



# CORNERSTONE JUNIOR SCHOOL - MUKONO

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## PRIMARY SEVEN SCIENCE SELF STUDY LESSONS

**Instructions to the candidates,**

**Due to the current situation, the school has designed self-study lessons to enable candidates continue with their studies at home. You are therefore expected to copy this work in your class work books and attempt the activity after every lesson.**

**A topical test shall also be administered after every sub topic, study the lesson competences given at the beginning of every lesson to understand the lesson expectations**

### Topic 8: POPULATION AND HEALTH CONCERNS

Learning outcomes:

By the end of this topic, a child should be able to:

- Identify ways of controlling common diseases in their homes and communities.
- Identify the ways of promoting sanitation in their homes.
- Identify and control antisocial behaviors in their homes and communities.

### LESSON 8:

#### Community Health and social problems

##### Community

It is a group of people living and working together in an area.

##### Health

Health is a state of being physically, socially, economically and mentally well but not necessarily without sickness.

##### Community Health

It refers to the essential health conditions in which individuals and families within a community live.

##### Examples of communities

1. A school
2. A town
3. A village

## Examples of common health and social problems in communities

1. Smoking
2. Alcohol and drug abuse
3. Poor sanitation standards
4. Malnutrition
5. Disease outbreak
6. Anti-Social behavior

## Types of common sickness in a home

1. Immunizable diseases
2. Deficiency diseases
3. Communicable diseases
4. Self-inflicted diseases
5. Sexually Transmitted diseases
6. Hereditary (genetic) diseases

## Immunizable Diseases

These are diseases which can be prevented through immunization.

## Immunisable diseases are in two categories:

Childhood immunisable diseases;

They are common in infants.

### **Examples of childhood immunisable diseases.**

disease	vaccine	Age
polio	Polio vaccine	Birth/0 months
tuberculosis	BCG vaccine	At birth/0 months
Diphtheria	DPT vaccine	6,10,/14 weeks.
Tetanus	DPT vaccine	6,10,14 weeks
Whooping cough/pertussis	DPT vaccine	6,10,14 weeks
Hepatitis B	Hep B Vaccine	6,10,14 weeks
Haemophilus influenza B	Hib B Vaccine	6,10,14 weeks
pneumonia	PCV Vaccine	6,10,14 weeks
Measles	Measles vaccine	9 months

### **NOTE:**

1. Polio is immunized at birth because the child is born without immunity against polio.
2. Measles is immunized at 9 months because the child is born with immunity against measles that lasts for 9 months.

3.DPT vaccine is called a triple vaccine because it prevents three immunisable diseases.

**Sites for vaccines:**

Vaccine	Site
Polio vaccine	Mouth
BCG vaccine	Right upper arm
DPT vaccine	Left upper thigh
Hep B vaccine	Left upper thigh
Hib B vaccine	Left upper thigh
PCV	Right upper thigh
Measles vaccine	Left upper arm.

**Non-childhood immunisable diseases:**

- Typhoid
- Meningitis
- Cholera
- Yellow fever
- .Rubella
- Small pox
- Rabies

**Exercise**

1. Name one immunisable disease spread through insect bites
2. Name the vaccine that controls three immunisable diseases
3. How is immunization important to people?
4. State the duty of a child Health Card to a school.
5. What shows that a child was immunized against tuberculosis?
6. Besides the childhood immunisable diseases, mention two other diseases that can be immunized .

## LESSON 9

### DEFICIENCY DISEASES

Deficiency diseases are diseases that are caused by lack of some food values in our body.

