to get a scissors kick in his crawl)
- 3. Practice the following dives:
 - a. Racing dive
 - b. Standing front
 - c. Running front
 - d. Front jack
 - e. Back dive swan
 - f. Swan
- 4. Practice the following strokes in tandem:
 - a. Elementary back
 - b. Back crawl
 - c. Face crawl
 - d. Breast stroke
- 5. Practice these stunts
 - a. Sculling feet first
 - b. Wash tub
 - c. Swimming under water
 - d. Porpoise dive
 - e. Surface dive in 10 feet of water for objects
 - f. Forward and back somersaults
 - g. Dolphin
 - h. Novelty races and games (see Sheffield)
- 6. Practice the following:
 - a. Face crawl
 - b. Back crawl
 - c. Breast stroke
- 7. Endurance swimming
- 8. Practice life saving skills

Evidences of Mastery

- Spiral
- 2. Ability to do these dives:
 - *Standing front (7.5)
 - *Running front
 - *Back dive with a little spring
 - Swan dive (5)
 - Front jack (6)
 - *Racing dive (7)
- 3. Ability to do these turns:
 - *2 face crawl turns (7)
 - *2 breast stroke turns (7)
 - *2 back crawl turns (7)
- 4. Ability to swim:
 - *16 lengths—speed 8, any stroke 8
 - *20 lengths any stroke
 - *440 yards (22 lengths in a 60 ft. tank) $\frac{1}{2}$ speed stroke
- 5. Ability to do these stunts:
 - Sculling feet first, 2 lengths
 - Wash tub
 - Dolphin
 - Forward somersault
 - Porpoise
 - Swim 30 feet under water
- 6. Ability to pass either or both life saving tests:
 - Junior Red Cross Life Saving tests
 - Senior Red Cross Life Saving tests
 - (Tests as given in the Red Cross Life Saving Pamphlet)

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