



Federal Democratic Republic of Ethiopia  
Ministry of Education



# HEALTH AND PHYSICAL EDUCATION

## Student Textbook

### Grade 7

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## INTRODUCTION

Education plays a great role in the promotion of respect for human right and democratic values, creating the condition for legality, mutual understanding and cooperation among people. Education enables individuals and societies to make all round participation in the development process by acquainting them with knowledge, ability, skills and attitudes.

The overall cultural, social and economic development of a country depends up on the degree to which it ensures quality, access and opportunity of education to all social groups without any disparity. Schools are educational institutions where students can construct and use systematic knowledge, creative thinking and better understanding of the world. Expanding access to schooling and assuring quality education is a widely accepted priority in fight against poverty and to realize the educational goals of the country. Quality physical education aims to develop students' physical competence, knowledge of movement and safety, confidence and generic skills, especially those of collaboration, communication, creativity, critical thinking and aesthetic appreciation. These, together with the nurturing of positive values and attitudes in physical education, provide a good foundation for students' active and lifelong learning.

Most importantly, this document aims at enhancing students' learning to facilitate confidence and positive attitude necessary for a successful transition from the physical education setting to participation in physical activity during adulthood.

In this student's text book, there are seven units that are mentioned

as follow; **Unit One:** Modern physical education and sport, **Unit Two:** Social and emotional learning in physical education, **Unit Three:** Health and physical fitness, **Unit Four:** Athletics, **Unit Five:** Gymnastics, **Unit Six:** Fundamental skills of ball games and **Unit Seven:** Cultural games of Ethiopia and Africa respectively.



## GENERAL OBJECTIVES

At the end of the academic year, students will be able to:



- ✍ Analyze the concepts of modern physical education and sport
- ✍ Develop positive attitude towards physical education and sport
- ✍ Appreciate the contribution of Ethiopian sport legends
- ✍ Develop awareness of the safe and immediate sport injury management procedures
- ✍ Know how to form supportive, lasting and enduring relationship among friends
- ✍ Interact with others to construct knowledge and understanding
- ✍ Recognize physical exercises which develop physical fitness
- ✍ Develop physical fitness by performing age appropriate fitness exercises
- ✍ Show a positive attitude to participate in physical fitness exercises
- ✍ Understand the risk factors of doping
- ✍ List major historical events in African athletics
- ✍ Demonstrate proper body position (hands, torso, hip, knee, and legs) when throwing
- ✍ Identify the difference in body position when throwing forward for distance
- ✍ Show coordinated body movement when jumping for distance from three to five strides
- ✍ Cooperate with partners while performing skills/practice in a group
- ✍ Appreciate students' ability when combining rhythmic run and clearing obstacles

-  Understand the short history of gymnastics
-  Perform floor and apparatus gymnastics
-  Develop awareness of others when using apparatus
-  Develop positive interpersonal relationships
-  Demonstrate the correct shooting and serving skills of ball games
-  Explore some of the major cultural games of Ethiopia and Africa
-  Appreciate the contribution of cultural games for healthy life
-  Perform cultural games of Ethiopia and Africa for physical development.

# **UNIT 1**

## **1. MODERN PHYSICAL EDUCATION AND SPORT**

### **Unit Objectives**

At the end of this unit, students will be able to:



- ✍ Analyze the concept of modern physical education and sport
- ✍ Develop positive attitude towards physical education and sport
- ✍ Appreciate the contribution of Ethiopian sport legends.

## Introduction

As all areas of school curriculum strive to enhance positive feelings towards lifelong learning as well as provide fundamental knowledge and skills, the contribution of physical education and sport to human wellness and health is vital.

Millions of people of all ages and abilities participate in a diversified sport activity. In relation to this, Ethiopia has a number of individuals who have unique contribution to the society; few of them are included in this text book. This is because of social, political, economic and educational influences of sport on the cultures of the society.

In this unit, five topics will be presented. These are: Relationships of physical education and sport, Personal hygiene and sports, Ethiopian sport legends and their activity in economical, political and social affairs, Principles of Olympic game and First aid and sport injury management.

## 1.1. Relationship of physical education and sport

### Specific objectives:

At the end of this lesson topic students will be able to:

- ✓ Define the terms physical education and sport
- ✓ Differentiate the terms physical education and sport
- ✓ Describe the relationships of physical education and sport

### Relationships of physical education and sport

#### What is physical Education?

The term ‘physical’ refers to the body.

The term ‘Education’ refers to the total process of human learning by which knowledge and skill is imparted.

Therefore, physical education is an education which is mainly given through physical activities to develop and maintain all aspects of personality such as physical, social and mental wellbeing.

Physical education involves the instructions given in physical exercises.

#### What is sport?

Sport is defined as an organized competitive form of play which has standardized set of rules. It also defined as any activities that involve exertion and skills where an individual or teams compete against each other for entertainment or rewards.

## Similarities between physical education and sport

- ✍ Both physical education and sport involves physical activities that can fit the content of education /school curriculum.
- ✍ They contribute to the refinement of human movements, development of motor skills and promotion of fitness.
- ✍ They can be great components of reducing stress, anxiety, depression and improving one's selfesteem.
- ✍ They also help to prevent some common health problems like obesity, diabetes, hypertension, etc...

Think about it!



- 📝 What does the word 'physical' refer in physical education?
- 📝 What does the word 'education' mean in physical education?
- 📝 How do you explain the difference between physical education and sport?

## 1.2. Personal hygiene and sport

### Specific objectives:

At the end of this lesson, students will be able to:

- ✓ Define the word personal hygiene
- ✓ Differentiate personal hygiene and sport
- ✓ Describe types of personal hygiene
- ✓ Explain the importance of maintaining personal hygiene after exercises

What does it mean personal hygiene?

List some of your body parts tha require cleanliness?

Hygiene is the science with prevention of illness and maintenance of health. It is a condition of promoting sanitary practice.

Personal hygiene refers to care taken for the body in terms of cleanliness.

Therefore, as an athlete or any person, it is important that one takes care of the body and ensures cleanliness all the time.

Personal hygiene includes cleanliness of Hair, Skin, Teeth, Hands, Nails, Feet, etc.

Personal hygiene entails several things



### Here are 7 personal hygiene routines:

- a. Toilet hygiene
- b. Shower hygiene
- c. Oral hygiene
- d. Nail hygiene
- e. Sickness hygiene
- f. Hand hygiene
- g. Clothing hygiene

1. **Toilet hygiene:** One should keep his/her toilet clean all the time. One needs to clean his/ her hands properly after visiting a toilet.
2. **Shower hygiene:** It is important to take a shower after exercises using soap and hair shampoos.
3. **Oral hygiene:** Oral hygiene has everything to do with the mouth. As such an athlete should ensure they brush their teeth regularly. Don't forget to clean the tongue as well.
4. **Nail hygiene:** Your nails should be kept clean and short so they do not harbor dirt. Trim and clean your nails regularly, and especially when you are washing your hands.

5. **Sickness hygiene:** When one is sick he/she needs special care in terms of cleanliness and diet. Cover your mouth by using handkerchief or your hands when coughing or sneezing. Always sanitize your hands or wash hands for 20 to 30 seconds.
6. **Hand hygiene:** Always wash your hands before and after you eat.
7. **Clothing hygiene:** It is important to wash and dry your clothes before you wear.

Why is personal hygiene important in sports?

- ✍ For health reason
- ✍ For social reason
- ✍ For psychological reason, etc.

Think about it!



- ✍ What is personal hygiene?
- ✍ Write at least 3 personal hygiene routines.

