



Primary 5 Integrated Science

Term 3

Theme: HUMAN HEALTH

Topic 3/4 – Food and Nutrition

Learning Outcome: The learner is able to use scientific knowledge and skills necessary for keeping bigger animals and become able to start and manage animal keeping projects.

Breast feeding

Breastfeeding is the practice of feeding an infant or young child with milk directly from the mother's breast.

Key Points about Breastfeeding

- **Natural nutrition:** Breast milk provides all the essential nutrients (proteins, fats, vitamins, minerals) needed for a baby's growth and development.
- **Immunity boost:** It contains antibodies that help protect the baby against infections and diseases.
- **Bonding:** Promotes emotional closeness between mother and child.
- **Health benefits for mother:** Helps the uterus return to its normal size after childbirth and can reduce the risk of certain cancers.
- **Convenience:** Always available, at the right temperature, and free of cost.

Benefits at a Glance

For Baby	For Mother
Strong immunity	Faster recovery after birth
Healthy growth	Reduced risk of breast & ovarian cancer
Lower risk of allergies	Natural birth control (temporary)
Emotional comfort	Promotes bonding

Benefits of breast feeding to the family

- (i) Saves the cost of buying milk.
- (ii) Less baby illness hence less inconveniences to the family such as hospitalization

Disadvantages of breast feeding

- (i) Transmits HIV in positive mothers
- (ii) May cause sore nipples and breast infections
- (iii) Some mother do not have enough breast milk for their babies
- (iv) Frequent feeding especially at night cause fatigue to the mother
- (v) Cannot be applied in the absence of the mother
- (vi) Limits the mother's flexibility for work, travel, or social activities.

Exercise 1

State any two advantages of breastfeeding.

Bottle feeding

Bottle feeding is the practice of feeding infants (or young animals) with milk or formula using a feeding bottle instead of directly breastfeeding.

Advantages of bottle feeding

- (i) Allows other caregivers (not just the mother) to feed the baby.
- (ii) Convenient when the mother is unavailable or unable to breastfeed.
- (iii) Makes it easier to measure and monitor the amount of milk consumed.
- (iv) Formula feeding can be used when breast milk is insufficient or unavailable.

Disadvantages

- (i) Formula lacks some of the natural antibodies found in breast milk.
- (ii) Requires careful sterilization of bottles to avoid infections.
- (iii) More expensive compared to breastfeeding.
- (iv) Can be less convenient at night since preparation is needed.

Exercise 2

- (i) Give one advantage and one disadvantage of bottle feeding.
- (ii) Why should breastfeeding encouraged in mothers.

The vulnerable groups

These groups of people that are more likely to suffer illness, malnutrition, or physical limitations due to their circumstances.

Vulnerable Groups by Health, Physical, and Nutritional Status

1. Children (especially under 5 years)

- **Health:** Susceptible to infections and childhood diseases.
- **Physical:** Dependent on caregivers, limited ability to protect themselves.
- **Nutritional:** High risk of malnutrition, stunting, and micronutrient deficiencies.
- **Recommended food:** Breast milk (for infants), fortified porridge, eggs, milk, fruits, vegetables, legumes.
- **Reason for food choice:** Supports growth, immunity, and prevents stunting/malnutrition.

2. Pregnant and Lactating Women

- **Health:** Increased risk of complications during pregnancy and childbirth.
- **Physical:** Higher physical demands due to pregnancy and breastfeeding.
- **Nutritional:** Need extra nutrients (iron, folic acid, protein) to support mother and child.
- **Recommended Foods:** Iron-rich foods (meat, beans, green leafy vegetables), folate-rich foods (oranges, spinach), protein (milk, eggs, fish), calcium (milk, yogurt).
- **Reason for food choice:** Supports maternal health and fetal/infant development.