#### Examples of deficiency diseases

Deficiency disease	Due to lack of
Night blindness	Vitamin A
Beriberi	Vitamin B <sub>1</sub>
Pellagra	Vitamin B <sub>2</sub>
Scurvy	Vitamin C
Rickets	Vitamin D
Goitre	Iodine
Marasmus	Carbohydrates
Kwashiorkor	Proteins
Anaemia	Iron

#### **NOTE:**

1. Lack of vitamin K leads to poor blood clotting/hemorrhage/hemophilia.
2. Lack of vitamin E leads to infertility.

**COMMUNICABLE DISEASES** : These are diseases which can be spread from one person to another.

They are caused by **germs**

#### Examples of communicable diseases

Bacterial	Viral	Protozoan	Fungal
Gonorrhea	HIV/AIDS	Malaria	Athletes foot
Syphilis	Measles	Sleeping sickness	Ring worm
Trachoma	Polio	Amoebic dysentery	
Diphtheria	Influenza		
Bacillary dysentery	Common cold		

#### Exercise

1. What are communicable diseases?
2. Name two diseases caused by a virus
3. How is pellagra similar to Beriberi?
4. Which part of the body is attacked by the leprosy?

## LESSON 10

### SELF INFLICTED DISEASES

These are diseases which people get due to poor health life styles.

#### **Health lifestyles:**

These are practices that promote body health.

#### **Good health lifestyles:**

These are practices that promote good health.

**Examples of good health lifestyles:**

- Having enough rest.
- Carrying out regular physical exercises.
- Eating a balanced diet.
- Having enough sleep
- Washing hands before eating food.

**Bad health lifestyles:**

These are practices **that** hinder the proper functioning of the body.

**Examples of bad health lifestyles.**

- Smoking
- Alcoholism
- Prostitution
- Poor personal hygiene.
- Poor sanitation

**Examples of self -inflicted diseases:**

1. Lung cancer
2. Gonorrhea
3. HIV/AIDS.
4. Emphysema
5. Obesity

**SEXUALLY TRANSMITTED DISEASES (VENEREAL DISEASES)**

These are spread through having unprotected sexual intercourse with infected persons.

<u>Disease</u>	<u>germ</u>
<u>HIV/AIDS</u>	<u>Virus</u>
<u>Genital herpes</u>	<u>Virus</u>
<u>Genital warts</u>	<u>Virus</u>
<u>Syphilis</u>	<u>Bacteria</u>
<u>Gonorrhea</u>	<u>Bacteria</u>
<u>Candidiasis</u>	<u>Fungi</u>
<u>trichomoniasis</u>	<u>protozoa</u>
<u>chancroid</u>	<u>bacteria</u>

**Ways STDs are spread:**

- Through sexual intercourse with infected persons
- Through transfusion with infected blood
- Through sharing sharp skin cutting instruments with infected persons
- From mother to baby during birth.

**Control of STDs:**

- ❖ Abstaining from sex
- ❖ Being faithful to your sex partner
- ❖ Condom use
- ❖ Sterilizing cutting instruments before use.
- ❖ Screening blood before transfusion.

**HEREDITARY (GENETIC) DISEASES**

These are diseases that are passed on from parents to off springs through genes.

Examples include;

1. Sickle cell anemia
2. Diabetes

### **Causes of sicknesses in the home and community**

1. 1. Poor sanitation.
2. Drug abuse.
3. Poor nutrition
4. Some diseases are inherited from parents eg sickle cell.

### **Controlling common sicknesses in a home and community**

1. Proper sanitation.
2. Good nutrition.
3. Brushing the teeth after every meal
4. Doing daily physical exercises.

### **How young people can avoid social and health problem**

1. Avoiding bad peer groups.
2. Form clubs such as young farmers club, drama and music.
3. Join church choirs
4. Participating in sports activities such as football, netball, swimming and athletics.
5. Attending youth seminars and conferences on morals, drug abuse, HIV/AIDS
6. Using their leisure time to learn practical skills e.g. weaving, tailoring, and computer use.

### **Life skills of avoiding social and health problems**

1. Critical thinking
2. Decision making
3. Problem solving
4. Self-awareness
5. Effective communication
6. Creative thinking

### **Exercise**

1. State the effect of syphilis to people
2. Name two ways of controlling diseases without use of drugs
3. a) Identify any one disease common to people living in dirty environment.  
b) State the cause of the disease named in (a) above.  
c) How can such a disease in (a) be controlled without use of drugs?
4. Name one life skill that enable people control diseases caused due to drug Abuse.