### 1.3. Ethiopian sport legends and their activity in job creation, political and social affairs

Specific objectives:

At the end of this lesson, students will be able to:

- ✓ Mention at least six Ethiopian sport legends at both sexes
- ✓ Identify the contributions of some sport legends in terms of social, economical and political affairs
- ✓ Be interested to take sport legends as role model

There are a lot of sport legends in Ethiopia in relation to job creation, political and social affairs.

Can you list at least 3 famous Ethiopian sportsmen and women?

### 1.3.1. Haile Gebreselassie

Haile Gebreselassie is considered as one of the greatest runners in history, with victories and world records in almost every long distance and distance events

#### Born to run

As a child growing up on a farm in Ethiopia, Haile Gebreselassie run 10 km to school each day and another 10 km back home.

#### Great rivalry

By Atlanta in 1996, Gebreselassie was the reigning world record holder at 10,000 m and the twice defending world champion. His main rival was cross country champion Paul Tergat of Kenya. The two men dominated the final with Gebreselassie winning dramatically by just six meters. This tense rivalry was repeated in Sydney, when Gebreselassie sensationally took Gold with his very last stride.

#### A change of pace

At the 2004 Athens Games, Gebreselassie finished 5<sup>th</sup> in the 10,000 m. After Athens, he concentrated on the half marathon and the marathon, and soon became a specialist. He won many prestigious victories in the Berlin, Fukuoka and Dubai races. He even set a world record in the distance in 2007.

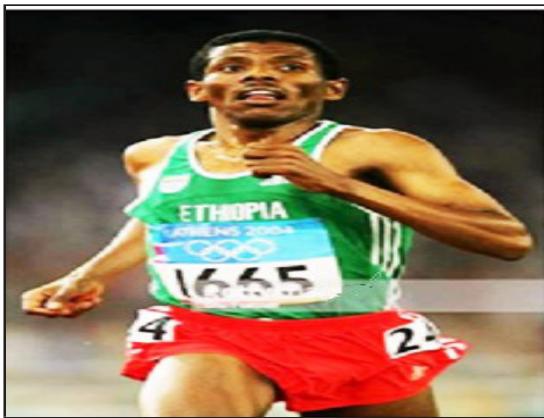


Figure 1.3.1 Athlete Haile Gebreselassie

Gebreselassie is the most famous man in Ethiopia. The double Olympic Gold medalist and five time world champion over 10,000 m had a glittering athletics career and is now successful and busy entrepreneur.



### Haile's contribution in relation to job creation, political and social affairs:

Since 2010, he has been involving in:

- ✍ Hotel and tourism industry
- ✍ Import and export industry
- ✍ Creating job opportunity for more than thousands of people across the country
- ✍ Reducing the number of jobless citizens at national level

Organizing the '**Great Ethiopian run**' that contributes to building national image, bringing unity among society and to achieve national health goals

In terms of Political affairs, he has been acting as a member of peace and conflict resolution commission of Ethiopia to maintain peace

and unity especially among political leaders.

He also once said he would run for a seat in parliament as an independent candidate in 2015 national election.

### 1.3.2. Tirunesh Dibaba

Tirunesh was born in June 1, 1985 in Arsi. She is a long distance runner, nicknamed as “Baby faced destroyer”.

Tirunesh has won 5 world championship track gold medals, 4 World’s cross country adult wins, as well as a world cross country junior title. Members of her family are also athletes and have won numerous awards. Ejegayehu, her older sister won Olympic silver medal. Genzebe, her younger sister holds many world records, and her cousin Derartu Tulu has won gold medals at two Olympics, among other titles.

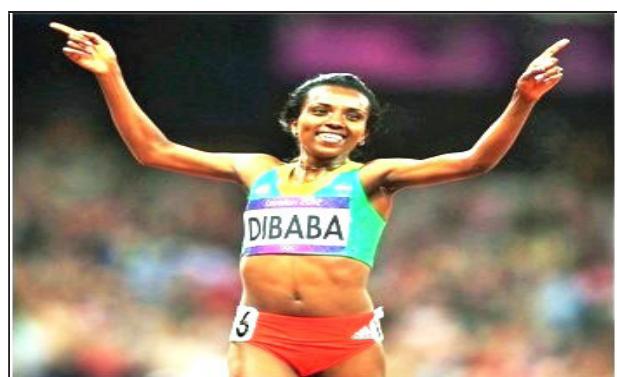


Figure 1.3.2 Athlete Tirunesh Dibaba

### 1.3.3. Meseret Defar

Meseret Defar was born on November 19, 1983 near Addis Abeba. She is a long distance road and track athlete who has destroyed world records and won numerous gold medals at various international competitions.

She mostly focused on the 3,000 m and 5,000 m races, which she dominated.

In 2006, Meseret bet the world record in the 5,000 m event, and bet it again in 2007 and held it till TiruneshDibaba bet it in 2008. Among her many medals for the 5,000 m events, Meseret won gold at the 2004 Athens Olympics, bronze at 2008 Beijing Olympics, and silver and gold at the world championships.

She has also won 4 consecutive gold medals for the 3000 m events at the IAAF world indoor championships from the year 2004 through 2010.



Figure 1.3.3 Athlete Meseret Defar

Furthermore, Meseret was a 2 time champion at the All African Games, 2 time gold medalist at the world junior championships and 4 time medalist at the African championships.

#### 1.3.4. Sewunet Bishaw

He was born in 1952, Bure west Gojam zone. He lead the renaissance of Ethiopian football and brought Africa's second largest populated country back to the AFCON finals for the first time in over 30 years.



Figure 1.3.4 Coach Sewunet Bishaw

Sewunet Bishaw, who was the ‘Walias’, nickname of men national football team, coach before some 10 years ago was acknowledged his immense contribution to the rise of Ethiopian football of late. Under Bishaw, Ethiopia won the 2005 CECAFA challenge cup in his first period and more recently the play-off in the 2014 World Cup qualifiers. He guided the ‘Walia’ to the 2013 African Cup of Nations hosted by South African and also their first ever appearance at the CHAN finals also in the South Africa.



#### Additional points:

Ethiopia first participated in the Olympic Games in 1956 at Melbourne Olympics.

Ethiopia has got the first Gold medal in the Olympic Games in 1960 at Rome Olympic by **Abebe Bikila** in the men marathon race.

The first female Ethiopian athlete to win Gold medal in the Olympic history is Derartu Tulu, 10,000 m runner, at Barcelona in 1992.

Ethiopia was one of the founders of CAF in 1957; and also Ethiopia won the 3<sup>rd</sup> African Cup of Nations in 1962.

Ethiopia came back to compete in African Cup of Nations after 30 years in 2013 under the coach Sewunet Bishaw.

**Think about it!**

- List at least 3 men and women Ethiopian sport legends.
- Discuss the contribution of Ethiopian sport legends in terms of job creation, political and social affairs.

## 1.4. Principles of Modern Olympic Games

**Specific objectives:**

At the end of this lesson, students will be able to:

- Define the term modern Olympic Games
- Mention the principles of Olympic Games
- Have a better concept about Olympic Games

What does it mean principles?

How do you define principles of Olympic Games?

Olympic Games are modern international sports competitions held at international level. Modern Olympic was started in 1896 in Athens, Greek. Since then Olympic Games are held in every four years.

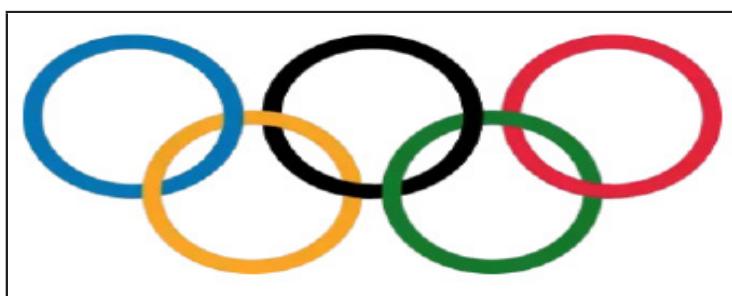


Figure 1.4 The Olympic symbol

The five rings are the visual representation of Olympics; Pierre Baron de Coubertin who designed the symbol.

