#### **TOPIC 1: SOCIAL ORGANIZATION**

- The word social has two meanings; (a) living in groups e.g. human beings are sub-set of social species, because they are found in groups such as families, clans, kinship nations and races (b) connection and organization of a society.
- Social organization is away in which several parts of a society are organization to functions as one, and achieve a goal. It is also a way whereby people are related.

### **Family and Kinship Structure Varieties**

1. The basic organization of any society is family. there are several definitions of family (a) Burgess and Locke (2006) defined family as a group of people who are united with the bond of marriage, blood or adoption and comprising a single household that interact and intercommunicate with one another in their various social roles of husband and wife, mother and father, brother and sister, and creating a common culture. (b) Murdock (1949) defined family as a social group characterized by common residences, economy cooperation and reproduction. The view of Murdock is that; family is universal. He further stated the 4 key roles of the family. Sexual relationship, economic cooperation reproduction and socialization. Further analysis has it that the view of Murdock is not universal, but restricted to Nuclear families. An extended family consist of 2 conjugal families or more, as well as at least 2 generations in a relationship. Basic types of family (i) Orientation (ii) procreation

In African, the extended family tie is such that people live in large compounds, ad small conjugal units. There is recognition of kingship ties, whereby people believe in descendancy form a common ancestor. The kinship serves as a political unit, basis of inheritance, succession in the precolonial era. The patrilineal kinship is the most prominent in African societies like Igbo speaking group, the Fulani, the Zulu and Swazi of South Africa, Nuer of Sudan etc. the matrilineal kingship is also practiced in areas like, the Kom of Cameroon, Tuareg of Niger and Mali, Bemba of Zambia, Ashanti of Ghana. However, in some matrilineal kinship society; Patriarchy is practiced.

It is a socially recognized union of a man and a woman. Marriage is universally classified into two;

- (a) Monogamy: is the marriage of one man and one woman at a time. Monogamy may exist in different forms for instance, when a woman involves in several monogamous marriages by divorcing one partner and remarrying; it is called serial monogamy.
- (b) Polygamy is also plural marriage: It is a union of a man to two or more wives or a woman to two or more husbands. Polygamy can be classified into polygyny and polyandry. Polygamy is the union of a man to two or more wives while polyandry is the union of a woman to two or more husbands. The major reason for polygyny is the economic function of the family. Polyandry can be fraternal or non-fraternal. Fraternal polyandry is when the woman's husbands are her brothers, while the non-fraternal is when the husbands are not related. Polyandry is practical in some areas like; India, Sri Lanka, Nepal and Tibet. Also, in African it is common among Maasai of Kenya and Tanzania. The non-fraternal polyandry is common among the Irigive of Jos in form of secondary marriage. Another form of polyandry is the village polyandry in Lele region of Western Congo.

## The other forms of marriage are;

- (c) Levirate Marriage is when the brother or a close ale relative to a dead man, marries the widow in order to procreate in his own wish, but the dead man's name.
- (d) Sororate Marriage is when a man marries the sister of his deceased wife.
- (e) Ghost Marriage is when a woman (Pater or social father) pays the bride price on behalf of a man (consort or genitor) to another woman; for the purpose of getting offspring form the union.
- (f) Endogamy is a union of people within a defined group or category
- (g) Exogamy is the marriage of people outside a group
- (h) Homogamy is the union of people who are cultural similar on the basis of religion, social class or gender. Homogamy may mean Homosexual in some case.

<u>NOTE</u>: In Africa, Intralineage marriages are required among the Fulani people.

## Rules of residence

This are norms that guides where a married couple resides after marriage. This include;

- Patrilocal: is a rule of residence that requires a man and his family of procreation to reside with the man's father.
- Matrilocal: is a rule of residence that requires a couple to set up their

- home within the bride's mother's home.
- Avunculocal: requires the couple to reside near the house of the groom's maternal uncle.
- d. Bilocal: requires the couple to live near either of the spouse's parents.
- e. Ambilocal: is when the couple shift their residence between their families of orientation.
- f. Matri-patrilocal: is when the couple resides with the bride's family for a while until the birth of the first child and then move to live with the groom's family indefinitely.
- g. Duolocal: is when the couple remain in their family of orientation.
- Neolocal: is when the couple live in a new residence away from their family of orientation.

