**SUBJECT: PHYSICAL AND HEALTH EDUCATION**

**SCHEME OF WORK FOR BASIC**

**BASIC (9)**

**WEEKS                           TOPICS**

**1                              Field event, Pole vault event**

**2                              Practical demonstration of the basic skills of Javelin**

**3                               Combined events**

**4                               Hockey Game**

**5                               Practical demonstration of basic skills of hockey**

**6                               Female Genital Mutilation**

**7&8                            Family life and sex Education**

**9                             Ageing and Death Education**

**10                            Physical Fitness**

**11                            Energy**

**12&13                      Revision & Examination**

**PHYSICAL & HEALTH EDUCATION**

**JSS 3**

**WEEK ONE**

TOPIC:                        Field Event; POLE VAULT

Pole vault is a field event which involves jumping over a horizontally placed obstacle (bar) that is supported by two up-rights. The vaulter uses a pole as a lever for the uplift of the body. The pole vaulter is expected to lift himself or herself high up with the pole from a single take-off to clear the bar. The competitor is called a pole vaulter. It is performed by both male and female athletes

                          SKILLS IN POLE VAULT

Basic Skills in pole vault include the followings

1. Flexibility
2. Agility
3. Speed
4. Determination
5. Concentration
6. Muscular Strength
7. Courage

**POLE VAULT; EQUIPMENT AND FACILITIES**

These are:

1. The two uprights

2. The crossbar

3.  The supports for the crossbar

4.  The landing foam

5.  The runway

6. The take off box

7. The vaulting pole

**Phases of pole vault**

1. The grip or hold
2. Carrying the pole
3. The run-up
4. The plant
5. The take off
6. The swing up
7. The turning
8. The clearance
9. The landing

**COMMON FAULT IN POLE VAULT**

1. Gripping the pole wrongly.
2. Inaccurate speed.
3. Planting the pole before getting to the box.
4. Not swing up the legs.
5. Not flexing the arms to pull up the body.
6. In-ability to turn the body.
7. In-ability to clear the bar.
8. Carrying the pole across the body.

**THE RULES AND REGULATION GULDING POLE VAULT EVENT**

1. Competitor must take off with one foot (single take off)
2. No marks should be placed on any landing area
3. A competitor is out of the competition when he dislodges the bar three consecutive times at a particular height.
4. Must not touch the pole when it is falling towards the crossbar

**ASSIGNMENT**

1. List three types of materials that can be used as a pole

(i)……………………………………………..

(ii)…………………………………………….

(iii)…………………………………………..

1. **S**tate four major progression or phases you would adopt in pole vaulting

(i)…………………………………………..

(ii)…………………………………………

(iii)……………………………………….

(iv)……………………………………….

1. Outline three common fault that can be observed during pole vaulting

(i)…………………………………………………………………………………………………………

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(ii)…………………………………………………………………………………………………………

(iii)………………………………………………………………………………………………………

1. **Write out four sentences on the nature of pole vault event**

**WEEK TWO**

**TOPIC:-PRACTICAL DEMONSTRATION OF THE BASIC OF JAVELIN**

Javelin is a field event which involves the throwing of an implement (called Javelin) with one hand for distance over a horizontal surface. The competitor is called javelin thrower.

The Javelin consists of three parts, the shaft, a cord grip and a mental head. The cord is the grip which is about the centre of gravity.

**JAVELIN; EQUIPMENT AND FACILITIES**

                      These are:

1. The implement (Javelin)
2. The red and white flag
3. The writing materials
4. The score sheets
5. The Javelin pitch
6. The measuring tape
7. The throwers spike/Canvass
8. The vest

**JAVELIN; BASIC SKILLS AND TECHNIQUES**

1. **The grip**:-The grip consists of grasping the javelin at the rear of the binding so that the second finger encircles the shaft and barely touches the extended thumb.
2. **The carriage**:-The javelin must points to the front and carried above the shoulder with steady movement.
3. **The Run-up:-**The purpose of the run-up is to enable the thrower to gather enough speed and get into the throwing mood.
4. **The Throw:**-The javelin is carried over the head, the mental end is pointing forward and whole shaft lying along the direction of throw.
5. **The Release:-**Javelin must be release when the left foot comes to the ground.
6. **The Recovery:**-This is when the thrower comes out from the rear of the sector