The five rings represent the five continents. They are interlocked to show the universality of Olympics and how athletes from all over the world come together for the Olympic Games. On the Olympic flag, the rings appear against a white background. The five colors of the flag are: blue, black, red, yellow and green respectively and it represents all nations.

The International Olympic Committee (IOC) is the supreme authority of the Olympic movement.



### Principles of Olympic Games

The principles of Olympic Games listed below describe how Olympic values are expressed to create positive social changes, such as:

- A. Non discrimination
- B. Sustainability
- C. Humanism
- D. Solidarity
- E. Universality

#### A. Non discrimination

The Olympic movement strives to ensure that sport is practiced without any form of discrimination.

#### B. Sustainability

The Olympic movement organized and delivers programs in a way that promotes sustainable economic, social and environmental development.

### C. Humanism

The Olympic movement's activities place people at the center of its attention, ensuring that the practice of sport remains a human right.

### D. Universality

Sport belongs to everyone in all its decisions and actions; the Olympic movement takes into account all individuals and society.

### E. Solidarity

The Olympic movement is committed to developing programs that together, create a meaningful and comprehensive social response to issues it can help address

#### Think about it!



- ✍ Define the word Olympic Games.
- ✍ Explain at least 3 principles of Olympic Games.

## 1.5. First aid and sport injury management

#### Specific objectives:

At the end of this lesson, students will be able to:

- ✓ Explain what first aid mean
- ✓ Describe how simple sport injuries are managed
- ✓ Be interested to give first aid when it happens in their real life situations

Do you think that sport is risk free activity?

How do you define sport injury?

## First aid

First aid is the term used for an assistance given to any individual who is suffering from an injury or develops a sudden illness.

It is also defined as an immediate and special treatment given to an injured person.

It is used to promote the patient's recovery till professional medical help arrives.

**Sport injury:** : refers to the kind of injury that occurs during sports or exercising. It usually refers to the injuries of the musculoskeletal system.

**Sport injury management:** refers the management of a specific injury to allow an individual to return or continue their chosen sport without damaging or compromising their body.

## Classification of sport injuries

According to the contact nature of sport, sport is not risk free. There are sport injuries for any movement or activity.

Sport injury is classified in to two, such as **acute** and **chronic** injury.

**a) Acute injuries:** Occur suddenly and are usually associated with severe pain.

Examples: a broken bone, muscle tear or bruising, dislocated finger.

**b) Chronic injuries:** result from over using one body area over a long period.

Examples: chronic injuries are stress fractures and heel inflammation.



## Chronic/over use injury is caused by :

- ✍ Over training
- ✍ Insufficient recovery time
- ✍ Poor technique
- ✍ Insufficient warm up
- ✍ Lack of cool down
- ✍ Inappropriate kit/equipment

## Types of sport injuries

The most common injuries that occur during sport activity are to muscular and skeletal systems, because they are fundamental to movements and some of the injuries to these areas are stated below:

### Sprain:

- ✍ An injury where a ligament is stretched or torn at a joint.

### Strain:

- ✍ An injury to muscle or tendons.

### Fracture:

- ✍ Bone fractures are known as broken bone (any type of break in a bone).

It can be close fracture, open fracture and complicated fracture



Figure 1.5.1 a. Closed fracture b. Open fracture c. Complicated fracture

## Sport injury management

How do we treat sport injury when it occurs during exercise?

### Method of sport injuries treatment:

The **PRICER** method is a common treatment regimen for sport injuries. It stands for;

**P-Prevention/Protection:** Perform warm up and cool down exercises, use protective materials etc.

**R-Rest:** Stop training to prevent further damage.

**I- Ice:** Hold an ice pack on the injured part to reduce swelling and pain.

**C- Compression:** Compressing or bandaging the injured part to limit swelling, to prevent over damage and to give support.

**E-Elevation:** Keep the injured body raised above the level of your heart whenever possible.

**R-Referral:** Refer to a hospital/ qualified professionals.



Figure 1.5.2 Cardio Pulmonary Resuscitation

**First and foremost check ----- ABC's as indicated in figure 1.5.2:**

Air way: if air way closed; open and clear air way by resting the body at lateral position (apply step number-2 from figure 1.5.2)

Breathing: if no breaths apply step number-3 (Expired Air Resuscitation/EAR)

Circulation: if pulse absent apply step number-4.

**ABC's** helps in order to return an injured person towards a normal state.



Figure 1.5.3 R.I.C.E.R sport injury management technique/RICER principle

### Think about it!



- ✍ Define the word first aid.
- ✍ Explain types of sport injuries.
- ✍ Why do you apply R.I.C.E.R in sport injury?

## Unit Summary

- ✍ Physical education is an education through physical activity to develop and maintain all aspects of personality.
- ✍ Sport is an activity that involves competition, physical engagement and training to acquire skills.
- ✍ Both physical education and sport involve physical activities; also help to prevent some common ailments and health.
- ✍ Hygiene is the science with prevention of illness and maintenance of health.
- ✍ Personal hygiene refers to care one takes for their body in terms of cleanliness.
- ✍ Some of the personal hygiene routines are toilet hygiene, shower hygiene, nail hygiene and others.
- ✍ The principles of Olympics describe how Olympic values are expressed to create positive social change.
- ✍ First aid is the term used for assistance given to any individual who is suffering from an injury.
- ✍ RICER refers to a sport injury management technique that used for simple sport injuries.

## ? Review Questions

### I. Say “True” or “False” for the following statements

1. Olympic Games are organized at the national level.
2. Meseret Defar is a famous Ethiopian football player.
3. The Olympic Games are held in every four years.
4. Physical harm to a person during exercise is known as sport injury.

### II. Match the terms listed under column “B” with appropriate descriptions given under column “A”.

#### Column “A”

1. An injury where a ligament is stretched or torn at a joint
2. Sudden and sever injury that occurs during exercises
3. An injury to muscle or tendons
4. The break of bone
5. An injury resulted from over use of the body for long time

#### Column “B”

- A. Acute injury
- B. Chronic injury
- C. Treatment
- D. Sprain
- E. Strain
- F. First Aid
- G. Fracture

**III. Choose the correct answer from the given alternative**

1. Which type of hygiene needs sanitizing your hands and covering your mouth?  
A. Sickness hygiene      B. Shower hygiene  
C. Oral hygiene      D. Nail hygiene
  
2. Keeping the injured body part raised above the level of your heart is called:  
A. Ice      B. Compression  
C. Elevation      D. Rest
  
3. The principle of Olympic game in which sport belongs to everyone refers to:  
A. Humanism      B. Universality  
C. Sustainability      D. Solidarity
  
4. Which one of the following is not the benefit of physical exercise?  
A. To keep health      B. To build friend ship  
C. To stabilize emotions      D. To increase enemies

**IV. Give short answer.**

1. Discuss the similarity between physical education and sport.
2. Discuss in group the application of R.I.C.E.R in the classroom.

 **Key terms**

**Acute:** A term used for describing pain that is sharp and intense.

**Acute injury:** An injury that has happened recently, usually requiring immediate treatment.

**Chronic:** A term used for describing a disease or condition that lasts for a long time.

**Chronic injury:** An injury from the past that still causes pain or restricted movement, requiring ongoing treatment.

**I.O.C:** International Olympic Committee.

**Injury:** Damage or a wound caused to a person's body.

**Legend:** An extremely famous or notorious person, especially in a particular field.

**Physical education:** An education which is mainly given through physical activity to develop and maintain the wholesome personality.

