

CBC LESSON NOTES

HOME SCIENCE

GRADE 6 NOTES

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GRADE 6 HOMESCIENCE LESSON NOTES

HEALTHY LIVING

ADOLESCENCE (13-19 YEARS)

- Pre adolescence is the stage of life between early childhood and adolescence.

Who is adolescent?

- Adolescence is the period between pre adolescence and adulthood.
- An adolescent is a child between the age of 13 to 19 yrs.
- An adolescent is also called a teenager

Changes that takes place during adolescence

- Girls and boys experience the following changes
 1. **Physical change**- are changes which can be seen.
 2. **Emotional change**- are changes that cannot be seen, also called feelings
 3. **Social change**
- Changes are normal and we transition into adolescent differently. We should accept and embrace changes fully.
- Talk to people to get right information about changes that take place during adolescence.

Physical changes in boys include

- ✓ Increase in body size
- ✓ Growth of hair under armpits and pubic area
- ✓ Developing acne and increased sweating
- ✓ Hair grows on their chin (beards)
- ✓ Voice breaks and becomes deeper.
- ✓ Experience wet dreams.

Physical changes in girls include

- ✓ Increase in body size
- ✓ Growth of hair under armpits and pubic area
- ✓ Developing acne and increased sweating
- ✓ Develop breasts
- ✓ Hips broaden
- ✓ Voice becomes melodious.
- ✓ Experience menstruation cycle.

Good grooming as a daily health habit

- **Good grooming** is the art of taking care of yourself and your body.
- Adolescent should maintain good grooming by
 - ✓ Taking a bath daily so as to avoid bad odour
 - ✓ Maintaining their hair by shaving, combing, plaiting or washing properly.
 - ✓ During menstruation girls should change their sanitary towels regularly
 - ✓ Shaving the hair under armpits and pubic hair because they hold a lot of sweat and dirt which bring bad odour
 - ✓ Wearing clean and decent clothes.

Improvise items to be used for good grooming

- **Improvising** is making something using the available resources because you do not have the actual item required.

Pupils activity

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Healthy eating habits for an adolescent

- Healthy eating habits make us grow healthy.
- It is important to eat enough food with a variety of all nutrients.
- This enable healthy growth and development during adolescent stage
- We should take balanced diet for healthy growth and development
- We should drink safe clean water regularly so as to replace fluids during sweating and to avoid dehydration
- We should take healthy snacks
- Adolescent should take food rich in iron to help in muscle development. Girls should take iron rich foods to replace what is lost during menstruation.
- We should take meals and snacks eat the right time
- We should always practise proper table manners when taking meals.

Importance of physical exercise during adolescence

- Regular physical exercise helps us prevent health problems such as obesity that is lifestyle disease
- Exercise also help improves our mood and make our bones and muscles strong.
- It helps maintain a healthy body weight.
- Promotes healthy development of the body.

Safety precautions to observe in the environment as adolescents.

- ✚ It is important to observe safety precautions in the environment in order to avoid accidents and injuries.
- ✚ We can also avoid harm from people with bad intentions by observing safety in the environment.
- ✚ Always dress decently
- ✚ Avoid bad company.
- ✚ Do not accept gifts from strangers
- ✚ Avoid walking in dark and deserted places.
- ✚ Do not give strangers you met on social media your personal information.
- ✚ Do not exercise near dangerous places such as holes or dams.

ACCESSORIES AND COSMETICS

- An **accessory** is an item or article you wear or carry, other than your clothes to enhance the effect of clothes you wear such as belts, caps, ties, shoes, scarves and handbag.
- In fashion they are chosen to complete an outfit and complement the wearers look they also serve to express an individual identity or personality.
- **Cosmetics** also referred to as **make ups** and are substances used on the body to improve on a person appearance and enhance their beauty.
- They are also used to hide or conceal blemishes on a person
- They are mainly used on face, hands and feet.

Classifying accessories and cosmetics used by adolescents

- **Accessories** are mainly classified into two:
 1. Those that are carried (handbags, ceremonial swords)
 2. And those that are worn – (necklace, earrings, belts, ties)
- **Cosmetics** can be classified according to their functions, use or physical nature
- They include lotion, eye pencil, eye shadows, lipstick, nail polish and face powder.

Misuse of accessories by adolescent

- Misuse is the use of something in the wrong way or for wrong purpose.
- Misuse of accessories may not enhance person's appearance as intended and may end up giving an exaggerated look.

