

ENVIRONMENTAL STUDIES

HEALTH

Teacher's Book

Year 5

A RIGHT FOR ALL



DEVELOPED JOINTLY BY :
THE MINISTRIES OF EDUCATION,
HEALTH,
AGRICULTURE
AND UNICEF

CURRICULUM DEVELOPMENT CENTRE OF VANUATU

ENVIRONMENTAL STUDIES

GENERAL AIMS

To help each child to develop all his skills (physical, intellectual, emotional and social) so that, as an adult, he can:

- Participate in society
- Take part in the economy
- Take part in politics
- Communicate
- Adapt to differing or changing environments

These aims go beyond the school context and are the result of three types of general objectives:

1. Knowledge (knowledge-connected objectives)
2. Skills (methodological objectives)
3. Constructive behaviour (behavioural objectives)

- KNOWLEDGE + SKILLS + CONSTRUCTIVE BEHAVIOUR = GOOD DEVELOPMENT

REALIZATION COMMITTEE

HEALTH DEPARTMENT

Ms. NAUPA Margaret - National M.C.H. Coordinator
Ms. YAKAM Winnie - School Nurse - M.C.H. Section
Ms TAIWIA Lifan - School Nurse - M.C.H. Section
Ms. TEISSIER/LANDGRAF M.C. - H.N.A. Project Coordinator
Mr. MOLBAH Christian - Artist illustrator
Ms. TAGA Yvannah - Word processor secretary

MINISTRY OF EDUCATION

Curriculum Development and Research Centre of Vanuatu

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TEACHING HEALTH IN YEAR 5

WHY TEACH HEALTH, NUTRITION, AGRICULTURE IN PRIMARY SCHOOL PROGRAMMES.

Health is a fundamental right of all people, and VANUATU is officially committed to the world wide goal of achieving Health for all by the year 2000, by participating in the policy of Primary Health Care (PHC).

The ambition of this policy is to request the participation of all the people of this country to the decisions and actions aimed to promote the health of everyperson, family, and community.

Children who are the citizens of tomorrow, must be educated to be responsible for their own health as well as the health of people who surround them.

School is the privileged place to achieve such education that must be carried out by teachers in cooperation with children's parents, with specialists from health and agriculture departments.

On the other hand, in Vanuatu, school child's health is threaten by diseases that can be avoided with an effective education. These diseases are, by order of importance :

Scabies and other skin infections, malaria, respiratory infections, diarrhea associated with insufficient weight, eye infections (conjunctivitis), ears infections (otitis).

This explains why, from why, Health and its two related subjects Nutrition and Agriculture, are taught in school curriculum.

The general objectives of this programme are :

- 1) To make children get into healthy practices.
- 2) To develop in children the desire to be in good health and to eat correctly, as to develop the respect of any kind of plant and animal life.
- 3) To develop a knowledge of the human being, an understanding of the different components leading to health and to sickness; to develop a knowledge of local food leading to good nutrition; to develop a knowledge of family gardening and breeding methods.
- 4) To develop in children skills and abilities to improve Health, Nutrition, Gardening, Breeding at family and community levels.

TEACHING HEALTH IN YEAR 5 -

- WHAT IS NEEDED FOR A GOOD SCHOOL HEALTH PROGRAMME.

The Health, Nutrition and Agriculture curriculum is only one part of a complete school health programme.

A good school health programme also includes regular medical services for school age children and a healthful school environment, as follow :

SCHOOL HEALTH SERVICES :

- 1) Regular appraisal with
 - a) Regular medical examination with health records.
 - b) Screening tests : vision-hearing-dental-growth and development.
 - c) Teacher's continuous observations
- 2) Health counselling & Guidance (informal education)
- 3) Prevention of communicable diseases.
- 4) Emergency and first Aid - Safety -

HEALTHFUL ENVIRONMENT :

- 1) Water supply for drinking and washing.
- 2) Safe disposal of rubbish.
- 3) Availablilities of toilet facilities.
- 4) Safe school buildings : space, ventilation, lighting.
- 5) Healthful arrangements of school day activities.
- 6) Good human relationship, good communications, warm friendliness.
- 7) Enough space for recreational activities.

HEALTH EDUCATION :

- 1) Health Education (formal education)
- 2) Integration with other subjects.
- 3) Children's motivation for the desire and to attain good health.
- 4) Development of analytical thinking skills and health practices.
- 5) In-service health education of teachers.
- 6) Health education of parents and community groups to get their effective participation to the school health programme.

