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ONTARIO

Department of Education

Courses of Study

Grade IX

HEALTH AND PHYSICAL EDUCATION



Issued by Authority of
The Minister of Education

SUGGESTED OUTLINE TO BE USED IN INSTRUCTION IN PERSONAL HYGIENE GRADE IX

The manual prescribed for the use of teachers for the school term 1937-38 is Cockefair and Cockefair: Health and Achievement, which may be obtained from Ginn and Company, 1517 Mountain Street, Montreal. The price is \$1.26 and postage.

This book is not a student's text-book but is recommended as a useful source of information for the presentation of the course of study outlined below. As a work of reference for more detailed treatment of various parts of the course, teachers may consult—Sir Leonard Hill: Manual of Human Physiology. Edward Arnold (Toronto Agent, Longmans, Green).

SECTION I

Development of the Human Mechanism

Life—what it implies.

Single celled animals and plants. Methods used in study of minute structures.

The cell a component of the body.

Differentiation of function of cells (specialization).

SECTION II

Physiology and Anatomy

(1) FRAMEWORK OF THE BODY:

Bone—structure and function of.

Joints—Cartilage. The kind of movement permitted.

(2) DIGESTIVE SYSTEM:

ANATOMY—mouth, salivary glands; the teeth, structure, development and eruption; œsophagus, stomach, intestines, pancreas and liver.

PHYSIOLOGY OF DIGESTION—

The purpose of digestion.

Digestion in mouth.

Digestion in stomach.

Intestinal digestion.

Absorption.

Function of large intestines; excretion.

(3) THE CIRCULATION:

Anatomy of the heart and blood vessels.

The purpose of circulation.

The blood—its constituents.

The circulatory cycle.

(4) RESPIRATION:

Anatomy—the nose, the larynx, the trachea, bronchi, lungs, and pleura.

Intercostal muscles, diaphragm.

The pulmonary circulation—respiratory movements.

The exchange of gases between blood and air.

(5) MUSCULAR SYSTEMS:

Structure of muscle.

Tendons.

Function of muscle.

(6) THE NERVOUS SYSTEM:

The nerves.
The spinal cord.
The brain.
The cranial nerves.
The function of the nervous system.

(7) SENSE ORGANS:

The eye.
Structure of the eyeball.
Movements of the eye.
Vision.
The ear—structure of the ear.
The perception of sound.
Function of the semi-circular canals.
The voice—larynx—vocal cords.
The production of voice; speech.
Other sensations—
 Taste.
 Smell.
 The tactile sense.

(8) INTERNAL SECRETIONS:

Thyroid, pituitary, and adrenal glands and their functions.

(9) ADDITIONAL AIDS TO EXCRETION:

The anatomy and physiology of renal excretion.
The structure of the skin, nails, and hair.
The functions of the skin.

SECTION III

Application of Information in Section II to Health Situations

(1) THE FOOD REQUIREMENTS OF THE BODY:

Food—and its constituents.
Food requirements.
The hygiene of eating.
Care of the digestive tract.

MUSCULAR ACTIVITY:

Exercise—its value.
Types of exercise; speed—endurance, strength, skill, attention, and alertness
 (advantages of each).
Adaptation of exercise—age, sex, occupation, individual limitation.
Overstrain—fatigue.
Rest—need for rest.
Posture.

Common causes of faulty posture.

Malnutrition, fatigue and lack of incentive to good posture.

FRESH AIR:

Its advantages.
The chemical changes in air.
The physical changes in air.
The principles of good ventilation.
Artificial respiration.

SUNSHINE:

Its value in growth and development; dangers of over-exposure.

CLOTHING:

The role of clothing in regulation of body temperature.

Other health values of clothing.

THE HYGIENE OF THE NERVOUS SYSTEM:

Sleep—amount of sleep normally required; conditions favourable to sleep.

Social relations of individuals.

Self-control—alcohol and tobacco.

CLEANLINESS:

Bathing.

Parts of the body requiring special care.

Cleanliness of clothing.

The use of cosmetics.

HYGIENE OF THE SENSE ORGANS:

The eyes—

- (a) Protection from injury or infection.
- (b) Avoidance of eye strain.
- (c) Adequate lighting.
- (d) Early recognition of vision defect and appropriate treatment.