**Common faults in javelin**

1. In-correct hold of the javelin
2. In- correct carriage
3. Javelin touching the ground before release
4. Not staying within the runway
5. Stepping on the scratch line
6. Learning through the landing sector
7. Throwing the missile outside the landing sector

**The rules and regulations of Javelin events**

1. The javelin must be held by the grip
2. The tip of the metal must strike the ground before any other part of the javelin to make a good throw
3. No part of the body of the competitor should cross the arc to the landing sector (scratch line)
4. All throws to be valid must fall within the landing sector
5. If  the javelin breaks while in the air, it shall not count as a trial
6. A competitor is given three trials and the best is used to place him

**SAFETY PRECAUTION DURING JAVELIN THROW.**

1. The throwing area should be accident free
2. No person should walk across the landing area until throws have been made
3. The throwing sector must be marked out so that people will stay clear from it
4. The missile is dangerous, destructive if it is not used with care
5. The missile must be returned by hand and not thrown back to the starting line
6. Javelin must be carried in the correct manner

**ASSIGNMENT**

1. List three parts of a Javelin

(i)………………………………………………………

(ii)…………………………………………………….

.

             (iii)…………………………………………………….

1. **List five techniques of Javelin throw in a sequential order.**

(i)…………………………………..

(ii)…………………………………

(iii)………………………………..

(iv)……………………………….

(v)…………………………………

**3.  List three safety precaution during javelin throw**

           (i)………………………………………………………………………………..

          (ii)…………………………………………………………………………………

          (iii)…………………………………………………………………………………

**The landing sector of javelin is …………………….metres**

**The weight for male is……………grams**

**The weight for female  is ………….grams**

**WEEK  3**

DATE:

CLASS: J.S.S.3

SUBJECT: PHYSICAL AND HEALTH EDUCATION

TOPIC: COMBINED EVENTS

Combined events are combination of track and field events. It started during the ancient Olympic Games to test the all-round athletic ability of the competitors. There are three types of combined events. These are:

1. Decathlon (for men)
2. Heptathlon (for both men and women)
3. Pentathlon (for women)

Decathlon: The term “decathlon” is a Greek term that means “ten test.” The decathlon consists of ten athletics events.They are events mainly for men. They are held on two consecutive days. Points are awarded for each event to find the best all-round athlete. An athlete that compete in decathlon is called decathlete

First day:                    Second day:

1. 100m hurdle         (i) 110m hurdle
2. High jump            (ii) Discus
3. Shot put            (iii) Pole vault
4. Long jump            (iv) Javelin
5. 400m race            (v) 1,500m race

Pentathlon: The term “Pentathlon” is a Greek term that means “five test.”The pentathlon consists of five athletics events. An athlete that compete in pentathlon event is called penthathlete.They are events mainly for women. They shall be held in one day in the following order:

Long jump

Javelin throw

200m race

Discus throw

1,500m race

**Heptathlon: The term “Heptathlon” is a Greek term that means “seven test” The heptathlon consist of seven athletics events. They are events mainly for women. They are shall be held on two consecutive days in the following order**

Day one                         Day Two

100m hurdles                                 Long jump

High jump                        Javelin

Shot put                        800m race

200m race

The scoring

The winners of the events are determined by the combined performance in all. Performance is judged on a point in each event, not by the position achieved

**Official of combined events**

1. The referee
2. Umpire
3. Chief field judge
4. Chief track judge
5. Field judge
6. Time keeper
7. Starter
8. Announcer
9. Recorders
10. Marksmen

**Facilities and equipment**

1. Hurdles stands and high jump stands
2. Pole vault stands and poles
3. Landing foams, javelin, shot put and disowns implements
4. Stop watches, whistles, starting gun
5. Measuring tapes and writing materials
6. White and reflags
7. Public address system

**Rules and regulations**

1. The athletes should not run out of their lanes
2. The jumper must not fall against the edge of the pit near the take off board than where he landed
3. The athlete that gained the greatest total points over all events is judged the winner
4. Failure to participate in an events brings about elimination from the over competition
5. The discus thrower must leave the circle from behind.