**Sport:** Any formal movement that includes rules and competitions.

**CAF:** Confederation of African Football.

**CHAN:** Championship of African Nations.

**CECAFA:** Confederation of Eastern and Central Africa Football Association.

**Obesity:** The condition of being seriously overweight.

**Olympic Games:** The games that are internationally organized in every four years.

**Ligament:** The connective tissue joining bone to bone at a joint.

**Tendon:** Tough, fibrous connective tissue by which muscle are attached to bones, cartilages or other structures.

# **UNIT 2**

## **2. SOCIAL AND EMOTIONAL LEARNING IN PHYSICAL EDUCATION**

### **Unit Objectives**

At the end of this unit, students will be able to:



- ✍ Know how to perform supportive, lasting and enduring relationships among friends.
- ✍ Interact with others to construct knowledge and new understanding.

## Introduction

Social and emotional learning is an integral part of education and human development. It is the process through which all young people and adults acquire and apply knowledge, skills and attitude to develop healthy identities, manage emotions and achieve personal and collective goals.

Social and emotional learning of physical education enhances students' capacity to integrate skills, attitudes and behaviors to deal effectively and ethically with daily tasks and challenges. Even though, it is an important part of physical education most of the school do not focus or give emphasis for such key skills. Therefore, this unit deals with the main skills of social and emotional learning such as, **physical activity which develops self awareness and self management skills, social awareness and relationship skills, responsible decision making skills, critical thinking skills, and communication and collaboration skills.**

## Social and emotional learning in physical education

Social and emotional learning is one of the most promising frontiers in educational sectors. Because intellectual and social emotional developments are linked, teaching both is the best way to promote lifelong success. But many schools do not know how to ensure that their social and emotional learning activities are focusing on the right skills.

A physical active environment is ideal place to enhance the skills either achieving a personal best or competing on a successful team. These are all situations where social emotional learning comes in to play. There are five core competencies (key skills) that can be taught in many ways across many settings.

1. Self awareness and self managements
2. Social awareness and relationship skills
3. Responsible decision making
4. Critical thinking
5. Communication and collaboration skills

Physical education or physically active environment allows perfect “teachable moments” in all five; below we have outlined how participating in Skillastics creates experiences that help enhance proficiency in these core areas.



### Benefits of social emotional learning in physical education

- ✍ Improves school and class climate
- ✍ Increases student motivation

- ✍ Reduces behavior problems
- ✍ Helps students set and meet goals
- ✍ Gives a space to talk about mental health
- ✍ Teaches study skills and habits
- ✍ Encourages empathy
- ✍ Teaches team work and collaboration
- ✍ Improves academic performance
- ✍ Improves self regulation skills
- ✍ Teaches disagreeing respectfully
- ✍ Increases personal self awareness
- ✍ Encourages perseverance and resilience
- ✍ Improves confidence
- ✍ Improves relationship skills
- ✍ Teaches coping skills
- ✍ Creates a strong sense of community, acceptance, and support.

## 2.1. Physical activities that develop self awareness and self management skills

### Specific objectives

At the end of this lesson, students will be able to:

- ✓ Define the terms self awareness and management skills
- ✓ Acquire positive coping skills to handle difficult situations effectively
- ✓ Evaluate his/her coping strategies

Do you know about self awareness and self management skills? If so, mention it.

## Self awareness

It is the ability to accurately recognize one's own emotions, thoughts, and values and how they influence behavior. The ability to accurately assess one's strengths and limitations, with a well grounded sense of confidence, optimism a mindset of growth;

- ✍ Identifying emotions
- ✍ Healthy self perception
- ✍ Recognizing strengths
- ✍ Self confidence
- ✍ Self efficacy

Skillastics is a resource of team activities. The success of skillastics is dependent on each participant's behaviors. Personal and social responsibility is crucial. How one interprets and expresses information about an activity, how one encourages his/her teammates, and how one demonstrates his/her level of involvement, all facts in to recognizing and assessing individual emotional involvement.

Skillastics allows children of all ages and skill levels equal chance of participating and working on level playing field. Skillastics allows each participant to lead and succeed, raising the level of self confidence and self efficacy.

## Self management

The ability to successfully regulate one's emotions, thoughts, and behaviors in different situations, effectively managing stress, controlling impulses, and motivating oneself. The ability to set and work toward personal and academic goals;

- ✍ Impulse control
- ✍ Stress management
- ✍ Self motivation
- ✍ Goal setting

Skillastics offers both competitive and non competitive option. The competitive option challenges participants to play a higher intensity while encourage in of team work, fair play and responsibility. Skillastics is self directed, and provides instructors the freedom to assess participants individually or within as mass group setting. Skillastics creates a positive environment that invites both participant self reflection and self evaluation, which enhance personal and social responsibility.

### Activities

Traffic light game

Walking race with egg game

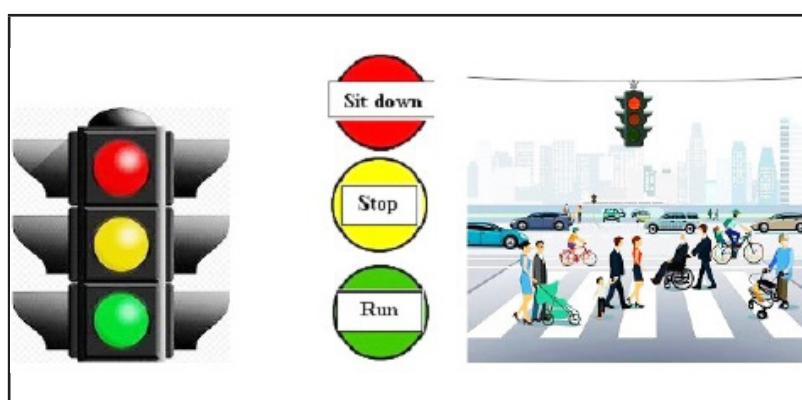


Figure 2.1 Traffic light games

**Think about it!**

- ✓ How do you understand by the term self awareness and self management skills?

## 2.2. Physical activity which develops social awareness and relationship skills

### Specific objectives:

At the end of this lesson, students will be able to:

- ✓ Identify the terms self awareness and self management skills
- ✓ Leverage on diversity for the good of his/her class
- ✓ Be determined collectively by its members

Do you know about social awareness and relationship skills?

### Social awareness

It refers to the ability to take the perspective of and empathize with others, from diverse ethnicities and cultures. It also refers to the ability to understand social and ethical norms for behavior and recognize family, school, and community resources and supports that includes;

- ✍ Differentiation
- ✍ Empathy
- ✍ Appreciation for diversity
- ✍ Respect for others

Skillastics is an all inclusive activity for ages and abilities. In order for teams to advance, each team member takes a turn being the leader. It offers diverse, academically integrated questions and activities to engage individual culture, age and abilities. Skillastics diversity depends on individual strengths and differences to create a strong and successful team.

### Relationship skills

The ability to establish and maintain healthy and rewarding relationships with diverse individual individuals and groups. The ability to communicate clearly, listens well, cooperate with others, resist in appropriate social pressure negotiate conflict constructively, and seek and offer help when needed:

-  Communication
-  Social engagement
-  Relationship building
-  Team work

Skillastics is a team activity. It is a team work collectively to complete the desired repetitions required under the direction of a team leader. Each team member participates in the role of the leader. As a team mates, effective communication, listening and comprehension skills are required to advance around the mat. Positive relationships are built as each team succeeds.

#### Activity:

-  Odd and Even number chairs game



**Figure 2.2 Odd and Even number chairs games**

**Think about it!**



- 💡 What do you understand about social awareness and relationship skills?

