

any pair. If he succeeds, the front boy in the pair becomes the runner and the chaser pursues him. If the chaser tags the runner before he escapes, the runner becomes the chaser and the chaser becomes the runner. To prevent a runner from escaping, the pairs twist and turn. The front boy is permitted to ward off the runner by using his hands. The game may be intensified by increasing the number of chasers and runners.

2. Circle Bombing. (Developed from Circle Doge Ball) Divide the class into two teams. Team A forms a circle around Team B. The object is for Team A to hit with a volley ball, soccer ball, or basket ball, as many players of Team B as is possible in a given time. Team B may run, jump and dodge to avoid being hit, but must stay within the circle. At the end of a given time the teams change places. A point is scored each time a man is hit. This game should be played with two or more balls and fifteen to twenty players on a team. The game may be intensified by increasing the number of balls.

3. Bull Dozing. (Developed from King of the Mountain) Teams A and B form inside a plainly marked circle. The size of the circle depends on the number of players. Each team should be so marked or clothed as to be readily identified from the opponents. The object is to eject an opponent from the ring by pushing, pulling, throwing, or charging. When any part of a player touches the ground on or outside the circle, he is out of the game. At the end of a given period of time, the team with the most players remaining in the circle is the winner. To intensify the game call time when most of the boys have been eliminated.

4. Pull Away. Establish a goal line at each end of the playing space. Team A lines up along one goal line and Team B lines up across the center of the field facing Team A. At a signal, the players of Team A try to cross safely to the opposite goal. Players of Team B attempt to tag as many players of Team A as possible. When a player is tagged, he becomes a member of the opponent's team. The players who reach the opposite goal attempt to return to their original goal when another signal is given. The games continue until all the players are caught. Intensify the game by designating the method of tagging or by naming the part of the body to be touched in tagging.

#### Suggestions

1. The teacher can adapt additional group games to make them more vigorous.
2. Rugged games such as shinny can be used.

#### Individual Sports. Track and Field.

The variety of events in track and field provide an opportunity for boys to participate in dashes which develop speed; distance races which develop endurance; and field events which improve skill and agility.

For events and rules see the official track and field publications. Abridged rules are found in War Department Technical Manual, TM 21-220, Sports and Games, May 13, 1942.



Care should be exercised in starting the training program so that the boy does not overdo. The training program should provide for gradual development until the maximum performance is attained. The Physical Training Manual, U. S. Naval Academy, published by the U. S. Naval Institute, Annapolis, Maryland, gives techniques for performing the various events.

Skating (Ice and Roller) Skiing, Snow Shoeing.

In communities where it is possible to participate in these activities they should be included in the program. In order to develop physical fitness these activities must be engaged in repeatedly and with maximum effort.

Rope Skipping. Rope skipping, in various forms, is used as a conditioner for many sports and games, especially boxing and wrestling. It may be done individually, in pairs, or by groups. It develops agility and coordination, and when practiced beyond the onset of fatigue it develops endurance.

Hiking. Hiking is brisk walking for long distances. Three to five miles are recommended for beginners. Rest periods should be few and brief.

Camping. Camping provides many valuable experiences. It teaches one to live successfully out of doors. It provides the opportunity to learn how to live off the land. It gives an opportunity for urban boys to do things which are not ordinarily possible in a city, such as hiking, fishing, boating, trailing and cooking. Camping in groups teaches boys to live successfully together. Camping must be properly supervised and sanitary provisions maintained.

Cycling. Cycling is valuable in a conditioning program when it is done rapidly over long distance. It develops endurance and is especially beneficial in strengthening the muscles of the legs.

Other individual sports such as rowing, and weight lifting, are very valuable in developing fitness.

Team Games

Some excellent team games which have definite recreational value and spectator interest have been omitted from this list because they do not contribute sufficiently to the major objectives set up for this program. If time permits, such activities may be included:

Basket Ball	Football	Six man football
Field Hockey	Touch Football	Soccer
Speed ball	Volley Ball	

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## CHAPTER V

### Activities for Girls

#### Introduction

Physical fitness is as important for girls and women as for boys and men. Boys must be made ready to serve with the armed forces. Girls must be prepared to carry on work which is directly related to the winning of the war, even though not on the fighting front.

Many women are now at work in defense industry and farming and this number will materially increase in the future. Many are serving as nurses, medical social workers, and recreation leaders with the American Red Cross, with the USO, and other organizations. The recently organized service units, the WAACS and the WAVES have enlisted others. Many are busy on the home front. The care of children, the management of homes, civilian defense, and other types of volunteer service, are among women's responsibilities.

High School girls must be ready to assume the responsibilities which the times place upon them. The educational program for girls must be changed to prepare them to meet these responsibilities just as the program for boys is being changed to meet their needs. Since the needs of girls are so different from the needs of boys, it follows naturally that the programs must be different.

The program here offered is a guide to teachers of physical education whose responsibility it is to carry on activities which contribute to the physical fitness of girls. The program recommends vigorous participation. It stresses activities which develop endurance, stamina, and skill.