TEACHING HEALTH IN YEAR 5 -
IN THE ENVIRONMENTAL STUDIES CURRICULUM YEAR 5

GENERAL PRESENTATION OF THE PROGRAMME

The programme in Year 5 develops three main topics :

- 1) The discovery of the human body : mainly how it works because this helps to understand some diseases, some health hazards like cigarets and alcohol, some preventive measures.
- 2) A deeper and broader discovery of what is health, that leads to a better understanding of the importance of prevention.
- 3) The children's active involvement to improve the standards of their own health and the quality of life of their younger brothers and sisters, and of the younger children of their community.

Because the vocabulary becomes speciallized, this book contains a glossary of terms to allow an easier and a quicker preparation of the lessons.

In the lesson series "How our body works", teacher's notes have been voluntary very much detailed, to allow teachers to do these lessons with confidence, even when they have no possibility to read other complementary books and documentation on this subject.

TEACHING HEALTH IN YEAR 5 -

Table of contents

Pages

<u>BODY CLEANLINESS - HOW OUR BODY WORKS</u>	
1) Body cleanliness.....	
2) Body cleanliness (suite).....	
3) Functions of the bones.....	
4) Function of the muscles	
5) The digestive system	
6) The respiratory system	
7) The circulatory system	
8) The urinary system	
9) The Nervous system	
10) Revision of the most difficult lessons	
11) Revision of the most difficult lessons	
12) Revision of the most difficult lessons	
<u>CAUSE & PREVENTION OF DISEASES - BEING HEALTH RESPONSIBLE - FIRST AID</u>	
13) One causes of diseases : ignorance.....	
14) One causes of diseases : poor hygiene	
15) Prevention of diseases : cleanliness around us	
16) " " : fitness	
17) " " : Immunizations	
18) " " : Prevention of malaria & dengue	
19) Being health responsible : What to do ?.....	
20) " " " : Implementing the activity...	
21) " " " : "	
22) " " " : Evaluation.....	
23) First Aid : the wounds	
24) First Aid : the bleedings	
<u>HEALTH HAZARDS : SMOKING & DRINKING - GOOD HEALTH - HEALTH RESPONSIBLES</u>	
25) The respiratory system (revision)	
26) Health hazard : smoking	
27) The nervous system : revision	
28) Health hazard : alcohol	
29) The healthy person	
30) Being health responsible : implementing the activity ...	
31) " " " : " " ...	
32) " " " : " " ...	
33) " " " : " " ...	
34) " " " : Evaluation " ...	
35) " " " : Evaluation " ...	
36) " " " : Presentation of what has been done..	

TEACHING HEALTH IN YEAR 5

WEEK	TERM	1st TERM	2d TERM	3rd TERM
1		Body cleanliness	Cause of disease ignorance	The respiratory system (revision)
2		Body cleanliness	Cause of disease poor hygiene	Health hazard smoking
3		Functions of the bones	Preventing diseases: Cleanliness around us	The nervous system (revision)
4		Functions of the muscles	Preventing diseases: fitness	Health hazard alcohol
5		The digestive system	Preventing diseases: immunizations	The healthy person
6		The respiratory system	Preventing Malaria	Being Health responsible
7		The circulatory system	Being Health responsible	" (suite)
8		The urinary system	" (suite)	" (suite)
9		The nervous system	" (suite)	" (suite)
10		Revision	" (suite) Evaluation	(suite) Evaluation
11		Revision	First Aid : Wounds	Preparation of the presentation
12		Revision	First Aid : bleeding	Presentation

TEACHING HEALTH IN YEAR 5

: Essential understanding of the human body, through :
: some very important definitions (compulsory teacher's :
: knowledge). :
: -----

Everychild is curious about what goes on inside the human body : why we breathe, what make us hungry, what happens to food when it is eaten, what makes the heart beat, and so on ...

To understand all these questions it is necessary to know a little about the anatomy or structure, and the physiology or function of the body.

- The body is made up partly of fluids and partly of other materials. The fluids are blood, lymph and secretions such as saliva and gastric juice.

- Cells of all kinds consist of fluids and solids. They all have a nucleus without which cells could not multiply.

- Cells vary in size, shape, and structure : muscle cells grouped together in great numbers form muscle tissue. Bone cells grouped together form bones and so on.

