HEALTH AND PHYSICAL EDUCATION

STUDENT'S TEXT BOOK

GRADE SEVEN

ADDIS ABEBA ADMINSTRATION EDUCATION BUREAU

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STUDENT TEXT BOOK GRADE SEVEN

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CHAPTER FOUR

FUNDAMENTALS OF ATHLETICS

Introduction

In this chapter, you will learn about athletics. Athletics is a multidiscipline sport which is categorized into track and field events. All the selected contents in this chapter are the continuation of running, throwing and jumping events(activities) that were learned in grade 5 and 6.The overall time allotted for this chapter is 11 periods. It is very unlikely to achieve the desired learning outcomes of the chapter with the given allotted periods. Thus, in order to bring the necessary changes, individual effort is very important. Therefore, you are expected to practice the selected physical exercise independently on the regular basis.

Learning outcomes:- At the end of this unit, you will be able to:

- Perform maximum sprint run with proper baton exchange technique with partner.
- Differentiate the differences between visual and non - visual baton exchanges.
- Demonstrate the ability to run with rhythm over age appropriate obstacles with speed.
- Work with a partner to correct mistakes.
- Appreciate other students who hit targets.

4.1. Sprint and Sprint relay

Learning competencies:- At the end of this topic, you will be able to:

- Perform maximum sprint run with proper baton exchange technique with partner.
- Differentiate the differences between visual and non - visual baton exchanges.

Sprint races cover a range of distances from 60m up 400m. The purpose of sprinting is to perform the given in a short time. Sprint races are started from a crouched position. Sprint is considered as a complex physical activity, which will be divided in to start (crouch position), efficient running and the finish.

Sprint relay is almost similar with that of sprint run except four athletes runs as

one athlete with baton exchange

Lead-up skills in sprint relay

The aim of the 4 x 100 meters sprint relay is, with the assistance of four athletes, to carry a baton (30 cm long, 13 cm in circumference and no less than 50grms in weight) around 400 meters as quickly as possible.

Baton exchange

The rules of relay competition require the baton to be exchanged within a 20 meters change-over zone.

Upsweep

The receiving hand is extended behind them at hip height with the palm facing down and a wide angle between the thumb and the rest of the fingers. The incoming athlete passes the baton in an upward movement into the receiving

hand.

Down sweep

The receiving hand is extended behind them at hip height with the palm facing up and a wide angle between the thumb and the rest of the fingers. The incoming athlete passes the baton in a downward movement into the receiving hand.

Fig 4.1 A. upsweep *B. down sweep*

Game-Sprint relays (5 - 10 minutes)

- Identify a start line and arrange the class into groups of 3-4 per line.
- Make sure each line has a mix of fast and slow runners.
- On signal to start, first learner in each line sprints out around a cone and back to their line.
- Returning sprinter touches hand of next learner and next he/she sprints.
- Each learner sits down after they return to their line.
- Run 4-5 races. Consider rebalancing the teams if one or two teams are dominant.

Activity 1:

1. What is the difference between visual and non-visual and upsweep and down sweep baton exchange?

4.2. Running over obstacles

Learning competency:- At the end of this topic, you will be able to:

- Run with rhythm over age appropriate obstacles with speed

Safety:

- Run through a few conditioning exercises before hurdling (jogging, stretching exercises, etc.)
- Make conscious effort to clear every hurdle.

Start-up question:

1. Did you practice running over obstacles or Hurdle Run? How did you run?

Running over Obstacles:

Hurdle run is one of the exciting and challenging disciplines in athletics/Track events/. The purpose is to clear the hurdles or obstacles and run in a possible shortest period of time.

Technical characteristics:

A. Arms and legs movement: arms and legs movement should be coordinated alternatively to achieve rhythmic speed run.

B. Phases for running over obstacles: involves three phases (i.e. Take off, clearance and landing)

Basic Techniques:

- Do not approach hurdles in the wrong direction they were designed for
- Run at the hurdle
- keep body weight/hips forward
- High knee lift of lead leg (first leg over the hurdle) and should not be straight

- When lead leg lands, it should land in a straight line from take-off point and the trail leg follows the lead leg.
- Trail leg should go from side to the front of the body as foot comes down over the hurdle
- Maintain smooth fast running between the hurdles
- Run fast the finish line (do not stop on it or just before it)