### 2.3. Physical activity which develops responsible decision making

**Specific of objectives:**

At the end of this lesson, students will be able to:

- ✓ Identify the meaning of responsible decision making
- ✓ Reflect the impact and influence of his/her decision on self and other

What do you understand by the term responsible decision making?

The ability to make constructive choices about personal behavior and social interactions based on ethical standards, safety concerns, and social norms. The realistic evaluation of consequences of various actions, and the consideration of one's self and others well being. Overall performance is enhanced when skillistics or rules are followed:

- ✍ Identifying problems
- ✍ Analyzing situations
- ✍ Solving problems
- ✍ Evaluating
- ✍ Reflecting
- ✍ Ethical responsibility

Skillastics rules are simple and easy to follow, Skillastics rules are paramount to the success of the activity. Skillastics provides its instructors with behavior modification differentiation. Skillastics provides opportunities for large group management behavior redirection allowing more time on task. Skillastics provides a positive and cooperative learning environment that integrates academics from nutrition, fitness, problem solving, and more.

### Activity:

- 📝 Ground rules (Establishing common ground rules for theoretical and practical sessions)

### Think about it! 🤔

- 💡 1. What do you understand by the term responsible decision making?

## 2.4. Physical activity which develops critical thinking

### Specific objectives:

After completion of this lesson, students will be able to:

- ✓ Generate ideas and explores different path ways that lead to an ethical Solutions
- ✓ Manage uncertainty and adapt to diverse demands and challenges in an unfamiliar situation

What do you know about the word critical thinking?

Critical thinking is essentially “better thinking” when student think critically they consider complex information from numerous sources and perspectives in order to make a reasonable judgment that they can justify. It has been associated with academic qualities such as decision making, creativity, reasoning, problem solving, debating, mindfulness, and reflective judgment. Critical thinking learned in physical education can also transfer positively in to the resolution of challenges and problems that arise in other academic domains and in life.



**Critical thinking in physical education enables students to:**

- ✍ Think about and evaluate their own thinking and behavior on issues related to physical education
- ✍ Make reasonable and defensible decisions about issues related to individual and community wellbeing
- ✍ Challenge and take action (individually and collectively) to address social, cultural, economic and political inequality

- ✍ Understand the role and significance of the movement culture and its influence on our daily lives and the lives of people in our community
- ✍ Exercise can also boost memory and thinking indirectly by improving mood and sleep, and reducing stress and anxiety problems in these areas frequently cause or contribute to cognitive impairment
- ✍ Critical thinking in physical education allows students to make “reasonable and defensible decision about movement task or challenges”
- ✍ Successful critical thinkers in physical education for example, are able to apply learned motor skills strategically as well as to develop a physical activity habit.

### Activities for critical thinking:

- ✏ Defining the problem
- ✏ Classroom gallery
- ✏ Do film/book review, etc.
- ✏ ‘Think out of the box’ game



### How to play:

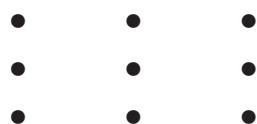


Diagram 2.1: ‘Think out of the box’ game

- ✍ The above nine points box is given to you as a problem which implies the nine fundamental skills of football game such as,

shooting, passing, receiving/controlling, dribbling, heading, juggling, chipping, feinting and goal keeping.

- ✍ To solve the problem connect all points using four straight line by thinking and making/drawing the line out of the given nine points box as necessarily.

### Think about it! 🤔

- 📝 What is critical thinking?

## 2.5. Physical activity which develops communication and collaboration skills

### Specific objectives:

At the end of this lesson, students will be able to:

- ✓ Define the term communication and collaboration skills
- ✓ Demonstrate some activities that help to develop communication and collaboration skills
- ✓ Build social interaction through communication and collaboration related activities

How do you understand by the term communication and collaboration skills?

In physical education effective communication refer to techniques that demonstrate sensitivity to student differences, encourages student communication, and foster engagement in physical education environment. It is a necessary ingredient for encouraging student to

engage in physical activity. This communication may be verbal or non verbal.

- ✍ Verbal communication expressed by using words
- ✍ Non verbal communication expressed without words (body language or gestures)

Collaborative for Academic Social and Emotional Learning (CASEL), a learning expert in integrating SEL in to school curriculum has compiled a list of core competencies for students to learn.



### The five key skills are:

- ✍ **Self awareness:** The ability to identity and assess your thought, feelings, and values, as well as how they intersect with your behaviors.
- ✍ **Self management:** The ability to not only identity but regulates emotions, thoughts, and actions.
- ✍ **Social awareness:** The ability to take the perspective of and empathize with others, as well as learning social and ethical behavior.
- ✍ **Relationship skill:** The ability to get a long and make meaningful connections with people in their life.
- ✍ **Responsible decision making:** The ability to make positive, constructive choice about your behavior.

### Activity:



Sitting volleyball game



**Figure 2.5 Sitting volleyball game**

Students can learn the CASEL competencies can be easy as reading book about diversity or holding a class service project. The following fun class activities can help the students to develop strong social emotional learning at school.

Such as,

**Mindfulness meditation:** helps to develop students self awareness and to reduce stress and anxiety by encourage students to focus on the meditation.

**Reflective writing:** helps to develop students self awareness, empathy and compassion through reflection of their thoughts and feelings.

### For Example

- ✏️ When was the happiest moment in your life?
- ✏️ Why was so happy?
- ✏️ What is your dream?
- ✏️ Who is your best friend and how do they make you feel?

**Emotional vocabulary lists:** help to develop their self awareness by understanding emotional cues.

### Example

-  "joyful" or "cared"

**Grounding techniques:** are stress management exercises that focus on students' sense instead of their thoughts or feelings. Here are a few grounding techniques for students that implemented with their teachers:

-  Name five different things you can see around you
-  Listen to energetic or relaxing music for one minute or more
-  Take ten deep breaths
-  Eat a piece of candy describe its taste by using three words.

**Self management party games:** help students to regulate their behaviors.

### Example

-  A teacher gives command to students by telling even and odd numbers for students to sit on the chair by running around the circle

**Design challenge SMART goal:** helps the students to be self motivated at the beginning of the month, quarter or the program, to get support at the process and to measure their progress and success at the end of the month, quarter or the program of the academic year.

**Class room service project:** are activities given to students that are fun and meaningful and help students to develop empathy and social awareness skills.

### Example

- ☞ A few service project ideas in which students can do for their community
- ☞ Clean up litter around your school or at a nearby park
- ☞ Create care packages for families in need around the holidays
- ☞ Raise money for your school or a charity through a bake sale

**Listening circles:** help students to do with their group and to develop social awareness skills.

### Example

- ☞ a few question ideas for a particular group discussion and for whole class discussion.
- ☞ Where would you travel if you could go anywhere in the world?
- ☞ What makes you feel happiest?
- ☞ If you were an animal, which one would you be?
- ☞ Who do you look up to the most and why?
- ☞ When you grow up, what do you want to be?

**Diversity story time:** Teaching diversity in the class room is an essential component of social awareness. During read aloud story time, try to pick books about people of different cultures, race/ethnicities, religions, and other back grounds. After reading ask what they learned from the story.

**“Make new friends” Bingo:** “Make new friends” Bingo is a fun and interactive game for developing social skills, particularly verbal and non verbal communication. To play, make a bingo card with generic traits in each box, like “I have a pet” or “I was born in summer time.” Have your students try to friend in a different person for each square until they get five in a row. Then, ask each student to share something interesting about them that correlates to a box with the class.

**Team puzzle game:** Put students in to teams of **three to five** and give each one a jigsaw puzzle to put together. Instruct them that to complete the puzzle, they need to work together as a group and give a time limit for completing the puzzle. Your students will be amazed by how much they can get done with a little collaboration.