PRE-COLONIAL ECONOMIC AND POLITICAL ARRANGEMENTS INCLUDING DISPUTE RESOLUTION IN AFRICA

#### **ECONOMY**

- a. Subsistence farming was common
- b. The people also practiced pastoral farming. This is common among; the Maasai herdsmen in the Serengeti plains of Tanzania and Kenya, Fulani herdsmen in the savannah of Mauritania, Gambia, Senegal, Guinea, Mali, Nigeria, Benin, Sierra Leone and Togo.
- c. The coastal people are involved in fishing.

- d. The farming communities are; Ewe of Ghana, Luo of Kenya and Tanzania, Izon of Nigeria, Gun of Benin republic and Niger republic.
- e. Other activities are; cloth weaving, leather works, iron smith, animal husbandry, hunting and gathering as well as trade.

#### **POLITICS**

- Acephalous communities are; Temne of Sierra Leone; Igbo of Nigeria; Luo,Maasai and Nandi of Tanzania and Kenya; as well as Galla of Ethiopia.
- Empires includes; Oyo in Nigeria,
   Zulu in S/Africa, Luanda in E/Africa
   and Ashanti in Ghana.

#### **DISPUTE RESOLUTION**

- a. In a stateless community, disputes are settled by village or family head.
- b. In a defined setting, disputes are settled by the king and chiefs.
- c. When disputes occur between two communities, arbitration is used.

# TOPIC 2: TRADITIONAL MEDICINE IN AFRICA

- traditional medicines is also called folk or indigenous medicine
- Traditional medicines involves indigenous herbalism and African spirituality e.g. divination etc.
- 3. Traditional medicine is transmitted through oral tradition in any social setting
- Traditional medicine is crude scientific and the direct application of plants, animals, and other mineral substances for healing. for instance, plant juices, gums, fatty oils
- Traditional medicine serves as the foundation for modern and scientific medicinal practice
- Traditional medicines also involve metaphysical situations which cannot be scientifically explained.
- The primary source of medicines are; leaves, roots and berries extracts.
- Complementary or alternative medicine is the adoption of traditional medicine outside it original setting, for instance; medical anthropology, ethno-botany, ethnomedines etc.

# **Indigenous Healers in Africa**

Oyebola (1980) classified the traditional healers into six;

- 1. Babalawo; Onisegun or Adahunse, ala Sotele (Sooth Sayert), Olorisa, or Abore
- 2. Awon Leku-leja (traditional pharmacist)
- 3. Specialist e.g bone-setters
- 4. Traditional psychiatrists
- Traditional both attendants or midwives and the "Olola"
- 6. Miscellaneous group e.g. Alfa (Muslim) and Aladura (spiritual healers)

## **SOUTHAFRICA**: They are classified into four;

- Iyangas: Herbalist with knowledge about herbs and medicines male for cure female
- Isangomas: diviners that determine the cause of illness through the use of ancestral spirits.
- Umthandazi: faith healers and are Christians. They belong to one church or the other ad they use holy water or ash, oil on patient.
- Traditional birth attendants which are women. To become a birth attendance one must have at least 2 babies and 15-20years apprenticeship.

# **TOPIC 3: THE GEOGRAPHY OF AFRICA**

# Introduction

- Africa I the 2<sup>nd</sup> largest (land ass) and 2<sup>nd</sup> popular continent in the World, after Asia.
- 2. Africa has countries
- 3. Africa has an area of 30, 35,609 Km2 (11,725,385 Sq M).
- Islands in Africa covers 6% of the total earth surface and 20.4% of the total land area.
- Africa's population is put at 1 billion, which is 14.72% of the human population in the world.