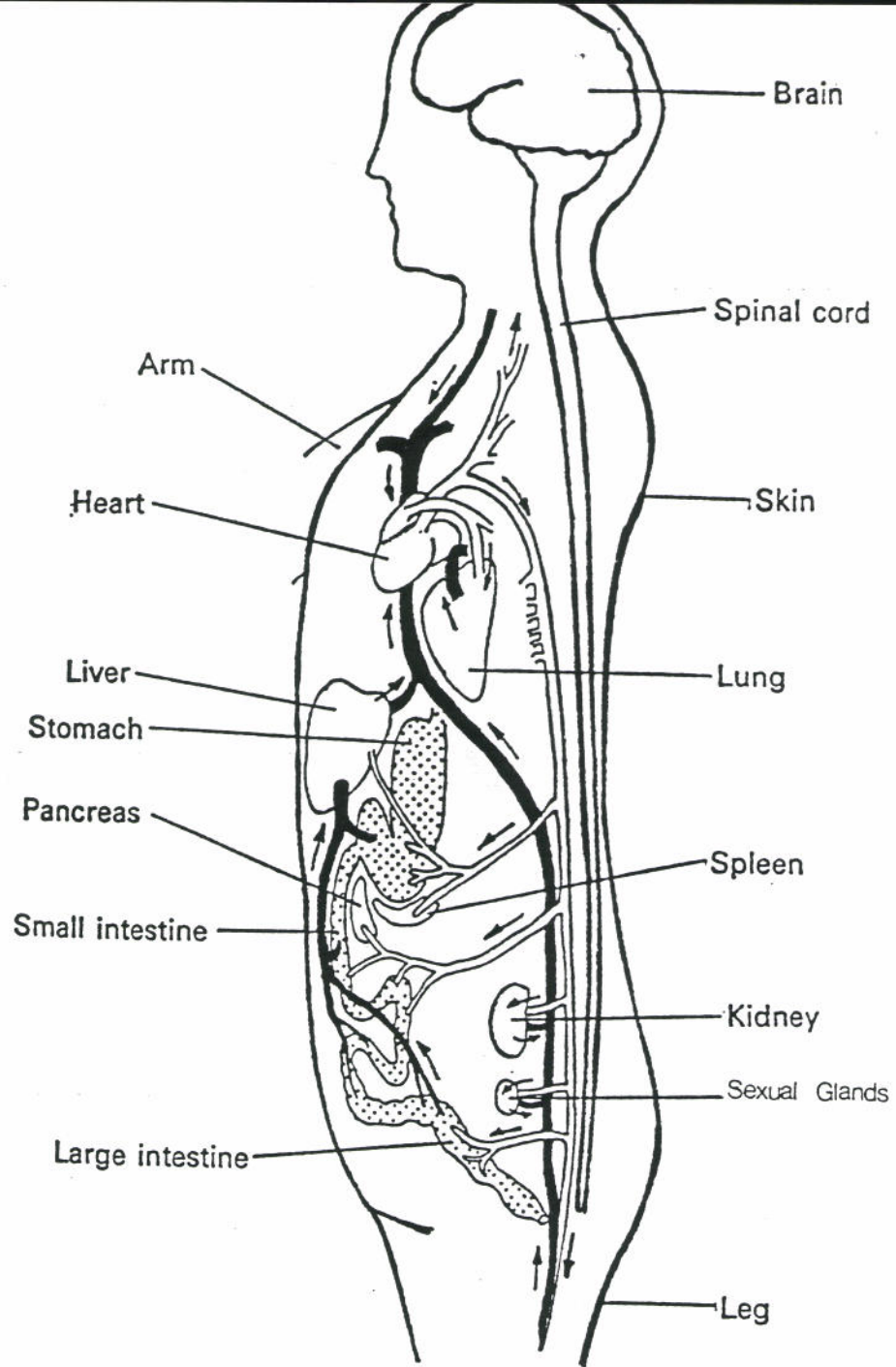
- Sometimes cells of different kinds, group together, and form an organ.

An organ is a part of the body that has a special function to perform. Heart, stomach, brain, eye, ear, kidneys are organs : they are made up of different types of cells all working together.

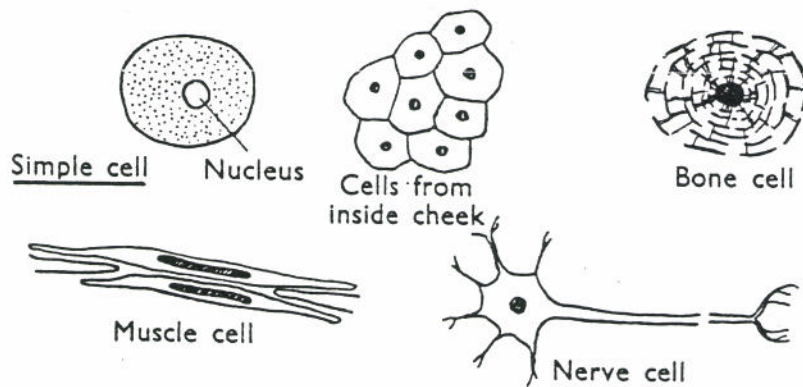
- Parts of the body working together to perform a special function are grouped into systems.