ASSIGNMENT

**4TH WEEK**

CLASS: J.S.S 3

SUBJECT PHYSICAL AND HEALTH EDUCATION

TOPIC: HOCHEY

BRIEF HISTORY OF HOCKEY

Hockey is a both team and field game played with hockey sticks and a ball. The game originated from the ancient Greeks, Romans and Persians as early as 514 BC. The rich people played their Hockey on horse backs known as “POLO”

In 1876, Modern Hockey clubs were formed.

Ten years later, in1886 a well constituted modern Hockey Association was formed.

In 1900, International Hockey Federation (IHF) was formed with standard rules and regulations.

 Nigeria Hockey Federation (NHF) was formed in 1962.

**The basic skills**

1. The dribbling
2. The tackling
3. The drive / hitting
4. The stopping
5. The passing
6. The scooping
7. The flick
8. The goal keeping

**The nature of the game**

The game is started by a centre pass. The formation on the field resembles that of football as the number of players is the same

The objective of the games is to get the ball by dribbling, passing, hitting etc into the striking circle from where it can be hit into the goal post of the opposing team to make a goal. Each team has eleven players one of them must be a goalkeeper. The duration of the match is 35minutes each, of two half times with ten minutes interval

**Facilities and equipment**

The facilities are:

1. The hockey pitch
2. The goal posts
3. The side boards
4. The back boards
5. The nets
6. The flag posts
7. Knee caps
8. Hockey balls
9. Pad( for goalkeeper)
10. Abdominal protector
11. Glove (for goalkeeper)
12. Kickers(for goalkeeper)
13. Pair of boot and Hose

**The rules and regulation**

Some of the rules include

1. A team should consist of 11  players 22 players play the game at a time
2. A goal can only be scored from within the striking circle
3. Player’s jerseys must be numbered front and back
4. A player cannot take part in the game without hockey stick
5. All players must remain in their own half of the pitch during the centre pass
6. A player must not hit the ball with the rounded side of the stick
7. A player must not raise any part of the stick above his/her shoulder

**The officials in hockey**

The officials are:

1. Two umpires
2. Time keepers
3. The scorers

                                               Assignment

1. Write out four sentences on the nature of the game of hockey

(i)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(ii)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(iii)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(iv)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. How is the game started?\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. List officials of the Hockey game

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                                                              5TH  WEEK

                           PRACTICAL DEMONSTRATION OF BASIC SKILLS OF HOCKEY

CLASS: J.S.S 3

SUBJECT: PHYSICAL AND HEALTH EDUCATION

TOPIC: FEMALE GENITAL MUTILATION

Female Genital- it refers to female outer or external sex organs;

Mutilation simply refers to damage or change something so much that is completely spoiled or ruined.

Female genital mutilation, it is the removal or cutting off of some or all of the  female external sensitive genitals part of the female organ (clitoris) in order to reduce her sexual urge. This act is also called female circumcision. The common parts affected are the clitoris, labia minora and labia majora. This practice used to be very common in many African  countries including Nigeria but with strong, continuous advocacy, campaign and education, the practice has been reduced to the breast minimum and is gradually fading away and tending towards total eradication.

**The various reasons for the practice of female genital mutilation are;**

1. Some communities have the belief that cutting off a part in a female child will reduce her sexual sensitivity and promiscuous life style.
2. In some communities, they believe that if any part of the mother`s genitals touches the baby`s head during delivery, he/she will die or grow up to be retarded child. This therefore, lead to the removal of the clitoris
3. In some communities, they believe that female circumcision promotes personal hygiene as it would be easier for the woman to wash and clean her genitals.
4. Some communities believe that carry-out the practice would make the girl spiritually  pure
5. Also, in some communities, circumcision is a religious ritual, which every female child must undergo for eligibility to attend the matured-girls traditional ceremony before marriage.

Note that none of these beliefs are correct as science has proven that the practice is unpleasant, cruel and dangerous.