# **Africa's Physical Features**

 The Sahara Desert: It stretches across the Northern part of Africa, from east to the west. Within the Sahara desert, there are

- 2 mountains, namely; Hoggar and Tibesti. In the Eastern part of the Sahara desert form north to south, is the; River Nile. To the Northern part of the Sahara desert is the region called Mediterranean Africa. Within the Mediterranean Africa lies the Atlas Mountain.
- b. Africa Tropical Rain forest lies within the region south of the Sahara desert. the area is simply the low plateau of central and west Africa which surround the basin of the Congo and Niger Rivers as well as the inland basin of lake Chad
- c. Africa is separated from Europe by the Mediterranean Sea, and from Asia by the Red sea. Africa is joined to Asia in the extreme North. east by the Isthmus of Suez, divided by the Suez canal (13°km) 81miles wide)
- d. the entire extreme approximation of Africa is analyzed as;
  - Ras ben Sakka in Tunisia 37<sup>o</sup>N (Most Northerly point) to Cape Agulhas is South Africa 34<sup>o</sup> (Most Southerly point) is 8,000km (5,000miles).
  - b. Cape Verde: 17°W (Western Most point) to Ras Hafun in Somalia: 57°E (Most Easterly point) is 7,400km (4, 600miles).
- 5. Africa is surround by the following bodies of water which are:
  - a. Mediterranean sea to the North
  - red sea/Suez canal to the North-East
  - c. Indian ocean to the south-East
  - d. Atlantic ocean to the West

The Indian and Atlantic Ocean has 3 basic arms, which are;

- a. gulf of Aden, east of Djibouti
- b. Mozambique channel, east of Mozambique
- c. Gulf of Guinea, south of Nigeria
- Africa has 54 sovereign states, which includes Madagascar and other Island.
- 7. Islands in Africa are;
  - Madagascar: largest in Africa and 4<sup>th</sup> largest in the world after Greenland, New Guinea, and Borno. Madagascar is (229, 820sq. miles, 595, 200km²)
  - b. Zanzibar and Pemba
  - c. Comoros
  - d. Mauritius
  - e. Re union
  - f. Seychelles
  - g. cape Verde
  - h. Fernando Po
  - i. Principe and Saotome
  - j. Annobon
  - The division of Africa into equal parts determined the common the climatic and physical conditions in both part for instance, the situation in the Kalahari Desert is the same in eth Sahara.
  - The Pole of inaccessibility is close to the border of Central African Republic, Sudan and Congo, near the tour "Obo".
  - The highest point in Africa is Mt. Kilimanjaro in Tanzania (5,895Metre/19,341ft high) and the lowest point is lake Asal in Djibouti (153 Meters, 502fl)
  - 11. Africa is the Most topical of all continents

#### The Sahara Desert

- 1. it is the largest desert in the world
- 2. it I 10.4milliion km<sup>2</sup>

- 3. it is 1800km form North to South and 5600km form East to west
- It has the Nubian and Libyan deserts as its arm.

#### The Namib Desert

- 1. it is located in southern Africa
- It is 900,000sq. Km (350,000sq Miles) covering part of Botswana and parts of Namibia and South Africa.
- 12. The Africa's coastline is 18,900Miles (30, 400km)

The land Mass of Africa is 2/3 the size of Asia, 3times the size of Europe 1 ½ the size of North and South America and 1/5 of the earth.

## **Geology, Relief and Drainage**

- Africa is made up of basement complex, Basement complex consist of crystalline, metamorphic and sedimentary rocks
- 2. Africa's land mass is made up of a simple tectonic plate
- The following highlands and mountain are result of volcanic activities:
  - a. Mt. Kilimanjaro: 5,895metres (19,341ft) high)
  - b. Mt. Kenya: 5,2000metres (17,058ft) high
  - c. Mt. Meru: 4,569metres
  - d. Mt. Elgon: 4053metres
  - e. Ras Dashen of the Ethiopian Highlands: 4,573metres (15000ft).
- The following mountains in west and Central Africa are result of volcanic activities;
  - a. Mt. Cameroon: 4070metres

- b. Jos. Plateau in Nigeria: 1780metres (5,840ft)
- c. Fouta Djalon highlands in Guinea
- d. The Ahaggar and Tibesti Massifs

