

## Form 2 Homescience

The surrounding in which we live in, is known as the environment. It is important to keep our surroundings clean so as to prevent illnesses and the spread of diseases.

### Objective

*By the end of the lesson you should be able to explain the concept environmental hygiene.*

### Free drainage

It is a method of disposing water anywhere in the compound.

### Open Drainage

It is a method of disposing water by directing it into gutters or a simple trench dug on the ground. The trench can also be well constructed with materials such as cement, plastic or metal.

### An Open Drain

#### Concealed drainage

In this type of drainage, water is drawn away from the house through pipes and covered drains.

### Definition of Drainage

Drainage is the removal of water from houses and buildings such as rain water and waste water. Stagnant water around houses and buildings is a health hazard. It is therefore important to draw it away appropriately.

#### Types of Drainage

Free drainage

Open drainage

Concealed

### Malaria

Malaria is caused by a parasite which is spread by the anopheles mosquito.

### Typhoid

Typhoid is caused by a bacteria found in urine or faeces.

### Cholera

Cholera is caused by a bacteria found in contaminated water and food.

### Dysentery

Dysentery is caused by protozoa (amoeba) found in human faeces.

### Scabies

Scabies is caused by mites found in places where there is poor personal hygiene.

### Bilhazia

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Bilhazia is caused by parasitic snails found in fresh water.

### Ringworms

Ringworms are caused by fungi which affects the skin.

### **Tuberculosis (TB)**

Tuberculosis is caused by bacteria which affects different parts of the body such as the lungs.

### Introduction

Communicable diseases are those that are easily passed on from person to person or from host to person. A host refers to a carrier of disease causing organisms (germs). The common communicable diseases are:

### Objectives

#### **By the end of the lesson you should be able to:**

State the common communicable diseases.

Identify causes of common communicable diseases.

Mode of transmission of dysentery, typhoid and cholera

One common transmission mode of dysentery, typhoid and cholera is through contaminated water.

### Signs and symptoms

Severe abdominal pains

Fever

Nausea

Loss of appetite

Diarrhoea

Dehydration

Violent vomiting

Acute diarrhoea

Abdominal pain

Headaches

General body weakness

### Prevention and Control of Dysentery, Cholera and Typhoid

Practice proper disposal of human waste

Treat water for domestic use

Observe proper hygiene practices

Ensure regular medical checkups for food handlers

Scabies is a skin disease which manifests itself in form of rashes which form blisters and sores. Itchy skin Rashes which form blisters and sores This is a skin disease which manifests itself in form of whitish round rings) on the infected area.

Itching of the infected areas

Whitish round ring(s) on the infected area

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Loss of hair on the infected area

### Skin diseases

Some skin diseases are contracted through body contact, improper hygiene and by sharing personal items. These include:

Prevention and Control of Skin Diseases

Practice personal hygiene;

Avoid sharing personal items such as, combs, clothes and many others;

Disinfect / sterilize personal items occasionally;

Seek medical attention.

### Laundry Work

Laundry work is the process of washing, drying, finishing and storing household articles and clothes so as to maintain their original state.

#### ***Washing Equipment***

Washing Equipment includes, buckets, basins, a laundry brush, washing machines and boilers. A large sufuria can be used as a boiler.

#### ***Drying Equipment***

Drying Equipment includes, a clothes line, pegs, drying racks, clothes horse and various types of driers.

#### ***Finishing Equipment***

Finishing Equipment includes irons, a calendaring machine, an ironing table or ironing board and a sleeve board.

#### ***Storage equipment***

Storage Equipment includes chest of drawers and a wardrobe, which may either be free standing or built-in, suitcases, wooden or metal boxes. There is also improvised storage equipment which may include a carton box, a string for hanging items, nails on a wooden board on the wall, hooks on the wall, organizers or a clothes stand.

### Laundry Equipment

For laundry work to be effectively done you need sufficient laundry equipment. This include:

1. Washing equipment
2. Drying equipment
3. Finishing equipment
4. Storage equipment

#### ***Soap***

Soap is made from natural products such as animal fat or vegetable oil and an alkali.