The ears—

- (a) Avoidance of injury.
- (b) The role of infection in ear disease.
- (c) Early recognition of hardness of hearing and prompt securing of medical advice.

Care of the teeth—

Cause of decay of teeth.

Factors which favourably influence the maintenance of healthy teeth.

- (a) Appropriate diet.
- (b) Cleansing.
- (c) Regular dental supervision.

SECTION IV

The Causes of Disease

- (a) Organic changes (non-bacterial).
- (b) Injury—safety and first-aid.
- (c) Infection.

The role of harmful bacteria.

How communicable disease is spread.

Suggested measures for prevention and control of communicable disease.

NOTE:

In using the suggested outline, consideration must of necessity be given to the importance of other factors which are likely to modify favourably the behaviour and attitude of the student. Further, the course should be associated with all curricular and extra-curricular activities which have a health aspect or which lend themselves to integration with any course in health teaching.

PHYSICAL EDUCATION

Objectives:

1. To foster an interest in wholesome physical activity to the end that it will continue in leisure time during school years and in adult life.
2. To exercise the body through the large muscle groups and thereby promote muscular growth, organic vigour, and nervous vitality.
3. To teach neuro-muscular skills suitable to each age and thereby develop co-ordination, courage, and self-confidence.
4. To use situations arising in the activity programme for the development of such qualities as loyalty, self-control, respect for opponents, sound judgment, and initiative.
5. To follow the instructions of the medical service for the correction of physical defects.

Principles:

1. There should be an examination of each pupil at the beginning of every school year.
2. The activity programme should be carried on out-of-doors whenever the weather and facilities permit.
3. Pupils should wear suitable costumes for the activity programme.
4. The class periods should give the pupils ample opportunity for vigorous self-expression marked by the discipline of self-control.
5. The play spirit should be emphasized in the conduct of the activities. This is important if the work is to have recreational value.
6. Pupil leadership should be used as much as possible, and distributed as widely as possible.
7. Where swimming facilities are available, every pupil should be taught to swim, dive, and become proficient in life-saving methods. Where swimming facilities are not available, all pupils should receive systematic instruction and drill on land, so that they will have a basis for practice as natural facilities are made available.
8. The activity programme should be based on the sex, needs, interests, and capabilities of the pupils. This involves adjustment of playing fields, rules, and length of periods of play.
9. Inter-school competition has some value, but it can be justified only when conducted without monopolizing the school recreational facilities and the teachers' time and interest, to the detriment of a large number of pupils. Every pupil in the school should have ample opportunity to take part in intra-mural games before inter-school competition is considered.
10. Administration of athletics should be in the hands of constituted school officials.
11. The instructor of physical education should be responsible for the direction and policies of the school athletic programme.

THE GRADED ACTIVITY PROGRAMME FOR BOYS

ALL YEAR ROUND	<p>Gymnastics: Marching. Exercises. General Activity— Tumbling; Stunts; Pyramids. Heavy Apparatus—Horse; Vaulting Box; Buck; Wall bars; Forms; Ropes.</p> <p>Games: Low Organization. Team—Volley ball; Hit-pin baseball; Lead-up games for Lacrosse; Basketball; Hockey; Rugby. Individual—Deck tennis; Handball.</p> <p>Swimming: Strokes—Crawl; Back; Breast. Diving—Plain header; Racers' plunge. Games. Land drill. Life saving—Emergency measures.</p> <p>Outdoor Activities: Hiking. Campcraft. Nature lore.</p>
AUTUMN OR SPRING TERM	<p>Games: Team—Baseball; Cricket; Lacrosse; Soccer; Touch rugby. Individual—Tennis; Quoits; Track and Field—100-yard dash; ¼-mile relay; 90-yard low hurdles (7); High jump; Broad jump; Hop, step, and jump; Cross-country run (not more than 2 miles).</p>

THE GRADED ACTIVITY PROGRAMME FOR BOYS—Continued

WINTER TERM	Games: Team—Basketball; Hockey; Indoor hockey; Individual—Boxing; Wrestling; Fencing.
	Outdoor Activities: Winter sports.