## LESSON 11

### **ANTI-SOCIAL BEHAVIOURS:**

Anti-social behaviors are behaviors that are not accepted in society.

#### **Examples of antisocial behaviors**

- Stealing
- Fighting
- Deception
- Rape
- Defilement
- Truancy
- Arson
- Bullying
- Wandering.

#### **ARSON**

This is the setting of fire onto property.

#### **Wandering:**

This is the act of running out of home.

#### **Truancy:**

This is the act of refusing to attend school.

#### **Causes of truancy:**

- Harshness of teachers
- Learning difficulties.
- Lack of scholastic materials.
- Bad teaching by teachers.

### **JUVENILE DELINQUENCY:**

**Delinquency** is a bad act performed by a juvenile and is punishable by law.

**Juvenile delinquency** is a bad act performed by a juvenile and is punishable by law.

**A Juvenile** is person below 18 years

**A delinquent** is a young person who commits an act punishable by law.

### **Causes of Anti-Social Behavior**

- Disturbed homes.
- Bad peer influence
- Poor social environment..

- Over strictness by both parents and teachers.
- Unfulfilled expectations.
- Pampering children.
- Failure to enforce rules in the community.
- Poor family back ground.

### **Effects of Antisocial behaviors**

1. Many delinquent children may become adult criminals.
2. Individuals suffer from pain, injury and death.
3. Sex offences may result into sexually Transmitted Diseases.
4. Fire setting leads to destruction people's property.
5. Leads to School dropout.
6. Causes Shame to parents.
7. May lead to Death.
8. The family may disown the child.
9. Weaken the custom, religion and organization.

### **How to prevent and control antisocial behaviours.**

1. All parents should create stable families.
2. Parents should take children through counseling and guidance lessons.
3. Children should join youth clubs and societies.
4. Children should avoid bad peer groups.
5. Children should be exposed to sex education.
6. Punish wrong doers and praise good behavior.
7. Equal treatment should be given to all children.
8. Elders should be exemplary.
9. Children should engage in gainful activities during free time
10. Avoid setting too high standards of behavior.
11. Children should join youth and sports clubs and societies.

### **VIOLENCE**

This is a state in which a person is aggressive and has destruction behaviour.

### **Types of violence**

1. Sadism: an extreme motive to harm others.
2. Masochism: an extreme motive to harm oneself

### **Life skills that can help to control antisocial behaviors.**

- Good decision making
- Critical thinking
- Assertiveness
- Problem solving
- Self awareness

### **Exercise**

1. Name any one antisocial behavior common to P.7 children.
2. How is drug abuse a danger to an individual?
3. Why is violence a bad act?
4. Give two ways of keeping oneself away from bad behaviors
5. How can corporal punishments be harmful to children?
6. Give the difference between arson and Truancy
7. Identify any one life skill that helps a school child control antisocial behaviours.

## **LESSON 12**

### **SEXUAL DEVIATIONS**

These are sexual practices that are not accepted in society.

#### **Forms of Sexual deviations**

- Bestiality
- Homosexuality
- Masturbation,
- Oral sex
- Incest

#### **Reasons why people practice sexual deviations**

1. For personal sexual satisfaction
2. Due to effects of drug abuse.
3. Due to exposure to pornography
4. Bad peer influence.

#### **Dangers of sexual deviations**

1. Lead to spread of STDs
2. Lead to damage of sexual organs, anus and rectum
3. Lead to loss of respect in society
4. They break custom and religion

#### **Ways of avoiding sexual deviations**

1. Avoid bad peer groups
2. Avoiding drug abuse
3. Through guidance and counseling.
4. Avoid watching pornography.
5. Avoid incentives from strangers.
6. Join gainful clubs during free time.

## **POPULATION AND HEALTH CONCERNS**

### **Population;**

This is the number of organisms living in an area.

### **Health concerns**

These are health problems that affect people and need immediate solutions.

