



NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF ARTS AND SOCIAL SCIENCE

COURSE CODE: PED271

**COURSE TITLE:
PRIMARY SCHOOL PHYSICAL AND HEALTH
EDUCATION AND CURRICULUM METHODS**



PED271
PRIMARY SCHOOL PHYSICAL AND HEALTH
EDUCATION AND CURRICULUM METHODS

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Introduction

This course PED271: Primary School Physical and Health Education and Curriculum Methods is designed to equip you with the knowledge and skills relating to efficient implementation of the physical and health education curriculum in the school system.

What You Will Learn in This Course

You will learn the meaning, structure and methods applicable to the Physical Health Education Curriculum.

Course Aims

This course aims at producing competent Physical and Health Education organisers and teachers. To enable you meet the above aims, the course has been designed in modules each of which has a number of units intended to facilitate your logical and easy assimilation of the contents of the course. Again, each course unit consists of learning objectives to enable you assess how well you have achieved the set objectives.

Course Objectives

At the end of this course, you should be able to:

- develop understanding of the concept inherent in physical and health education curriculum.
- acquire knowledge and skills for teaching the subject in the school.
- explain the procedures for the effective implementation of the physical and health education curriculum.
- list the importance of the several components of the physical and health education curriculum.

Working through This Course

You are required to work through all the units thoroughly. The course has three modules and 12 units in all. Each module contains tutor-marked assignments and self-assessment exercises. At points in the course, you are required to submit assignment for evaluation purposes.

Course Materials

The major components of course are:

- Course Guide
- Study Units
- Tutor and Tutorials
- Assignment file
- Presentation Schedule.

Study Units

The breakdown of the three modules with 12 study units are as follows:

Module 1 Nature and Scope of Physical and Health Education

- Unit 1 Nature and Scope of Physical Education
- Unit 2 Nature and Scope of Health Education
- Unit 3 Factors Responsible for Poor Academic Achievement in Physical and Health Education
- Unit 4 Study Habits and Academic Achievement in Physical and Health Education

Module 2 Fundamental Skills in Physical and Health Education

- Unit 1 Fundamental Skills in Relation to Movement Education
- Unit 2 Organisation of Sports and Games in Primary Schools
- Unit 3 Meaning of Safety and Maintenance
- Unit 4 Essentials of Safety Education

Module 3 Features of Physical and Health Education Curriculum

- Unit 1 Features of School Health and Physical Education Curriculum
- Unit 2 Physical Fitness
- Unit 3 Drugs, Sports and Importance of Recreation and Leisure Activities
- Unit 4 Bones, Muscles and Muscle Injury and Disorders

Textbooks and References

Every unit contains a list of references and further reading. Try as much as you can to get the listed books and further reading materials. You are also expected to approach the internet for further related reading materials. This is to widen as well as deepen the depth of understanding of this course.

Assignment File

You will find in this file all the details of the assignments you must attempt and submit to your tutor for marking. The marks you will obtain from these assignments will count towards your final course grade. You will find further information on the assignments in the assignment file which you will find later in the section on assignment in this Course Guide.

Presentation Schedule

The presentation schedule which is included in your course materials gives you the important dates for the completion of tutor-marked assignments and for attendance of tutorials. Remember, you are required to submit all your assignments on due dates. You should guard against falling behind in your work.

Assessment

Your assessment will be based on tutor-marked assignments (TMAs) and a final examination which you will write at the end of the course.

Tutor-Marked Assignments (TMAs)

Every unit contains at least one or two assignments. You are advised to work through all the assignments and submit them for assessment. Your tutor will assess the assignments and select four, which will be marked and the best three will be selected which will constitute 30% of your final grade. The tutor-marked assignments may be presented to you in a separate file. Just know that for every unit there are some tutor-marked assignments for you. It is important you do them and submit for assessment.

Final Examination and Grading

At the end of the course, you will write a final examination which will constitute 70% of your final grade. In the examination which shall last for two hours, you will be requested to answer three questions out of at least five questions that may be given to you.

Course Marking Scheme

This table shows how the actual course marking is broken down.

Assessment	Marks
Assignments	Four assignments. Best three marks of the four count as 30% of course marks.
Final Examination	70% of overall course marks
Total	100% of course marks

How to Get the Most from This Course

In distance learning, the study units replace the university lecture. This is one of the great advantages of distance learning; you can read and work through specially designed study materials at your own pace, and at a time and place that suits you best. Think of it as reading the lecture instead of listening to the lecture. In the same way a lecturer might give you some reading to do, the study units tell you when to read, and which are your text materials or set books. You are provided exercise to do at appropriate points, just as a lecturer might give you in-class an exercise. Each of the study units follows a common format. The first item is an introduction to the subject matter of the unit, and how a particular unit is integrated with the other units and the course as a whole. Next to this is a set of learning objectives. These objectives let you know what you should be able to do by the time you have completed the unit. These learning objectives are meant to guide your study. The moment a unit is finished, you must go back and check whether you have achieved the objectives. If this is made a habit, then you will significantly improve your chances of passing the course. The main body of the unit guides you through the required reading from other sources. This will usually be either from your set books or from a reading section. The following is a practical strategy for working through the course. If you run into any trouble, telephone your tutor. Remember that your tutor's job is to help you. When you need assistance, do not hesitate to call and ask your tutor to provide it.

In addition:

1. Read this course Guide thoroughly, it is your first assignment.
2. Organise a study schedule. Design a 'Course Overview' to guide you through the Course. Note the time you are expected to spend on each unit and how the assignments relate to the units. Important information, e.g. details of your tutorials, and the date of the first day of the semester is available from the study centre. You need to gather all the information into one place, such as your diary or a wall calendar. Whatever method you choose to use, you should decide on and write in your own dates and schedule of work for each unit.
3. Once you have created your own study schedule, do everything to stay faithful to it. The major reason that students fails is that they get behind with their course work. If you get into difficulties with your schedule, please, let your tutor know before it is too late for help.
4. Turn to unit 1, and read the introduction and the objectives for the unit.
5. Work through the unit. As you work through the unit, you will know what sources to consult for further information.
6. Keep in touch with your study centre. Up-to-date course information will be continuously available there.
7. Assemble the materials. You will need your set books and the unit you are studying at any point in time.
8. Well before the relevant due dates (about 4 week before due dates); keep in mind that you will learn a lot by doing the assignment carefully. They have been designed to help you meet the objectives of the course and, therefore, will help you pass the examination. Submit all assignments not later than the due date.
9. Review the objectives for each study unit to confirm that you have achieved them. If you feel that you are not sure about any of the objectives, review the study materials or consult your tutor.
10. When you are confident that you have achieved a unit's objectives, you can start on the next unit. Proceed unit by unit through the course and try to pace your study so that you keep yourself on schedule.
11. When you have submitted an assignment to your tutor for marking, do not wait for its return before starting on the next unit. Keep to your schedule. When the Assignment is returned, pay particular attention to your tutor's comments, both on the tutor-marked assignment form and also the written comments on the ordinary assignments.
12. After completing the last unit, review the course and prepare yourself for the final examination. Check that you have achieved the unit objectives (Listed in the Course Guide).

Facilitators/Tutors and Tutorials

The dates, time and locations of these tutorials will be made available to you, together with the name, telephone number and the address of your tutor. Each assignment will be marked by your tutor. Pay close attention to the comments your tutor might make on your assignments as these will help in your progress. Make sure that assignments reach your tutor on or before the due date.

Your tutorials are important, therefore, try not to skip any. It is an opportunity to meet your tutor and your fellow students. It is also an opportunity to get the help of your tutor and discuss any difficulties you might have encountered during the course of your reading.

Summary

The course guide has introduced you to nature and scope of physical and health education and curriculum methods. It examines the nature and scope of physical and health education, approaches to the study and organisation of physical and health education in primary schools. Upon completion of this course you should be equipped with knowledge of teaching physical and health education in primary schools. We wish you success with course and hope you will find it engaging and interesting.

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MODULE 1 NATURE AND SCOPE OF PHYSICAL AND HEALTH EDUCATION

Unit 1	Nature and Scope of Physical Education
Unit 2	Nature and Scope of Health Education
Unit 3	Factors Responsible for Poor Academic Achievement in Physical and Health Education
Unit 4	Study Habits and Academic Achievement in Physical and Health Education

UNIT 1 NATURE AND SCOPE OF PHYSICAL EDUCATION

CONTENTS

1.0	Introduction
2.0	Objectives
3.0	Main Content
3.1	Nature of Physical Education
3.2	Scope of Physical Education
3.3	Instructional Activity
3.4	Intramural Activity
3.5	Extramural Activity
3.6	Adapted Activity
3.7	Recreational Activity
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Reading

1.0 INTRODUCTION

Running, walking and jogging are examples of physical activities that we are very familiar with and they are part of the Physical Education Programme.

In this unit, we shall explain the meaning of physical education and the unit will enable you to understand the nature and scope of physical education. Emphasis will be on physical education, instructional activity, adapted activity and recreational based activity. Also, we shall discuss in details the basic components of physical education programme in the school.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain physical education
- discuss the scope of physical education
- explain different types of activities in relation to movement.