Key word: Lead leg is the leg that goes over the hurdle first, and the leg that follows is the trail leg

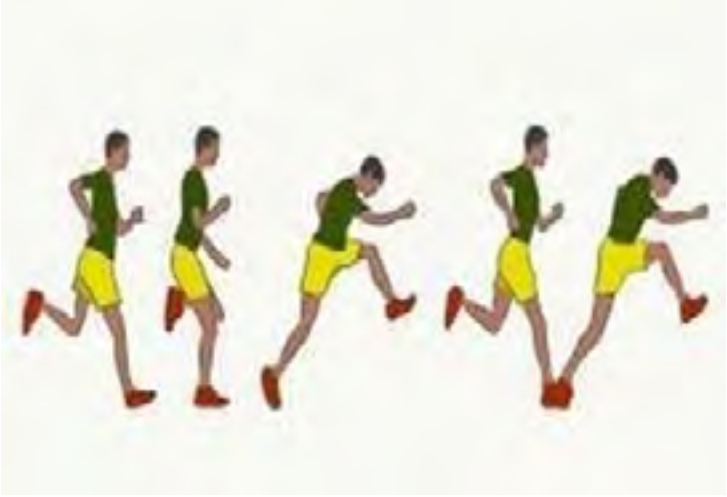

Fig. 4.2.(A) Running without obstacles

Fig. 4.3 (B)Running over obstacles.

Activity 2:

1. What are the three phases in running over Obstacles?
2. List some basic techniques of hurdle (obstacle) run.
3. Try to evaluate your achievement and share your feeling and the challenges at the end of your practice with your friends & teacher.

4.3 Vertical Jump (Jumping for height)

Learning competency:- At the end of this topic, you will be able to:

- Apply jumps with a mature pattern for height appropriate to the skill needed.

Start-up Questions:

1. What is jumping?
2. How many types of jumping events do you know?
3. What do you think about the purpose of jumping?

Jumping for height from three straight line strides

The high jump is a track and field event in which competitors must jump unaided over a horizontal bar placed at measured heights without dislodging it. Jumping for height (or vertical jumping) is used in many sports (e.g. high jump, basketball rebound, rugby line-out, vaulting in gymnastics) and in many playground games and activities (e.g. using a skipping rope).

Application of force: To gain optimum height, the movement needs to be smooth and synchronized. Therefore, to achieve the desired height you need to apply the legs, body and arms sequentially (sum of forces). In other words, you

jump for height by pushing off with your toes, feet, knees and hips,

and forcefully swinging your arms upwards.

You should follow the following steps when you Jump for height from standing and after one step, two and three steps.

- bend knees – crouch position
- 'explode' upwards
- swing your arms upwards quickly
- stretch, reach, and focus on target
- land with knees bent to absorb the shock

Activity 3:

1. What is the difference between standing jump and jumping after three steps?
2. Perform Jumping for height from three straight line strides by following the procedures.

4.4 Throwing for precision and distance

Learning competency:- At the end of this topic, you will be able to:

- Apply throws with a mature pattern for distance appropriate to the skill needed.

Start-up Questions:

1. What is throwing?
2. How many types of throwing events do you know?
3. What do you think about the purpose of throwing?

Throwing sports, or throwing games, are physical, human competitions where the outcome is measured by a player's ability to throw an object. Throwing events are the Shot Put, the Discus Throw, the Javelin Throw, and the Hammer Throw. This topic will concentrate on throwing balls, sticks and other materials for precision and distance.

Learning materials

- Different targets, such as big numbers or letters
- Rope or tape, to mark a line on the floor
- Safe objects for throwing, such as balls, stuffed toys, erasers and small pillows or bolsters

How to Play

- Stick different targets high up on a wall. This is to bring out the overarm action. Place a rope or tape in a line on the floor, about 10 steps away from the wall. You should stand behind this line. Get to toss various safe objects listed above at the different targets on the wall.
- Specify a number or letter. You must aim at the corresponding target on the wall.
- Increase the throw distance by shifting the line further away from the wall as your teacher directs you.
- Challenge yourself to achieve a goal such as complete hitting all the targets on the wall within 20 seconds.
- You must aim at the right targets on the wall to spell out the word.

BE AWARE

- You must select and aim at a specific target and your body should face the direction of the throw.
- Use cut-out footprints to step forward with your foot on your non-throwing side. This will help your body to rotate in the direction of the throw, and allow you to transfer your body weight between front and back feet.