They include:

1. Poor sanitation.
2. Anti-social behavior.
3. Poor water supply.
4. Inadequate food.

### **Poor Sanitation**

It is the improper disposal of human waste and other waste products into the environment.

### **Indicators of poor sanitation**

- Poor ventilation of houses.
- Bushes around homes.
- Poor disposal of faeces and urine.
- Sharing houses with animals.

**The following should be observed when constructing a dwelling house.**

1. It must be constructed downhill.
2. Ten metres from the latrine and **30m** from the water source.
3. Below the water level.
4. In a home there should be a **rubbish pit** to hold refuse

### **Activities or solutions to poor sanitation**

1. Construct rubbish pits in a home
2. Construct pit latrines
3. Sweeping the compound
4. Picking rubbish around homes.
5. Cut grass around our homes short
6. Build well ventilated houses
7. Avoid sharing houses with domestic animals.

### **Poor Water Supply**

It is when the community receives little or dirty water for use.

### **Water associated diseases**

Categories of water associated diseases include:

#### **1. Water borne diseases**

These are diseases spread through drinking contaminated water.

**Examples include:**

- Cholera
- Typhoid
- Bilharziasis
- Polio
- Dysentery.
- Hepatitis.
- Diarrhoea.

**2. Water contact diseases**

These are diseases which spread when our bodies get into contact with contaminated water.

**Examples of water contact diseases**

1. Bilharzia
2. Swimmer’s itch
3. Ear, eye and nose infections

**3. Water cleaned diseases**

These are diseases we get when we don’t have enough water to use to keep clean.

**Examples of water cleaned diseases include;**

- a) Scabies.
- b) Impetigo.
- c) Trachoma
- d) Conjunctivitis

**Exercise**

1. Why is poor water supply a health concern?
2. Why is filtered water boiled before drinking?
3. Name any two diseases that can attack a person who does not bathe regularly.
4. How is polio spread from one person to another?
5. Name any one disease that attack people swimming in contaminated water.

**LESSON 13**

**WATER HABITAT VECTOR DISEASES**

These are diseases which spread by vectors which spend part of their life cycle in water.

**Examples of water habitat vector diseases include;**

<u>disease</u>	<u>Vector</u>	<u>Cause</u>
<u>Malaria</u>	<u>Female anopheles mosquito</u>	<u>Protozoa plasmodia</u>
<u>Bilharziasis</u>	<u>Fresh water snail</u>	<u>Bilharzia flukes(schistomes)</u>
<u>River blindness</u>	<u>Black fly</u>	<u>Onchocerca volvulus</u>

<u>Yellow fever</u>	<u>Tiger mosquito</u>	<u>Yellow fever virus</u>
<u>elephantiasis</u>	<u>Culex mosquito</u>	<u>Filaria worms</u>

### **Ways of making dirty water safe for drinking**

-Boiling.

-chlorination.

### **Chemicals used to kill germs in water:**

-Chlorine

-calcium chloride

-potassium permanganate

-fluorine

### **Processes at National Water Sewerage Co-operation. (NWSC)**

- Sedimentation, Filtration, Coagulation, Chlorination.

### **Activities to address poor water supply.**

1. Construct wells.
2. Cut bushes around wells.
3. Fencing the water sources.
4. Treating water with chemicals.

### **Inadequate food**

This is the situation in which a family or community members lack enough food.

### **Causes of inadequate food**

- High population increase.
- Laziness and inability to grow crops.
- Poverty.
- Ignorance of good farming methods.
- Drought.
- Wars.
- Floods.
- Pests and diseases.

### **Food security**

It is having enough food for use.

### **Activities to address inadequate food supply.**

- Seek advice on good methods of farming from agricultural officers.
- Construct valley dam to trap water for irrigation during drought.
- Avoid draining wetlands to avoid floods.
- Introducing agriculture schools.
- Digging should not be given as punishment in schools.
- Grow crops which are resistant to diseases.