3.0 MAIN CONTENT

3.1 Nature of Physical Education

Physical education is one of the several components of the general school curriculum. The importance of physical education in the school system cannot be underestimated. For example, physical education can contribute to the mental, physical and emotional well-being of the individual. Indeed the concept of ‘a sound mind in a sound body’ is derived from the foundations of physical education.

However, physical Education has undergone developmental changes both in concept and practice over the ages. During the colonial era, physical education was regarded as physical training and it was regimental in nature. Historically, physical education was initially perceived as *education for the physical* and it later graduated to become *education*. At that italics time physical was education concerned with exercises for the body in the school while education through the physical sees served as a means to the total education of the individual.

From the above perspective, we can correctly claim that physical education is education based on a common core of learning experiences planned on a sequential arrangement appropriate to the individual’s stage of social, emotional, intellectual, and psychomotor development. On the other hand, physical education is that phase of education concerned with the teaching of skills, acquisition of knowledge, and development of attitudes through human movement. In short, physical education is the process of education that concerns activities which develop and maintain the human body.

3.2 Scope of Physical Education

Scope of physical education simply means what the subject covers or its components. To a layman, physical education does not go beyond running and jumping but that physical education is far more than that. Physical education is a discipline that involves the use of the cognitive and psychomotor domains. It involves movement opportunities on land (terrestrial movement), in water (aquatic movement) and air (aerial

movement). The movement opportunities on land are in sports such as football, handball, athletics, tennis, gymnastics, wrestling, etc. While the those in water are swimming, water pole, canoeing, diving, etc, Aerial movements are jumps, half turn in trampoline, tumbling and angular twist in diving, etc.

These movement opportunities are realised through the following methods: instructional, intramural, extramural, adaptive and recreational activities.

3.3 Instructional Activity

This is the medium through which individuals acquire formal knowledge in physical education. Through this method the pupils are able to acquire knowledge, skills and attitudes thereby promoting their interests and values in the theory and practice of physical education.

3.4 Intramural Activity

This is an aspect of physical education that deals with physical activities engaged in outside the classroom but within the school facility. The intramural period provides, opportunities for pupils to have more practice and improve on the skills learnt in the class. It allows pupils from the same class and also those from different classes to participate in any of the physical activities or sports together. It provides avenues such as inter-class and inter-house in games, athletics, gymnastics and sports for individual pupils to engage in. It provides firm and positive social interactions among pupils. Intramural activities promote friendship and self- esteem.

3.5 Extramural Activity

Extramural activities are those aspects of physical education that entails organised physical activities such as sports, games and athletics that pupils engaged in out of the four walls of the school. The extramural activities provide the pupils with good or excellent skills in the various sports to compete for laurels or excellence in such sports with other pupils from other schools. It encourages sports competition among schools, colleges and universities for those students anxious to train and compete on a collegiate level in such sports as volleyball, athletics, football, badminton, handball, weightlifting, etc. It is through the well planned extramural sports that the pupils/athletes are exposed to such sports where they now exhibit their skillful talents to the outside world.

3.6 Adapted Activity

Adapted physical activities are those physical activities for the physically challenged/handicapped set of people/pupils, the physically handicapped are a set of pupils that have one or more health problems that prevent such pupils from participating or taking part in the normal or regular physical education class. The physical activities for this set of pupils with physical disabilities are usually planned programme to meet their needs according to their disabilities. Since we normally find some physically disabled pupils in the regular school, it is necessary for the physical education teacher to always make provision for them so as not to make them feel alienated from the class. This means that the physical education teachers have to understand the special requirements of handicapped pupils and be able to make both theory practical related in such a way that allow easy participation by the pupils.

3.7 Recreation Activity

Recreation activities are those activities performed by an individual during hours when he/she is not at work. It involves socially acceptable and worth-while activities in which person voluntarily participates during leisure/free hours and through which he or she has opportunities to develop physically, mentally, emotionally and socially (Bucher, 1979). Recreation education helps to teach people on how to utilise leisure hours in a useful or constructive way through careful selection of such activities in order to achieve self satisfaction.

4.0 CONCLUSION

This unit addressed the nature and scope of physical education. The unit was able to explain the meaning of physical education and the means through which the movement opportunities are achieved.

5.0 SUMMARY

This unit discussed the nature of physical education and scope of physical education. It went further to highlight the movement opportunities through which the objective of physical education could be achieved i.e.

- Instructional activity
- Intramural activity
- Extramural activity
- Adapted activity
- Recreation activity

SELF-ASSESSMENT EXERCISE

1. List the means through which the objectives of physical education could be achieved.
2. Explain the scope of physical education.

6.0 TUTOR-MARKED ASSIGNMENT

1. Write a brief note on the nature of physical education.
2. Explain the following terms:
 - (a) Intramural
 - (b) Extramural
 - (c) Recreation.

7.0 REFERENCES/FURTHER READING

Bucher, C. A. (1979). *Administration of Physical Education and Athletics on Programmes* (7th ed.). St. Louis: The C.V. Mosby Company.

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Federal Ministry of Education (2007). *Nigeria Certificate in Education (NCE) Course Book on Physical and Health Education, Year I*. Kaduna: National Teachers' Institute.

Udomiaye, M. (2002). *Understanding Physical Education for Secondary Schools*. Benin: Waka Fast Publishers.

UNIT 2 NATURE AND SCOPE OF HEALTH EDUCATION

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Meaning of Health
 - 3.2 Nature and Scope of Health Education
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

This unit will discuss the meaning of health and health education. In this unit you will also learn the components of health and the scope of health education and the relevance of health education in our school system in particular and in the society in general.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- define health and explain health education
- list the components of health education
- explain the meaning and scope of health education.

3.0 MAIN CONTENT

3.1 Meaning of Health

The term health has been variously defined by authorities or people. According to Udoh (1993) health is a means to an end and not an end in itself. He also sees health as a condition or quality of life which enables one to meet his/her responsibilities effectively. Health varies from one person to another on daily basis in the same person or individual. The meaning that people ascribe to health could be as a result of past experiences.

However, out of the many different interpretations given as meaning of health by different authorities, the most widely accepted one is that of the World Health Organisation as explained in 1945 that "health is a

state of complete physical, mental and social well-being, not merely the absence of disease or infirmity. Thus one could see WHO definition of health with far reaching implications. For example, health is addressed in the physical, social, emotional and spiritual dimensions. Furthermore, the definition also impresses on us that health is not just limited to when we are not sick alone that it is not the mere absence of disease or infirmity. It affects our physical, mental and social well-being. It is when we are physically, mentally and socially fit that we are able to cope with our daily tasks. Again, we must be fit physically to withstand the rigours of life in our daily activities. We should be mentally and emotionally, stable before we can effectively cope with our daily work, the people around us and our environment while our social interaction with friends, neighbours, classmates and visitors must be cordial and ideal and at all times promote positive relationships. Also, we should encourage living in a clean environment that promotes positive health attitudes and habits. Our life style should promote a good healthy living by staying away from risky behaviours that could endanger our life for example, smoking, alcohol and drug abuse. We can gather from the explanations on what health is that health is dynamic and not static in nature.

It is evident that for one to live a healthy life, some factors do play some dominant roles. Such factors are heredity, environment, life style, available health care services and health education. The individual's health status or well-being largely depends on how well he is able to interact with these factors which are over 50% based on his habits.

3.2 Nature and Scope of Health Education

Health education constitutes those activities you take part in or actions you take based on your health knowledge that has a direct bearing or influence on your health. In other words, health education is about the scientific and practical application of the health knowledge acquired or health information received. This knowledge or information is then used for day to day living. Such health knowledge is supposed to have direct positive influence on our life or habits.

Health education is broad in scope and could be seen from the following perspectives –

- Personal hygiene
- Food and nutrition
- Exercise, rest and sleep
- Safety and first aid
- Prevention and control of diseases
- Home, school and community health

- Mental health
- Body anatomy and physiology
- Consumer health
- A good knowledge of these areas in health education will encourage and promote positive health habits.

4.0 CONCLUSION

To live a worthwhile life, knowledge of one's health is a major determinant. Also important is one's life style. This health knowledge influences our relationships, attitudes and habits. Many people take wrong health decisions because of lack of adequate knowledge, hence the importance of health education which is awareness oriented.

5.0 SUMMARY

In this unit, you have learnt about the meaning of health and its components. You also learnt about the meaning of health education and its scope. The unit also talked about the effect/impact of health education on the life of the individual.