# **Drainages in Africa**

- Most of the rivers in Africa are not navigable, because of the presence of falls and cascades.
- 2. The African rivers produces the highest hydro-electrical potential (26% of 550,000 megawatts).
- 3. The following water bodies gives great hydro-electrical power;
  - a. Victoria falls on the Zambezi
  - b. boyoma (Stanley) falls
  - c. cataracts on the Congo river
- The largest take in Africa is Lake Victoria in Uganda, as well as the largest tropical lake in the world. It serves as the chief source of the White Nile. Lake Victoria is 68,000Sq. Km (26, 600Sq. Miles).
  - Most of the rivers have their sources form:
    - a. highlands
    - b. plateau
    - c. mountains
    - d. futa Jallon Guinea (West Africa)
    - e. Drakensberg mountain South Africa

## The River System in Africa

Position	Largest	Longest
1	Congo	Nile
2	Limpopo	Congo
3	Niger	Niger

4 Zambezi Zambezi

- 1. River Nile: Is the longest and most important in history. It is 4,150miles long. It had 2 tributaries; the White Nile and Blue Nile. The white Ile flours through Uganda and Central African Republic while the Blue Nile flows through Addis Ababa.
- River Congo: Is the largest water body in Africa it is 3,000 miles long. It is also called the Zaire River.
- River Niger: Is the 3<sup>rd</sup> longest river in Africa. It is 2,600Miles long, with River Benue as its tributary. it is also the largest river in West Africa
- River Zambezi: It is the 4<sup>th</sup> largest river in Africa. It is 1,300miles long. It originates from Zambia, flows through Angola and empty into the Indian Ocean. It tributaries are river Kafue and Luangwa.
- River Orange: It is 1300M long. It originates from the Drakensberg Mountain. It is the longest in South Africa. It is tributary is River Vaal.
- River Limpopo: It is the 2<sup>nd</sup> largest river in Africa. It is 1,750km long. It empties into the Indian Ocean. It is 7tributaries.
- River Senegal: It is 1,790km long in West Africa. It is situated between Senegal and Mauritania. It has 3 tributaries and 2 dams.
- River Gambia: It is 1,130km Long. It originates from Futa Jallon, passes through Senegal and the Gambia into the Atlantic Ocean. it has 2 tributaries
- River Volta: It is 1000Miles long. It is located in Ghana. It has 3 tributaries. It was discovered by Vasco Da Gama in 1498.

## **Climate and Vegetation**

- 1. Africa is the most tropical continent.
- The climatic condition of the North and South region created by the e equator, is homogenous
- 3. The climate of Africa is not static
- 4. The humid climatic condition factor on Africa is Rainfall
- the most significant climatic factor on Africa is rainfall
- Rainfall and temperature regime in Africa, as well as surface wind patterns are determined and influenced by the sub-tropical high pressure belts.
- The sub-tropical high pressure belts on the North and South of the equator generate two wind systems which meet at a point called interOtropical convergence Zone.
- 8. The Inter-tropical convergence zone (ITCZ) consists of well-leached red soils e.g. Literite gotten form crystalline rock in West Africa, Cogon basin and eastern Madagascar. The ITCZ covers Cote d'Ivoire, Ghana, Togo, Cameroon, Central African Republic (Bangui), Congo (Brazzaville) and Democratic Republic of Congo (Kinshasa).
- Subtropical high pressure belt of the North zone blows the Northeast trade winds called (Harmattan) which is dry and cool. The Harmattan blows over Sub-Saharan Africa form November to April.
- The sub-tropical high pressure belt of the South Zone blows the southwest trade winds called (Monsoon) which is moist and cause rainfall in the West African coast.

- 11. Ocean current determines the variation in the climatic conditions of Africa. Ocean current is caused by the winds which blow persistently over the ocean resulting to the direction of flow.
- 12. the climatic conditions in Africa are; in the following broad categories;
  - a. dry
  - b. humid equatorial
  - c. humid temperate
- 13. The vegetations of Africa are;
  - a. tropical forest
  - b. savannah
  - c. semi-desert/desert
  - d. highland vegetation
  - e. Mediterranean shrub.