The development of skill brings with it a sense of achievement. Achievement builds morale. The program for girls must give opportunity to achieve, to succeed to increase morale. Large numbers of boys and men are leaving their homes and communities for military service. The responsibility for maintaining morale both in the home and in the community is, therefore, placed upon the shoulders of the girls and women of America. Education must prepare them to face this task.

#### GUIDING STANDARDS FOR THE GIRLS' PROGRAM

1. All normal girls should participate in the program here outlined in preparation for war service.
2. Women should teach the girls' program.
3. Restrictions upon participation during the menstrual period should be determined by individual differences with conservatism the guide in the absence of final evidence. 1/ Girls suffering from infections, including minor respiratory



infections, should be excused temporarily from participation.

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1/ See Bell, Margaret. The doctor answers some practical questions on menstruation. Washington, D. C., Women's Athletic Section, American Association for Health, Physical Education, and Recreation, National Education Association, 1201 Sixteenth Street, N. W.

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4. Endurance is developed only as the result of vigorous activity carried beyond the first onset of fatigue. Effort should be sustained, therefore, even though the girls are somewhat tired. It is imperative, however, that the teacher watch her students carefully so that they do not become overtired. Such signals as falling frequently, dropping objects, bumping into others and awkward gait should warn the teacher that the individual should cease activity.

5. Intramural sports should be organized so that a maximum number of girls are included. The round-robin tournament provides the greatest amount of participation and should be used in preference to other forms. If inter-scholastic sports are organized, the intramural program should not be sacrificed. The desirable practice is to make the interscholastic program an outgrowth of the intramural program.

6. The element of competition present in team play and dual sports should be used as a desirable, constructive force in character development.

7. Appropriate costume should be worn. Shorts, rompers, play suits and the like are suitable for the gymnasium and playfield. Slacks or ski suits are suggested for outdoor participation in cold weather.

8. All resources of the community should be studied for their possible use in this program.

#### Aquatics

Women in the American Red Cross, in the USO, and in other branches of the service which may be sent overseas must be completely at home in the sea while fully clothed. They must be able to stay afloat for a long period of time and be ready to give assistance to others when necessary. These needs, therefore, should be emphasized at the present time rather than recreative aspects of swimming.

While it is true that many women will not be sent abroad, the program outlined below represents a minimum which is useful to all girls and women. In making them better able to handle themselves in the water and to help others in emergencies a service of inestimable value is rendered to the nation.



Objectives:

1. To stay afloat for a long period of time
2. To swim long distances without exhaustion
3. To swim under water
4. To enter the water without submerging
5. To be at home in the water fully clothed
6. To render assistance to another person in the water

Organization:

1. The size of the class should be determined by the available space, the length of the class period and the ability of the group. When able assistants are available to the instructor in charge, the class size may be increased without risking the safety of the participants.
2. Classes should be subdivided into small units.
3. The buddy system should be used. (Each girl is paired with another whose whereabouts she knows at all times.)
4. An adequate check in and check out system should be established.

Activities:

1. Staying afloat.

All girls should be taught to stay afloat by:

a. floating

Reference. American Red Cross. Swimming and diving, Philadelphia, P. Blakiston's Son and Co. 1938. p. 59

b. sculling

c. treading water

2. Fundamental strokes.

The most valuable strokes in emergency situations are:

a. side strokes: valuable in life-saving and swimming with equipment  
References. War Department. Basic Field Manual, PM 201-20.  
Physical Training. Washington, D. C., Superintendent of Documents,  
March 6, 1941. p. 102. American Red Cross. Op. cit. p. 117

b. breast stroke: useful in life-saving.

c. back stroke: excellent for a tired swimmer, for swimming with equipment and for life-saving.



- d. crawl strokes: powerful and valuable for speed swimming.
3. Endurance swimming.

This may be developed by the use of fundamental strokes over long distances.
4. Swimming under water.

This is valuable in escaping hazards. Girls should be able to swim at least 20 feet under water.
5. Swimming fully clothed.

All of the above should be practiced fully clothed.
6. Entering the water.

This term is used, rather than the term diving, to meet the needs of the war situation. While diving does develop skill and coordination, emphasis now should be placed upon jumping into the water with and without clothing.

  - a. jump feet first
  - b. jump without submerging: useful in keeping equipment dry
  - c. dive head first
7. Life saving.
8. Suggestions to teachers.
  - a. The teacher of swimming must be familiar with life saving practices.
  - b. Safety precautions should be observed at all times.
  - c. The teaching practices suggested by the American Red Cross and the War Department should be observed.
  - d. For practice in swimming fully clothed, skirts, jackets, and shoes are advised. These should be white or fast-dye, and shed as little lint as possible. Clothing should be laundered before being used in a pool.