Here are some examples of the body systems :

SYSTEMS	SOME FUNCTIONS
1) The bone or skeletal system	Maintenance of posture - protection of organs - movements (articulations).
2) The muscular system	Support, maintenance of posture and movements.
3) Digestive system	To make food soluble - Allow soluble food and water to be absorbed into the blood. Get rid of unwanted food material.
4) The respiratory system	To move air in and out of the body - To bring oxygen into the blood - To excrete carbon dioxide from the blood to the air.
5) The circulatory system	Circulation of blood through all parts of the body.
6) The urinary system	To remove wastes from blood. To control the water balance and the salt content fo the body.



Some parts of human body.(simplified)



Various body cells

- 7) The nervous system To decide an actions to be taken, to control many activities of the body. To memorize - to imagine.
- 8) The reproductive system To produce new human beings.

- The body is divided up into a head, a trunk and the limbs or extremities.

- The head consists of the face and the skull.

- The trunk contains a large cavity divided by the diaphragm into an upper and a lower section.

- The upper section of the trunk or chest contains the lungs (part of the respiratory system) and the heart (circulatory system).

- The lower section of the trunk or abdomen contains the stomach, liver, pancreas, intestines, and kidneys.

N.B. : All the medical informations on the human body, given for the teacher in these lessons, come from a book made by the department of Education at Wellington (New Zealand). It is a teacher's book entitled : "Health - suggestions for health education in primary schools".

TEACHING HEALTH IN YEAR 5

Lesson 1 . BODY CLEANLINESS

Objectives : To revise some methods of personal cleanliness.

Teacher's notes

This lesson is the summary of what has been learned and repeated every year since grade 1. This is the last time the children study this topic in the health programme. At the next health lesson, the students will have to improve their personal appearance. Therefore, it is important for them to know what to do to have clean hair, clean skin, clean fingernails and healthy teeth.

Detailed informations assorted with pictures are provided to let you free to organize your lesson as you prefer, according to the students and to the place you teach.

Time : 30 minutes

Method

- 1) Introduce the topic by saying that :
 - a clean body makes us strong and healthy.
 - a clean body makes us feeling good about ourselves.
 - a clean body makes us fit to work and to enjoy life (to play games, sports, fishing etc.)

- 2) Ask students what every body has to do to have a clean body.
(answers : to clean hair - teeth - hands with fingernails - to clean the face - to bath every day to have a nice skin - to wear clean clothes - to eat the right foods.)

- 3) The students might not mention the necessity to have a proper diet, stress this fact by saying that eating the right foods improves our look. Some foods make our hair strong and shiny, our skin smooth, our nails strong, our teeth white without any painful caries.

Eating good foods make us feeling better about ourselves.
Eating good foods means eating a variety of fresh local foods everyday.

- 4) Present and discuss the following pictures with their texts.

Summary

- A clean body makes us strong and healthy
- A clean body makes us feel good about ourselves.
- A clean body makes us fit to work and to enjoy life.



WASH YOUR HANDS EVERY TIME BEFORE YOU EAT.

WASH YOUR HANDS EVERY TIME AFTER COMING BACK FROM TOILETS.

- DIRTY HANDS MAKE PEOPLE SICK.

- . Dirty hands turn scratches into sores.
- . Dirty hands give skin problems
- . Dirty hands give worm infections and diarrhea.
- . Dirty hands give eye disease, flu and many other diseases.

TO BE CLEAN AND HEALTHY WASH YOUR HANDS.
OFTEN WASH THEM WITH SOAP AND WATER.