Misuse of cosmetics by adolescents

1. Applying too much cosmetics
2. Borrowing other people's cosmetics
3. Bleaching the skin using cosmetics
4. Using cosmetics that have expired
5. Applying fresh cosmetics on dirty face
6. Storing cosmetics poorly such as exposing them to too much heat and sunlight

Dangers of misusing cosmetics

- Most cosmetics are produced from chemicals hence wrong use may lead to health problems.
- ❖ Cosmetics can cause cancer
- ❖ Cosmetics can cause skin irritation
- ❖ Cosmetics can cause bleaching of the skin
- ❖ Cosmetics can cause allergic reactions.
- ❖ Cosmetics can cause eye infections

Non communicable diseases and disorders

- **Communicable diseases** are diseases that are spread from one person to another or from an animal to person. Also known as **infectious disease**
- **Non communicable diseases** are diseases that cannot be passed directly from one person to another
- They are as a result of lifestyle, family history or factors within the environment.

Identifying non communicable disease and disorders

- Epilepsy
- Diabetes
- Asthma
- Hypertension
- Heart disease
- Obesity

Obesity

- Is a condition where one has excess weight and body fat which may increase the risk of other disease and health problems such as diabetes, high blood pressure and certain cancers.

Sign and symptoms of obesity

- ✓ Excessive body weight
- ✓ Shortness of breath
- ✓ One cannot perform simple physical exercises

Causes of obesity

- ✓ Lack of physical exercise
- ✓ Excessive intake of carbohydrates and fatty foods
- ✓ Family history.
- ✓ Stress which may result in increased appetite hence one over eats

Prevention and management of obesity

- ✓ Doing physical exercise
- ✓ Avoid taking food with excess fat
- ✓ Taking a varied diet in their correct proportions.
- ✓ Manage stress so as to be able to maintain healthy eating habits.

Diabetes

- Is a condition where the body is unable to control the levels of sugar in the blood. This may be because the body does not make enough insulin or cannot effectively use the insulin it makes.
- **Insulin** is a Hormone that controls the movement of sugar in and out of your body cells for energy.

Signs and symptoms of diabetes

- ✓ Poor vision
- ✓ Skin infections
- ✓ Increased thirst and urination
- ✓ Increased hunger and body weakness

Causes of diabetes

- ✓ High consumption of fat and sugar
- ✓ Lack of physical exercise
- ✓ Family history

Prevention of diabetes

- ✓ Eating healthy meals with reduced fats and sugar
- ✓ Doing regular physical exercise

Management of diabetes

- ✓ Taking a varied diet and in correct proportions
- ✓ Taking prescribed drugs correctly

Hypertension

- Also known as **high blood pressure**
- Is a condition where the pressure of blood in the veins and arteries is high

Causes of hypertension

- ✓ Excessive intake of salt
- ✓ Lack of proper management of stress
- ✓ Lack of physical exercise
- ✓ Diabetes and obesity may also lead to hypertension
- ✓ Excessive intake of alcohol and smoking cigarettes

Signs and symptoms of hypertension

- ✓ Shortness of breath
- ✓ Headaches
- ✓ Poor vision
- ✓ Nose bleeding
- ✓ Weakness and dizziness
- ✓ Rapid heartbeat.

Prevention of hypertension

- ✓ Managing stress
- ✓ Doing physical interest
- ✓ Eating healthy foods
- ✓ Maintaining healthy body weight
- ✓ Reducing intake of salt
- ✓ Avoiding intake of alcohol and smoking

Management of hypertension

- ✓ Going for regular medical check ups
- ✓ Taking prescribed medication
- ✓ Maintain your blood pressure regularly

Epilepsy

- Is a disorder of the brain characterised by repeated seizures.
- During a seizure a person will temporarily experience abnormal behaviour and sensations, sometimes including loss of consciousness
- It may occur as a result of generic disorder or acquired brain injury such as trauma or stroke

Causes of epilepsy

- ✓ Severe head injury
- ✓ Brain infections
- ✓ Family history
- ✓ Drug and substance abuse
- ✓ A growth in the brain
- ✓ Restricted amount of oxygen circulating in the brain

Signs of epilepsy

- ✓ Seizures
- ✓ Dizziness
- ✓ Temporary confusion
- ✓ Loss of consciousness or awareness