#### Gymnastics

Man struggles against gravity continually to maintain an erect posture. Good muscle tone contributes toward success in this struggle. Stretching, hanging, balancing, running and jumping are some of the activities used to achieve



the erect position. Efficiency in these skills may be reached by participation in sports as well as in gymnastics. The great value of gymnastics is that movement can be directed towards specific parts of the body. The direction and the intensity of the activity can be controlled.

Objectives:

1. To develop endurance
2. To develop strength of
  - a. the arms and shoulders
  - b. the back and abdominal wall
  - c. the legs and feet
3. To assist in the maintenance of erect carriage
4. To develop agility
5. To develop specific skills applicable to the war situation

Conditioning activities: See Boys' Chapter for descriptions.

1. Running  
Running develops endurance. (Objective 1). Some forms given here also develop agility and such specific skills as getting over or around obstacles (Objective 5).
  - a. Combination hiking and running
  - b. Cross Country

Suggestions for teachers

Girls should

- (1) warm up before the practice jaunt
- (2) wear slacks and light weight sweaters on cool days
- (3) shorten the stride going uphill
- (4) breathe through mouth and nose
- (5) use an easy relaxed stride
- (6) walk a short distance in the fresh air after the run before using the shower

c. Obstacle run (Objectives 1, 2, 4, 5)

Suggestions for teachers

- (1) Common sense and caution must be the guides in selection of obstacles.



- (2) Girls must be skilled in overcoming each obstacle before attempting the course as a whole.
- (3) The course may be used for both conditioning and competition.
- (4) Competition may be against time, individual against individual, or group against group.
- (5) When jumping from a height, soft landing surfaces or pits should always be provided.
- (6) When jumping from a height the beginner should be started at approximately 3 feet.
- (7) When skill in running the course is acquired each girl should practice carrying a pack weighing from 15 to 20 pounds to represent an infant or young child. This will give experience in a skill which the disasters of war may place upon girls and women, i.e., carrying infants and young children to safety. Each girl should learn to carry the pack in her arms as an infant is carried and on her back as a small child might be carried.

d. Relay racing (Objectives 1, 2c, 4)

Shuttle relay

Jump stick relay

Duck waddle

Hopping relay

See saw relay

In and out relay

2. Exercises

These can be adapted to indoor or outdoor use in limited space and require no equipment. Strength and endurance are developed quickly through regular use, especially if there is a steady increase in the number of times each exercise is performed.

Formation

Open order. From closed order in a column of 3's or 4's. On the command, "Extend to the left, MARCH," all raise arms sideward and run to the left until there is at least 12 inches between finger tips. The girls on the right flank stand in place. "COVER", (i.e., straighten lines from front to back) and lower arms to sides. This is one of many way of opening order.

(Note: The girls should use the same exercises as those described in the boys' list with the following exceptions: Substitute Exercise 5 below for Exercise 5 in the Boys' list; and substitute Exercise 12 below for Exercise 12 in the Boys' List.)



Exercise 5

Starting position: Attention.

Counts 1-4: Walk forward on toes.

Count 5: Drop to full knee bend.

Counts 6-8: In deep knee bend position, spring in place  
3 times. 4 to 8 times.

Exercise 12

Starting position: Arms raised sideward to shoulder height  
and feet about 24 inches apart.

Count 1: Bend and twist trunk to left, touching right hand  
to outside of left foot. Look up at left hand.

Count 2: Return to starting position.

Count 3: Repeat 1 to the right.

Count 4: Return to starting position. 16 to 24 times.

Suggestion for teachers

1. Insist on good form, i.e., exactly as described, and with energy in each movement.
2. Increase the number of times each exercise is performed, and the capacities of the individuals develop.
3. Sustained effort without rest or pause between exercises must be maintained. Each exercise must be thoroughly learned before going on to the next one. When the drill is memorized, then all the exercises should be done without stopping.
4. The class must master "unit a" before progressing to "unit b" and likewise "units a" and "b" before progressing to "unit c".
5. To master "unit a" means that the class is able to do better than the minimum set for each exercise before "unit b" is begun. Continue to increase the number of times in "unit a" as "unit b" is added. The same procedure is to be followed in adding "unit c".
6. Demonstrate each exercise before asking the class to do it. Correct demonstration is more valuable than a lengthy explanation.
7. Give commands clearly and concisely. The tone of voice can help materially in stimulating the class to action.
8. Observe the class from all angles, commenting on the good performance, correcting the faulty one. Urge all to better performance.
9. Encourage the improvement of performance by individual practice at home.



### 3. Apparatus

Exercise on apparatus is especially valuable in developing strength, agility and endurance. Extreme care should be taken in the construction, maintenance and use of apparatus to prevent accidents.

#### Formation

Keep the groups small to provide maximum participation.

Arrange the class and the apparatus so that

- a. Those waiting their turns may see the performer.
- b. There is safe and easy access to and from the apparatus for the performer.