6.0 TUTOR-MARKED ASSIGNMENT

1. Discuss the nature and scope of health education.
2. List and explain five identifiable areas of health education.
3. Explain the Term "health"

7.0 REFERENCES/FURTHER READING

- Afuekwe, A. I. (1999). *An Introductory Textbook of Physical Education for Secondary Schools and Colleges*, Vol. 2. Calabar: JAB Publishers Ltd.
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UNIT 3 FACTORS RESPONSIBLE FOR POOR ACADEMIC ACHIEVEMENTS IN PHYSICAL AND HEALTH EDUCATION

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- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Factors Responsible for Poor Academic Achievement in Physical and Health Education
 - 3.2 The Individual Learner
 - 3.3 The Learner Environment
 - 3.4 The Materials to be Studied
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In the previous units, you were introduced to the nature and scope of physical and health education. This unit will discuss those factors or elements that either directly or indirectly are responsible for pupils' poor academic achievements in the subject, (Physical and Health Education). Such factors could be categorised into three broad areas such as the individual, learner, the learner's environment and the materials to be learned. Note that, poor academic achievement in physical and health education is not limited to these factors that we shall examine in this unit. These factors have been identified as major causes of poor academic achievement in physical and health education and also in education generally.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the meaning of poor academic achievements in physical and health education
- list the factors that are responsible for poor academic achievements of pupils in physical and health education in primary schools
- suggest solutions to promote academic achievements in physical and health education in primary schools.

3.0 MAIN CONTENT

3.1 Factors Responsible for Poor Academic Achievements in Physical and Health Education

- The individual learner
- The learner's environment
- The material to be learned.

3.2 The Individual Learner

You will learn in this unit that learner's readiness to learn is a major factor in academic achievement in physical and health education and it has a lot to do with maturation. The learner has to grow and mature intellectually, physically and physiologically for every stage of learning before such a pupil/learner is exposed to the experience of learning. Also, if the learning materials or the content or skill/topic to be taught is above the pupils intellectually, physical and physiological levels, he may find it difficult to cope or understand and it will impede his learning thereby leading to poor academic achievement. When pupils are taught skills or concepts in physical and health education that are above their level or ability, the result is that they lose interest in taking part in such activity or topic thereby leading to poor achievement of such pupils/learners in such topic/skills.

When pupils are exposed to learning through such learning style that emphasises teaching such (topics) academic achievement on the part of the pupils. At the primary schools level pupils most of the learning should be by seeing and not by hearing if achievement is to be high among the pupils.

As a teacher and in order to let the pupils learn maximally in the class, you must ensure that the pupils you are teaching must be ready and mature physically and intellectually for every stage of the learning process in physical and health education while the learning or teaching style must encourage effective learning in order for the pupils to improve on their academic achievement in Physical and Health Education.

3.3 The Learner's Environment

The home and the school form learner's environment. The home forms the foundation where learning is laid since it is usually the child's first school.

You need to let the pupils know through your explanation that if the home environment is not conducive to growth, development and learning, it will definitely have a negative effect on the academic achievement of the pupils. What I am say is that if the pupils does children need parental supports in terms of provision of food especially breakfast, required textbooks, payment of fees, basic school needs, supervision of child home work and interaction as these provisions will make children do well in school especially in a physical and health education subject.

When the school environment does not have structures, materials and personnel that can provide or offer very rich and stimulating experiences and learning opportunities the result is poor academic achievement on the part of the pupils. Other factors within the school environment that have direct bearing on pupils poor academic performance are non qualified teaching staff, inadequate professional physical education teachers, inadequate learning materials/teaching materials, nonpayment of school fees by pupils, non provision of in-service training for teachers and shortage of infrastructure-classrooms, library and laboratory for the pupils to do well in their study. The learning environment which is made up of the home and the school must make meaningful positive contribution toward the learning of the child so as to enhance better/good academic achievement on the part the pupils.

3.4 The Materials to be Studied

The content to be taught by the teacher must be in consonance with the maturity level of the learners; otherwise teaching and learning may not be meaningful. If materials to be learnt are not related to pupils' intellectual and physiological capacities, these will hinder the pupils from learning which will definitely frustrate the pupils attempts to learn thereby leading to their poor academic achievement in physical and health education Etsey, Amedahe and Edjah (2004) pointed out that the following factors also do contribute to poor academic achievement of pupils in physical and health education:

- class sizes
- lack of home work
- teacher's lateness and absenteeism
- inability to complete syllabi
- availability of teaching and learning materials and
- use of teaching and learning materials.

Other factors are poor salary and poor supervision on the part of government agencies. Both professional and academic qualifications of

teachers are also responsible for poor achievement in subjects on the part of the pupils.

4.0 CONCLUSION

The learner's environment such as home and school; and the materials to be learned are major contributory factors to pupils' poor academic achievements in physical and health education. Once the task/skill/topic to be learnt appears difficult and is above the learner's ability, a hostile environment at home and in the school, and inadequate learning materials, the effect is poor academic achievement on the part of the pupils.

5.0 SUMMARY

You have learnt in this unit about the factors responsible for poor academic achievements of pupils in physical and health education. You learnt about how the learner's readiness, his home and school environments and the materials to be learnt affect the academic achievement of the pupils in a negative way.

SELF-ASSESSMENT EXERCISE

1. Explain the role of motivation in academic achievement.
2. Explain the relevance of the instructional materials to pupils' academic achievements in PHE.

6.0 TUTOR-MARKED ASSIGNMENT

1. List and explain five factors that hinder learning of physical health education in the primary schools.
2. How can pupils attain academic and professional achievement in physical and health education?

7.0 REFERENCES/FURTHER READING

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UNIT 4 STUDY HABITS AND ACADEMIC ACHIEVEMENTS IN PHYSICAL AND HEALTH EDUCATION

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Study Habits and Academic Achievements in Physical and Health Education
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In this unit, you will learn how to achieve success in PHE through the development of good study habits. This unit will introduce you to the approaches that you will take that will promote good study habits and the relationship between good study habits and better academic achievement in physical and health education subject.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- identify the various study habits applicable to Physical and Health Education
- state the effects of study habits on pupils academic achievement in physical and health education.

3.0 MAIN CONTENT

3.1 Study Habits and Academic Achievements in Physical and Health Education

There is a strong relationship between good study habits and academic achievement in physical and health education. Therefore, what constitute good study habits in this unit can be categorised as:

- how much time pupils spent on homework
- the frequency involved in both study and discussion of the subject
- the number of exercises carryout each day at school and for home work.

Many experts in education are of the view that pupils that learn good study habits tend to perform better than the struggling pupils. For pupils to achieve highly in their study they must learn how to study more effectively since good study habits lead to better grades.

The following are pertinent to good study habits:

- time management, use your time well and find time to study
- completing task, i.e. ensure that you have a definite task to perform and see that it is accomplished
- practicalise your plan, make sure that you have a specific place for reading and ensure that the place is conducive for reading
- make sure that you have the capabilities to cope with your study timetable so as not to run into not being able to meet the demands arising from such study timetable
- develop an approach about how the task/skill/topic can be accomplished to promote excellent grade
- be prudent when it comes to time allocation to study
- regular class attendance-helps you as a pupil to have first hand information on the topic been taught and assignments given by the teacher
- formation of study group(s)
- revision of topics taught at the end of each day
- lastly, you need to understand yourself as a learner and also the process involved in study.

4.0 CONCLUSION

Meaningful learning in physical and health education can be achieved when **good study**/habits are developed. Good study habits are determinants of whether one can succeed well in a unique subject such as physical & health education.

5.0 SUMMARY

In this unit, you have learnt about good study habits and its relationship with academic achievements in physical and health education. The unit highlighted some study habits time management, completion of task, techniques used in accomplishing each task among other that promote excellent academic achievements in PHE.

SELF-ASSESSMENT EXERCISE

Identify causes of poor academic achievement among physical and health education pupils and steps to take in correcting them.

6.0 TUTOR-MARKED ASSIGNMENT

1. List ten study habits that can be effectively used for effective learning by pupils in physical and health education.
2. Write short notes on any five ways or methods that PHE pupils can employ in doing excellently well in PHE.

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MODULE 2 FUNDAMENTAL SKILLS IN RELATION TO MOVEMENT EDUCATION

Unit 1	Fundamental Skills in Relation to Movement Education
Unit 2	Organisation of Sports and Games in Primary Schools
Unit 3	Meaning of Safety and Maintenance
Unit 4	Essentials of Safety Education

UNIT 1 FUNDAMENTAL SKILLS IN RELATION TO MOVEMENT EDUCATION

CONTENTS

1.0	Introduction
2.0	Objectives
3.0	Main Content
3.1.	Meaning of Fundamental Movements
3.1.1	Locomotor Movements/Skills
3.1.2	Non-Locomotor (axial) Movements
3.1.3	The Importance/Values of Fundamental Movements
3.1.4	Rhythmic Movement Activities
3.1.5	The Importance/Values of Fundamental Rhythmic Activities
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Reading

1.0 INTRODUCTION

Under this unit we are going to focus our attention on the meaning of fundamental movements and what constitute fundamental movements; that is, the basic fundamental skills. The unit will also introduce you to the relevance or values of these basic fundamental skills to man.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the meaning of fundamental movements/skill in your own words
- differentiate between locomotor and non-locomotor movements
- explain the meaning of rhythmic movements/activities
- state the values/importance of basic/fundamental rhythmic movements.

3.0 MAIN CONTENT

3.1 Meaning of Fundamental Movements

The fundamental movements are basic involvement skills required for the achievement or attainment of other major skills in physical education. They are required or needed as we grow or develop. Such fundamental basic skills are sitting, standing walking turning, running, etc these basic skills can be categorised into two main groups namely locomotor and non-locomotor movements. For easy and proper understanding of the fundamental skills, they shall be treated under these two categories in this unit.