Activity 4:

1. Explain the objectives of throwing.
2. Demonstrate throwing for precision and distance.

Chapter Summary:

Sprint relay is with the assistance of four athletes, to cary a baton around 400 meters as quickly as possible.

Hurdle run is one of the exciting and challenging disciplines in athletics/Track events/. Its purpose is to clear the hurdles or obstacles and run in a possible shortest period of time.

Throwing sports, or throwing games, are physical, human competitions where the outcome is measured by a thrower's ability to throw an object.

High jump is a track and field event in which competitors must jump unaided over a horizontal bar placed at measured heights without dislodging it.

Chapter Review question:

Part One: write True if the statement is correct and False if it is incorrect

1. The purpose of obstacle run is to clear the hurdles or obstacles and run in a possible short period of time.
2. Sprint relay is similar with that of sprint run except the baton exchange.
3. The purpose of throwing is to throw an object at a minimum distance into the throwing area.
4. Crouch position is the second phase of sprint relay.
5. The purpose of vertical jump is to cover the greatest horizontal distance from a given mark.

Part Two: Choose the best answer from the given alternatives.

1. Which of the following is the phase of sprint run?

   a) start b) efficient run c) finish d)all

Part Three: Give short answer for the following questions.

1. What do you learn from the sprint relay?
2. What is the aim of vertical jump?
3. List types of sprint run.

CHAPTER FIVE

GYMNASTICS

Introduction

In this chapter, you will learn the history of gymnastics. You will also learn and practice techniques of head stand and roll, cartwheel, pull up and rolling on horizontal bar which helps you develop self-confidence, coordination, balance, strength and endurance that can help you effectively perform your daily routines.

Learning Outcomes:- At the end of this chapter, you will be able to:

- Perform some basic gymnastics.
- Perform some apparatus gymnastics.
- Develop awareness of others when using apparatus.
- Understand the benefits of gymnastics activities

5.1. History of gymnastics

Learning competency:- At the end of this topic you will be able to:

- Explain the history of gymnastics

Start-up Question

1. What is gymnastics?

The history of Gymnastics

Gymnastics is one of the most popular activities which are performed throughout the World. It can be practiced by both sexes and all ages for the purpose of active and healthy life.

Gymnastics includes various physical activities that can be performed with and without apparatus.

The word gymnastics derived from the ancient Greek word ‘gymno’

which means naked or doing physical exercises without wearing clothes.

The ancient gymnastics:

- The beginning of gymnastics was traced back to about 2600 BC. At that time, Chinese developed a few activities that are similar to gymnastics. They used it for medical purposes.
- The actual development of gymnastics begun in Greek and Roman periods of history.
- Gymnastics was introduced in early Greek civilization.
- The early Romans copied the physical training program from the Greeks and they adapt it for military training.

The modern gymnastics:

- In the early 1800s a form of gymnastics developed in Germany as a defined set of skills performed both with and without specific kinds of apparatus.
- Fredrich Ludwig Jahn (1778 – 1852) known as the father of gymnastics invented, several gymnastic equipment like horizontal bar, parallel bar, side horse and vaulting buck etc.

Fredrich. L. J.

5.1(a) side hoise

5.1(b) vaulting buck

Fig.5.1. Fredrich Ludwig Jahn and equipment of gymnastics

5.1(c) parallel bar

Activity 1:

1. Explain the history of gymnastics

5.2. Introduction to Floor Exercise

Learning competencies:- At the end of this topic, you will be able to:

- Perform head stand, forward and backward roll properly
- Perform cartwheels effectively.

Safe Gymnastics Practice:

To stay safe, while practicing you should:

- Get a physical fitness exercise before starting any new and challenging activity.
- Always warm up and stretch before doing gymnastics.
- Only practice on padded floors, never on a hard surface. Mats all
- should be placed under the equipment and properly secured at times.

- Have a trainer who is qualified and is at every practice.
- Have a trainer spotting for all new or difficult stunts.
- Never try a stunt at a game or competition that they haven't practiced many times.
- Follow gymnasium rules
- Stop training if you get hurt or feel pain.

Start-up Questions:

1. What does floor exercise gymnastics mean?

Meaning of floor exercise/gymnastics

In this topic you will learn head stand, forward and backward roll and cartwheel which are advanced from your previous grade level activities.