#### Apparatus and activities

- a. Climbing ropes and poles  
Climbing -
  1. Ordinary climbingSwinging -
  1. Swing on 1 rope
  2. Swing on 2 ropes vaulting for height over a rope stretched between jump standards.
- b. Horizontal bar (chinning bar)  
High bar (beyond reach)
  1. Chin. Any grip
  2. Hang. Raise knees
- c. Horse and buck-
  1. Straddle vault over buck
  2. Side vault, left and right
  3. Front vault, left and right
- d. Stall bars-
  1. From a hang, facing bars - chin
  2. From a hang, back to bars
    - (a) Knee raising
    - (b) Leg raising
  3. Sitting on the floor or on a bench, feet fixed, lowering and raising trunk (sit ups).
- e. Flying rings-
  1. Hang and chin
  2. Swing
  3. Swing and pull up at end of swing
  4. Swing and turn at end of swing
  5. Hang or swing - raise knees



- f. Horizontal ladders-  
Grip rounds or beams
  - 1. Chin (pull ups)
  - 2. Travel forward
  - 3. Travel sideward
  - 4. Hang - raise knees

#### Suggestions for teachers

- 1. Mats should be used as a safety precaution.
- 2. Girls should be taught correct grips.
- 3. Assistance should be provided during practice periods.
- 4. The height of the apparatus should be dependent upon the height of the girls and the type of activity.

#### 4. Locomotor and Axial Gymnastics

Acquiring skill in any activity is dependent largely upon timing and upon judging space relationships. As skill improves, harder and longer periods of work can be sustained if a rhythm of work is established. Rhythmic gymnastics are of value in contributing this particular training to wartime efficiency. In addition they contribute to a marked degree in the development of endurance and strength.

#### Objectives:

- 1. To increase skill, endurance, strength, and agility.
- 2. To develop space judgment.
- 3. To develop timing.

#### Organization:

- 1. Size of classes should depend upon facilities, equipment and experience of teachers.
- 2. Falls should be done only if the floor is of wood and in good condition.
- 3. If floor is constructed on concrete, elevations and jumps should be used very little.
- 4. A great deal of the program can be carried on outdoors.
- 5. If piano or pianist is not available, drum beat, victrola or singing may be used.

#### Activities

The following program is in no way complete. The teacher is encouraged to use her own initiative in adapting and supplementing this material in relation to her own situation and the needs of her group.

In teaching rhythmic gymnastics, it is ordinarily advisable to have each individual in the class try the exercise first at her own speed. Then the teacher should set a common tempo which meets the average of the group. To provide greater



training in skill and agility, certain exercises may be practiced at increased or reduced speeds rather than at optimum tempo.

### Accompaniment

Various forms of accompaniment are suitable for rhythmic gymnastics. Among these are the piano, phonograph recordings, and percussion instruments such as the drum and tom-tom. The piano, with a skillful accompanist is the most desirable. Satisfactory results can be obtained, however, through the use of recording or percussion instruments.

#### In the selection of music

- a. Good collections of musical materials are available for the piano. (See bibliography for suggestions)
- b. Commercial recordings are numerous and acceptable.
- c. There is a growing practice of making one's own recordings from original material.

In the use of accompaniment the teacher is cautioned to (1) avoid undue stress of accent in measure and phrase, and (2) avoid using the same selection again and again for the same movement.

Anyone with ordinary sense of rhythm can use percussion instruments successfully and technique can be developed to a high degree. Excellent results are obtained if the accompanist swings into the movement as she beats the instrument. The teacher inexperienced in percussion technique should start by using a single drum, which provides basic rhythm, but no melody. As skill develops, several drums tuned differently may be used, as well as gongs and wooden blocks to provide rudimentary melody. The rhythmic pattern should be varied to avoid monotony.

### Conditioning<sup>1</sup>

- a. Stretching and general conditioning (Objective 1).
  1. Standing stride position bend at waist body hanging loosely from hips, bounce trunk forward, sideward.

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<sup>1</sup> See appendix for a glossary of terms.

2. Standing stride, circle trunk.
3. Sitting, knees bent outward, feet together, bounce down, then stretch body from base of spine to neck.
4. Sitting, legs forward, knees extended, do 3.
5. Repeat with arms in various raised positions.
6. Sitting wide stride, do 3, forward and sideward.
7. Lie on back, one leg raised vertically. Flex both knees slightly and flex both ankles as much as possible. The sole of the raised foot should be parallel with the ceiling. On Count 1, extend both knees and both ankles without moving the heel that is on the floor. On Count 2,



return to the flexed position. Do exercise alternating legs 8 times and then gradually increase until the exercise can be done 16 times in good form.

8. Lunge bounce.

In a long lunge position with the right foot forward, right knee well forward and left knee extended, hands on the floor, bounce 8 times. With a jump of legs, hands still on floor, change position so that left foot is forward and repeat 8 bounces. Continue the series with 4 bounces right and left, 2 bounces right and left, and then single changes of feet-right, left, right, left. The hands remain on the floor throughout the exercise. Progression: After this exercise is executed easily in good form, do the same exercise with the same position of the body but do not touch the floor with hands. This greatly increases the difficulty because of the addition of the balance factor. Accompaniment:  $2/4$ ,  $4/4$ , or  $6/8$  march time.