3.1.1 Locomotor Movement/Skills

Locomotor skills are movements in which the body is moved completely from one position or point to another e.g. skipping, stepping, walking, running, hopping, jumping, leaping, galloping, sliding, rolling, etc.

- (i) **Stepping:** This is to raise the foot up and put it down in front, behind or beside the other one at a time. In stepping as a basic skill you can either step forward, backward or step aside, for you to do it properly and correctly there must be proper coordination of the arms that is the alternate arm must move forward with alternate leg when you are stepping forward and also in reverse order when you are stepping backward. This type of movement is used in jumps e.g. triple jump.
- (ii) **Walking:** This is a skill in which one foot is put/move forward in front or behind the other foot continuously from a standing position. Walking is a progression of steps so taken that the walker makes contact with the ground, so that no visible (to human eye) loss of contact occurs. The advancing leg shall be straightened (i.e. not bent at the knee) from the moment of first contact with the ground until the vertical upright position is attained. In walking, the movement of the Government shall be heel toe action in moving the body forward and the each arm must move with alternate foot. Majority of the physical activities begin or star with walking.
- (iii) **Running:** This is the shift/quick movement of the legs in upward and downward in front in quick succession with the arms forward and backward alternately in quick succession. Running is done on the balls of the feet with the body lean forward and moment when both feet are temporarily off the ground while there is high knee raising during the running process e.g. races, jumps, etc.
- (iv) **Hopping:** It is a forceful lifting of the body upward on one foot and landing on the ball of the same foot e.g. triple jump.

- (v) **Jumping:** It is the forceful lifting of the body upward and forward on one foot and landing on both feet. This is useful in vertical or horizontal jumps e.g. high, long and triple jumps
- (vi) **Leaping:** This is when you spring up high in the air with one foot and land on the other. This skill is mostly used in hurdles, steeplechase and triple jump, etc.
- (vii) **Skipping:** It is a quick but light stepping and jumping movements done on the balls of the feet. It is sometimes done on with rope or hoop e.g. boxing.
- (viii) **Galloping:** It is a skill or movement that allows both feet to leave the ground with one leading the other and land one after the other. It can be done sideways or forward as it is in high, long and triple jumps
- (ix) **Sliding:** It is a continuous smooth movement along the surface of the floor/ground in which the feet are continually in touch or contact with the surface of the ground e.g. tacking in football
- (x) **Rolling:** It is the turning of the body continuously over and over along a surface either from lying or squatting position e.g. tumbling in gymnastics.

3.1.2 Non-Locomotor (axial) Movements

They are basic movement patterns or activities that do not involve the individual moving from one place to another. The movements involved are usually carried out on one spot or position e.g. standing, lying, sitting, lifting, pushing, pulling, bending stretching, twisting, turning, swaying, swinging, etc

- (i) **Standing:** It is an upright position in which the body is supported on both feet e.g. in dart, archery, shooting etc.
- (ii) **Sitting:** It is a position where the trunk is upright and while the buttocks is on the floor or chair supporting the weight of the trunk e.g. in gymnastics.
- (iii) **Lying:** It is a position or condition where the body is laid flat and straight on the floor or ground this type of movement is common in gymnastic.
- (iv) **Lifting:** It is when an object is raised to a higher level while at the same time the body is in a still position e.g. weight lifting
- (v) **Pushing:** This is done from a forward walk or astride standing by putting pressure on an object to move it forward against resistance with the palms, hands arms and shoulders e.g. wrestling, boxing.
- (vi) **Pulling:** This is executed from a forward walk or astride standing position with the hands, arms and shoulders causing the object to move towards the person e.g. turn-of war, judo and wrestling

- (vii) **Bending:** This is when the trunk from erect position is bent forward and downward e.g. weight lifting, gymnastics, etc.
- (viii) **Stretching:** This is when a person is in a standing position with the body erect and the arms in an upward and backward position e.g. weight lifting, etc.
- (ix) **Twisting:** It is the turning of a part of the body around while the legs firmly planted on the ground without changing direction, dance, discus etc.
- (x) **Turning:** This is when the body is moved towards another direction when standing on a spot/athletics e.g. hammer, discus, dance, etc.
- (xi) **Swinging:** This is when the body is in a standing position and the arms and the body are involved in a forceful circular motion to the left or right e.g. hammer throw in athletics.

3.1.3 The Importance/values of Fundamental Movement/Skills

- they provide basic guides for the learning of other major skills in games and sports
- it helps to improve/enhance performance
- the acquisition of the skills reduces fatigue and injury in sports and games
- they could be used to create fun and enjoyment.

3.1.4 Rhythmic Movement Activities

They are basic movement activities that are carried out in rhythm line with regular beats coming from singing, clapping or sounds from music or tinning of movements. Some of such rhythmic activities are:

- fundamental rhythmic activities
- creative rhythmic activities
- marching
- singing
- folk dance
- social dance.

Fundamental Rhythmic Activities

They are basic movement activities using rhythm-songs or beats to express action; they are activities that make use of locomotor and non-locomotor movements. They are performed rhythmically using related singing songs e.g. such activities as running activities and singing, pulling activities and singing, sitting and clapping, skipping and singing, etc.

3.1.5 The Importance/Values of Fundamental Rhythmic Activities

They are as follows:

- help to develop good and proper coordination
- help to develop beauty in performance
- create joy and happiness
- make room for agility and flexibility
- encourage/promote creativity
- help/assist the body and the mind to relax.

4.0 CONCLUSION

Class, we can conclude from what we have learnt in this unit that fundamental skills are very important and prerequisite to learning skills in major games and sports. The inadequacy or lack of skills in the basic skills by a pupil could lead to poor performance in any of the major games or sports thereby resulting in poor academic achievement in physical and health education. Good performance in the fundamental skills by pupils will definitely enhance better academic achievement in the major games and sports.

5.0 SUMMARY

You have learnt about fundamental skills in relation to movement education. In this unit you learned the meaning of fundamental movements, the different categories locomotor and non-locomotor types and their importance in movement education. Detailed explanations were made on each category of the fundamental basic skills so as to enable pupils appreciate their importance to successful execution of any skills in any major games and sports.

SELF-ASSESSMENT EXERCISE

1. Explain the meaning of fundamental movements with concrete examples
2. Mention two major groups of fundamental movements
3. Mention six examples of rhythmic activities.

6.0 TUTOR-MARKED ASSIGNMENT

1. What is/are difference(s) between locomotor and axial movements?
2. List and explain any six in each of the groups.

3. Explain the values of fundamental movements.
4. Explain what rhythmic activities are.
5. What are the values of rhythmic activities?

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UNIT 2 ORGANISATION OF SPORTS AND GAMES IN PRIMARY SCHOOLS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Administration and Organisation of Sports and Games
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment.
- 7.0 References/Further Reading

1.0 INTRODUCTION

In this unit we are focusing on organisation of sports and games in primary schools. We shall look at sports organisation through intramural and extramural competitions. We shall x-ray or examine how sports and games are effectively managed or administered through intramural and extramural competition at the primary school level. This unit shall also focus on the various approaches involved in the organisation of sports and games at the primary schools level.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain organisation of sports and games
- identify of using the intramural and extramural competitions to achieve proper and effective organisation of sports and games at the primary school level.

3.0 MAIN CONTENT

3.1 Administration and Organisation of Sports and Games

Sports and games are generally organised in schools and outside the school. The types of sports and games organised within the school are known as intramural competitions while those organised outside the school are known as extramural sports competitions. The effective administration of the organisation of sports and games in the primary schools rest squarely on the physical education of teacher and other members of his/her team. Their responsibilities are to guide, direct, coordinate and encourage the efforts of the individual members towards achieving the goals of the schools in sports.

The organisation of sports in schools can be seen as the development of formal structures whereby the various or different sections or divisions work together with clear defined lines of authority for effective development of sports in the school environment.

In this unit, we shall identify and discuss the various approaches of organising sports and the importance of intramural sports at the primary schools.

1. Intramural sports programmes/competitions

At the primary school level, intramural sports programmes are managed or directed by the games master/mistress. At this level the programme must cater for all the pupils that is, it must provide for a wide range of abilities and interests. In doing so, the physical education teacher must have a well planned programme that would meet the desired goals e.g. organisation of inter-house sports competition. For the games master/mistress to have a fruitful and rewarding intramural sport programmes he must consider and work in the following steps in order to achieve a better result:

- planning
- activities
- safety precautions
- rules and regulations
- records
- evaluation.

(a) Planning

As a games master, you need to plan on the sporting activities you want the pupils to take part in during the period. This can be taken care of through inter-house sports competition. The planning should contain all the sports events that the pupils are going to take part in, their houses and/or classes. The planning should also include the listing of the order of sport events, officials, members of staff, etc. you must get the permission of the head teacher right from the onset and get his/her approval on what it would cost the school to organise such competition. The needs and interests of the pupils (male and female) must be considered when planning along with the interest of the school. Facilities to be used for the competition should be considered and their conditions ascertained in readiness for the pupils to use for both practice and competition proper. In places or cases where the facilities are inadequate, you as the games master/mistress can organise alternative arrangement for such facilities with nearby/ neighbouring schools or sports council.