Floor exercise, types of gymnastics in which movements are performed on the floor. The floor is covered by some type of cloth or mat, usually with some cushioning material. No other apparatus is used.

5.3. Basic gymnastics

Learning competencies:- At the end of this topic, you will be able to:

- Perform headstand and roll properly.
- Roll forward and backward properly.
- Perform cartwheels effectively.

The basics should never be overlooked because they are the foundation for the gymnast's skills. Some basic gymnastics activities are Head Stand, Forward Rol,l Cartwheel, Backward Roll, Handstand, Bridge and Back Bend/Back Bend Kick Over. For this grade level we will focus on head stand, roll and cartwheel.

5.3.1 Head stand

The head stand is a pose that is an inversion posture of standing head down. It helps you to calm the mind, alleviate stress and depression, strengthen the upper body, spine and core, and enhance lung capacity.

How to perform headstand

1. Sit in Thunderbolt Pose.
2. Measure out the appropriate elbow width by placing opposite hands at the inside base of your upper arms.
3. Keep your elbows in this position as you place them down on your mat.
4. Bring your hands together to create a triangle shape with your forearms.
5. Interlace your fingers, opening your palms and thumbs.
6. Place the tips of your pinky fingers together so that the bottom of your hands has a more stable base.
7. Place the top of your head on the mat inside your hands.
8. Lift your hips and straighten your legs.
9. Walk your feet toward your fore head, bringing your hips above your shoulders.
10. Gently bring your knees in toward your chest.
11. Hold this position for 5 seconds. 12.slowly straighten your legs

Fig.5.2. complete head stand.

Activity 2:

1. What makes proper head stand?
2. Write at least three benefits of head stand.

5.3.2 Rolling (forward and backward):

Start-up Question:

1. What is forward roll in gymnastics?

A. Forward roll: The forward roll is started from a standing position and then you crouches down, places your hands shoulder width apart and hands facing forward. It helps you improve strength, body awareness and control, and coordination.

How to perform forward roll

1. Stretch first.
2. Stand on a mat in a wide open space.
3. Get in Squat position with your feet together and bend your knees.
4. Drop your head between your arms.
5. Roll forward. Push over onto your upper back,
6. Have straight legs and pointed toes. Throughout the roll, your legs should stay straight and your toes pointed.
7. Stand without using your hands for support.

Fig.5.3. complete forward roll

Activity 3:

1. What do you benefit from forward roll?

B. Backward roll:

Start-up Question:

1. How do you perform backward roll?

Backward roll is a movement in which one's body is rolled backwards, by crouching on the ground and lifting one's legs complete over one's head and lifting the head at the end.

How to perform backward roll

1. Stretch first.
2. Stand on a mat in a wide open space.
3. Push with your hands and shoulders.
4. As the knees and legs start to go over your head
5. Push with your arms and shoulders.
6. Drive the backward roll by moving your toes over your head, not by throwing your neck and head backwards.
7. You should engage your hands and arms when your body rolls towards your neck

Fig.5.4. backward roll

Activity 4

1. Explain and demonstrate the proper backward roll.

5.3.3 Cartwheel

Start-up Question:

1. What are the steps of cartwheel?

A cartwheel is a sideways rotary movement of the body. It is performed by bringing the hands to the floor one at a time while the body inverts.

How to perform cartwheel

1. Start in a lunge.

To start your lunge, put your dominant leg in front and bend it slightly. Your back leg should be straight. Your arms should be straight above your head, near your ears.

2. Put your hands on the ground.

Put your hands on the ground with your hands turned 90 degrees.

3. Kick your feet over your head.

Kick your feet over your head one at a time. The foot that kicks first should land first.

4. Land in a lunge.

Land in a lunge facing the opposite direction you started from. Your arms should be over your head near your ears. Your front leg should be slightly bent, and your back leg should be straight.

Fig 5.5 how to perform cartwheel

When you are starting out, just try to kick your feet around the side of your body. Then, as you work on improving your cartwheel, you can try to kick your feet more over your head.

You can learn a cartwheel without the help of tools, it can be easier to learn one with help.