9. Jack-knife lift.

Lie on the floor on back, body fully extended, arms close to sides. With strong abdominal pull and lift of legs, come to a jack knife position. Legs are straight, back is straight and neither flexed nor over-extended. Arms move forward at the same time until the hands touch the thighs. Elbows are extended. Return to lying position. Timing: 1-2 Lift, 3-4 Lie. Accompaniment:  $4/4$  time.

b. Locomotor movements. (Objectives 1, 2, and 3)

1. Walk, run, leap, skip, slide, gallop, hop, jump. Marching is one style of locomotor movement. Marching tactics are described in Chapter IV.)

c. Non-locomotor movements. (Objectives 1, 3, 4)

Push, pull, lift, dodge, kick, strike, pendulum swing of body side-ward, trunk completely relaxed and bent at waist.

d. Keep moving. (Objective 2)

Four girls stand, one at the center of each wall of the room. The other girls are in scattered formation, facing different directions, spread over the entire floor. The four girls walk slowly forward toward the center of the room. They define the circumference of an imaginary circle which gradually diminishes in size and within which the other girls must continue to move. The other girls run with quick steps within the defined space, dodging and turning to escape touching anyone else. This exercise should be practiced to the beat of a drum or piano, using a whole note for each step of the four girls



and eighthnotes for the steps of the others. The teacher gives a signal for the completion of the exercise when the space becomes too small for further movement.

e. Follow the leader. (Objective 2)

The class is divided into a number of files of 4 to 12 girls: 6 girls is a good average length of file. Hands may be joined or not dependent upon movement used. The first girl in each file is a leader. Each leader leads her file, using forward, diagonal, sideward, zigzag and turning directions. The others in her file do as she does at the same time. The leader should use simple steps of walking, running, sliding, skipping, galloping. She must adapt her direction to the other groups in the room. One of the objectives of the exercise should be that the leaders learn to use the space efficiently in a collaborative way. The teacher will set a different tempo each time the exercise is repeated, varying slows and fasts. As the students become more expert, the leaders will make the movements more difficult in space, in rhythm and in coordination of movement. Caution to the teacher: This exercise should be rhythmically disciplined and the game element involved should not lead to a lack of control.

f. Sit fall and rise. (Objectives 2, 3, 1)

(a) Sit fall. Class faces front, scattered formation with at least 6 feet clear floor space behind each girl. Little space is needed sideways. First let head relax and fall forward, shoulders forward, whole body flexes until hands touch floor at feet. Second let right foot slide forward and sit. Third lie back letting the whole body extend from hips up and from hips down. Arms spread sideward with the extension of upper trunk. Timing: Use counts 1-4 for first part: count 5 for second part and counts 6-8 for third part. Thus, the fall can be done to 2 measures of 4/4 time.

(b) Rise from back. First, bend left knee keeping left foot in contact with the floor as knee is bent, kick right leg in the air as a movement preparatory to sitting up. Second, swing the right leg and arms down forcefully, reach forward with head, shoulders and arms. Third, step forward onto the right foot, body still in crouched position. Fourth, continue to rise to an erect position and bring left foot up to meet right. Timing: Kick up on Count 1, kick down on Count 2, step on Count 3, rise on Counts 4-8. Thus the rise can be done to 2 measures of 4/4 time.

Teaching notes: If girls are not strong enough to do exercise as described, have them place hands on floor at hips on the second part of the rising movement and push off floor with hands. If any girls have had knee injuries that make extreme flexion of knee inadvisable, teach roll to one and rise from that



position. (See Exercise 9 b). Repeat above fall (8 counts) rise (8 counts) and then repeat to 6, 4, and 2 counts, alternating feet and legs on slide out and kick, as follows:

- |          |   |
|----------|---|
| 8 counts | (1-4 touch floor with hands<br>(5-8 foot forward, sit and lie<br>(1-2 kick up and down<br>(3- step<br>(4-8 rise to position |
| 6 counts | (1-3 touch floor with hands<br>(4-6 foot forward, sit and lie<br>(1-2 kick up and down<br>(3- step<br>(4-6 rise to position |
| 4 counts | (1-2 touch floor with hands<br>(3-4 foot forward, sit and lie<br>(1-2 kick up and down<br>(3-4 step and rise to position    |
| 2 counts | (1-2 touch floor with hands, foot forward, sit and lie<br>(1-2 kick up and down, step and rise to position                  |

Progression: Do exercise first at 8 counts speed only, then add gradually other speeds until the group can do a series twice through at each speed with no stop.

g. Side fall and rise. (Objectives 2, 1, 3, 4)

(1) Sidefall 1. Class faces front in scattered formation with at least 6 feet clear floor space on side toward which fall is to be done. Little space is needed forward or backward. Class stands stride, weight even, arms at sides. First, swing weight onto right foot raising left leg diagonally backward left and swinging both arms diagonally upward right. This is a preparatory movement. Second keeping left foot off floor, bend right knee and lower body to floor as the arms sweep down in an arc from diagonally upward right to diagonally downward left going through a point in front of right foot and continuing to slide out on floor to left, as the outside of the left leg is lowered to the floor. The left foot stays behind the right. The second part of the movement is continuous with no break and at the completion of the movement, the body is lying on the left side on the floor in an extended position, left arm stretched beyond the head, right hand on floor in front of chest. It is important that the body strike the floor along the outside of the left thigh and leg to avoid bumping the left knee. When the fall is executed to left, body weight is used to right as a brake to control



fall.