Finally, you have to ensure that you take care of all problems that may arise from logistics e.g. registration and identification of athletes, recording sheets and provision for emergency cases.

(b) Sporting activities/events

The types of sports events for the intramural should be those that would elicit the interest of the pupils. You should ensure that the right type of sport activities are selected for the pupils to participate in and included in inter-house sports and that they should have positive educational value on or contribution to the pupils e.g. 'catching the train', improves pupil's speed and punctuality and 'egg and spoon race' helps to improve hand-eye coordination. The activities to be included in sports programme should be those that a greater percentage of pupils should be able to take part in and should not be too difficult (hammer throw) for the pupils. The activities selected must give/consider the ability of the child at this level so as to prevent or reduce injuries and liability.

There should be adequate provision for wards and technical officials instructors, chaperons, etc that would provide adequate supervision for the various sporting activities so as to guide against sport injuries inherent in sporting activities.

Ensure that adequate facilities and equipment are available for the sporting events for the inter-house sports i.e. you include only activities you have facilities and equipment for. As the games master, ensure that fund is provided for the programme to avoid failure well in advance before the competition and also provide ample time for pupils to practice before the competition day bearing in mind the school calendar. This will also enable you to give notice to the officials to officiate on the day of competition well in advance.

(c) Publicity

You have to device ways/means by which your intramural sporting activities would attract public attention. In doing this you have to find a way of selling your programme to the public. You can achieve this through the P.T.A., invitation letters to guardians, parents, members Board of Governors, Alumni Association, education of the pupils on the importance of the competition, posters, jingles on radio and television and newspaper advertisement.

(d) Security

There should be adequate security to ensure the safety of teachers, pupils, athletes and invited guests. Letters should be sent to security

agents a month before the competition so that they will help to maintain law and order during the competition. Two weeks to the competition the security agents should be reminded. The school can decide to invite members of police, army, vigilante group or the civil defence to help maintain law and order.

(e) Awards Systems

The emphasis of an intramural programme should be on participation and fun. Winning and losing are part of the process but should not be a primary focus. If award must be given they should be for recognition of achievement. If possible some recognition should be available for participation regardless of win/loss. In your planning as the games master/mistress, you should make provisions for award of prizes to the best three competitors and each of the events as a sort of recognition of their achievements and also as incentive to encourage them to do better in future competitions. It is also to encourage other pupils that did not take part to participate in such competition in future.

(f) Safety precautions

An intramural sports programme seeks to enhance the health of its participants therefore, the following guidelines are critical to the success of the programme:

- all activities should be structured to ensure that safety requirements are met including consideration of each pupil readiness for the activity based on age, skill and physical condition
- all participants should have medical clearance to participate
- clothing should be appropriate to the activity
- all activities should be supervised to ensure safety and orderly progression of each event
- recognise that because of the nature of physical activity, injuries will occur immediate first aid must be available from trained providers any time the programme is in progress
- attention must be given to communication with emergency services in the event of serious injury.

(g) Rules and Regulations

Games master sit with the housemaster, head teacher and games prefect to make the rules that will govern the competition. Some of the rules to be considered are as follows:

- no athlete will participate in more than three events.

- An athlete can only take part in one field event and two track events or two field event and one track event
- no athlete in primary 4, 5 and 6 can run in primary 2 and 3 events
- fill in the bottle and backing the baby are for primary 1 only
- filling the basket with balls is for nursery classes only
- no house member is allowed to run through while an event is going on, if it happens the athlete of that house will be disqualified
- athletes are to maintain their lanes when running 100m, 200m and 100m x 4 relay, any athlete that crosses from his/her lane is automatically disqualified
- there must be decision on how many points each event should be given, for example 1st position 10 points, 2nd position 8 points and so on.

(h) Records

For future purposes there should be proper keeping of records concerning all inter house competition that take place in the school.

Such as keeping records or positions of the match past, the field events, the track events, especially the time the athletes finish running. Keeping records enable the game master or whoever might take over from him to know whether the school is improving from the various events or not.

All record of finished events must be kept in a file which is subtitled "sports file" and the file should be kept either with game master or the head teacher of the school.

(i) Evaluation

Intramural programming just as with other curricula must be subjected to continuous evaluation. Areas to be reviewed include:

- objectives
- programming
- facilities/equipment
- safety.

Organisation/Administration

Information gleaned from the evaluation process allows for modification of objectives, planning and implementation of programme needs, justification for budgets and programme changes.

4.0 CONCLUSION

This unit addressed the administration and organisation of sports and games in primary schools. The unit was able to explain the Intramural sports programmes/competitions and the steps to be considered in order to achieve a better result.

5.0 SUMMARY

In this unit, you have learnt about how to organize and administer intramural games in primary schools. The unit highlighted some steps like planning, activities, safety precautions, rules and regulations, record keeping, award system and evaluation to be considered when organising sports in schools in order to achieve better results.

6.0 TUTOR-MARKED ASSIGNMENT

1. List and explain the steps to be considered when organising sports in the school.
2. As a games master, list the group of people to work with when organising sports in school, and why do you need them?

7.0 REFERENCES/FURTHER READING

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UNIT 3 MEANING OF SAFETY

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Concept of Safety
 - 3.1.1 Definition of Safety
 - 3.2 Nature and Scope of Safety
 - 3.3 Safety/Problems in the School Environment
 - 3.4 Safety Education Concepts
 - 3.5 Maintenance Culture
 - 3.6 Safe School Environment
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

One of the basic needs of man is safety. Man's other needs include food, shelter, clothing, love or affection. However, safety remains on top of the list of priorities of people because without safety living and all that one has laboured for may become wasted. Indeed safety makes life interesting and to a remarkable extent, effective living is hinge on safety. A well designed lifestyle is incomplete without safety concept being built into it. Some of the benefits of safety in both personal and corporate senses include the facts that tasks performance are carried out with little or no stress, injuries are avoided and a lot of manpower is saved, individuals and organisations relate well. Thus the importance of safety in any setting (e.g. in the school) cannot be over emphasized. Before examining the nature of safety, there is need for some understanding of the meaning of safety and what it represents.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- define safety
- state the different types of safety
- identify some common safety problems in the school
- examine the features of a safe school facility.

3.0 MAIN CONTENT

3.1 Concept of Safety

In the primitive era, people lived together in peace and happiness, they had things in common and there was no need to build fences around homes. We may think that there was no need to be afraid of anything as men followed nature. However, time progresses, the primitive nature of society changed and men became enslaved to technology and civilisation. The safety problems that we contend with today can be traced to the absence of a good safety culture or the absence of knowledge concerning safety.

3.1.1 Definition of Safety

Safety can be defined as follows:

- freedom from danger
- ability to detect hazards
- safe practices that enhance growth and development
- a state of feeling unthreatened by life threatening factors
- removal of obstacles and impediments that may be life threatening
- personal health promotion
- risk management.

SELF-ASSESSMENT EXERCISE I

1. Examine the historical antecedent of safety.
2. Discuss the various definition of safety.
3. Distinguish between a habit and safety practice.

3.2 Nature and Scope of Safety

We probably have come across phrases such as “safety first” “play safe” and “be safe”. These expressions have far reaching implications on the nature and scope of safety. In everything that we do even as school teachers, we need to consider safety as extremely important. Safety is expansive in nature and scope. For example, safety in the school environment is meant to ensure the safety of teachers, students, school personnel and school facilities. We shall discuss more on this when we examine safety education in the preceding paragraphs.

Nonetheless, the nature and scope of safety consist of the following:

- safety is a matter of habit
- it involves training i.e. it is a skill acquisition process
- safety involves discipline
- safety is individual and community- based
- it is the responsibility of everybody to be safety conscious
- safety is a pre-condition for safe living.

3.3 Safety Problems in the School Environment

The school environment is a haven for many safety problems. The incidence and prevalence rates of drowning, falls, burns and scalds, fractures, bruises are on a consistent increase in the school facilities. These safety problems contribute to the cases of absenteeism and poor academic achievement in the school. It is imperative to mention that safety problems in the school are avoidable if necessary lines of action are taken by school teachers, the learners and school management. One of the major responsibilities of school management is to ensure the safety of teachers, students and other school personnel. This implies that the classroom have to be properly ventilated and lighted, the stair case is of good design and safety-compliant. The provision of fire extinguishers and other safety accessories must be the joint responsibility of the school and the various agencies responsible for school administration including the host community where the school is situated.

3.4 Safety Education Concepts

What is safety education? Safety education is a form of education given to learners/people in order for them to live an accident-free life. Accidents are unplanned events or occurrences which can be controlled through balanced safety practices.

Also, safety education is a process or an act that affects the orientation of an individual and he becomes knowledgeable in the things of safety. Safety education i.e. a training process and it is one of the several components of the comprehensive school health programs.

Safety education has the capacity to solve many safety problems both in the micro and macro senses. It is only when people have knowledge of toxins that they avoid being poisoned. Characteristically, safety education can transform the individual and his society.