**Conflict resolution read along:** Helping children resolve conflicts teaches them skills that will benefit them for the rest of their lives. And, thanks to the timeless lessons they teach, fairy story (legend) read along can help you class get a discussion on conflict resolution skills going.

- ✍ What is this story’s main conflict?
- ✍ What do the main characters want to happen?
- ✍ How can the characters work together to make everyone happy?
- Then turn the discussion to recent conflicts students have had in their life. Have your children share about times when, like the fairy tale characters, they felt conflict with another person. Ask them how they worked with that person to make the situation better, as well as any advice they have to share with the class.

**Class contract:** takes places by collaborating teacher's expectation with students own hopes and needs for the school year. It helps students to feel like their voice are heard and their teachers are willing to listen; and this in turn help students to make responsible decision in their life.

### Example

- 💡 "exciting" information like class parties/reward for meeting academic goals.

**Student council:** involvement of the entire class or team elects representatives in student council help students to learn responsibility and to decide things based on it.

**"What would you do?" Activity:** develop a list of questions or situation which requires problem solving ability that enhanced w students to make responsible decision. Making tough decisions help students learn how their actions affect others.

### Example

- 💡 A few problem solving scenarios; to get your students started
- 💡 While playing with your little brother, he accidentally throws off your favorite ball.
- 💡 What do you do next?
- 💡 You see a new girl playing by herself at depressed.
- 💡 What do you say to her?
- 💡 You are eating a sugar cane and your friend asks if he can have a bite.
- 💡 How do you respond?

**Think about it!**



What do you understand about communication and collaboration skills?

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## Unit summary

- ✍ Physical education as a subject area simultaneously addresses psychological, cognitive and affective learning objectives. Despite the recognized potential of physical education to promote affective learning objectives, these have been ill defined in the curriculum and often neglected in practice.
- ✍ However, with a growing interest in social and emotional learning across the curriculum, while the frame work may be new, social and emotional learning competencies (e.g. self awareness, self management, social awareness, relationship skills and responsible decision making) can be seamlessly integrated in to quality, student centered physical education.
- ✍ The core competencies of social and emotional learning are summarized as follows:
- ✍ **Self awareness and self management** skills refer to the abilities to understand one's own emotions, thoughts, values and how they influence behavior across contexts and managing or regulating the effectively in different situation to achieve goals aspirations.
- ✍ **Social awareness and relationship** skill refers to the abilities to understand the perspectives of and empathize with others, including those from diverse backgrounds, cultures and contexts and also to establish and maintain healthy and supportive relationship and to effectively navigate settings with diverse individuals and groups.
- ✍ **Responsible decision making** refers to the abilities to make caring and constructing choices about personal behavior and

social interaction across diverse situations.

- ✍ **Critical thinking** in physical education refers reflective thinking that is used to make reasonable defensive decisions about movement tasks or challenges.
- ✍ **Communication and collaboration** skills refer that taught effectively across the curriculum could transform learning opportunities for students to participate in lively conversations, express their opinions build up on other ideas, present information, and evaluate another speaker's point of view.

## ? Review questions

## I. Write “True” or “False” for the following questions.

1. Self awareness helps to develop self confidence.
  2. Self management is not important in physical education.
  3. Verbal communication in physical education is expressed without using words.
  4. Communication is vital in physical education.
  5. Setting SMART goal helps students to be self motivated all the time.

## **II. Choose the correct answer from the given alternatives.**

1. Mindfulness meditation activity helps to reduce:

  - A. Stress
  - B. Self awareness
  - C. Anxiety
  - D. A and C are answers

2. Which one of the following helps to develop learning responsible decision making?

  - A. Reflecting
  - B. Solving problem
  - C. Ethical responsibility
  - D. All of the above

3. One of the following does not help to develop relationship skills:
  - A. Communication
  - B. Loneliness
  - C. Team work
  - D. Social engagement
  
4. Which one of the following is not helpful to develop critical thinking?
  - A. Creativity
  - B. Debating
  - C. Reasoning
  - D. None of the above
  
5. Learning self awareness helps to develop?
  - A. Self confidence
  - B. Recognizing strengths
  - C. Identifying emotions
  - D. All of the above

 **Key terms**

**Coping:** means to invest one's own conscious effort, to solve personal and interpersonal problems, in order to try to master, minimize/tolerate stress and conflict.

: refers to face and deal with responsibilities and problems or difficulties successfully.

**Debating:** is a structured contest over an issue or policy.

**Emotion:** is a feeling such as happiness, love, fear, anger or hatred, which can be caused by the situation that you are in or the people you are with.

**Mindfulness:** is the ability to incline to be mindful or aware.

**Mindset:** is a set of beliefs that shape how you make sense of the word and yourself.

**Motivation:** is the process that initiates, guides, and maintains goal oriented behaviors.

**Optimism:** is a form of positive thinking that includes the belief that you are responsible for your own happiness.

**Puzzle:** is a game, problem, or toy that tests a person's ingenuity or knowledge.

**SEL:** Social and Emotional Learning.

**Skillastics:** is a team work collectively to complete the desired repetitions required under the direction of a team leader.

**SMART:** goals must be Specific, Measurable, Attainable, Realistic and Time bound.

**Stress:** a state of mental or emotional strain or tension resulting from adverse or demanding circumstances.

# UNIT 3

## 3. HEALTH AND PHYSICAL FITNESS

### Unit Objectives

- At the end of this unit, students will be able to:
- 
- ✍ Recognize physical exercises which develop physical fitness and its benefit
  - ✍ Develop physical fitness by performing age appropriate fitness exercises
  - ✍ Show a positive attitude towards participating in physical fitness exercises
  - ✍ Understand the risk factors of doping

## **Introduction**

Becoming physically fit is an important part of achieving optimum health. All rounded exercise program is crucial to become healthy. Physical activity improves your health in a number of ways. It promotes weight loss, strengthens muscles and bones, keeps the heart and lungs strong, and helps to protect against chronic diseases. Physical fitness is a lifelong process that helps citizens to lead active and healthy life style.

This unit consists of six important sub topics; these are health and physical fitness, cardiovascular endurance, muscular endurance, flexibility, speed and doping.

### **3.1. Benefits of physical fitness**

#### **Specific objectives:**

At the end of this lesson, students will be able to:

- Define health and physical fitness
- Mention the benefits of physical fitness
- Be interested to participate in physical fitness activities in their life time

#### **Meaning of health and physical fitness**

What is physical fitness?

What is health?

Health is defined as a state of complete physical, mental and social wellbeing.

Physical fitness is defined as the ability to meet routine physical demands, with enough reserve energy to meet a sudden challenge.

Physical fitness is also the ability of the body to function efficiently and effectively. Although the development of physical fitness is the result of many things, optimal physical fitness is not possible without regular physical exercise and well balanced diet.

## Broad categories of physical fitness

Components of health-related physical fitness	Component of skill / performance- related physical fitness
<ul style="list-style-type: none"> <li>• Cardiovascular endurance</li> <li>• Muscular endurance</li> <li>• Muscular strength</li> <li>• Flexibility</li> <li>• Body composition</li> </ul>	<ul style="list-style-type: none"> <li>• Agility</li> <li>• Balance</li> <li>• Coordination</li> <li>• Power</li> <li>• Reaction time</li> <li>• speed</li> </ul>



### Benefits of physical fitness

- ✍ To stay healthy, i.e. the attainment of optimum physical, mental and social health
- ✍ To improve the function of internal body organs and external body structures
- ✍ To reduce the risk of developing CADs (Coronary Artery Diseases)
- ✍ To be strong by maintaining muscle strength and balance
- ✍ To get good body posture
- ✍ To maintain relatively proportional body weight
- ✍ To be flexible and reduce the risk of injury
- ✍ To reduce feelings of stress, anxiety, depression
- ✍ To increase social relationship
- ✍ To lead healthy and active life style, etc

**Think about it!**

- What is health?
- What is physical fitness?
- State some physical fitness components.