(2) Rise from side. First push off from the floor pulling with right trunk muscles and pushing with hands only if necessary. Step side-ward to right as body crouches ready to rise. Do not step on left foot, but pushing down with right foot extend the body upward, swinging the arms diagonally upward right. The weight is on the right foot at finish of rise. The first part of the rise is continuous with no break. Second, step on left foot finishing in stride position with arms at sides.

Timing: 1-2 First part of side fall  
3-4 Second part of side fall  
5-6 First part of rise from side  
7-8 Second part of rise from side

(3) Repeat exercise to right.

(4) Repeat exercise in a series alternating left and right, starting with 4 falls and adding units of 2 until 12 falls can be executed in good form.

(5) Add hop to first part of side fall.

(6) Use different timings for fall and rise.

(7) Do (5) and add roll to back and onto other side in second part of side fall before executing rise from side. This roll should be continuous with the fall.

(8) Precede the fall and rise exercise with other exercises such as sideward pendulum swing.

(9) Side fall II. First do first part of Side fall I, as in above, weight is now on right foot. Second, stretch body and arms as high as possible diagonally upward right, then swing body and arms in a full circle high across to left, down left and under and out to right, as the left foot steps across in front of the right and body slides to the floor on the right side. The arms and body weight are used to the left as a brake when falling to the right. Timing: As for side fall I. Rise: As for side fall I.

h. Roll over fall and rise. (Objectives 2b, 1, 3, 4)

(1) This exercise progresses in a diagonal zigzag pattern, forward on the walking, sideward on the roll, assume half knee bend position. First low walk forward left, right, left, right. Second, with the right foot in advance the roll over will be to the left. Flex body forward and twist slightly to right, tucking both elbows into abdomen. Roll over to left striking the floor on left shoulder, rolling onto back. To rise, push flexed right arm against the floor accompanied by a sharp extension of left leg. Finish on right knee with left foot free to start first part of movement again.



Timing: 1-4 walk left, right, left right.  
5-6 roll over to left.  
Repeat to same side.

(2) Vary level and direction of walk and timing.

(3) Spring roll fall and rise. Stand with feet about 12 inches apart, arms at sides. First step hop diagonally sideward right swinging both arms diagonally upward right. Second, flex body, tucking both elbows into abdomen, and execute roll over as described in the second part of 7 above pushing off floor in the same fashion. Third, with no stop between second and third parts of the movement, step on left foot and extend body to erect position lifting both arms diagonally upward left.

Timing: 1 ah - step hop right  
2 - roll over  
3 - rise on left foot  
4 - precede (3) with a run on the diagonal

Timing: 1 and 2 and - Run right, left, right, left.  
3 ah - step, drop right  
4 - roll over  
5 - rise on left foot  
Repeat and reverse

5. Combine (3) with other movements and vary timing.

i. Large and small. (Objective 2)

(1) Walk 4 very long reaching steps using a vigorous swing of the arms and immediately walk 4 very small steps using a little swing of the arms.

Timing: Counts 1, 2, 3, 4, long steps  
Counts 5, 6, 7, 8, small steps 4/4 time  
  
Counts 1, 2, 3, 4, long steps  
Counts 5 and 6, small steps 6/4 time

(2) Apply the above principle of large and small movement to other locomotor movements such as run, skip, slide, and to non-locomotor movements such as push, pull, circling of trunk.

(3) Mark off a space of about 20 feet in width. Move across this space in 15 steps: in 10 steps: in 8 steps: in the fewest possible steps using leaps. Then increase the width of the space and add to



the number of steps as the space demands. Do this exercise with each girl establishing her own timing. Later the teacher establishes a common timing derived from the average of the group.

J. Strong and light. (Objectives 1, 3)

(1) Stand stride position. Strike forcefully forward with right arm, left arm, and repeat right and left. Rotate the trunk somewhat with the force of the striking movement and keep the legs and trunk taut throughout. Now reach forward lightly with the right arm, left arm, and repeat right and left. Rotate the trunk, letting the shoulder follow through into the reaching movement. The head should also follow through. In both strong and light units of this exercise keep the weight centered.