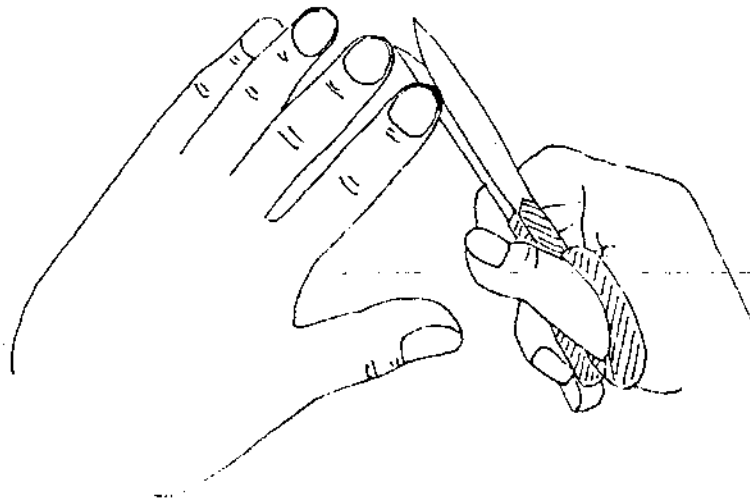
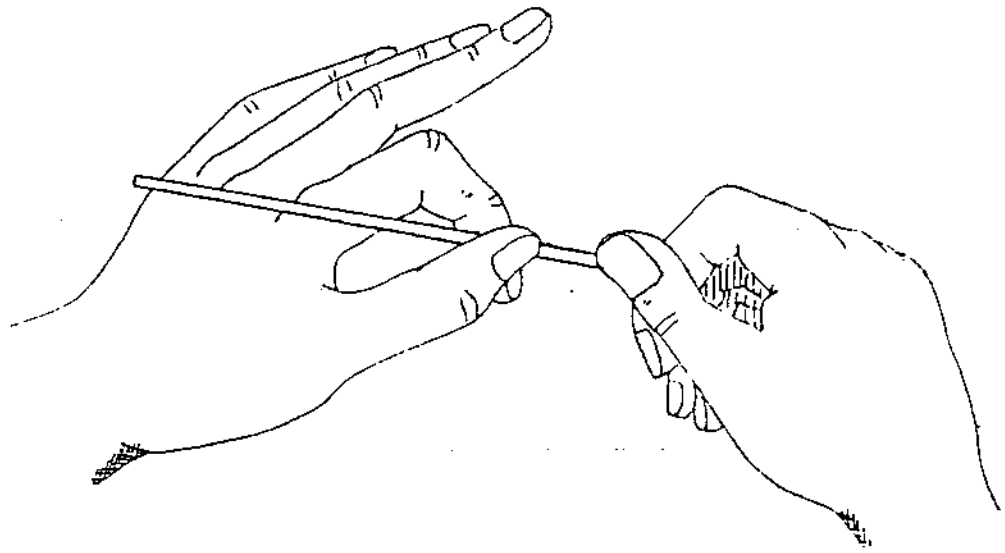
- Wash your hands everytime before you eat.
- Wash your hands everytime after coming back from toilets.

MICROBES AND WORM EGGS HIDE UNDER FINGER
NAILS.

TO BE CLEAN AND HEALTHY :

- Keep your fingernails short
- Keep clean under your fingernails.

how to care for fingernails



keep your fingernails clean and short

WE CAN HAVE HEALTHY TEETH BY :