## **Africa's Wild Animals**

- The nature African animals are mammals, like; Gorillas, Chimpanzees, zebras, Giraffes, hippopotamuses, African elephants, aardvarks and species of antelopes.
- 2. Native African birds are; cranes, secretary bids, guinea fowl, species of storks, ibises, herons, and eagles. Birds like aye ayes and Indris as well as Lemurs arte native to Madagascar only. Elephants, lions, giraffes and poisonous snakes are not in Madagascar.

## Africa's Human features

### **Economy**

 The variation in the economic status in Africa is caused by unequal distribution of natural resources, variation in political and economic systems, colonialism and some historical factor.

- The largest economy in African ranges form; south Africa, Egypt, Algeria, Nigeria and Morocco
- The mainstay of Africa's economic is agriculture, subsistence to be precise, which later charged into commercial faming as a result of the introduction of colonial rule.

# Agriculture

- Africa has little productive farmland, because much of the land consists of deserts, steppes and rain forests.
- The staple food crops of Africa are; Cassava, sweet potatoes, yams, rice, wheat and plantains.
- The cash crops are peanuts, cacao, palm nuts, cotton, tea, coffee and sisal.
- 4. the common agricultural practice is shifting cultivation
- agriculture is more advanced in North Africa due to European and Arab influence, most especially in Morocco, Algeria, and Egypt
- Some region also makes use of irrigation.
   For instance, the Nile valley where cotton and grains are predominant crops.
- Africa's most productive farms are located in areas like South Africa, Zimbabwe and Kenya. There is practice of subsistence farming.
- Livestock farming is commonly practiced in all parts of Africa except the equatorial region, due to the presence of tse-tse-fly.

## **Mining**

 The discovery of diamond in South Africa led to the large supply diamond, gold, copper, chromate, and cobalt, and manganese antimony, phosphate rock,

- asbestos and platinum to other parts of the world.
- Bauxite, tin, iron ore, Uranium, Tungsten, lead, Zinc, silver, Vanadium and coal are also mined.
- The largest producers of diamond in Africa are Botswana and Namibia; phosphate rock is Morocco, Gold is Ghana Uranium is Niger, Bauxite is Guinea and petroleum are Nigeria, Libya and Algeria.
- The bulk of Africa's mineral except fuels is produced only by; South Africa DR of Congo, Zimbabwe and Zambia.

## Manufacturing/Processing

- 1. Africa is the least development continent in terms of industry
- 2. South Africa is the only African country where manufacturing is highly developed.

# **Fishing**

- 1. The traditional fishing method predominant in most part of African because most nations lack modern fleets and equipment.
- The highest producers of fishery products are; South Africa, Morocco, Ghana and Tanzania.

# Transportation

- In North Africa, Pac animals serve as the means of transportation
- 2. In tropical regions large amount of goods, are still by porters and canoes
- 3. South Africa has the most developed railway system in Africa.

#### Trade

- Africa's leading merchandise exporters are Algeria, Angola, Nigeria and South Africa.
- The Major merchandise export are; petroleum, agricultural product mineral and manufactured products.

# Population, people and language

- 1. The human population of Africa is put at 10% of the world's population.
- 2. The human population is low in areas which are not suitable for habitation. for instance the Sahara desert
- 3. Human population is higher in area that support agricultural activities
- The birth and death rates are lower in areas with more developed economic base.
- The birth rate is high, infant mortality is also high as well as death rate in areas that are less developed
- The population of Africa is controlled through the positive check mechanism postulated by Reverend Thomas Malthus.
- 7. Africa is occupied by people with indigenous origin. it can be classified as;
  - a. in the North: The groups are Berbers, Arabs and Egyptians

#### **LANGUAGE**

- There are over 80 African tongues, and several Asian and European languages spoken in Africa.
- African languages is classified into several large groups, with the major groups as;
  - a. Niger-Congo

- b. Afro-asiatic (Semito-Hamitic)
- c. Nilo-Saharan
- l. Khoisan.