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Soapless detergents

Soapless detergents are made purely from chemicals such as petroleum by-products.

### Detergents

By the end of the lesson you should be able to distinguish between soaps and soapless detergents.

### Forms of Detergents

#### Laundry Agents

These are substances other than soap that aid in laundry work. They include:

#### Objectives

**By the end of the lesson you should be able to:**

Identify laundry agents.

State their uses.

Sorting

#### Repairing

Video clip showing a person fixing a hanging hem.

Click on the PLAY button to view the video

#### Soaking/steeeping

Video clip showing a person soaking a white cotton table cloth in cold plain water.

#### Washing

Video clip showing a person washing a white cotton table cloth.

#### Rinsing

Video clip showing a person rinsing a white cotton table cloth in cold plain water.

#### Drying

Video clip showing a person drying a white cotton table cloth on the clothes line using pegs.

#### Finishing

Video clip showing a person ironing a white cotton table cloth.

#### Airing

Video clip showing a person airing a white cotton table cloth.

#### Storage

Video clip showing a person storing a white cotton table cloth. This can be done either by hanging or folding and then storing in a drawer.

#### Laundry Processes

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These refers to the series of activities carried out in cleaning and maintenance of clothes. The processes include:

Sorting  
Repairing  
Soaking/steeping  
Rinsing  
Drying  
Finishing  
Storage

### Laundering Various Articles

- i. Tea-stained white cotton table cloth
- ii. Fast coloured baby's cotton bed sheet
- iii. Loose coloured lesso/khanga
- iv. Knitted woollen sweater
- v. Synthetic blouse

Describe how to launder different fabrics appropriately.

Describe how to carry out special treatment in laundry work.

Nutritional disorders are caused by insufficient or excess intake of a given nutrient(s). Some of the nutritional disorders are:-

Kwashiorkor  
Marasmus  
Scurvy  
Goitre  
Rickets  
Osteomalacia

***There are other nutritional disorders associated with lifestyles.***

***These include:-***

Gout  
Obesity  
Anorexia nervosa

### Background Information

#### *Definition of Terms*

**Food:** This is any substance, liquid or solid that is taken into the body in order to maintain life and growth.  
**Food Nutrients:** These are chemical components of food that serve a variety of functions in the body.  
**Nutrition:** This is the process by which the body receives and uses the nutrients contained in food

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for different functions. These include processes such as digestion, absorption and utilization of nutrients in the body.

**Balanced Diet:** This is a meal that contains all the nutrients in the right proportions.

**Malnutrition:** This refers to inadequate or excessive intake of nutrients.

### Classification of Nutrients

By the end of the topic, you should be able to:

- i) Identify the common nutritional disorders.
- ii) Identify nutritional disorders associated with life styles.

It is important for one to eat good quality food and in sufficient quantities in order to maintain good health.

### Cause

Kwashiorkor is caused by lack of proteins in the diet. It usually affects children below five (5) years who stop breast-feeding early and are weaned on foods lacking in proteins.

### Signs and Symptoms

Hair is thin, scanty, brown and silky.

Swelling of the belly, face, hands and feet. When one presses the swollen part, the impression of the finger remains on the skin for a while.

The skin looks pale. In extreme cases the skin peels and forms raw wounds.

Growth is retarded.

Child is dull and inactive.

### Prevention

Breastfeed for as long as possible

Wean on protein-rich foods such as milk, eggs, fish, legumes and tender meat.

### Marasmus

Marasmus is a deficiency disorder that is caused by total starvation over a period of time. It can also be referred to as protein energy malnutrition caused by lack of all nutrients.