HEALTH IMPLICATIONS OF FEMALE GENITAL MUTILATION.

     Since female genital mutilation has no health benefits and it is believed to harm girls, ladies, women in many ways, since it involves removing and damaging healthy and normal female genital tissues and natural functions of girls and women’s body, it is therefore necessary to examine the health implications of FEMALE GENITAL MUTILATION (FGM)

1. Depression and loss of sexual desire. As a result, the girl may eventually seek for divorce or may never wish to marry.
2. Spread of infection as a result of using unsterilized instruments
3. Bleeding which can be minor or severe and can lead to shock and death due to the shortage of blood in the body
4. Difficulty in passing urine because of the severe pain
5. Urinary and reproduction tract infections

**WEEK 7 & 8**

DATE:

CLASS: J.S.S 3

SUBJECT: PHYSICAL AND HEALTH EDUCATION

TOPIC: FAMILY LIFE AND SEX EDUCATION

MEANING OF FAMILY

The family is the primary environment in which we all grow and develop. It provides the basic material needed for our survival, such as; food, shelter, clothing and our basic needs, guidance and love etc.

DEFINITION OF TERM

Family is a group of people that are related to one another by blood or marriage. It a basic unit of the society that is responsible for supporting caring for and preparing children for adulthood

Life means the period between birth and death

Education is the process in which a person acquires skills, value, and knowledge in order to do certain things.

**Responsibilities of each Member of the family**

**Roles of the father**

1. The breadwinner of the family
2. Maintain discipline
3. Provide education for the children
4. Provision of money for the family
5. Makes important decisions

**Roles of the mother**

1. Preparing food for the family
2. Keeping the house in order
3. Nurturing and raising God fearing children
4. Teaching the children morals and values
5. Takes minor decisions

**Roles of the children**

1. Obeying their parents
2. Assisting in performing house chores such as laundry, washing cooking, sweeping and running errands for their parents
3. Respecting their parents and elders
4. Living up to the family’s expectations
5. Performing well in school

**Sex education**

**Sex:** the state of being male or female

Sex also refers to sexual urge or instinct, sexual intercourse, sex activity as it manifests itself in behavior

**Sex education**: is the education given to adolescents on sex and its related issues formally and informally, as an integral part of growing up.

**Pre-marital sex**

Pre-marital sex is the sex between parties not married to each other

**Health implications of pre-marital sex**

1. Unwanted pregnancies
2. Unwanted children
3. Life-long emotional effects (regret, guilt and broken hearts)
4. Sexually transmitted diseases or venereal diseases such as: gonorrhea, syphilis, aids and HIV
5. Sterility in Male and infertility in female
6. Physical torture or death

**Puberty**

Puberty is the stage in human physiological development when somebody becomes capable of sexual reproduction. It is marked by genital maturation, development of secondary sex characteristic in puberty both boys and girls experience a swift increase in body size, a change in shape and composition of the body, and a rapid development of the reproductive organs and other characteristics marking sexual maturity.

**Physical changes that take place in boys during puberty.**

1. Boys voice gets deeper
2. His muscles develop
3. His chest gets broader
4. Hair starts to grow under his arms, on his legs and face
5. During this time, his penis and testicles will also grow bigger and longer
6. Hair often called pubic hair, will also start to grow at the base of his penis
7. He will start to have erections and he may have wet dreams

**Physical Changes that take place in girls during puberty**

1. The nipples start to enlarge
2. Few pubis hairs develop
3. Enters into a period of relatively rapid growth
4. The ovaries begin to produce estrogen
5. Her hips get rounder
6. Hair will start grow under her arms
7. Breast will start to grow
8. Her face gets rounder

* **Assertiveness**
* This is the expression of feelings opinions or desires without violating the rights of people
* Characteristic of assertive people are:
* They feel free to express their feelings, thoughts, and desires
* They are able to initiate and maintain comfortable relationships with other people
* They know their rights
* They have control over their emotion

**Communication skills**

Communication is the act of successfully sharing meaningful information with people by means f an interchange of experience.

Effective communication contains sex elements. These are: clear, concise, correct, complete, courteous and constructive.