Prevention and management of epilepsy

- Treated through medication as prescribed by a doctor

First aid for epilepsy

1. Stay with them
 - Remain calm and reassure the patient.
 - Stay with the patient until they have fully recovered.
2. Keep the person safe
 - Cushion the head using a soft pillow to prevent injuries
 - The person should be comfortable and lying down on their side
 - Keep the person in a well ventilated area
 - Loosen tight clothing around the person neck and any other part of the body
 - Ensure the person does not have objects in the mouth.
 - Do not give liquids or food unless the person is fully awake
3. Seek medical help if
 - The seizure continues for over 5 minutes. Always time the duration of the seizure.
 - They have never had a seizure before

- They are not responding after the seizure has stopped or gets another attack immediately after.
- They sustained an injury during the seizure

Asthma

- Is a condition in which a person's airways becomes narrow and swollen and produces extra mucus.
- This makes it difficult to breathe. In some cases, it may lead to life threatening attacks.

Causes of asthma

1. Family history
2. Respiratory diseases such as viruses, pneumonia and flu
3. Environmental factors
 - These are things that are found in our surrounding that may affect ones breathing. Such things may include allergens such as pollen, dust, animal fur or feathers, smoke, fumes and pollination.
 - Extreme weather conditions. Conditions such as very high humidity or low temperature may trigger asthma.

Signs and symptoms of asthma

1. Wheezing (whistling sounds when breathing)
2. Shortness of breath
3. Tight chest which may be painful

Prevention and management of asthma

1. Take prescribed medication
2. Give first aid for asthma
3. Identify and avoid asthma triggers
4. Manage stress

First aid for asthma attacks

1. Let the person sit upright
2. Ensure there is adequate ventilation
3. Stay calm as you reassure the person
4. Find out if the person has an asthma inhaler assist them to administer the inhaler.
5. In the absence of an inhaler, assist the person to take long and deep breathe
6. Keep off trigger and allergies like dust or strong smells

7. Should the asthma attack continue for more than five minutes, seek medical help.

Cancer

Is a disease in which some of the body cells grow uncontrollably and spread to other body parts of the body destroying the tissues of the body where these cells have settled.

Causes of cancer

1. Smoking
2. Family history
3. Excessive consumption of alcohol
4. Use of cosmetics containing harmful chemicals
5. Eating foods that contain preservatives and harmful chemicals.

Signs and symptoms of cancer

1. Abnormal bumps
2. Unexplained fevers
3. Night sweats or unintentional weight loss
4. Fatigue or extreme tiredness

Prevention and management of cancer

- Early detection of presence of cancer cells in the body is important in prevention and management of cancer disease

Heart diseases

- Heart diseases occur due to interruption of blood supply to the heart. This may be as a result of a deformity in the heart such as a hole or due to blockage of arteries supplying blood in the heart

Causes of heart diseases

1. Unhealthy lifestyle
2. Heart infections
3. Heart defects

Signs and symptoms of heart diseases

1. Chest pains
2. Shortness of breath
3. Easily tiring during an activity
4. Pain in the neck, jaw, throat, upper abdomen or back and dizziness

Prevention and management of heart diseases

1. Exercising regularly
2. Reducing intake of fats
3. Avoiding drug and substances abuse
4. Maintaining healthy weight
5. Following prescribed medications and other instructions by the doctor

CONSUMER EDUCATION

Budgeting

- **Budget** is the process of how to spend money that one has for a certain period of time.
- A budget helps to balance your expenses in relation to available income.
- A **shopping list** helps one to save by helping a person to buy only the things they need.

Importance of budgeting

1. It enables a person to spend wisely
2. It helps a person to avoid debts by spending on items they can afford
3. It enables a person to set priorities on the most important needs
4. It reduces wastage and impulse buying because a person budgets for what is necessary.
5. It helps one to know the amount of money they require for a certain period of time.

Factors to consider when making a budget

1. Your income
2. Your spending habits

Pupils activity

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Making a budget for personal use

- Making a budget helps to cater for the most important needs in a family.
- If the budget is followed, it helps one to have peace when available amount has been spent well.