The following should constitute the block of learning units in safety education programme in the school:

- how to cross the road and using the zebra crossing signs
- using the swimming pool.
- avoiding sharp and pointed objects
- drug/medicament education
- safety in the play field
- safety gadgets and materials
- reporting accidents
- accident prevention.

SELF-ASSESSMENT EXERCISE 2

Highlight the learning units in safety education programme in the school.

3.5 Maintenance Culture

One of the banes of the Nigerian society is the absence of a good maintenance culture. Dilapidated school structures, obsolete machinery, poorly kept laboratories just to mention but a few are common sights in our school environment. What is however important is the fact that poor maintenance culture continue to contribute to safety problems in the school. As earlier discussed, safety is a matter for all education stakeholders; I wish to add that the school, the community and government should be held accountable for accidents that happen in the school premises because of the absence of good maintenance culture. Maintenance culture must be highly emphasised in the general school curriculum and made part of the conditions for promotion of school principals and teachers.

3.6 Safe School Environment

A safe school environment is one that is devoid of accidents. It is an environment that is teacher and learner friendly.

Furthermore, a safe school environment is health enhancing in all its ramifications. One example of a safe school environment is an ideal purpose built school where the classrooms are adequately ventilated; the seats well arranged and does not constitute obstruction. There is free flow of movement in and out of the classroom.

In a safe school environment the lawns are well moored, chemicals in the laboratory are kept in a safe place and containers properly labeled. Finally, a safe school environment is driven on the principles of safety.

4.0 CONCLUSION

Safety constitutes part of the basic needs of man. Safety concept consists of freedom from danger. Since everyday life induces stress and hazards, it is expedient that safety be emphasised. It is incumbent upon the school, teacher and learners to learn safety precautions and the importance of safety education. It is the joint responsibilities of the school and the host community where the school is situated to ensure the safety of school facilities.

5.0 SUMMARY

The meaning of safety includes freedom from danger while accidents are unplanned events. The bases of safety can be connected to man psychological and physiological needs. Every man wants to be safe and over time the hustle and bustle of everyday life continue to make man vulnerable to risks of diverse kinds. Safety education is highly imperative in our school system because of its importance.

6.0 TUTOR-MARKED ASSIGNMENT

1. Why is safety an imperative component of human needs?
2. Discuss the features of safety education in Nigerian school curriculum.

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UNIT 4 ESSENTIALS OF SAFETY EDUCATION

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Importance of Safety Education
 - 3.2 Safety Problems
 - 3.3 Safety Regulations
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In unit one, we studied the nature and concept of safety education, This unit will examine the importance of safety education, aspects of safety education, safety regulations and safety programmes in our school system. Indeed, safety education cannot be separated from the school curricula because of its unique nature in the school system. It is envisaged that you will critically internalise the various concepts concerning safety and also teach safety concepts in the most appropriate manner to your students.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- examine the importance of safety education to the society.
- discuss the various aspects of safety education.
- review and apply safety regulations appropriately.
- implement safety programmes accordingly.

3.0 MAIN CONTENT

Safety education constitutes one of the teaching/learning units of the National Health Education Curriculum which came into existence in 1985. This curriculum was approved for our nation's school in 1985 by the then Military Administration. One of the principal objectives of the Health Education Curriculum is to address the many health problems of school children. Safety education is part and parcel of this document and it defines the imperativeness of safety education both in the individual and collective dimensions.

3.1 Importance of Safety Education

Many accidents that happen in the school and outside the school environment could be prevented if only people have the knowledge and information regarding such accidents. In other words, ignorance is a major factor in accident causation and safety education has the ability to negate wrong perceptions about accidents.

Wrong attitudes, beliefs and habits can induce accidents and experts in the field of safety education strongly hold the view that safety education can help correct negative attitudes towards accidents in our society. The authenticity of this view has been tested and it is correct to say that no matter the policy or funds applied to address safety problems in our society it will not yield ideal results if safety education principles are not engaged. The importance of safety education can therefore not be relegated to the background.

Furthermore, through safety education individuals are sensitised on the factors that cause accidents. Again, safety education is a capacity building avenue for people to know what to do to avoid accidents.

When we go by newspaper reports that accidents of diverse kinds happen in our society especially road-traffic accidents we cannot but discuss the importance of safety education. Safety precautions are good leverage for accidents prevention. Safety education is a means to an end because prevention and minimising costs of accidents rest on it.

Safety education helps to correct wrong notions about accidents. Sometimes people believe that accidents are caused by supernatural forces. Carelessness and risky behaviours such as drinking and driving can cause accident. It is the information provided by teachers and those knowledgeable in the skills of accident prevention that can provide information and awareness about what intricate factors that causes accidents.

3.2 Safety Problems

The following are major aspects of safety education programme in the school:

- fire accidents
- road accidents
- industrial accidents
- air disasters
- natural disasters such as volcanoes, tornadoes, flood
- risks management
- injuries and labour relations.

Fire Accidents

Fire accident is a common phenomenon in our society and in the school. Causes of fire outbreak are mere carelessness on the part of people to faulty equipment in the house. Ignorance is also a major cause of fire accidents

Road Accidents

Road traffic accidents are due to many factors such as poor driver education, drunkenness, faulty vehicle, bad roads, and poor road traffic regulation. The multiplicity of the causes of road tarmac accidents demands that safety education culture be imbibed.

Industrial Accidents

Industrial accident ranks top on the list of safety problems in our society. Thus, many workers have been injured while trying to operate one machine or the other while many lost their lives in the course of earning some wages. Industrial accidents can be addressed through safety education approach.

Natural Disasters

Natural disasters such as volcanoes, for needed, flood, erosion, etc. have destroyed many ecosystems which are beneficial to man. Through a well articulated safety education programme this huge problem can be addressed.

3.3 Safety Regulations

It is evident that the absence of a balanced safety practice in Nigeria has impeded the process of curtailing the problem of safety. Indeed, safety regulations such as code of conduct on the roads will go a long way to nib the problem of safety on board, safety regulations can solve many problems.

4.0 CONCLUSION

This unit has revealed the basic concepts of safety education. The importance of safety education was highlighted in terms of the theoretical and practical applications. Some safety problems in our society were discussed and the needs for effective safety regulating system were prosecuted.

5.0 SUMMARY

This unit has revealed the following facts:

- importance of safety education
- safety problems in our society
- safety regulations and the prevention of accidents in the society.

Safety education can contribute to nation –building; hence, the need to emphasise it in our school system.

6.0 TUTOR-MARKED ASSIGNMENT

1. Examine the basic issues affecting safety education in our society.
2. Discuss safety problems in our society today.

7.0 REFERENCES/FURTHER READING

Idehen C. O. (1998). The Roles of Health Education Messengers in Industrial Safety. *Journal of Health and Movement Behaviours*, Vol. 2 No. 1 pp.83-88.

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MODULE 3 FEATURES OF PHYSICAL AND HEALTH EDUCATION CURRICULUM

Unit 1	Features of School Health and Physical Education Curriculum
Unit 2	Physical Fitness
Unit 3	Drugs, Sports and Importance of Recreation and Leisure Activities
Unit 4	Bones, Muscles and Muscle Injury and Disorders

UNIT 1 FEATURES OF THE SCHOOL PHYSICAL AND HEALTH EDUCATION CURRICULUM

CONTENTS

1.0	Introduction
2.0	Objectives
3.0	Main Content
3.1	Health Education
3.2	School Health Services
3.2.1	Safe and Healthful School Environment
3.3	Physical Education
3.4	Nutrition Services
3.5	Counselling, Psychological and Social Services
4.0	Conclusion
5.0	Summary
6.0	Tutor-Marked Assignment
7.0	References/Further Reading

1.0 INTRODUCTION

The school health education programme is central to the essence health instruction in the school system. In this unit, we shall examine the various features of the school health programme. These features include health education, school health services, safe and healthful school environment, physical education, nutrition services and counselling, psychological and social services .As you read on, you will find that health education curriculum has inherent benefits.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- explain the basis of the health education curriculum
- list the features of the school health education programme.

3.0 MAIN CONTENT

3.1 Health Education

Health education in the school context refers to a planned and well organised curriculum that addresses the many dimensions of health. Such dimensions include the physical, mental, emotional and social aspects of the individual or student life. The health education curriculum is systematic in its approach and it is basically to motivate and encourage students to better or improve their health, prevent disease and reduce health related risk behaviours. Health instruction is an activity based exercise and it is only a qualified teacher with knowledge of health education that should impact health knowledge to students.

3.2 School Health Services

School health's services are expected to appraise, protects and promote the health of students. Highlights of school health services include:

1. access to referral primary health care services
2. ensuring adequate use of primary health care services
3. prevention and control of communicable diseases and other health conditions
4. management of chronic infections/diseases
5. provision of emergency care to the injured
6. optimum sanitary conditions for a safe school facility and school environment
7. counselling opportunities for the promotion and maintenance of individual, family and community health.

3.2.1 Safe and Healthful School Environment

A safe and healthful school environment refers to an environment which attends to the physical, aesthetic surrounding. It also refers to the psychological climate and culture that ensures the health and safety of students and staff. The physical environment includes the school building and the areas surrounding it, biological or chemical pollutants that might induce harm are some examples of factors that influence the physical environment.