**WEEK 9**

DATE:

CLASSS: J.S.S. 3

SUBJECT PHYSICAL AND HEALTH EDUCATION

TOPIC: AGEING AND DEATH EDUCATION

**What is ageing?**

Ageing is defined as a process of growing old, in which the physiological and skeletal system become weak and strength, power, ability e. t. c are lost gradually.

Ageing is the process of growing old, reach the end of useful life, it is also a time in life when one becomes obsolescent.

What is Death? Death is defined as a state of no life or termination of life of individual.

**Physical and biological changes**

1. Vision loss and significant hearing loss
2. Loss of memory may occur
3. Nutritional status and enjoyment of food are often affected
4. Ligaments, structure and growth undergo structural changes

**Measures against ageing**

1. Rest and sleep
2. Exercise
3. Nutrition
4. Having more close friends
5. Greater participation in activities
6. Visiting with family
7. Addressing basic needs

**Deaths**

Death is the termination of the biological function that defines living organisms. Death begins when the heart stop beating

**How to support the dying people**

1. Be there consistently, as often as the patient wants, and as frequently as the time schedule permits
2. Maintain contact on a regular basis over a period of time, so the dying person will feel comfortable with sharing thoughts, fears, feelings, wishes, dreams and hopes
3. Listen more than talk
4. Let them also know who is in the room, tell him or her who is touching an arm or patting a shoulder
5. Remind them of time and date

**Grieve**

Grief is a normal, healthy response to loss. One of the greatest losses that can occur is the death of someone you love. Other losses include the loss of your health or health of someone you care about or the end of an important relationship, such as a marriage

Grieving is the process of emotional and life adjustment you go through after a loss. It is also known as bereavement

**How is grief treated?**

1. Social support
2. Good self-care
3. The passage of time is usually the best medicine for grief
4. Contact a grief counselor
5. Contact bereavement support group for help.

**WEEK 10**

**Date:**

**Class: J.S.S 3**

Subject: Physical and Health Education

Topic: Physical Fitness

Meaning of Physical Fitness

Physical fitness is an aspect of total fitness that is concerned with the physical well-being of an individual.

Physical fitness is the ability of an individual to carry out his or her daily activities without undue fatigue and still have energy for social activities. Physical fitness can also be defined as the ability to perform one’s daily occupational activities and still have strength for recreational and emergency activities.

Hence a person is said to be physically fit when he or she has ability to carry out daily activities without undue fatigue and have enough energy left to enjoy leisure time and to meet unforeseen emergencies.

Components of Physical fitness

The components of Physical fitness can be grouped into two.  These are!

1. The health related component
2. Performance or skill related component

The Health related Component

This is directly related to the health of an individual.  They are very important for survival regardless of age, sex, religion or occupation.  These include:

1. Muscular Strength: This is the maximum effort or force the body can apply.  Some activities depend on the application of great force.  Therefore, increased strength often contributes to better performance e.g. Parallel bar dips, weight-lifting
2. Muscular endurance: This is the ability of a group  Muscle of an individual to perform vigorous activities over a long period of time e.g. pull-ups, press up.
3. Muscular Power: This is the ability of the body to release force explosively with speed. e.g. running 100m, 200m, 400m races
4. Cardio-Vascular respiratory endurance: This is the ability of the heart and the respiratory systems to utilize oxygen during strenuous exercises or active ities such as running, skipping, jumping, swimming, long distance races (marathon & cross country races).
5. Flexibility: This is the ability to move easily at the joint i.e the ability of the joints to bend easily without hindrance e.g. sit ups, high jumpers, pole vaulter,

Performance related Components

These are essential for skills performance: These include

1. Balance: It is the ability to maintain stability at rest after the performance of different kinds of movements, e.g. standing on one leg, jumping or landing on tramoline.
2. Agility:  It is the ability to move quickly and effectively in different directions from different position with good body control. Examples are gymnastics, playing handball, basketball e t c
3. Speed: This is the rate at which force move quickly over a short Period of time in a single direction e.g. 100m race, 110m hurdle, 200m e t c
4. Accuracy: it is the ability to control the movement of an object accurately e.g. shooting in basketball, passing in football e.t.c
5. Co-ordination: This is the effectiveness and orderly performance of the whole systems of the body. E.g. circulatory, nervous, digestive ,respiratory system e. t .c