# Niger-Congo

- 1. It is spoken by most of the Negroid peoples of Africa
- It has several sub-group, with the major as; Benue-Congo
- Most African Languages spoken south of the equator are Bantu Languages.

## Afro-Asiatic (Semito-Hamitic)

- 1. It is spoken by the people of North Africa, with little extension to East Africa
- 2. it sub-groups are; Semitic, Berber, Cushitic, Egyptian and Chadic

## Nilo-Saharan

- It is spoken in East Africa, and north area of lake Chad
- It consist of Eastern and central Sudanic languages; Saharan languages. E.g. Kanuri.

### **Khoisan**

- 1. It is spoken south of the equator by the Khoi (Hottentot) and the san (Bushmen)
- The most prominent feature is the presence of a clicking sound. More so, official languages developed after the decline of colonial rule on the continent special recognition is given to some languages, and they includes;
  - a. Hausa- a Chadic Language of West Africa
  - b. Swahili- a Bantu language of East Africa. Both Hausa and

- Swahili have become a lingua franca, and are strongly influenced by Arabic.
- c. Afrikaans- a Dutch language spoken n south Africa
- d. Malayo- Polynesian language is spoken on Madagascar.

# **Urban Congestion**

- The most significant factors in the growth of cities in Africa are; increase in Natural population and Migration.
- 2. The most populous cities in Africa are;

# TOPIC 4: AFRICAN LANGUAGES AND LITERATURE

- African literature is less developed due to colonialist discouragement of indigenous language for imperial reasons.
- African views and thoughts are communicated to the world through the use of Western languages, because African languages are dynamic and they varies.

## **African Languages**

- The total number of African language is not fixed, due t discovery and elimination of some language.
- African languages can further be classified into the following categories according to Joseph Greenberg in his book "Languages of Africa" ion 1963;
- A. Niger-Congo: It consists of 1436 language, including the Bantu language family. The Bantu language family. The Bantu language family ahs 500 members. The Niger-Congo is Africa's largest language group in terms of number of speakers, distinct languages and geographical area. The Niger-Congo group use the Noun class system. The largest Niger-Congo languages are Yoruba, Igbo, and Fulani and shone. Swahili is the most widely spoken Niger-Congo language. The common feature of the Niger-Congo is phonology, consonant and vowel systems, tone, Nasality.
- B. Nilo-Saharan: It consists of 196 languages. It has over 50millios speakers located in the upper region of Chad and Nile River, as well as Nubia. The language is spoken in 17 nations of the Northern part of Africa. Basically, Mali to Benin

- Nigeria and Dr. of the Congo in the South, and Sudan to Tanzania in the East.
- C. Afro-Asiatic: The term "Afro-Asiatic" was could by Maurice Delafosse in 1914. It has about 371 languages, with over 350 million speakers. the most widely spoken language of this group is Arabic (230million speakers. other languages are Egyptian, Hebrew, Akkadian. the geographical distribution of the language group are;
  - i. Ancient Egyptian and Coptic
  - Berber- Up to 10 languages, including Tuareg
  - iii. Chadic- up to 200 languages include Hausa
  - iv. Cushitic- up to 50 languages including Somali, Oromo
  - v. omotic- up to 30 languages including Wolaytta, Kefa, BasKeto
  - vi. Semitic- up to 20 languages including, Tigrinya, Amharic and Arabic

Khoisan: It is the indigenous languages of southern and Eastern African People. The Khoi speakers are situated in South Africa while the Saan are indigenous to east Africa, Sandawe and Hadza. The Khoisan languages are current situated in Namibia and Botswana and central Tanzania.

The most widespread Khoisan language is Nama of Namibia with about 250,000 speakers; Sandawe in Tanzania with about 40,000 speakers and the Juu of the North Kalahari with about 30000 speaker.

# **Anglophones**

 there are 16 English speaking nations in Africa; 6 in west Africa, 5 east Africa, 3 South African, 2 Islands.

The English is the most studied language in the world.