GRADED MATERIAL FOR BOYS

Gymnastics:

(a) Marching and Exercises:

Teachers should prepare a minimum of three gymnastic tables for each grade and the exercises should be selected from any of the books listed under this section. The following sequence of exercises is suggested as a guide:

1. Leg, arm, and neck movements.
2. Trunk movements (lateral, abdominal, and dorsal).
3. Special movements:
 - (a) Posture.
 - (b) In pairs.
 - (c) Relaxation or balance.
 - (d) Foot exercises.
4. Step March, Leg or Easy Jump.

BIBLIOGRAPHY

- Pederson, Richard and Andreassen, Alfred: Primary Gymnastics for Boys. P. E. Publications, 54 Mitre Road, Glasgow, W. 4.
- McDowell, Thomas: Gymnastic Movements. Oxford University Press.
- Reference Book of Gymnastic Training for Boys. Board of Education, His Majesty's Stationery Office, London, England.

(b) General Activities:

The following apparatus exercises, arranged in teaching order, are considered suitable for grade nine pupils. It may not be possible to teach all these activities to all classes, and, where this is the case, a suitable selection should be made from each section.

1. Tumbling, Stunts, and Pyramids:

A. Individual:

1. Forward and backward rolls with variations.
2. Diving.

3. Head balances with variations.
4. Forearm balances.
5. Cartwheel.
6. Chest rolls.
7. Handsprings.
8. Tension drop, jump through hands, back roll passing through handstand position.
9. Stunts and headsprings.
10. Combination of voluntary movements.

B. Couple:

1. Double rolls, forward and backward.
2. Back to back, arm lock, and roll over.
3. Cradle rock.
4. Thigh mount.
5. Neck lifts.
6. Knee shoulder hand springs.
7. Stand balance on hands with foot rest.
8. Dead man's lift.
9. Ankle throws.
10. Stunts.

C. Group:

Pyramids:

Fundamental positions in threes, fours, fives.

Easy combinations, the three-man fan, human bar.

Thigh mounts, shoulder mounts, shoulder stands.

Head and hand balances.

2. Heavy Apparatus:

Vaulting Horse:

1. Agility movements, mounts and dismounts.
2. Running vaults left and right, flank, front, rear.
3. High fence vault.
4. Jump over landing on one foot, on two feet, with turns.
5. Leap over with arm expressions.

Buck:

1. Running straddle vault, both hands, for distance and with turns.
2. Running straddle vault, one hand.

3. Rear straddle vault.
4. Kneel on jump off.
5. Jump to stand on.
6. High front vaults, left and right.

BIBLIOGRAPHY

McCulloch, W. B.: *Gymnastics, Tumbling and Pyramids*. W. B. Saunders Co.
 Hawkin: *Gymnastic Pyramids*. Oxford University Press.
 Harby, S. F.: *Tumbling for Students and Teachers*. W. B. Saunders Co.
 Machery and Richards: *Pyramids Illustrated*. A. S. Barnes & Co.

Games and Athletics:

(a) Games of Low Organization.

BIBLIOGRAPHY

Staley, S. C.: *Games, Contests, and Relays*. A. S. Barnes & Co.
 Mason and Mitchell: *Active Games and Contests*. A. S. Barnes & Co.
 Canadian Book of Games: W. G. Brandreth. Ryerson Press.

(b) Team games and track and field athletics.

These games and events will vary with local conditions but are subject to the grade placement of activities previously outlined. The teacher should recognize that the enjoyment of playing the game is the primary objective and the teaching of skills should be made to contribute to this end. "Lead up" and practice games should be worked out for each activity.

BIBLIOGRAPHY

Lambert, Ward: *Practical Basketball*. Athletic Journal Publishing Co., 6858 Glenwood Ave., Chicago.
 Holman, Nat.: *Winning Basketball*. Scribners, 1932.
 Fonseca, Lew: *Baseball*. Great Western Athletic Goods Co.
 Fareaga: *Volley Ball—A Man's Game*.
 Spalding Handbooks for various games.
 Periodicals: *The Scholastic Coach*. \$1.50. 250 E. 43rd Street, New York City. *The Athletic Journal*. \$1.75. 6858 Glenwood Ave., Chicago.
 Mitchell, E. D.: *Sport for Recreation*. A. S. Barnes & Co.
 Tisdall, R. M. N.: *The Young Athlete*. Blackie & Son, London.
 Spalding Handbooks on Athletics.
 Holmes: *Movies on Paper*. Wayne University, Detroit, Mich.