Timing:	Counts 1, 2, 3, 4,	strike right, left, right, left.
	Counts 5, 6	reach right
	Counts 7, 8	reach left
	Counts 9, 10	reach right
	Counts 11, 12	reach left

Accompaniment:

If using music, ask the accompanist to improvise  $4/4$  time in three measure phrases. If using music already written, do 8 instead of 4 striking movements which will lengthen the exercise to 16 counts or 4 measures of  $4/4$  time thus fitting into the usual 4 measure phrase of music.

(2) Do this exercise using the timing principles suggested in i (a) above.

(3) Devise patterns of strong and light locomotor movements as well as other non-locomotor movements.

(4) Experiment with strong, small movements and light, large movements and the reverse of this. Vary the timings of these movements.

(5) Develop a strong, vertical jump from a light, easy bounce, gradually making the bounce stronger and larger until the body is propelled into a low vertical jump; continue to increase the strength of the movement until the jump is as high and strong as possible for each girl in the class. Let each girl set her own speed for this exercise.

k. Fast and slow (Objectives 1 and 3)



(1) Using walking and running steps, travel around the room in a circle starting slowly, gradually increasing speed, then gradually decreasing speed. Follow either the beat of the drum or music played by an accompanist. Take each beat of the drum or each note of the music as a step.

(2) Using an exercise which the class has already mastered, execute it at speeds faster than normal: at speeds lower than normal: at gradually increasing speed: at gradually decreasing speed.

1. Large-small, strong-light, fast-slow (Objectives 1, 2, 3, 4)

These factors are inter-related. For instance, in natural movement as a walk becomes a run and then a leap each movement becomes larger in space and stronger in dynamics or force. Changing the natural degree of one or more of these factors leads to the discovery of a much broader field of movement. Certain elements of style will also develop from such experimentation.

(1) Do a large, strong, slow movement. Now do a large, strong, fast movement.

(2) Do a small, light, fast movement. Now do a small, strong, slow movement.

(3) Running diagonally across the room

Run gradually faster and lighter.  
Run gradually faster and stronger.  
Run gradually slower and stronger.  
Run gradually slower and lighter.

m. Meter. (Synonymous with time) (Objective 3)

(1) As far as possible experience should be given in moving to the following meters:  $2/4$ ,  $3/4$ ,  $4/4$ ,  $5/4$ ,  $6/8$ ,  $9/8$ ,  $12/8$ .

(2) Changing meter. Circling the room, walk forward 4 steps starting with the right foot. Turn in place to the right with 3 steps starting with the right foot. Repeat all of this continuing in the line of direction, starting with the left foot and executing the turn to the left. Use one measure of  $4/4$  time and one measure of  $3/4$  and repeat. Experiment with other locomotor and non-locomotor patterns of movement using various kinds of changing meters. Experiments of this kind should emphasize movement and should not become mathematical exercises. Too often manipulation of rhythmic devices becomes an end in itself rather than taking its rightful place as a means to better and more functional movement.



- n. See saw. (Objectives 1 and 3)

The group is divided in couples scattered over the floor. The partners sit facing each other, hands joined, left side to left side. The left knee is fully bent with the left foot on the floor. The right leg is extended forward. Number one rocks back giving a steady pressure upward with hands and arms to rock and lift 2 forward. 2 rises on the left foot, with the right foot lifted off the floor, trunk flexed forward and head forward, right hip flexed close to body and knee and ankle slightly flexed. Now 2 rocks back to the floor, lifting 1. In rising from the floor a strong pull of the abdominal muscles should be used instead of depending upon the pull of the partner's arm.

Timing: Use slow 4/4 time with 2 counts for each rock or slow 6/8 time with one measure for each rock.

The group may make new exercises of their own in couples.

#### 4. Self testing activities

Many of the activities given here teach girls to:

- a. Jump and fall without being hurt.
  - b. Have a sense of position in space.
  - c. Develop an ability to carry another without injury to self.
  - d. Control the body in flight.
- 
- a. Forward roll.  
From a stand, bend forward, bend knees, and place hands on mat. Duck head between legs, roll forward on back of neck and shoulders, grasping the knees. Come to a stand.
  - b. Backward roll.  
From a stand, lean forward, fall backward to a seat, roll backward placing hands on the mat over the shoulders, and at the same time drawing the knees to the chest. Push off with hands, and roll to a stand.
  - c. Cartwheel.  
From a run, make a quarter turn left, placing right foot sideward, right arm upward, throw the weight on the right foot, placing the right hand on the mat. Raise the left leg, at the same time placing the left hand on the mat, arms and legs spread. Bring the left foot to the mat as the right hand is raised. Follow through to a stand.
  - d. Jump from heights.



Use any available apparatus or platform. Begin at 3 feet and gradually increase the height to 6 feet. Break the fall by landing on the balls of the feet, and bending the knees. A landing pit or mats should be used.