Activity 5:

1. Evaluate your performance whether it included the necessary technical characteristics of cartwheel.

5.4 Apparatus gymnastics

Learning competencies:- At the end of this topic, you will be able to

- Describe grasping techniques of horizontal bar clearly
- Perform pull-up on horizontal bar properly
- Roll on single horizontal bar properly

Start-up Questions:

1. What is floor gymnastics?
2. What is apparatus gymnastics?
3. What is the difference between floor and apparatus gymnastics?

Apparatus gymnastics is the activity that is done on apparatus either modified or real apparatus. The apparatus used in gymnastics include parallel bars, horizontal bars, beam, pommel horse, the ring, trampoline, ropes. For this grade level by using horizontal bar grasping techniques,pull -up and roling

are selected. Gymnastics requires different qualities like balance, flexibility, strength, coordination, agility, and endurance. Therefore, it is better to develop fitness components stated above before performing gymnastic activities.

Grasping techniques of horizontal bar

At first the bar should be firm, and you should grasp it with the hand, not with your thumb and fingers. The thumb should rest by the side of your fingers, which should assume a hook-like form.

Pull-up on the horizontal bar

In chapter three you learnt about modified pull -ups and in this section you will learn about pull-up. The pull -up is a closed- chain movement where the body is suspended by the hands and pulls up.

Procedures:

1. Leap up and grip the bar with your hands shoulder width apart and your palms facing away from you.
2. Keep your shoulders back and your core engaged throughout.
3. Move slowly upward until your chin is above the bar, then equally slowly downward until your arms are extended again.

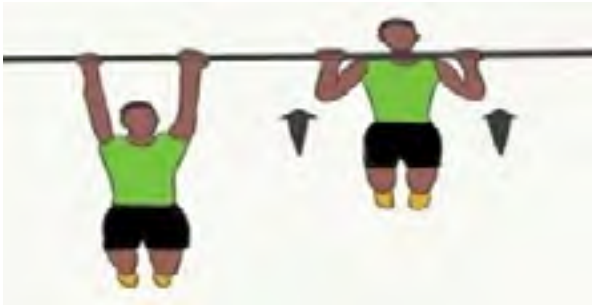

Fig. 5.6. Pull-up

Rolling on single horizontal bar

Drills for forward roll

- Forward roll on wedge/floor starting with straight knees, bend knees at end to stand up
- Roly poly on a small/floor bar.
- Forward roll to lay on mat (bar +/- hip height). Emphasis on controlled slow movement and neatness.
- Rotate backwards and forwards through arms on ropes, rings and bars (start with backward roll).
- Forward roll on bar starting from box

Fig 5.7 Rolling on horizontal bar

Activity 6:

1. Describe how horizontal bar is grasped in rolling and pull-up.
2. Perform rolling and pull-up on horizontal bar properly.

Summary:

Gymnastics was introduced in early Greek civilization. Fredrich Ludwig Jahn (1778 – 1852) known as the father of gymnastics invented several gymnastics equipment like horizontal bar, parallel bar, side horse and vaulting buck etc.

Floor exercise is a type of gymnastics in which movements are performed on the floor without the use of apparatus. Basic gymnastics such as head stand, roll (forward and backward) and cartwheel help you to calm the mind, alleviate stress and depression, strengthen the upper body, spine and core, and enhance lung capacity.

Apparatus gymnastics are the activities that are done on apparatus either modified or real apparatus.

Chapter Review Questions:

Part One: write True if the statement is correct and False if it is incorrect

1. Gymnastics was introduced in early roman civilization.
2. Fredrich Ludwig Jahn was known as the father of gymnastics
3. Cartwheel is a sideways rotary movement of the body.

Part Two: Choose the best answer from the given alternatives.

1. Which country copied the physical training program from Greek.

A. China B. German C. Roman D. Japan

2. All of the following activities are categorized under floor exercise. Except

a) Rolling b) head stand

c) Cartwheel d) pull up

3. Which one of the following is not correct grip of the bar in pull-up?

A. Grip the bar with your hands shoulder width apart

B. Your palms facing away from you.

C. Hang with your arms fully extended.

D. You can't bend your legs at the knee.

Part Three: Fill in the blank space and give short answer for the following questions

1. List two gymnastics equipment which are invented by Fredrich Ludwig Jahn
2. are activities that are done on apparatus either modified or real apparatus.

Part Four: practice part

1. Carefully observe your friend while he/she is performing a head stand and analyze the fundamental techniques involved in the activity.