However, the psychological environment constitutes the interrelatedness of physical, emotional and social conditions that affects the well-being and productivity of students and staff.

3.3 Physical Education

Physical education is a carefully designed curriculum that provides cognitive, affective and psychomotor related activities. In physical education curriculum, teachers and learners are provided with learning experiences in a variety of activity. These include basic movement skills, physical fitness, rhythms and dance, games, teams, dual and individual sport tumbling and gymnastics and aquatics. Quality physical education should promote in a systematic manner, a variety of planned physical activities, and the physical, mental, emotional and social development of students. These activities should be promoted in such a way that all students enjoy and can pursue the activities throughout their lives.

3.4 Nutrition Services

Nutrition services are those services that provide individual students with nutritional information/knowledge, and balance. Nutrition services take into consideration the health and nutritional needs of all students. The school nutrition programmes offer opportunities for students to experience learning in a standard classroom. Nutrition and health education can be combined in such a way as to serve as resource linkages with nutrition – related community services. Nutrition services can be provided by qualified child nutrition experts.

3.5 Counselling, Psychological and Social Services

Counselling, psychological and social services are services that provide wide range of individual and group assessments, interventions and referrals. These services attend to the mental, emotional and social health of students. Organisational, assessment and consultation skills of counsellors, psychologist and social workers are needed in order to contribute to the overall health of students and to the maintenance of a safe and healthful school living.

4.0 CONCLUSION

This unit addresses the features of the school health education curriculum. The features include health education, school health services, safe and healthful school environment, physical education, nutrition services and counseling, psychological and social services. These programmes have far reaching implications on the all round growth and development of students.

5.0 SUMMARY

The unit discussed in details the several features of the school health education curriculum. It went further to give a detailed analysis of each of these features and what they represent in the school health education curriculum circle of learning. The primary aim of the health education curriculum is to ensure that learners and school personnel are positively affected in behaviour, attitude, habits, life styles, etc.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain the concept of physical education.
2. Discuss how a safe and healthful school environment contributes to effective learning among learners.

7.0 REFERENCES/FURTHER READING

Allensworth, D. (1993). Research Base for Innovation Practices in School Health Education in Centre for Disease.

Centre for Disease Control (CDC) (1993). Comprehensive School Health Education Programmes: Innovative Practices and Issues in Setting Standards. Atlanta GA: Centre for Disease Control and Prevention, 45-61.

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UNIT 2 PHYSICAL FITNESS IN THE PRIMARY SCHOOL

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Physical Fitness
 - 3.2 Cardiorespiratory Endurance
 - 3.3 Muscular Strength
 - 3.4 Muscular Endurance
 - 3.5 Flexibility
 - 3.6 Body Composition
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 Reference/Further Reading

1.0 INTRODUCTION

In this unit, you will learn about the meaning of physical fitness, cardiorespiratory endurance, muscular strength, flexibility, body composition.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- discuss the importance of physical fitness
- examine the meaning of flexibility
- list the different types of fitness.

3.0 MAIN CONTENT

3.1 Physical Fitness

Physical fitness is a set of physical activities that allows the body to respond or adapt to the needs and stress of physical effort. Physical fitness allows the individual to perform some moderate-to-vigorous levels of physical activity without being tired. The benefits inherent in physical activity are extensive. For example, physical activity enhances physical and mental wellness with far reaching implications. When one is physically fit, everyday chores or tasks such as lifting things becomes easy, in addition, physical fitness helps people to reduce cases of heart

disease, cancer, high blood pressure, diabetes and other degenerative diseases.

The five major components of fitness are:

- i. cardiorespiratory endurance
- ii. muscular strength
- iii. muscular endurance
- iv. flexibility
- v. body composition.

3.2 Cardiorespiratory Endurance

The ability to perform or sustain a prolonged, large-muscle and variety of exercises at moderate to high levels of intensity is referred to as cardiorespiratory endurance. Measuring cardiorespiratory endurance depends on factors such as the health state of the lungs and their ability to deliver oxygen to the blood stream, the hearts capacity to pump blood, the nervous system and blood vessels ability to regulate blood circulation, the muscle's ability to generate power and the capacity of the body's chemistry to use oxygen to the fullest.

Cardiorespiratory endurance is a critical component of health – related fitness because the functioning of the heart and lungs is essential to overall wellness. However, cardiorespiratory endurance is developed by rhythmic movements such as walking, jogging cycling and aerobic dance. When the cardiorespiratory levels are low, the heart would have to work very hard during normal daily activities and may not be able to work hard adequately to sustain high intensity of physical activity in an emergency. Also, as the cardiorespiratory fitness improves, the heart starts to function adequately. The heart does not have to work as hard at rest or during period of low levels of exercise.

3.3 Muscular Strength

This refers to the amount of force a muscle can produce with a single maximum effort. Muscular strength requires strong, powerful muscles in order to produce smooth and easy performance of everyday activities. Furthermore, healthy muscles help keep the skeleton in proper alignment, preventing back and leg pain and giving the necessary support for good posture. Recreational based activities are facilitated due to muscular strength. Muscle tissue is a critical part of the overall body composition thus greater muscle mass makes it possible for a higher level of metabolism and greater energy use body help to maintain a healthy body weight. Muscular strength can be achieved by regular

training with weights or by using the weight of the body for resistance during calisthenics exercises.

3.4 Muscular Endurance

This refers to the ability of an individual to sustain a given level of muscle tension, that is, to hold a muscle contraction for a long interval of time. The importance of muscular endurance includes food, posture and injury prevention. Muscular endurance can be developed by stressing the muscles with a greatly load than they have being conditioned to. Again, the extent to which strength or endurance develops depends on the type and amount of stress that is involved.

3.5 Flexibility

The ability to move the joints through full range of motion is called flexibility. Physical exercises can help ensure of normal range of motion. Inactivity can cause the joints to become stiffer with age and stiffness can make elderly people to assume unnatural body postures, and it can lead to neck, shoulder and back pain.

3.6 Body Composition

The proportion of fat and fat free mass (i.e. muscle, bone and water) in the body is called body composition. A healthy body composition involves a high density or proportion of fat – free mass and an acceptably low level of body fat. An obsessed person is more vulnerable to health problems such as heart disease, high blood pressure, stroke, joint problems, diabetes, cancer, back pain and gallbladder.

4.0 CONCLUSION

This unit examined physical fitness. Major highlights in this unit include cardiorespiratory endurance, muscular strength, muscular endurance, muscular flexibility and body composition. Physical fitness is central to wellness hence it is importance.

5.0 SUMMARY

This unit discussed the implications of physical fitness. These include; the promotion of physical and mental wellness. When one is physically fit, everyday tasks becomes easy. Physical fitness helps people to prevent heart disease, cancer, high blood pressure, diabetes and other terminal diseases. Therefore five components of fitness, these include; cardiorespiratory endurance, muscular strength, muscular endurance, flexibility and body composition.

6.0 TUTOR-MARKED ASSIGNMENT

1. Discuss the importance of physical fitness.
2. List and explain two components of physical fitness.

7.0 REFERENCE/FURTHER READING

Insel, P. M. & Roth, W. (2004). *Core Concepts in Health*, (Ninth Edition). *Update*. McGraw-Hill Publishing Company.

UNIT 3 DRUGS, SPORTS AND IMPORTANCE OF RECREATION AND LEISURE ACTIVITIES

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 The History of Doping
 - 3.2 Doping Substances
 - 3.3 Health Implications of Doping
 - 3.4 Risk Factors in Doping
 - 3.5 Importance of Recreation and Leisure -Based Activities
 - 3.6 Promoting Recreation and Leisure Activities in the Society
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 References/Further Reading

1.0 INTRODUCTION

In this unit, you will learn about the history of doping, doping substances, the health implications of doping and the risk factors associated with doping. We shall also review the importance of recreation and leisure- based activities, ways through which recreation and leisure activities can be promoted in the society. It is envisaged that knowledge acquired will help to create the needed awareness acquired by the students *vis-à-vis* participation in recreation and leisure -based activities.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- narrate the history of doping in drugs
- list the different types of doping substances.
- review the benefit of recreation activities
- discuss the importance of leisure based activities.

3.0 MAIN CONTENT

3.1 The History of Doping

The history of the use of drugs in sports dates back to the medieval times. It is on good authority that the ancient Greeks used substances that affect their performance in sports. The Gladiators of circus used substances that influenced their overall performance. Similarly, ancient Greek Olympians used herbs and mushroom to enhance performance (Asken, 1988). The first reported case of drugs in sports was the use of anabolic steroids involving a horse named Holloway. In Fair's (1988) account, the horse prior to the infusion of testosterone had diminished in both capacity and ability. Several efforts to race failed but after the administration of the drug in February 1941 and several months of training, the horse won a number of races and established a speed of 2 minutes 10 seconds at age of 19. Use of drugs in sport is a common phenomenon.