Marasmus is caused by total starvation, that is, lack of all nutrients. Extreme loss of weight. The person is skinny and may weigh half of the expected weight. Hair may appear normal, but the head will look big in comparison to the rest of the body. Eyes protrude and the person is generally alert or anxious. The ribs can be clearly seen. A child looks like an elderly person because the face is wrinkled. There is no fat under the skin especially around the upper part of the arms, thighs, buttocks and belly which are wrinkled. Eat adequate balanced meals. Ensure hygienic conditions

### Food:

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### Background Information

#### Definition of Terms

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#### Classification of Nutrients

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It is important for one to eat good quality food and in sufficient quantities in order to maintain good health. These are some terms that you may come across in this topic:

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The ribs can be clearly seen.

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A child looks like an elderly person because the face is wrinkled.

There is no fat under the skin especially around the upper part of the arms, thighs, buttocks and belly which are wrinkled.

Eat adequate balanced meals.

Ensure hygienic conditions so as to prevent worm infestation.

**Scurvy** is a nutritional disorder which is common among people who rarely eat fresh fruits and vegetables.

**Scurvy** is caused by lack of Vitamin C which is found in fresh fruits and vegetables. Vitamin C maintains the health of body mucous membranes and makes them resistant to infections.

Bleeding gums

Loose teeth

Unhealthy skin

Weak and painful joints

Anaemia may develop

Blood in the stool and urine

Slow healing of wounds

Eat foods rich in vitamin C such as citrus fruits, guavas and green leafy vegetables

Goitre is characterized by swelling of the thyroid gland which is situated at the lower front part of the neck.

This disorder is caused by a deficiency of iodine in the diet.

Enlarged thyroid gland

Hypothermia (feeling cold)

Dry and rough skin

Lack of energy and fatigue

Mother may give birth to a mentally handicapped child.

Trembling and nervousness

Bulging eyes

Take a diet rich in iodine.

Rickets

This is a condition in which the bones become weak and deformed.

### Causes

Rickets is a vitamin D, Calcium and Phosphorous deficiency disorder that mainly occurs in children.

Weakness of bones which is characterized by bow-legs or knock-knees.

Poor development of teeth.

Eat a diet rich in calcium, phosphorous and vitamin D.

Expose the body to sunshine.

Eat foods fortified with Vitamin D e.g. margarine.

### Osteomalacia

Osteomalacia is the equivalent of rickets in adults.

Osteomalacia is caused by inadequate intake of calcium, phosphorous and vitamin D and it mainly occurs

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in adults.

Bones soften, become distorted and fracture easily.

The legs, spine, thorax and pelvis are deformed.

Pain in the bones, legs and lower part of the back.

General weakness and difficulty in climbing stairs.

In severe cases, one experiences involuntary twitching of muscles especially those of the face and hands.

### **Prevention**

Increase intake of Calcium, Phosphorous and vitamin D.

Eat foods fortified with vitamin D

Expose the body to the sun.

Gout is a disorder associated with affluent life style.

Gout results from a high intake of roasted red meat and alcohol.

Redness and swelling of affected joints.

Very severe pain in the affected joints.

Fever, lower back pain and vomiting.

Avoid too much roasted red meat and alcohol.

Take plenty of water.

### **Obesity**

Obesity is a condition whereby one takes in excess calories than the body requires. The excess calories are converted into fat and stored under the skin and around vital internal organs.

#### **This condition is caused by:**

Excess intake of carbohydrates and fats.

Lack of adequate exercise.

Eating junk food.

Sedentary lifestyles.

Excessive body weight.

Tiredness and shortness of breath.

Complications such as heart disease, diabetes and hypertension may arise.

Avoid junk food

Avoid excess intake of carbohydrates and fats.

Exercise regularly.

Eat a well balanced diet.

Anorexia Nervosa

Anorexia Nervosa is a psychological problem where someone gets a distorted image of oneself as being fat and unacceptable, hence refuses to eat at all.

Anorexia Nervosa is caused by refusal to take food leading to thinness. It is common among teenagers and young women and it is fatal.

Sudden weight loss.

Depression

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Feeling overweight even when thin and underweight.

Avoidance of food.

Eat a balanced diet.

Counsel individuals to learn to accept themselves as they are.