## Francophone

- 1. French is the 2<sup>nd</sup> most studied foreign language in the world
- there are 30 French speaking nations in Africa

#### Kiswahili

 Swahili is the national or official language of Tanzania, Kenya and DR. Congo

## **Portuguese**

- 1. It developed from Latin
- It is the official language of Portugal and her former colonies; Angola, Cape, Verde, Guinea-Bissau, Sao Tome and Principe, Mozambique

#### Arabic

- It is a central Semitic language with 230 million speakers in the Middle East and North Africa.
- 2. It is the official language of 26 state

# Nigerian languages

- the 1<sup>st</sup> Nigeria language to be recorded was kalabari of Ijaw
- 2. Nigeria languages can be classified into Niger Congo and Afro Asiatic

# Niger-Congo

 It consists of Fulfulde Efik, Tiv, Ijaw. They are common in central and Southern Nigeria.

### **Afro Asiatic**

- It is divided into Chadic, Semitic and
   Rerher
- 2. The Chadic group has over 70 sub-group, with Hausa as the most notable
- 3. The Hausa language has over 24million speakers and serves as a lingua Franca of some West African state and Northern Nigeria.

In Nigeria, Taraba has the highest number of languages spoken followed by Bauchi and Kaduna. There are 521 languages that are indigenous to Nigeria.

## **Major Dialects in Nigeria**

- The major language spoken in Nigeria are; Hausa Igbo, Yoruba, Fulfulde, Kanuri; Ibibio
- 2. Nigeria's official language is English
- The language families are;
- a) Yoruba: It is Niger-Congo language with 20million speakers in west Africa
- b) Efik/Ibibio Efik:
  It is a major Benin-Congo language (Cross River). It has 1million speaker s
  It is a language of coastal South-Eastern Nigeria
  It dialects are Ibibio, Annang and Efik.
- c) Hausa
- d) Kanuri:

It has over 4million speakers in Nigeria, and 50million speakers or entire Africa

It is a language of the Kanem and Borno Empires which dominant the Lake Chad region. It exists in up to 17 nations in the Northern half of Africa.

e) Igbo:

It is a language of Igbo ethnic group of the South eastern Nigeria people, with over 20milliion speakers.

It has over 20 dialects, with the most divergent as Ekpeye.

# **TOPIC 5: RACE AND IDENTITY**

#### **Blood Groups and transfusion**

- A blood group or blood type is the classification of blood based on the presence of inherited antigenic substances on the surface of red blood cells (RBCs).
- A blood antigens could be proteinous carbohydrates, glycoproteins or glycolipids depending on the blood group system, and are present on the surface of other types of cells.
- 3. Blood group or types are inherited.

#### BRIEF HISTORY OF BLOOD GROUPS

 The two most significant blood group systems were discovered by Karl Landsteiner, a Viennese physician and a Nobel Prize winner in physiology/medicine during early

- experiments with blood transfusion. He discovered the ABO group in 1900 while Alexander S. Wiener discovered the Rhesus group in 1940
- More blood groups were discovered as a result of the following;
  - a) Development of the combs test in 1945
  - b) The advent of transfusion medicine
  - Understanding of hemolytic disease of a newborn.
- Trinity (30) human blood group systems are recognized and registered by the international society of blood transfusion (ISBT). The blood groups has over 600 blood antigens which are ethno – centric.
- Out of the thirty (30) blood groups, fourteen (14) are most used in transfusion and study of hemolytic

disease. They are;

#### **BLOOD** DATE DISCOVERED **GROUPS ABO** 1900 MNSs 1927 1927 Lutheran 1945 1946 Kell 1946 Lewis Duffy 1950 Kidd 1951 Diego 1955 Y+ 1956 1956 1962 Χg **Dombrock** 1965

#### **FACTS:**

- Czech Serologist, Jan Jansky is credited with the first classification of blood into (A,B,AB and O)
- The AB type was discovered by Alfred Von Decastello and Adriano sturlism 1902.

#### **BLOOD TYPES**

It is the possible combination of blood – group antigens. It is also the description of a full – set of 30 antigens on the surface of the Red blood cells.