### 3.2. Cardiovascular endurance exercises

**Specific objectives:**

At the end of this lesson, students will be able to:

- Define the term cardiovascular endurance
- Describe how aerobic exercises develop cardiovascular fitness
- Improve their cardiovascular fitness through selected aerobic exercises
- Be interested to participate in cardiovascular endurance exercises regularly

**What does cardiovascular endurance mean?**

- Cardiac-refers to the heart
- Vascular-refers to the blood vessels
- Endurance-refers to the ability to do something for a long time

Cardiovascular endurance is the ability of the heart, and lungs to fuel the body with oxygen. Cardiovascular endurance is also defined as the ability of the heart, lungs and blood vessels to do an activity for long time without fatigue. Cardiovascular endurance exercise also called aerobic exercise is any form of activity that uses aerobic

metabolism. During the aerobic activity, oxygen is heavily involved in cellular reactions that produce the energy necessarily to sustain the activity. Your heart rate increases and you breathe more deeply to maximize the amount of oxygen in your blood and help you to use more oxygen efficiently.



### **Benefits of cardiovascular endurance exercises**

- ✍ Decreases risk of heart disease
- ✍ Prevents hypertension
- ✍ Improves mood and energy
- ✍ Strengthens lung capacity
- ✍ Controls weight
- ✍ Stimulates bone growth
- ✍ Improves the efficiency of the body systems
- ✍ Increases your longevity
- ✍ Strengthens immune system
- ✍ Enhances brain health etc.

The fundamental guidelines for successful cardiovascular exercise include;

- ✍ Start slowly
- ✍ Warm up exercises
- ✍ Conditioning exercises
- ✍ Cool down exercises

### **Measuring heart rate in physical education**

You can find your pulse around your neck (Carotid pulse rate) and around your thumb side of wrist (Radial pulse rate).

Once you have found your pulse you will need to count the beats for 6 seconds. Take that number and multiply the number by 10; this is your heart rate for one minute.

- For an average person, this is 72 to 75 beats per minute.
- For a fit person, it may be as low as 50 to 65 per minute.
- For marathon runners, it may be as low as 35-40 beats per minute.

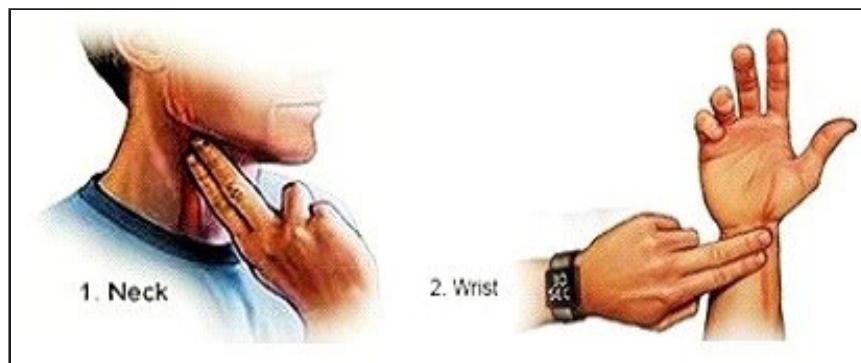


Figure 3.2.1 a. Carotid pulse rate    b. Radial pulse rate



### Exercises to develop cardiovascular endurance

- ✍ Rope jumping
- ✍ Dancing
- ✍ Organized sports
- ✍ Power walking
- ✍ Swimming
- ✍ Jumping jacks
- ✍ Cycling
- ✍ Running
- ✍ Jogging, etc.
- ✍ Walking



Figure 3.2.2 Rope jumping/Skipping rope

**Think about it!**

- ✍ What is cardiovascular endurance?
- ✍ List types of exercises to develop cardiovascular endurance.
- ✍ Explain the benefits of developing cardiovascular endurance.

### 3.3. Muscular endurance

**Specific objectives:**

At the end of this lesson, students will be able to:

- ✓ Define the term muscular endurance
- ✓ Explain how fitness exercises develop muscular endurance
- ✓ Perform fitness exercises to develop muscular endurance

**How do you define muscular endurance?**

Muscular endurance is the ability to continue contracting a muscle, or group of muscles, against resistance, such as weights/body weights, over a period of time.

It is an ability to sustain moderately intensive activity without muscle fatigue.



### Benefits of muscular endurance

- ✍ Helping maintain good posture and stability for longer periods
- ✍ Improving the aerobic capacity of muscles
- ✍ Improving the ability to carry out daily functional activities, such as lifting heavy objects

**NB.** The best exercise programs mix strength and muscular endurance training.

### Training for muscular endurance

When training to improve muscular endurance, what matters most is not the type of exercise, but how people design their work out. People should take in to consideration the following when doing exercises to boost muscular endurance;

- ✍ The number of repetitions
- ✍ The weight or resistant force on the muscles
- ✍ The number of sets
- ✍ Length of rest periods



### Exercises to improve muscular endurance

- ✍ Push up
- ✍ Sit up

- ✍ Squats, etc.

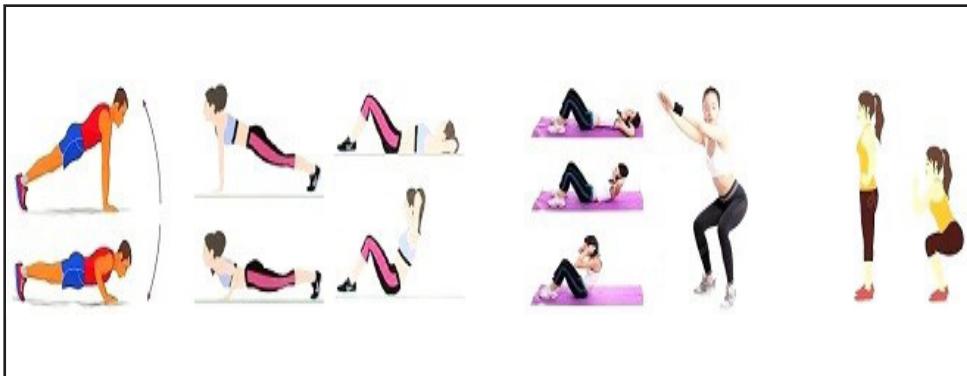


Figure 3.3 a. Push up

b. Sit up

c. Squat thrust

- ✍ Define muscular endurance.
- ✍ Mention at least three benefits of muscular endurance.
- ✍ List the exercises to develop muscular endurance.

### 3.4. Flexibility

#### Specific objectives:

At the end of this lesson, students will be able to:

- ✓ Define the term flexibility
- ✓ Describe exercises that develop flexibility
- ✓ Perform some selected stretching exercises

What is flexibility?

What are the two methods of stretching exercises?

Flexibility refers to the range of movement at a joint. It is the ability of each joint to move through the available range of motion. Flexibility is an important component of physical fitness because it

increases range of motion, which allows you to perform exercises more safely and helps to improve your fitness level.

**NB.** Any sort of exercise should start or end with stretching.

### Some benefits of flexibility

- ✍ Improves muscle coordination
- ✍ Enhances enjoyment of physical activities
- ✍ Reduces risk of low back pain
- ✍ Improves body posture
- ✍ Reduces muscle soreness
- ✍ Decreases risk of injury
- ✍ Improves overall performance

### Methods of stretching

**1. Static stretching:** a method which is done on a stationary position.

- ✍ It is best and safest method
- ✍ Each muscle is gradually stretched
- ✍ Stretched and hold for 10-30 seconds

**2. Ballistic stretching:** a method in which muscles are stretched by the force generated as a body part is repeatedly bounce, swing and jerk.