Overlaid Seam

Video clip showing the working of an overlaid seam. This seam is also known as a lapped seam.

### **Double Stitched Seam**

Video clip showing the working of a double stitched seam. This seam is also known as machine fell seam.

### **Open Seam**

Video clip showing the working of an open seam. It is popular as it is a base for most seams. It is fast to work and can be used on all areas of garment construction. Click on the

### **French Seam**

The French seam is a strong inconspicuous seam suitable for fabrics that fray a lot.

A seam is used for joining two or more pieces of fabric together neatly and securely using stitches.

Seams are divided into two:

Point the cursor on each of the categories to view the types of seams

#### **By the end of the topic, you should be able to:**

(i) Define a seam.

(ii) List commonly used seams.

(iii) Describe how to make the following seams:

Overlaid seam

Double stitched seam

Open seam

French seam

### **Body Measurements, Pattern Symbols and Markings**

Well fitting garments are as a result of accurately taken measurements. This enhances one's appearance.

Well Fitting Clothes

### **Body Measurements**

Before drafting or buying a pattern, it is necessary to have accurate body measurements. Ask someone to take your body measurements for accuracy and good fit. Body measurements can be divided into two categories:

Blouse/ Shirt measurements

Skirt/ Trouser measurements

### **Objective**

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By the end of the lesson, you should be able to explain how to take body measurements accurately.

### ***Upper arm width***

This is taken round the fullest part of the arm.

### ***Wrist measurement***

This is measured around the wrist and two fingers are inserted for ease.

### **Bust**

This is measured at the fullest part of the bust with the tape measure raised at the back and two fingers inserted at the front for ease

### **Waist**

This is measured around the natural waist while inserting two fingers in the tape measure.

### **Hip Measurement**

This is measured at the widest part of the hips with two fingers inserted in the tape measure.

Here the hand is placed on the waist and the measurement is taken from the shoulder to the elbow down to the wrist. This is done to avoid discomfort at the elbow when the hand is folded.

Blouse/ Shirt measurements include:

Bust

Waist

Hip

Chest width

Back width

Back length (Nape to waist)

Front length

Shoulder width

Sleeve length

Upper arm width

Wrist

### ***Full length***

This is measured from the shoulder to the desired length.

### ***Skirt length***

This is measured from the waist to the desired length.

### ***Outer leg/trouser length***

This is measured from the waist to the desired length on the side.

### **Inner leg/trouser length**

This is measured from the crotch to the desired length on the inner side of the leg.

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### **Crotch depth**

This is taken when one is seated on a flat hard surface for accuracy. It is measured from the waist to the surface of the seat.

Skirt/ Trouser measurements include:

Waist to hip (Skirt)

Skirt length

Crotch (for Trouser/ shorts)

Full length

Outer leg length

Inner leg length

Pattern Symbols And Markings

Pattern symbols and markings are used as a guide in garment construction.

### **Objectives**

#### **By the end of the lesson, you should be able to:**

Identify pattern symbols and markings.

State the use of pattern symbols and markings.

Pattern Symbols And Markings.

- Identify pattern symbols and markings.
- State the use of pattern symbols and markings.

### **Consumer Awareness**

By the end of the lesson you should be able to define the terms consumer, goods, services and consumer education.

### **Shopping**

The video clip shows a consumer purchasing goods in a supermarket.

### **Shoe shining**

The video clip shows a service being rendered.

Sources of consumer awareness

Information on products and services can be obtained from various sources and also through various methods. A consumer gets information from the following sources:

### **Informative**

This type of advertising only informs the consumer of what products or services are available. It may also enlighten consumers about new uses of products that they already know of.

### **Persuasive**

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This type of advertisement convinces the consumers to buy a particular good or service other than the one they are used to. It tells the consumers that they really need the good or service and that they should buy it.

### ***Competitive***

This type of advertisement is common where two competitors are selling the same good or service. It emphasizes that the goods or services of a particular company are of better quality than similar ones from another company.