Pupils activity

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Creating a portfolio of budgets

Pupils activity

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FOOD AND NUTRITION

- **Food** is what we eat or drink for energy and growth

FOOD NUTRIENTS

MINERALS (IRON AND IODINE)

- **Minerals** are those elements on the earth and in foods that our bodies need to develop and function normally.
- **Micro nutrients** are minerals required in small amounts in our bodies.
- Minerals needed for proper functioning of the body are also called **essential minerals**.
- **Minerals** help our bodies to develop and function normally
- Minerals also protect our bodies against diseases

Different minerals found in foods

- The foods we consume have different minerals that our bodies need to function well.
- Some of the minerals include
 - ✓ Iodine
 - ✓ Calcium
 - ✓ Iron
 - ✓ Sodium chloride
 - ✓ Zinc
 - ✓ Magnesium

Sources of iron and iodine found in foods in the locality

Foods rich in iron	Foods rich in iodine
Spinach	Iodized salt
Lentils	Eggs
Broccoli	Beef liver
Tofu	Chicken
Liver	Dairy (milk, cheese, yoghurt)
Red meat	Fish (tuna, oysters)
Turkey meat	Seaweed
Legumes - peas	Crab
Shellfish	
Pumpkin seeds	

Importance of iron and iodine in the body

- Iodine is important mineral that our thyroid needs to produce certain hormones
- A **thyroid** is a gland found in the neck. It produces hormones that regulate growth and development
- Not getting enough iodine can cause **goitre**
- Iodine also improves our defence against infections and regulates body functions
- Iodine also helps develop the brain
- Iron forms haemoglobin, a red blood cell protein whose main purpose is to transport oxygen in the blood.
- Iron strengthens the body's protective system against viruses, bacteria and infections.
- Intake of iron helps prevent iron deficiency anaemia. (adolescent girls are encouraged to eat foods rich in iron to replace iron lost during menstruation to prevent anaemia).

Planning a meal that includes minerals in the diet

- It is important to include foods rich in minerals in the diet while planning for meals.
- This ensures all meals provide essential minerals need by the body.

Pupils activity
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Daily log of foods eaten rich in iron and iodine

Pupils activity
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- When you create a daily log of foods eaten rich in iron and iodine it will help you asses what you are eating is rich in the two essential minerals.

Day of the week	Iron and iodine rich foods
Monday	Ugali, liver, manage and pawpaw
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

Preservation and storage of meat

- **Food preservation** is the process or technique used to maintain food in good condition in order to stop or slow down spoilage.
- This will prevent food borne illness as well as maintain nutritional value and flavour of the food
- This reduces food wastage.
- The food that is preserved is kept properly for use in the future

Source of meat in the locality

- **Meat** is flesh from animals eaten as food.
- Most common sources of meat are from animals i.e. cow, sheep, chicken, fish

Importance of preserving and storing meat

- ✓ Meat is highly perishable food that spoils within a short time therefore proper preservation and storage is essential
- ✓ Preserving meat maintains its nutritional value.
- ✓ Preserving meat keeps it longer for future use
- ✓ Prevents meat from getting spoil
- ✓ Meat preservation prevents wastage.

Facilities used for preserving and storing meat

1. Drying rack
2. Hook
3. Refrigerator/Fridge
4. Freezer
5. Airtight food containers

Methods and procedure of preserving and storing meat

1. Refrigeration
2. Sun drying
3. Salting
4. Smoking

Refrigeration

- Meat is preserved through refrigeration where is kept under low temperature.
- Refrigerator has cooling and freezing compartments.

- Meat kept in the cooling compartments of the refrigerator keeps fresh for a short time while the freezing compartments keeps meat fresh for a longer time.

Requirements

Fresh meat, chopping board, clean water, refrigerator and a plastic container

Procedure for preserving meat using a refrigerator

1. Clean the meat
2. Cut the meat into pieces
3. Pack in a plastic container
4. Cover the plastic container
5. Store the meat in a refrigerator

Advantages of refrigeration

1. It slows down the growth of bacteria that spoils the meat.
2. Much of the meats flavour is retained

Disadvantage of refrigeration

1. It normally requires electricity.
2. Food persevered in a refrigerator goes bad if there is unreliable supply of electricity
3. Refrigeration is expensive

Sun drying

- In this method of preservation, the sun provides the heat to dry the meat.
- Meat for preservation can either be hung under the sun in an open area or spread on a clean food drying rack
- Protect the meat from insects and animals using a screened cage.