- e. Elephant walk.  
Starting position: Partners face each other; with number 2 in a stride position. Number 1 places her hands on number 2's shoulders, jumps and wraps her legs around number 2's legs high under number 1's arms. Number 1 lowers her body backward, places her hands and head between number 2's legs, and grasps number 2's ankles. Number 2 bends forward, places her hands on the mat and walks forward. Keep arms straight. Number 1 locks her feet to keep from slipping.
- f. Double roll.  
Starting position: 1 lies on her back, legs raised upward, feet apart; 2 stands astride 1's head, and grasps 1's ankles. 1 grasps 2's ankles (her arms between 2's legs). In this position 2 springs, tucks her head under, and does a forward roll, close to 1's body. As 2 rolls, she pulls 1 to standing position. 1 then does a forward roll, pulling 2 to a stand. Continue. Make the roll quick and powerful to bring partner to a stand.
- g. Tandem walk.  
Starting position: 1 stands close behind 2. 1 jumps on 2's back and locks her legs high under 2's arms. 2 bends forward placing her hands on the mat. 1 reaches over 2's head placing her hands on the mat in front of 2's hands. Both walk forward, 1 using hands and feet, 2 using hands.
- h. Rocking chair.  
Starting position: Partners sit facing each other, knees bent slightly 1's legs are on the outside of 2's. Sit on partner's feet and grasp partner's shoulders. 1 rocks back and pulls 2 up, at the same time keeping her own feet in contact with 2's body. 1 then rocks forward, while 2 rocks backward pulling 1 up. Continue rocking as high as possible.
- i. Bicycling.  
Starting position: Lie on back with hands under the hips and legs raised upward. Imitate bicycling, stretching high on each push of the imaginary pedal. Continue as long as possible.

#### Sports and Games

Sports and games are an important part of the general conditioning program. They provide opportunity for strenuous big muscle activity and contribute to the development of speed and endurance. In addition to these obvious values, sports a



games afford wide opportunity for the practice of desirable character traits. Only those sports and games have been selected which contribute to the development of strength and endurance. Many well-loved games have been omitted. Tennis, for example, is not included because considerable skill is required before maximum value is secured.

Objectives:

1. To develop speed, strength, and endurance.
2. To provide opportunity for the practice of desirable character traits.
3. To develop skills useful in leisure time.

Organization:

1. All girls should participate.
2. Girls rules should be used.
3. Women teachers should be in charge of the program.
4. The standards of the National Section on Women's Athletics should govern the program.<sup>1</sup>

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1. National Section on Women's Athletics. Standards in Athletics for Girls and Women. Washington, D. C., 1201 16th Street, N. W.

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Teaching procedures for all team games:

1. Explain in general the idea of the game and the terms most often used.
2. Group students according to similar ability.
3. Use explanation, demonstration, and other teaching aids in presenting techniques.
4. Practice skills in groups with trained student leaders in charge.
5. Keep each student busy practicing some skill. The skill should be chosen with respect to her level of achievement.
6. Give student sufficient time to practice skill so that she may improve her performance.
7. Use skills in real game situations as soon as possible.
8. Devote a part of every period to improving old or learning new skills.
9. Concentrate on essentials for beginners.
10. Present more advanced skills and strategy of playing as soon as players acquire elementary skills.
11. Train students to officiate as they learn the game.
12. Emphasize the importance of safety. It is the teacher's responsibility to keep equipment in good condition. It is the player's responsibility to keep play areas clear of hazards and to discipline those numbers of the class who frequently cause accidents.

Field-ball  
Soccer  
Speedball

Field Hockey  
Basketball  
Volleyball



## Individual sports for use in the out of school program

The out of school program offers opportunity for girls to participate in many individual sports which are not included in the class program because of the nature of the sport. The organization of clubs for hiking, riding, and bicycling is a responsibility of the physical education teacher and will promote interest and participation. These activities are desirable for week-ends, after school and holidays. The sports suggested here have been selected because they contribute directly to the objectives of the entire program. The inference must not be drawn that this is the complete field of individual sports.

### Hiking

Hiking to be of immediate value in a program of physical fitness must be brisk and reasonably long. Rests should be few and brief.

### Camping

There are experiences in camping which are unmatched in any other situation. To live off the land, to take care of oneself against the onslaught of the elements, to live peaceably with fellow campers under primitive conditions are challenges every girl should have the opportunity to meet. Successful camping requires careful supervision of program, site, and sanitation.

### Skating - Ice and roller

Skating is an enjoyable and inexpensive sport and if practiced regularly is a fine developer of endurance and speed.

### Bicycling

Bicycling is of value in developing strength of legs and ankles.

### Skiing and snow-shoeing

Skiing and snowshoeing are exhilarating sports for girls living in snow areas. Proper equipment is necessary for safety. Both sports can be enjoyed through adult life if reasonable skill is acquired.

### Horseback riding

Horseback riding is an increasingly popular sport. Expensive riding habits are not essential. The cost of hiring horses may limit participation, but costs may be cut by riding in groups.

### Skeet shooting

This sport develops a skill which may prove to be of value to girls in possible war service -- the skill of shooting at moving objects.