3. Elderly People

- **Health:** Prone to chronic diseases (diabetes, hypertension, arthritis).
- **Physical:** Reduced mobility and strength, higher risk of disability.
- **Nutritional:** May suffer from poor appetite, difficulty chewing, or nutrient absorption issues.
- **Recommended Foods:** Soft, easy-to-chew foods like porridge, soups, bananas, cooked vegetables, fish, milk.
- **Reason for food choice:** Provides nutrients while accommodating reduced appetite and chewing difficulties.

4. Persons with Disabilities

- **Health:** May face barriers to accessing healthcare.
- **Physical:** Limited mobility or sensory impairments.
- **Nutritional:** Dependence on caregivers can affect diet quality and food access.
- **Recommended Foods:** Balanced diet with proteins (beans, eggs, fish), carbohydrates (maize, rice, potatoes), fruits, and vegetables.
- **Reason for food choice:** Maintains strength and immunity, especially if mobility is limited.

5. People Living with Chronic Illnesses (e.g., HIV/AIDS, TB, diabetes)

- **Health:** Weakened immune systems, frequent medical needs.
- **Physical:** Reduced energy and productivity.
- **Nutritional:** Require specialized diets to manage conditions.
- **Recommended Foods:** High-protein foods (meat, legumes, eggs), energy-rich foods (whole grains, nuts), fruits and vegetables for vitamins.
- **Reason for food choice:** Strengthens immunity and helps manage disease progression.

6. Low-income Families / Food-insecure Populations

- **Health:** Limited access to healthcare services.
- **Physical:** Often engaged in hard labor but with poor living conditions.
- **Nutritional:** High risk of hunger, undernutrition, or reliance on poor-quality diets.
- **Recommended foods:** Affordable staples like maize, beans, sweet potatoes, cassava, leafy greens, groundnuts.
- **Reason for the food choice:** Provides essential nutrients at low cost, reduces hunger.

☞ In short: vulnerable groups in terms of **health, physical, and nutritional status** include **children, pregnant/lactating women, the elderly, persons with disabilities, people with chronic illnesses, and low-income families.**

Exercise 3

Name two vulnerable people in your community.

Traditional customs and food taboos in communities.

Traditional customs and food taboos are deeply tied to cultural identity, beliefs, and values. They influence what communities eat, how food is prepared, and who is allowed to consume certain foods.

1. Religious-Based Taboos

- **Islam & Judaism:** Pork is forbidden.
- **Hinduism:** Beef is taboo because cows are considered sacred.
- **Christian fasting traditions:** Certain foods (like meat) are avoided during Lent.

2. Cultural & Community Practices

- Some African communities restrict children or women from eating eggs or chicken, believing it may cause greed or infertility.
- In parts of Asia, pregnant women avoid “cold” foods (like bananas or pineapples) due to beliefs about harming the baby.
- Certain tribes forbid eating fish during pregnancy, fearing it may cause deformities in the child.

3. Health & Symbolic Beliefs

- Some foods are avoided because they are thought to cause illness or bad luck.
- In traditional medicine systems, foods are classified as “hot” or “cold,” and taboos prevent mixing them improperly.
- Rituals often dictate who can eat sacrificial meat or special ceremonial foods.

Examples Table

Community/Religion	Food Taboo	Reason
Islam, Judaism	Pork	Religious prohibition
Hinduism	Beef	Cow is sacred
African tribes	Eggs/chicken for women/children	Belief in infertility/greed
Asian traditions	Cold foods in pregnancy	Fear of harming baby
Fishing communities	Fish in pregnancy	Fear of deformities
Christian practices	Meat during Lent	Religious fasting

☞ In short: food taboos and customs are **not just about nutrition** — they reflect **spiritual beliefs, cultural identity, and social order** within communities.

Effects of food taboos in nutrition.