- ✍ Muscle is stretched suddenly in bouncing method
- ✍ Usually not recommended

## Types of stretching exercises

✍ Neck stretch

✍ Shoulder stretch

✍ Trunk stretch

✍ Back muscle stretch

✍ Thigh muscle stretch

✍ Calf muscle stretch

✍ Ankle stretch, etc.

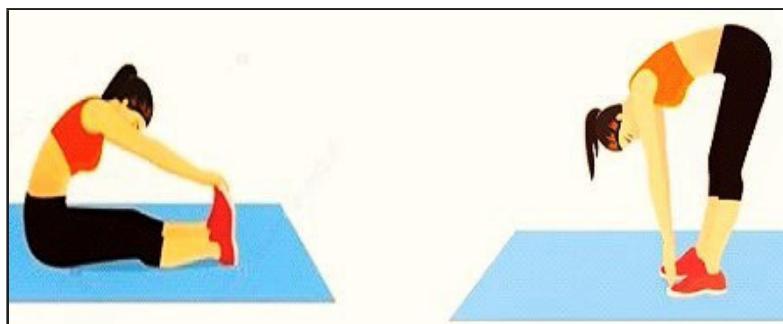


Figure 3.4 Toe touch

### Think about it!

- ✍ What is flexibility?
- ✍ Explain the benefits of flexibility.
- ✍ Mention the exercises that develop flexibility.

## 3.5. Speed

### Specific objectives:

At the end of this lesson, students will be able to:

- ✓ Define the term speed
- ✓ Mention the importance of speed
- ✓ Perform some selected speed exercises
- ✓ Be interested to participate in speed exercises

### What is speed?

Speed is defined as the ability to move all or part of the body as quickly as possible. It is the ability to perform a movement in a short period of time.

Speed is not just how fast someone can run, cycle, swim etc. but is dependent on their acceleration (how quickly they can accelerate from a stationary position) maximal speed of movements and also speed maintenance. Movement speed requires good strength and power, but also too much body weight and air resistance can act to slow the person's speed.



### Benefits of speed

- ✍ Injury prevention
- ✍ Increases balance and coordination
- ✍ Strengthens muscles
- ✍ To improve weight loss
- ✍ To improve flexibility
- ✍ To decrease health risk
- ✍ To improve mind-body connection
- ✍ To increase bone strength and density
- ✍ To increase oxygen in the body which provides more energy to working muscles
- ✍ Increases muscle balance, etc.



### Exercises to develop speed

- ✍ 20m. speed run or sprint
- ✍ Broad jumps
- ✍ Singleleg jump over the hurdle
- ✍ Rope jumping
- ✍ Daily stretching exercises etc.



### During speed run consider the following points

1. Acceleration from the stationary position
2. Maintaining momentum
3. Finish

#### Think about it!

- ✍ How do you define speed?
- ✍ Mention some of the importance of speed.

## 3.6. Risk factors of doping

#### Specific objectives:

At the end of this lesson, students will be able to:

- ✓ Describe about doping and its impact on physical fitness
- ✓ List some prevention methods of doping
- ✓ Be interested to lead doping free life style

#### What is doping?

Doping is defined as illegal substances that make an athlete additional aid for the working muscles of the body. Doping refers to

performance enhancing drugs that illegally used to get the advantage of winning in sporting events.

### Classification of doping

- 1. Blood doping:** refers to misuse of certain techniques to increase one's red blood cells count which allows the body to transport more oxygen to muscles and therefore increase stamina and performance.
- 2. Gene doping:** refers to the manipulation of cells or genes to enhance the sports performance.

### Negative impact of prohibited substance:

1. Damage to cardiovascular system and liver, mental health problem (depression and aggression), growth of hair on the face
2. Put pressure on the cardiovascular system and increases anxiety, hypertension and overheating of the body
3. Reduce concentration, coordination and lung capacity
4. Cause to sedation, loss of balance and coordination that may because to nausea, vomiting constipation, fainting and coma
5. Cause to excessive sweating, rapid heartbeat, headaches and risk of cardiac arrest
6. Cause to mineral imbalance, muscle weakness, low blood pressure, muscle cramps and kidney damage, etc.



Figure 3.6 Consequence of doping

### **Major prevention methods of drug abuse and addiction in sports**

1. Educate children or peers about the short and long term harmful side effects of doping
2. Advocate: Regularly discuss healthy ways to achieve athletic goals through training and diet
3. Communicate regularly and positively with students and athletes to deal with side effects of doping

#### **Think about it!**

- ✍ What is doping in sport?
- ✍ Mention two major classifications of doping.
- ✍ Mention at least three side effects of doping.

## **Unit summary**

- ✍ Healthy is defined as a complete state of physical, mental and social wellbeing.
- ✍ Physical fitness is defined as the ability of the body to perform daily activity effectively and efficiently without fatigue.
- ✍ Cardiovascular endurance is the ability of the heart, lungs and blood vessels to transport oxygen and nutrients to working muscles for prolonged time.
- ✍ Muscular endurance is the ability of your muscles to work continuously without getting tired.
- ✍ Flexibility is the ability of each joint to move through the available range of motion.
- ✍ Speed is the ability to move all or part of the body as quickly as possible.
- ✍ Doping means athletes taking illegal substance to make their performance better.

## ? Review questions

### I. Say “True” or “False”.

1. Doping is one of the legal substances to improve performance.
2. Flexibility is an important component of physical fitness.
3. Muscular endurance training is important to improve aerobic capacity of the muscles.
4. Ballistic stretching is usually recommended for all age group.
5. A complete state of physical, mental and social wellbeing is known as physical fitness.

### II. Match the terms listed below with the appropriate descriptions for items number 1-5.

- |                             |                       |
|-----------------------------|-----------------------|
| A. Cardiovascular endurance | B. Muscular endurance |
| C. Muscular strength        | D. Flexibility        |
| E. Speed F. Balance         | G. Doping             |

1. The range of motion at a joint.
2. The capacity of a muscle to do an activity continuously without fatigue.
3. Illegal performance enhancing drugs.
4. Performing an activity within a short period of time.
5. The ability of the heart, lungs and blood vessels to perform their activity for a long time without fatigue

**III. Choose the correct answer from the given alternatives.**

1. Which one of the following is wrong about static stretching?  
A. It is best method      C. Each muscle is stretched  
B. It is safest method      D. It is usually not recommended
2. Which one of the following exercise does not help to improve muscular endurance?  
A. Sprint run      C. Squat  
B. Sit up      D. Pull up
3. One of the following is the benefit of speed,  
A. Strengthening the muscles      C. Development of power  
B. Strengthening bones of the body      D. All of the above
4. Which of the following is the importance of flexibility?  
A. Improves body posture      C. Reduces stress  
B. Improves muscle coordination      D. All of the above
5. Which one of the following is not the component of physical fitness?  
A. Flexibility      C. Health  
B. Speed      D. Muscular endurance

 **Key terms**

**Cardiovascular endurance:** is the ability of the heart, lungs and blood vessels to transport nutrients and oxygen for working muscles.

**Doping:** is illegal performance enhancing drug/substance.

**FITT:** Frequency, Intensity, Time and Type of exercise.

**Flexibility:** is the range of movement at a joint.

**Health:** refers to a complete state of physical, mental and social wellbeing.

**Muscularly endurance:** is the ability of a muscle group to sustain on moderately intensive activity without fatigue for long time.

**Physical exercises:** refers to planned and structured movements that are intended to develop and maintain physical fitness.

**Physical fitness:** is the body ability to perform daily activity efficiently and effectively with enough energy left.

**Speed:** the ability to perform movement quickly in a short period of time.

Timothy K., Smith, Nicholas G. Gestavo (1998), Student Centered physical education for developing fitness and skills for middle school.

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