1) Keeping our teeth clean

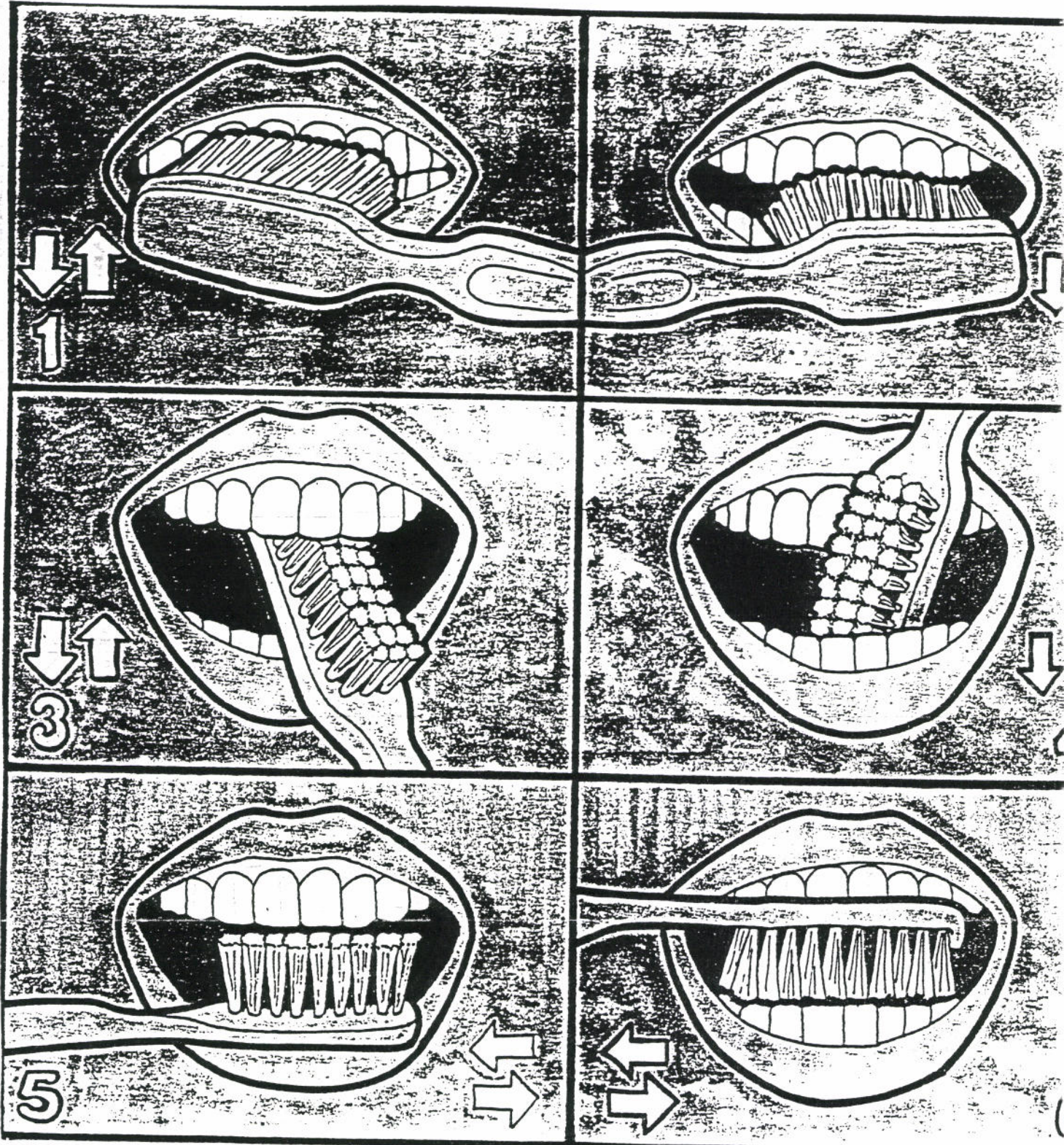
When we brush our teeth everyday we get rid of many germs. Brushing teeth must be done after meals. Brushing teeth before sleeping at night is very important.

We can use a toothbrush from the store, or we can make one with a small stick of soft wood.

2) Not eating too often many sweet foods like candy, ice cubes, cookies, sodas.

3) Eating fish and local fresh fruits and vegetables.

TOOTH BRUSHING



HOW TO CARE FOR SMALL CUTS AND SMALL SORES.

Step 1. - Wash your hands before caring for cuts and sores

Step 2. - Wash cuts and sores with clean water and soap.

ALWAYS DO STEP 2

If you do not have any soap, use clean water.

Step 3. - Put on an antiseptic to kill germs.

Gentian violet and mercurochrome lotions are antiseptics.

If you do not have any antiseptic use boiled salty water.