Factors that Contribute to good Physical fitness

1. Heredity: This is the traits inherited from the parents.  The form and structure of the body, set certain direction and limitation to development.
2. Balanced diet (Nutrition): Good nutrition is essential for the development of the body.
3. Regular Physical exercise: This helps to improve proper functioning of the body systems and easy digestion of food.
4. Good health habit such as proper rest, sleep relaxation, medical and dental care, recreation enhances good physical fitness.
5. Rest and relaxation: Adequate, sleep and relaxation are essential to good health and physical fitness

Characteristics of Physically fit person

A person is said to be physically fit when he or she possesses certain attribute which include the following:

1. Physical soundness: A physically fit person is active and have skill in some physical activities. He or she enjoys a sense of well being.
2. Socially healthy: A physically fit person has respect for the right of other and make satisfactory group adjustment.
3. Emotionally stable: He or she is stable, have self control and faces reality in an honest manner.
4. Mentally healthy:  He or she must have a good sense of judgement and a healthy outlook of life he or she can think independently and constructively and is re-successful.

A physically fit person must be physically, socially, mentally and emotionally fit and free from diseases and infirmity.

Importance of physical fitness to human life

1. It helps in proper growth of the body.
2. It aids digestion and improves appetite
3. It helps in proper functioning of the organs and system of the body.
4. It promotes sense of well-being
5. It enable the body to resist diseases
6. It helps to reduces high blood pressure
7. It helps to participate adequately in sports
8. It helps to control obesity
9. It increases oxygen the oxygen carrying capacity of the body.

                                       ASSIGNMENT

1. Cut and paste pictures of someone doing the following physical activities on a card board
2. Running
3. Jumping
4. Bending
5. Walking
6. Pushing
7. Twisting
8. Rolling
9. Hopping

                                   WEEK 11

TOPIC: ENERGY

Energy is defined as “capacity for doing work”. Energy is needed for all activities that are performed by the muscles when stimulated by the nervous system.

Contraction of the muscles causes movements around the joints. These movements when properly coordinated result in some types of skill performance such as jumping, kicking, clapping, running, throwing, dancing, etc

                                                       FORMS OF ENERGY

1. Chemical energy
2. Sound energy
3. Potential energy
4. Kinetic energy
5. Electric energy
6. Light energy
7. Solar energy
8. Chemical energy:-This is stored in fuel and foods. The main source of chemical energy for athletes are obtained from three major classes of food. They are
9. Carbohydrates
10. Fats and oil
11. Proteins

                               Carbohydrate are digested into glucose

                                Fats and oil are digested into fatty acid and glycerol

                                Proteins are digested into amino acid

1. Sound energy:-It enables to hear sounds of different kinds such as human speech, singing, radio, or television sounds and thunder.
2. Potential energy:-This is energy of position. An object has potential energy if it has been pushed or pulled into a position from which it can do work
3. Kinetic energy:-It is energy of motion of a body. Any object that is moving has kinetic energy.
4. Electrical energy:-It is used to operate electric fans, radio sets, television sets, refrigerators and many other appliances
5. Solar energy is radiant light and heat from the sun that is harnessed using a range of ever-evolving technologies such as solar heating, solar thermal energy and so on
6. Heat energy:-it is used to cook food, iron clothes and boil water to produce steam that operates engines
7. Light energy:-Light energy can deflect the pointer of a light meter.

Plants use light energy to make their food in the process of photosynthesis

                                SOURCE OF ENERGY DURING PYSICAL ACTIVITIES.

        Glucose supplies the immediate energy needed by the muscles to carry out all their         activities. This makes carbohydrate the most valuable class of food in energy production.

Energy released in the muscles is in form of heat, increase in tension or by shortening the fibres for contraction.

                                                     ASSIGNMENT

1. What are the end products of the following?
2. Carbohydrate\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Protein\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Fats and oil\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_