3.2 Doping Substances

Drugs that are commonly used in doping include:

1. Anabolic steroids
2. Beta Blockers
3. Stimulants
4. Narcotics
5. Diuretics
6. Peptide hormones and analogues

Drugs subject to restrictions in sports include:

1. Marijuana
2. Corticosteroids
3. Alcohol
4. Local anaesthetics

3.3 Health Implications of Doping

The use of banned drugs to enhance performance in sports is gaining popularity among sports men and women. It is a dangerous trends no doubt and it poses a lot of threat to the health of those who use these drugs. Observations and autopsies on athletics that died prematurely form doping reveal that drugs use can affect the individual athletic physiologically. For example, the effects of steroids on athletics have shown that the secondary sex characteristics in men are severe. In men, changes include oily skin, changes in hair formation, testicular atrophy,

the development of a high – pitched voice and gynecomastia and in women, these effects include, virilism, hirsutism; the appearance of a male pattern boldness, deepening of the voice, atrophy of the breasts and the enlargement of Adam's apple.

3.4 Risk Factors in Doping

Risk factors in doping can be categorised into, physical, psychological and emotion. Psychoactive drugs have a lot of physical effects even beyond imagination. These effects include: alteration of consciousness, heart failure and risk of potential fatal overdose.

3.5 Importance of Recreation and Leisure -Based Activities

Recreation activities are those activities one performed voluntarily during his/her leisure hour or time, they are not competitive in nature but skills acquired can be used for other sports.

Most major health problems in the society today have been attributed to lack of exercise or inactivity (Murray 2002). Diseases common in our society such as hypertension or high blood pressure, stroke, obesity, diabetes, low back pain, cancers, insomnia, paralysis, and other diseases have been connected with lack of physical activity and recreation. There is abundant research finding that justified the need for recreation based activities and increasing individual levels of recreation can promote health and well -being.

The general objectives of recreation programme include:

- facilitating healthful relationship
- promoting healthful situation
- enhancement of wellness behaviours
- promoting resiliency.

Recreation activities can be helpful in-terms of providing the potential of adding more years to one's life, longevity depends on recreational interests and factors. Furthermore, recreational activity can bring about self-efficiency, good health, wellness and resiliency, good recreational activities can be leisure based and it can contribute cognitive, emotional, social and socialisation aspects of an individual life. Recreation is good and it can promote life-long fitness and the ideally happy and healthy person is the one who has recreational pursuits. Recreation works with vigour and pleasure with less fatigue.

3.6 Recreational Activities

Recreation can be done based on one's own convenience and it can promote health and wellness. The following physical activities can be engaged in for leisure purposes:

1. walking home after close of work
2. jogging at moderate level
3. swimming but there must be a lifeguard or lifebuoy.

4.0 CONCLUSION

This unit addressed the issue of drugs in sports. It presented an overview of the history of doping substances, health implications of doping and the risk factors in doping drugs in sports is an age-long practice and efforts to discourage it should be sustained by sports men and women. This unit also explained that the major health problems in the society today have been attributed to lack of exercise or inactivity and listed some recreational activities to curb most health problems.

5.0 SUMMARY

In this unit, the phenomenon of doping is a steady increase and it is of a global concern. The use of natural talents and abilities should be encouraged and the spirit of sportsmanship should be imbibed by all who participated in sporting activities. The rule of fair play should be applied always and sports men and women should ensure that winning alone is not the ultimate but participation and friendship should also be internalised.

6.0 TUTOR-MARKED ASSIGNMENT

1. Review the history of doping.
2. Name five doping substances.
3. List three recreational activities.

7.0 REFERENCES/FURTHER READING

Asken, M. (1988). *Dying to Win the Athlete Guide to Safe and Unsafe Drugs in Sports*. Washington D.C.: Acropolis Books.

Fair, J. (1988). Olympic Weight-lifting and the Introduction of Steroids: A Statistical Analysis of World Championship Result.

UNIT 4 BONES, MUSCLE INJURIES AND DISORDERS

CONTENTS

- 1.0 Introduction
- 2.0 Objectives
- 3.0 Main Content
 - 3.1 Nature and Functions of Bone
 - 3.2 Types of Bone and Bone Formation
 - 3.3 Cramp
 - 3.4 Muscle Strain
 - 3.5 Torn Muscle
 - 3.6 Tendonitis
 - 3.7 Hernia
 - 3.8 Muscular Dystrophy
- 4.0 Conclusion
- 5.0 Summary
- 6.0 Tutor-Marked Assignment
- 7.0 Reference/Further Reading

1.0 INTRODUCTION

In this unit, you will learn the nature and functions of bone, types of bone and the importance of studying bone. The body is made up of bones. Bones are important structures. This unit will also review the types of muscle. Attached to bones are muscles. There are basically three different types of muscle tissue found in the human body, these include skeletal muscles, smooth muscles and cardiac muscles. The study of bones and muscles is important because they are part of physical exercise and they require lifelong care. An individual is able to walk, run, kick and jump because muscles pull against bones.

Muscles support movement activities in man. Thus walking, lifting, talking and breathing are accomplished by muscles. Muscles have four basic functions namely; maintenance of posture, production of heat and giving the body the required shape.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- describe nature and function of bones
- explain how bones changes with age
- list the types of muscles and their functions
- list the different types of muscle injuries
- examine the remedies for muscle injury and disorder.

3.0 MAIN CONTENT

3.1 Nature and Function of Bone

Bones are living organs. They are made of cells; they grow, repair and replace themselves. In addition, bones also contain minerals which are non-living materials. Bones make up the human skeleton and they are different in size and shape but they serve the same purposes. Bones could be as strong as iron. They alone repair themselves and change in size and weight as the body grows. The major function of bones is to give structure of the body, protect the delicate parts and supply important minerals to the body. In addition, bones can store minerals until other parts of the body need them.

3.2 Types of Bones and Bone Formation

The types of bones in human body include the following:

1. Long bone: this is a bone with large ends and a narrow middle. The narrow part of the bone between the bone ends is called the shaft.
2. Periosteum: this is what a type of bone covered with a strong membrane
3. Shaft: the narrow portion of the bone between the layers of tissue called the shaft.
4. Compact bone: situated under the periosteum is a layer of tissue called compact bone.
5. Haversian system: this is a network of blood vessels that runs through canals in the layer of compact bone.
6. Collagen: this is a strong flexible material provided by bone cells. Collagen is held together by minerals.

Bones formation can be affected by age. For example, the bones of a baby are mainly affected by cartilage.

3.3 Cramp

Muscles sometimes suffer damages but they have the ability to heal themselves. There are many muscle injuries and the commonest is a CRAMP. A cramp is a prolonged muscle contraction causing pain. Muscle cramp may occur when the muscle is overworked or overstretched. However, gentle stretching and massaging of the muscle may bring about relieve of the cramp.

3.4 Muscle Strain

Muscle strain is also called pulled muscle and it usually occurs due to severe overworking the muscle. Sometimes, strain is confused for sprain but they are not the same. Sprain is an injury of the ligaments and tendons in a joint and no permanent damage result from a sprain but the muscle may continue to be sore. Strain usually occurs to large muscle such as those of the thigh and calf muscles. Treatment of muscle strain consists of ice packs application and allowing the muscle to rest. After 48 hours heat may be applied.

3.5 Torn Muscles

A torn muscle can occur due to heavy lifting or a sudden shock or pull. Rupture tendons can also lead to torn muscle. However, treatment of torn muscle is similar to that of muscle strain, Heat and rest. A torn muscle is a severe injury.

3.6 Tendonitis

Just the way muscles can be damaged by overwork or injury the same way tendons can be damaged. When a tendon becomes irritated and swollen is called tendonitis. Tendonitis can be troublesome because its healing process is slow. Rest is the only cure for tendonitis.

3.7 Hernia

This occurs when a portion of the intestine pushes itself through the layer of skeletal muscles in the abdomen or groin. Hernia has been traced to the weak spot in the layer of the muscle. Also, hernia can occur when a person lifts heavy weight but can also happen when a person coughs or sneezes violently. Hernia is common to people who have little strength and muscle tone. Surgical correction is often required for cases of hernia.

3.8 Muscular Dystrophy

Many diseases affect muscles. One of such disease is muscular dystrophy. It is a hereditary disease that gradually destroys muscle fibers. Victims of muscular dystrophy can occur from paralysis of the muscles that control breathing or failure of the cardiac muscle. Muscular dystrophy has no known cure.

4.0 CONCLUSION

This unit examines nature and functions of bone, types of bone, muscle injuries and disorders. The unit was able to explain that bones make up the human skeleton and they are different in size and shape but they serve the same purposes and some athletic injuries resulting from muscle and tendon problems and the means through which the injuries can be corrected.

5.0 SUMMARY

This unit discussed some common muscle injuries and disorders. It went further to highlight the diseases that affect the tendons. Also, the importance of rest was discussed as one of the ways to prevent muscle injuries and disorders.

6.0 TUTOR-MARKED ASSIGNMENT

1. List three muscles injuries and disorders.
2. Explain how these injuries and disorders can be treated/corrected.

7.0 REFERENCE/FURTHER READING

Houghton, Mifflin (1989). *Health Teacher's Edition* (Revised Edition).
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