Swimming:

The course in swimming must be adapted to local conditions. The primary objective is that every pupil may learn to swim. The number of beginners in the class will determine when and to what extent other exercises, such as diving and life-saving, may be taught.

In schools where there are no swimming facilities, systematic instruction and drill on land should be given so that pupils will have a basis for practice when making use of natural facilities. All pupils should be trained to discriminate between safe and unsafe swimming conditions.

BIBLIOGRAPHY

Canadian Y.M.C.A.: *Swimming, Diving, and Life Saving Manual*. 40 College St., Toronto.
 Royal Life Saving Society: *Handbook of Instruction*. Ontario Secretary-Treasurer, Mrs. J. M. Pretty, 206 St. Leonard's Avenue, Toronto.

THE GRADED ACTIVITY PROGRAMME FOR GIRLS

<p style="text-align: center;">ALL YEAR ROUND</p>	<p>Gymnastics: Marching. Exercises—Game-like and simple exercises; fundamental movements and positions; easy rhythms. General Activity—Stunts; jumps; skipping; folk-dances; singing games, etc.</p> <p>Games and Athletics: Low Organization. Individual Games—Deck tennis, paddle tennis, handball, etc.</p> <p>Games and Athletics: Team—Field ball;* Volley ball.</p>
<p style="text-align: center;">AUTUMN TERM</p>	<p>Rhythmics: Fundamental movements. Fundamental rhythms: folk, national, character, natural.</p> <p>Swimming: Strokes—Elementary crawl; back. Diving—Plain. Stunts and games. Life saving—Emergency measures.</p> <p>Gymnastics: General Activity—Apparatus; Tumbling; Pyramids, individual couple and group.</p>
<p style="text-align: center;">WINTER TERM</p>	<p>Games and Athletics: Team—Basketball.</p> <p>Rhythmics: Same as in Autumn Term.</p>
<p style="text-align: center;">SPRING TERM</p>	<p>Games and Athletics: Team—Baseball.* Individual Games—Shuffle board.* Field Athletics.*</p> <p>Swimming: Same as in Autumn Term.</p>
	<p>* Indicates an activity which may be used in either spring or autumn, but not both.</p> <p>1. Volleyball and basketball are autumn and spring activities in schools without a gymnasium, but they are late autumn and winter activities in schools with a gymnasium.</p> <p>2. The teaching of rhythmics should begin when swimming ceases in schools with a pool, but in schools without a pool it should begin earlier.</p>

GRADED MATERIAL FOR GIRLS

Gymnastics:

The following material is suitable for use in girls' classes. Exercises are not given in detail because of the extensive material on the subject and because the teacher should make up her own gymnastic tables to meet the needs of her classes. It is suggested that one table a term or three tables a year is a maximum for each grade. These tables should be based on the outline of a gymnastic lesson recommended in this course of study, and should be of increasing difficulty to keep pace with the increase in skill of the class.

Exercises:

Order, arm, leg, head and neck, dorsal, abdominal, lateral, balance, heave, foot and marching and running exercises.

BIBLIOGRAPHY

Bjorkstein, Elli.: Principles of Gymnastics for Women and Girls. Part II. J. A. Churchill Ltd. London, 1934.
Knudsen, K. A.: A Text-book of Gymnastic Teaching. J. B. Lippincott Co., Philadelphia, 1929.
Syllabus of Physical Training for Schools, 1933. Copp Clark.

General Activities:

1. Apparatus:

Horse.

Box or Buck:

Crosswise or Lengthwise:

1. Stoop standing, bob jumps increasing in height.
2. Stoop standing, bob jumps with leg parting.
3. Stoop standing, bob jumps with hip lifting and knee bending.
4. Knee rest and backward dismount.
5. Squat mount and backward dismount.
6. Upsprings and deep jump—with 1 and 2 take-off,
—with or without turns.

2. Jumps:

High Jumps and Long Jumps:

These jumps may be taken over ropes, forms, a crossbar, or a space marked on the floor. They may be taken for height or distance and should finish with a controlled landing.