1. Negative Effects

- **Nutrient Deficiencies:**
 - Example: Communities that forbid women or children from eating eggs, chicken, or fish may face protein and vitamin deficiencies.
- **Poor Growth & Development:**
 - Children denied nutrient-rich foods may suffer stunting or weakened immunity.
- **Pregnancy Risks:**
 - Pregnant women restricted from eating iron-rich foods (like meat or leafy greens) may develop anemia, affecting both mother and baby.
- **Reduced Dietary Diversity:**
 - Avoiding certain foods limits variety, leading to imbalanced diets.

2. Positive Effects (in some cases)

- **Health Protection:**
 - Some taboos prevent consumption of foods that may carry disease risks (e.g., avoiding undercooked meat or certain fish).
- **Cultural Identity & Social Cohesion:**
 - Food taboos reinforce traditions and community belonging, though this is more social than nutritional.

3. Overall Impact

- Food taboos often **restrict access to nutrient-rich foods**, increasing vulnerability to malnutrition, especially among children, women, and the elderly.
- They can also **shape dietary patterns** in ways that persist across generations, influencing long-term health outcomes.

Summary Table

Effect Type	Example	Nutritional Impact
Nutrient deficiency	Eggs taboo for children	Lack of protein, vitamins
Pregnancy risks	Meat taboo for women	Anemia, poor fetal growth
Reduced diversity	Avoiding fish or greens	Imbalanced diet
Health protection	Avoiding unsafe foods	Prevents illness
Cultural cohesion	Ritual food restrictions	Strengthens identity

Staple Foods of Different Communities in Uganda

1. Central Region (Baganda)

- **Staple:** *Matoke* (steamed green bananas/plantains).
- Often served with groundnut sauce, beans, or meat.
- Considered the national dish of Uganda.

2. Northern Region (Acholi, Langi, Alur)

- **Staple:** *Millet bread (kalo)* and sorghum.
- Usually eaten with *simsim* (sesame paste), beans, or meat stews.
- Millet is highly valued for its energy and cultural significance.

3. Eastern Region (Basoga, Iteso, Bagisu, Karimojong)

- **Staple:** *Posho* (maize meal) and cassava.
- Beans, groundnuts, and fish are common accompaniments.
- In Karamoja, sorghum is especially important.

4. Western Region (Banyankole, Bakiga, Batooro, Banyoro)

- **Staple:** *Matoke* and *millet bread*.
- Milk and milk products (like ghee) are central among the Banyankole.
- Sweet potatoes, Irish potatoes, and beans are also widely consumed.

Exercise 4

- (i) What is a food taboo?
- (ii) Give one example of food taboo.
- (iii) State one disadvantage of food taboo.

Revision exercise

1. State any one way through which breastfeeding prevents diseases in babies.

Breast milk contains antibodies that strengthens the baby's immune system and help fight off infections.

2. (a) What is meant by the term vulnerable group of people?

These groups of people that are more likely to suffer illness, malnutrition, or physical limitations due to their circumstances.

- (b) Apart from the sick, name one other group of vulnerable in a community.

- (i) Elderly
- (ii) Pregnant mothers
- (iii) Lactating mothers

- (c) State any two ways in which you can care for the sick in your community.

- (i) Take them to hospital.
- (ii) Encourage them to take their medicines in time.
- (iii) Provide counselling
- (iv) Washing his/her clothes

3. Mention any way in which food may get contaminated after it has been prepared.
 - By placing it in dirty containers/plates
 - Eating with contaminated hands
 - Contaminated by flies.

4. Apart from pregnant mothers, young and disabled people, give any one other group of people who need special care in a family.

- Elderly
- Chronically sick people

5. (a) State one primary health care activity children can do to help their mothers when cooking.

Sweeping kitchen, washing utensils, fetching water, drying containers, whipping utensils

(b) Write down three health care activities that can be provided to the elderly in our homes.

(i) Bathing him/her

(ii) cutting finger nail

(iii) cleaning room

(iv) washing clothes

(v) feeding them

(vi) giving treatment

(vii) beddings

(viii) cleaning their room

(ix) iron

Thank You

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