- Blood type is permanent, many change due to infection, autoimmune disease and bone marrows transplant which maybe caused by Lymphomas or Kukemias and some inheritance disease for instance,
  - a) The kell antigen is associated with Mc Leod syndrome
  - b) The Duffy antigen is common in ethnic group area with less incidence of Malaria.

#### THE ABO SYSTEM

- It is the most important blood group system in human – blood transfusion
- The associated anti A and anti B antibodies are usually immunoglobulin M (IgM) antibodies.
- Immunoglobulin (IgM) are produced in the 1<sup>st</sup> years of life by sensitization to environmental substance e.g. Food, bacteria and viruses.
- The ABO blood types are also present in some animals' e.g. rodents and apes (chimpanzees, bamboos and gorillas).

#### THE RHESUS BLOOD GROUP SYSTEM

1. It is the second most significant blood – group system in human – blood transfusion with 50 antigens. It

- plays a great role in hemolytic disease of the newborn.
- 2. It was named Rh because it was discovered in rhesus monkeys.
- 3. Rh+ allele is the most common allele. The most significant Rh antigens is the D antigen

#### **BLOOD TRANSFUSION**

- 1. It is a branch of haemology
- Hematology is the scientific study of blood group in conjunction with the service of blood bank and transfusion.
- Blood bank test blood from the donors and recipients to ensure they are compatible and safe.
- An incompatibility of blood results into a severe acute hemolytic reaction, destruction of Red blood cells (hemolysis), renal failure, shock and later death.
- The blood labeling standardized barcode system is ISBT128

Below is a blood compatible taste.

Recipient				Donor					
	O,	0	Α	Α	В	В	Α	AB	
	\ <u>-</u>	+	•	+	ı	+	b	+	
0-	/	Χ	X	Χ	Χ	Χ	Χ	Χ	
0+		$\checkmark$	Χ	Х	Χ	Χ	Χ	Χ	
A-		Χ	^/	X	, X	Χ	Χ	Χ	
A+		<b>/</b>			Χ	<sub>/</sub> Χ	Χ	Χ	
B-		Χ	×	X	$\rangle$	X	, Χ	Χ	
B+		\ /	×	Χ		$\langle \rangle$	Х	Χ	
Ab		X	_/	<b>X</b>	<b>&gt;</b>	X	Ź	, Χ ,	
-	<b>&gt;</b>		. ~		Ĭ	$\checkmark$			
AB		\/			>		•		
+	<b>&gt;</b>	~	>						

## NOTE:

O- Is a universal donor

AB+ is a universal recipient

## Importance of Blood group classification

- 1. It helps in easy transfusion of blood
- It helps to solve problems and litigations of disputed paternity, mix up babies through blood matching or other means like DNA fingerprinting and molecular diagnostics. For instance, an AB individual cannot be the parent of an O individual. Also, two individuals may be parents of an O individual if both are AD.

#### **SEX CHROMOSOME**

 There 23 pairs of chromosomes in each of human cell. Out of the 23 pairs, 22 are known as autosome (trait chromosomes) while the remaining 1 pairs is called the sex chromosome, which determine the sex, designated as X and Y chromosomes.

#### XY MECHANISMS

- Sex (maleness or femaleness) is determined by the complex interactions between genes and the environment.
- 2. In humans, sex is determined by the sex chromosomes. Females have two X chromosomes (XX) and male have an X and aY chromosomes (XY). The females are homogametic while males are heterogametic.
- 3. Simply, the sex of an offspring is determined by the gamete, for instance, when the ova or egg is fertilized by the male X bearing sperm, the result is a female child. But when the egg is fertilized by the male Y bearing sperm, the result is a male child.
- 4. The process of separating X and Y bearing sperm is called centrifugation

#### **METHODS OF SEX DETERMINATION**

- <u>Billing method:</u> it determines the ovulation to calculate when to copulate
- Amniocentesis: is a surgical process of obtaining and analysis the amniotic fluid cells of the fetus to determine the sex chromosomes.
- 3. Artificial insemination.
- Sperm banks: storage of sperm in liquid nitrogen and later selected for use.