1. Toe standing—forward jump.
2. Toe standing—sideward jump.
3. Toe standing—oblique (scissors) jump.
4. Three-step approach—forward jump with 1 or 2 take-off.
5. Three-step approach obliquely—jump with 1 take-off.

Deep Jumps:

These jumps are taken from a form, box, horse, buck, or some elevation. They involve a jump to a lower level, usually with a full extension and always with a controlled landing.

1. Forward jump with 2 take-off.
2. Forward jump with 2 take-off and turn through 90 degrees.
3. Forward jump with 2 take-off and turn through 180 degrees.
4. Forward jump with 1 take-off and leg swing forward.

3. Stunts:

Individual Stunts:

1. Top (2).
2. Heel click (2).
3. The cat walk (3).
The worm walk (2).
4. The walrus walk (3).

Couple Stunts:

1. Churn the butter (1).
2. The rocking stunt (1), (3).
3. Run the scale (1), (3).
4. Wheelbarrow (1).
5. The twister (1), (2).
6. Indian wrestle (1).

Group Stunts:

1. Opening the rose (1).
2. Horizontal balance in a circle (1).

4. Tumbling:

1. Shoulder stands.
2. Forward roll with variations (2), (3).
3. Backward roll with variations (2), (3).
4. Head stands with variations (2), (3).
5. Team roll with variations (3).

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- Bjorksten, Elli: Principles of Gymnastics for Women and Girls. Part II. J. A. Churchill, Ltd., London, 1934.
- Brace, David K.: Motor Ability Tests. A. S. Barnes & Co., New York.
- (1) Cotteral, Bonnie and Cotteral, Donnie: Tumbling, Pyramid Building and Stunts for Girls and Women. A. S. Barnes & Co., New York, 1927.
- (3) Cotteral, Bonnie and Cotteral, Donnie: The Teaching of Stunts and Tumbling. A. S. Barnes & Co., New York, 1936.

Knudsen, E. A.: A Text-book of Gymnastic Teaching. J. B. Lippincott Co., Philadelphia, 1929.
 McDowell, Thomas: Vaulting. Oxford University Press, London: Humphrey Milford.
 McClow, L. L.: Tumbling. Illustrated. A. S. Barnes & Co., New York, 1931.
 Pearl, N. H. and Brown, H. E.: Health by Stunts. The Macmillan Co., New York, 1929.
 (2) Rodgers, Martin: A Handbook of Stunts. The Macmillan Co., New York, 1931.
 Schroeder, Earnest O.: Handbook of Physical Education. Doubleday, Doran & Co., Inc., New York, 1929.
 Syllabus of Physical Training for Schools. 1933. Copp Clark.

Games Material:

1. Games of Low Organization:

A. Group, relay, and tag games.

B. Lead-up games:

Baseball type—e.g., Danish rounders.

Basketball type—e.g., Nine court basketball.

Soccer football type—e.g., Kick dodge ball.

BIBLIOGRAPHY

Bancroft, Jessie H.: Games for the Playground, Home, School, and Gymnasium. The Macmillan Co., New York, 1917.
 Mason, B. S. and Mitchell, E. D.: Active Games and Contests. A. S. Barnes & Co., New York, 1935.
 Post, Julia H. and Shirley, Mabel J.: Selected Recreational Sports for Girls and Women. A. S. Barnes & Co., New York, 1933.
 Spalding's Handbooks—A. P. E. A. Committee on Women's Athletics: Athletic Handbook, No. 115R.
 Staley, S. C.: Games Contests and Relays. A. S. Barnes & Co., New York, 1930.

Team Games:

Elementary skill and tactics.

BIBLIOGRAPHY

Fish, Marjorie: The Theory and Technique of Women's Basketball. D. C. Heath Co., New York, 1929.
 Frost, H. and Cubberley, H. J.: Field Hockey and Soccer for Women. Chas. Scribner's Sons, New York, 1927.
 Frost, H. and Wardlaw, C. D.: Basketball and Indoor Baseball for Women. Chas. Scribner's Sons, New York, 1927.
 Frymir, Alice: Basketball for Women, How to Coach and Play the Game. A. S. Barnes & Co., New York, 1935.