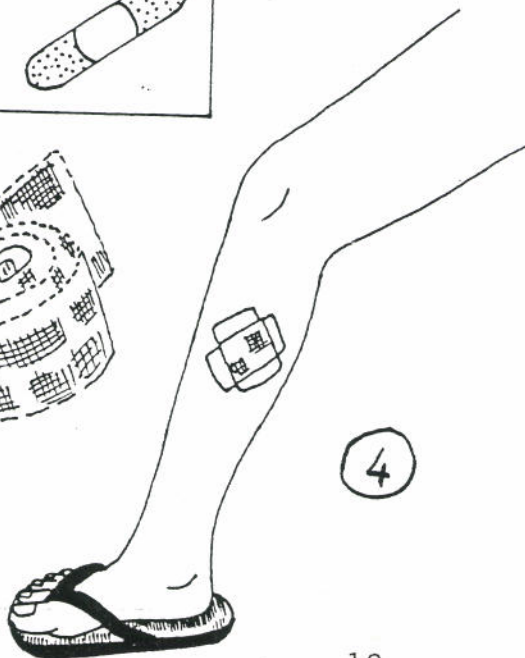
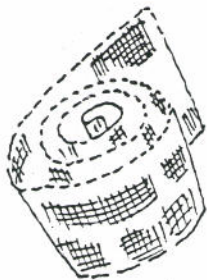
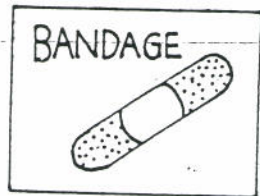
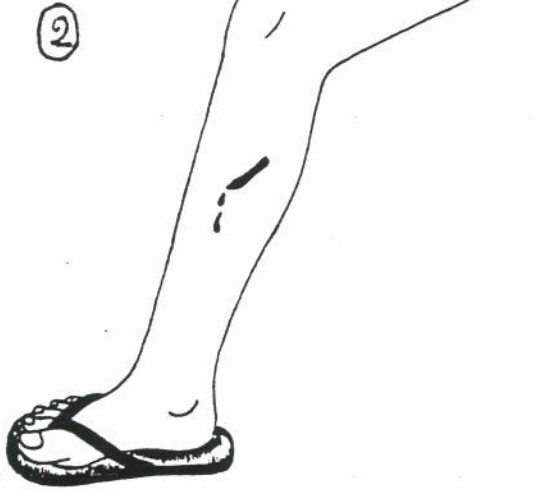
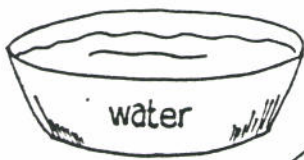
Step 4. - Cover with a clean cloth or bandage.

Do step 4 to keep out germs, dirt and flies.

Do step 4 even if you do not use antiseptic.

Step 5. - Wash your hands with soap and water after caring for cuts and sores.

**TO PREVENT SMALL CUTS AND SORES
TO BECOME BIGGER CARE FOR THEM
AT ONCE. DON'T WAIT.**



WHITE SPOTS ON THE SKIN can be caused by several things. Usually white spots are caused by fungus. This can be treated with medicine from Dispensaries and from the Chemist. It is necessary, at the same time, to wash all the clothes with soap and water.

SOAP AND WATER IS THE BEST WAY TO PREVENT SKIN PROBLEMS :

- 1) Wash your clothes with soap and water every day - Let them dry in the sunshine.
- 2) Wash your hair and your body every day with soap and water - Dry your body with a clean towel that belongs only to you.
- 3) Let your towel dry in the sunshine.

There are also white spots which are caused by a disease called leprosy. The white spots caused by leprosy lose their feeling : pain is not felt on these spots.

A burn cannot be felt on a leprosy spot. It must be treated by a doctor who can give medicine to cure the disease.

CLEAN HABITS

soap + water = healthy body



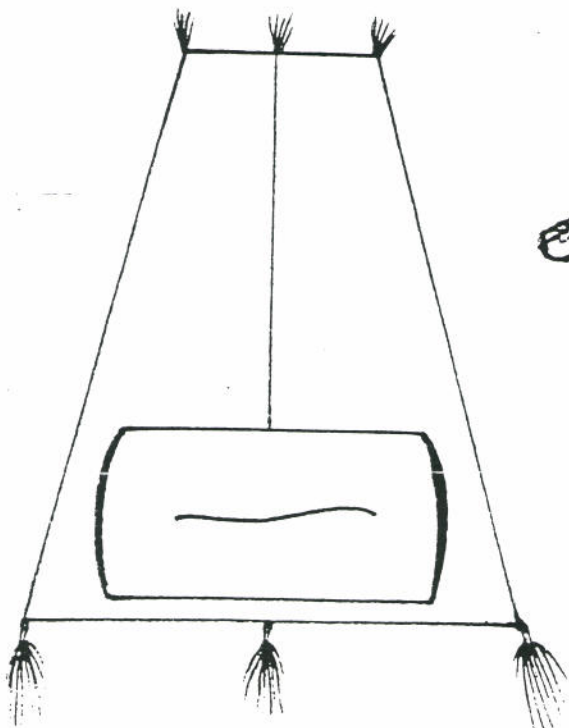
Sometimes people get sores in the spaces between their fingers, on their wrists or their waists. The sores itch and they stay for a long time. The sores usually itch the most at night. Some people think these sores come from certain kinds of water and food. This is not true. The sores are caused by little animals. These little animals are almost like head lice, but they are much smaller. They are so small that we cannot see them. These little animals are called scabies mites. These mites live under the skin, in the clothes and blankets. They make sores on the skin, and they make the skin itch. Sometimes they itch so much that people scratch the sores until their skin bleeds. This makes the problem worse.

