

P.4 SCIENCE WEEK7

BALANCED DIET

This is a meal which has all food values in their right amounts.

Components of a balanced diet

- i) Proteins
- ii) Carbohydrates
- iii) Fats
- iv) Vitamins
- v) Water
- vi) Roughages/fibre.

WATER

Uses of water

- i) Softens food during digestion
- ii) Dissolves digested food for transport by blood.
- iii) Dissolves waste products for transportation to the excretory organs.
- iv) It helps to control body temperature through sweating.

Sources of water in the body.

- i. Drinking water directly.
- ii. Tea, porridge, milk.
- iii. Juice
- iv. Fruits e.g. mango, oranges and pineapples.
- v. Soup.

ACTIVITY:

1. Briefly explain a balanced diet.
2. Give any three components of a balanced diet.
3. How is water useful in the body?
4. Why is distilled water not recommended for drinking?

ROUGHAGES (FIBRE)

It is made of plant materials which cannot be digested.

Use:

- i) Roughages provide grip for the muscles of the alimentary canal to push the food along.

- ii) It adds bulk to the food.
- iii) It enables the muscles of the alimentary canal to grip food and keeps it moving by peristalsis.

NB: Peristalsis is the movement of food along the alimentary canal.

Sources of roughages

- i) Cereals
- ii) Vegetables
- iii) Fruits

ACTIVITY:

1. State the importance of roughages in the body.
2. Outline any two sources of roughages.
3. Which digestive disorder is experienced due to lack of roughages in the body?
4. Briefly explain peristalsis.

DEFICIENCY DISEASES

These are diseases caused by lack of certain food values in the body.

1. KWASHIORKOR

- a) It is caused by lack of enough proteins in the diet.
- b) Signs of kwashiorkor
 - i) Swollen belly
 - ii) Swollen moon face
 - iii) Swollen feet and hands.
 - iv) Skin rash
 - v) Brown hair

c) Prevention

Eat foods rich in proteins.

2. MARASMUS

a) Cause

It is caused by lack of enough carbohydrates in the diet.

b) Signs of marasmus

- i) Old man's face
- ii) Pot belly
- iii) Thin body
- iv) Always hungry
- v) Weaknesses

Prevention

Eat food rich in carbohydrates.

ACTIVITY:

1. Briefly explain deficiency diseases.
2. State the cause of kwashiorkor
3. Suggest one way of preventing kwashiorkor.
4. Name one deficiency disease called due to lack of carbohydrates in the diet.

3. ANAEMIA

- i) It is caused by lack of enough iron in the diet.
- ii) It is prevented by eating foods rich in iron, like liver, eggs, cereals and kidney.

4. GOITRE

- i) It is caused by lack of enough iodine in the diet.
- ii) It is prevented by eating foods rich in iodine, like sea foods and iodised salt.

Signs of goitre

- A swelling in the neck.

Activity:

1. Briefly explain the term anaemia.
2. What causes anaemia?
3. Mary has a swelling around the neck. Name the deficiency disease she is suffering from.

PROPER HANDLING OF FOOD

This is handling of food in a way that prevents it from being contaminated.

Ways of proper handling of food.

- i) Wash hands before preparing food.
- ii) Wash hands before serving food.
- iii) Wash vegetables and fruits before eating them.
- iv) Prepare food in a clean place.
- v) Serve food in clean containers.

Importance of proper handling of food

1. It prevents food contamination
2. It preserves food for future use.
3. It protects the food from pests.

ACTIVITY:

1. Suggest one proper way of handling food.
2. Give one effect of proper handling of food.
3. Identify any one disease that can result from poor handling of food.

FOOD CONTAMINATION

This is the making of food dirty.

Dangers of poor handling of food

- i) It spreads germs
- ii) It causes the food to go bad
- iii) It may cause food poisoning.

Ways food gets contamination

- i) Serving food with dirty hands.
- ii) Serving food in dirty utensils.
- iii) Houseflies and cockroaches
- iv) Preparing food in a dirty environment.
- v) By dust falling on uncovered food.

ACTIVITY:

1. Briefly explain the term food contamination.
2. Suggest one way food gets contaminated.
3. Mention one danger of poor handling of food.

GOOD EATING HABITS

- i) Wash hands before eating food.
- ii) Sit upright when eating food.
- iii) Chew food properly before swallowing.
- iv) Avoid talking while eating food.
- v) Chew food when the mouth is closed.

Bad eating habits

- i) Eating food with unwashed hands.
- ii) Bending/lying down while eating food.
- iii) Swallowing food before chewing it properly.
- iv) Chewing food with an open mouth.
- v) Putting big lumps in the mouth at one time.

Dangers of bad eating habits.

- i) Eating food with unwashed hands contaminates food and may lead to diarrhoea.
- ii) Bending while eating food interferes with movement of food in the alimentary canal.
- iii) Swallowing food before proper chewing can lead to indigestion. It can also lead to choking.
- iv) Talking when food is in the mouth and spitting food on other people near you.
- v) Big lumps can lead to indigestion.

ACTIVITY:

1. Identify any two good eating habits.
2. Give any two bad eating habits.
3. Suggest any two dangers of bad eating habit

FOOD PRESERVATION

This is the keeping of food free from germs.

Ways of preserving food.

- i) Sun drying e.g. cassava, e.g. cassava, beans
- ii) Salting e.g. meat
- iii) Smoking e.g. fish
- iv) Tinning/ bottling/ canning
- v) Refrigerating e.g. oranges, green vegetables, milk
- vi) Roasting e.g. meat
- vii) Boiling and heating

ACTIVITY;

1. Briefly explain food preservation.
2. State two ways of preserving food.
3. Why do we preserve food?

FOOD SECURITY

This is when a family / community has enough food for eating all year around.

Food security can be achieved through.

- a) Growing enough food.
- i) Proper storage of food.
- ii) Preservation of food.
- iii) Practicing proper farming methods.

Importance of food security

- i) The family has enough food to eat throughout the year.
- ii) It prevents deficiency diseases in the family.

ACTIVITY;

1. Briefly explain food security.
2. State two ways we can achieve food security.
3. Suggest one importance of food security.