Field Athletics:

A. Track, field, and novelty events.

B. Gymnastic and game skills.

C. Groups games.

BIBLIOGRAPHY

Duncan, Margaret M.: Play Days for Girls and Women. A. S. Barnes & Co., New York, 1929.
 Frymir, Alice: Track and Field for Women. A. S. Barnes & Co., New York, 1930.
 Hillas, Majorie and Knighton, Marion: An Athletic Program for High School and College Women. A. S. Barnes & Co., New York, 1935.
 Spalding Handbook—A. P. E. A. Committee on Women's Athletics: Athletic Handbook, No. 115R.
 Wayman, Agnes: Education Through Physical Education. Lea and Fibiger, Philadelphia.

Rhythmic Material:

1. Fundamental Rhythms:

1. Duple rhythms and triple rhythms.
2. Primary rhythms (pulse).
3. Subsidiary rhythm (secondary rhythm, or division of pulse, or note pattern).
4. Phrasing.

BIBLIOGRAPHY

Moore, Douglas: *Listening to Music*. W. W. Norton & Co., Inc., New York, 1932. Chapters 1-9.
Waterman, Elizabeth: *The A. B. C. of Rhythmic Training*. Clayton F. Summy Co., Chicago.
Waterman, Elizabeth: *The Rhythm Book*. A. S. Barnes & Co., New York, 1936.

2. Fundamental Movements:

Fundamental movements in rhythmic exercises include all types of rhythmic exercises which provide a vocabulary of movement and promote control and beauty of form.

Locomotor and axial movements.

BIBLIOGRAPHY

Bode, Rudolf: *Expression Gymnastics*. A. S. Barnes & Co., New York, 1931.
The Chalif Text-book of Dancing. Volumes 1-4. 163 West 57th St., New York.
Dietrich-O'Donnel: *Notes for Modern Dance. Music and Directions*. A. S. Barnes & Co., New York, 1937.
Pohl and Bergheim: *Dance Technique and Rhythms*. A. S. Barnes & Co., New York, 1928.
Waterman, Elizabeth: *The Rhythm Book*. A. S. Barnes & Co., New York, 1936.

3. Dances:

A. Folk and National Dances.

B. Character Dancing.

Graded lists of character dances suitable for demonstration may be obtained from the following:

Louis Chalif, 163 West 57th St., New York City.

Mildred Wickson, 263 Christie Street, Toronto.

BIBLIOGRAPHY

Folk Dancing:

Bryans, Helen L.: *Scandinavian Dances*. O. C. E., Toronto, 1937.
Burchenal, Elizabeth (Edited by): *American Country Dances*. Volume 1, 1918. *Folk Dances of Denmark*, 1915. *Dances of the People*, 1933. *Folk Dances and Singing Games*, 1933.
Ford, Henry and C. J. B.: *Good Morning*. The Dearborn Publishing Co., Dearborn, Mich., 1925.
Heffer, Marjorie and Porter, William: *Maggot Pie*. W. Heffer & Sons, Ltd., Cambridge, 1932.
Sharp, Cecil J.: *English Country Dances*. Vols. I-VIII.

Swimming Material:

1. Strokes:

Elementary Crawl:

1. Face float and stand.
2. Flutter kick.
3. Rhythmic breathing.
4. Face float and flutter kick.
5. Arm stroke.
6. Arm stroke and rhythmic breathing.
7. Elementary crawl.

Back Stroke:

1. Back float and stand.
2. Leg kick.
3. Arm stroke.
4. Combined movements.

2. Diving:

Plain Dive—at edge (sitting, kneeling, half-standing, standing);
on board (kneeling, standing, running).

3. Life Saving:

Emergency Measures:

Changing from back to front and front to back positions.

Treading water.

Sink and save.

Relieving cramps while floating.

4. Water Games—tag, relays, mass.

5. Stunts:

Elementary:

Head first sculling.

Feet first sculling.

Motionless floating.

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Daviess, Grace Bruner: *Swimming*. Lea and Fibiger, Philadelphia, 1932.

Goss, Gertrude: *Swimming Analyzed*. A. S. Barnes & Co., New York.

Red Cross Life Saving Methods—A. N. C. Pamphlet, No. 1005. Headquarters, American National Red Cross Society, Washington, D. C.

Sheffield, Lyba and Nita: *Swimming Simplified*. A. S. Barnes & Co., New York, 1927.