Requirements

Fresh meat, chopping board, clean water, screened cage, drying rack, hook, muslin cloth

Procedure for preserving meat using sun drying

1. Use fresh and lean meat
2. Clean the meat
3. Cut the meat into strips
4. Place the meat on S hook and hung the hooks in a screened cage. A string can be used to hang meat
5. Meat can be placed on a raised food drying rock. Cover the meat with a muslin cloth or fine wire mesh.

6. Allow the meat to dry completely on both sides. This may take several days depending on the heat from the sun and wind conditions.
7. Meat can then be stored in a covered airtight container and kept in a cool dry place away from direct sunlight.
8. Sun dried meat can be preserved for at least two months.

Advantages of preserving meat using sun drying

1. The method is easy
2. Sun drying method can be preserved for at least two months

Disadvantages of preserving meat using sun drying

1. The slow drying process requires patience
2. Sunny and windy conditions are restricted to weather conditions.

Salting

- This is process of applying salt to meat.
- Salt prevents the growth of bacteria by removing water content from meat.

Requirements

Knife, chopping board, screened cage, clean water, hooks, fresh meat, salt, plastic container

Procedure for preserving meat by rubbing it with salt

1. Get fresh meat
2. Clean the meat
3. Cut the meat into moderate pieces
4. Rub the salt on the meat surface
5. Use S shaped hooks to hung meat in a screened cage indoors. The equipment keeps insects away
6. Allow the meat to cure for about 4-7 days

Curing meat refers to preserving meat by adding salt, with the aim of drawing moisture out of the food.

7. if needed, rub some more salt on the meat and continue with the curing process.
8. Store meat correctly after preservation in a cool dry place.
9. Before cooking the salted meat, soak in cold water to dissolve salt.

Procedure for preserving meat using brine

1. This method is best applied for fresh and fleshy meat
2. Prepare the brine by dissolving salt in water
3. Clean the meat
4. Cut the meat into lean pieces. Place the meat in a clean container
5. Pour the brine into water. Ensure the meat is completely covered with brine

6. Leave the meat in brine for at least two days
7. Drain off brine from the meat. Dispose water appropriately.
8. Hung brined meat in a screened cage outdoors. Use S shaped hooks to hold the strips.
9. Store meat correctly after preservation in a clean covered container in cool and dry conditions.

Advantages of preserving meat using salting

1. Salt is cheap
2. Salted meat is tender
3. Nutrients are retained in the meat juices
4. Salt kills bacteria hence preventing the meat from spoiling

Disadvantages of preserving meat using salting

1. Salted meat is unsuitable for people suffering from high blood pressure
2. Salted meat contributes to weak bones
3. Salted meat increases the risk of contracting kidney stones. A kidney stone is a solid piece of material that forms in the kidney from substances in the urine.

Smoking

Smoking is a method of preserving meat by exposing it to smoke and heat from open fire.

Requirements

Fresh meat, chopping board, hooks, fire pit, gloves, hammer, nails, dry wood, plastic container, jembe, panga, two poles

Procedure for preserving meat using smoking

1. Use a jembe to dig a shallow pit at a convenient site
2. With a panga, make a hole on each side of the pit
3. Erect the 1.5m poles on each hole. Join at the top with with the one 1m pole using nails and a hammer.
4. Hung several hooks on the 1m pole
5. Make a fire with the dry wood. Smoke will be created
6. Cut meat for few hours
7. Air dry the meat for a few hours
8. Hung the meat on the S hook over the smoke.
9. Ensure regular supply of smoke by adding dry wood chips.
10. Smoke the meat completely until dry
11. Store meat correctly after its preservation in a cool dry place.

Advantages of preserving meat using smoking

1. The smoke coats the meat and keeps off bacteria and fungi
2. Flavour of the meat is improved

3. Smoked meat has enhanced aroma and appearance

Disadvantages of preserving meat using smoking

1. It requires close attention; one should add firewood from time to time to ensure that smoke is continuously emitted.
2. Too much heat will cook the meat before it is properly smoked.
3. The process requires close attention and monitoring.

Using different methods and procedure to prevent meat at home

Pupils activity

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Hygiene measures while preserving and storing meat at home

- Observing hygiene when preserving meat is very important to ensure there is no spoilage of meat
- Proper hygiene also prevents contamination of food that can easily lead to food borne disease
- Wash your hands with clean water and soap before handling meat
- Cut the meat on a clean chopping board
- Do not mix different types of meat in one container
- Use clean equipment to preserve and store meat.