### **Examples of drought resistant crops**

-cassava

-yams

### **Exercise**

1. Name any two chemicals used to treat water.
2. Identify any two water impurities
3. Give two ways of obtaining clean water for use at home
4. State two ways of addressing food insecurity.
5. State two ways of caring for water sources.
6. How can rain water become contaminated?

## **LESSON 14**

### **Activities to address health concerns.**

- **Care for a home**

A home is a place where people stay and live.

### **How to care for a home**

- Slash tall grass around homes
- Drain stagnant water around our homes.
- Construct a pit latrine
- Have a rubbish pit

### **Health life styles;**

These are activities that promote good health

### **Examples of healthy life styles include;**

- Doing physical exercises.
- Having enough rest
- Bathing daily.
- Eating a balanced diet.
- Going for medical checkups.

### **Importance of having enough rest**

- Digestion of food is carried out smoothly.
- The brain rest and gets refreshed.
- The body is able to repair worn out cells.

### **Reasons for doing daily physical exercises**

- For body flexibility.
- Strengthen body muscles.
- For proper functioning of the body organs and systems
- Reduce excess fats in the body.

### **Health education.**

It is the making of the community get aware of the matters concerning diseases and how to prevent them.

### **Ways of Educating People**

- Through Songs, plays, storytelling.
- Through Radios, newspapers, talks
- School pupils pass information to their parents, brothers, sisters and relatives.

### **Having a Family Budget.**

#### **A family budget.**

It is an advance plan of how the expected family income is to be spent.

#### **Advantages of family budgeting**

- It helps to cater for all family needs.
- It helps to avoid over spending.
- It avoids debts.

### **Exercise**

1. Give any one example of a poor health life style
2. State any one danger of poor health life style
3. Why is it good for a family to have a budget?
4. State any one way of informing people about health activities.
5. Why are people encouraged to carry out physical exercises?

## **LESSON 15**

### **Collecting information/data on human population.**

#### **Demography**

This is the study of the changing numbers of births, deaths and diseases in a community. Information can be collected from hospitals and by going to homes.

#### **Importance of demography**

- To plan for the community services
- The government is able to know the general health of people.

#### **Housing information**

This is the finding out of the number of people who sleep in permanent or temporary houses to estimate the poverty line of the people.

#### **Available health services**

The government needs information on these services to be able to deliver medical services quickly and monitor the health of its population

#### **Information available on health services include**

- Immunization.
- Family planning.
- Treatment of infections.
- Provision of water.
- Control of epidemic diseases.

#### **Immunization**

The introduction of vaccines into the body to produce anti bodies against certain diseases.

#### **Collecting information on immunization**

Information includes.

- Number of immunization centers.
- People involved in carrying out immunization.
- Days and time on which immunization is done.

#### **Importance of immunization**

- To protect children against the childhood immunisable diseases.
- To boost the immunity.
- Reduce the rate at which children die / reduces infant mortality rate.

#### **A child health card.**

It is a document given by the government to every child with information about his/her immunisation.

### **Importance of a child health card.**

- To know the date of the next dose.
- To monitor the growth(looking at the growth curve)
- It shows the child's name, sex, date of birth, birth order, mother's name, mother's occupation, father's name and where the family lives.

### **Collecting information on available health services.**

#### **Advantage of collecting information on available health services.**

- It helps in quick delivery of medical services.
- Control of epidemic diseases.
- It helps the government to monitor the health of people.

#### **Health surveys**

A health survey is a strategy of finding out health problems in a community and solving them. The information obtained from a healthy survey is called health data. The health survey is carried out by village health committee and government officials.

#### **Nature of questions asked.**

- i. What are the common sicknesses in the community?
- ii. What kind of treatment is given for each sickness?
- iii. What are the Causes of the sickness

#### **A health club**

It is an association of members in a school or community who voluntarily wish to promote community health.

#### **Activities of health clubs include;**

- Promotion of personal hygiene in a community/school.
- Educating members of the community about sanitation.
- Encourage the community to participate in community basic health programs.
- Caring for those in poor health.
- Getting health information from technical personnel and distributing to the community.

*Wish you well*