TO PREVENT SCABIES

- TAKE A BATH WITH SOAP AND WATER EVERYDAY.
- AIR ALL OF THE BEDDING IN THE SUNSHINE EVERYDAY.
- WASH YOUR CLOTHES AND KEEP THEM CLEAN.
- EVERYBODY IN THE HOUSE MUST BE CLEAN AND HAVE CLEAN CLOTHES.

TO TREAT SCABIES :

1. Go to the dispensary for scabies medicine.
2. Take a good bath and clean carefully the body with plenty of Chinese soap. Rinse well - Let the body dry.
3. Put the scabies medicine all over the body except for the head and eyes. Do not just put the medicine on the sores. Put it all over the body, even between the toes and on the soles of the feet.
4. Sleep with the medicine on all night. The next morning wash the medicine off with water and soap.
5. After putting on the medicine, do not wear any clothes or use any blankets, pillows or sheets which have not been washed with soap and water. If any clothes or other cloth which has not been washed with soap and water is used, you will get scabies again.





This is what a head louse looks like close up. Head lice eat human blood. They eat often by biting the skin of the head to get blood. This makes the head itch. That is why people with head lice are always scratching their head. Sometimes scratches turn into sores.

Head lice move from one person to another. This can happen by direct contact - people being close to each other. This can happen by indirect contact : sharing combs and any kinds of hats.

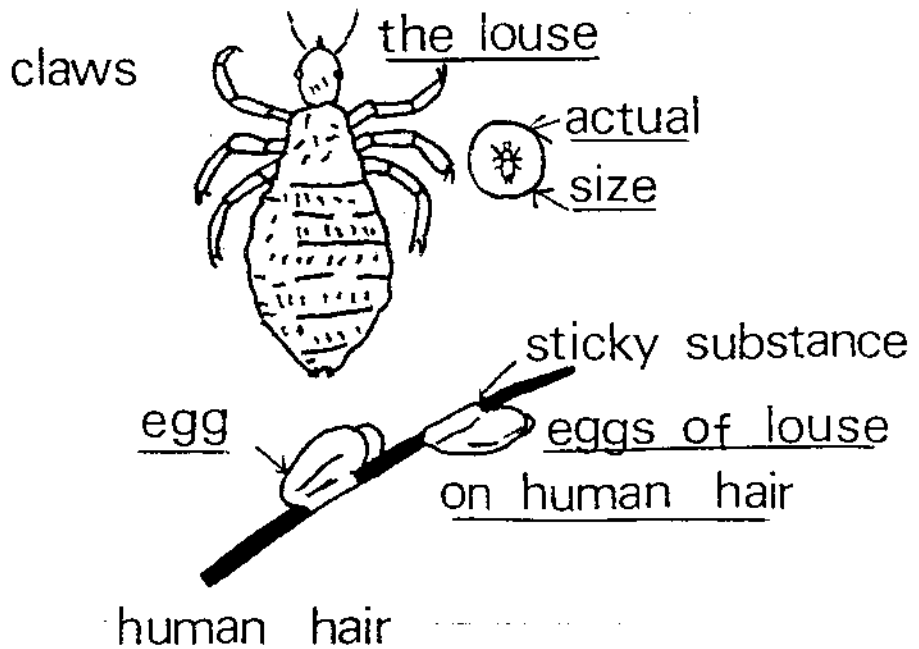
Medicine available from the Chemist and from the Dispensaries, will kill the lice. The combs should be treated with the same medicine. Generally, the medicine is to be left on, for 24 hours - Follow the directions given with it - Then, wash hair and use local lemon or lime juice in the first rinse water. Have a second rinse in clean water. It will make hair soft with a nice clean smell.

Because the medicine will not kill the lice eggs, it should be used again in about 4 days to kill the young lice after they hatch from the eggs. Wash the hair again the following day.

how to care for the hair



clean the hair at least once a week



Because the lice like to hide in clothes, blankets and pillows, it is best to clean the hair, clothes, pillows and blankets at one time.

It is best for EVERYONE IN THE FAMILY TO clean their hair and their combs with medicine, to wash clothes, pillows, blankets at one time. This gets rid off ALL THE LICE.

TO PREVENT HEAD LICE WASH YOUR HAIR EVERYDAY WITH SOAP AND WATER



TEACHING HEALTH IN YEAR 5

Lesson 2 . BODY CLEANLINESS

Objectives :

To make a personal improvement record.

Teacher's notes

During this lesson the students will have to choose, for themselves one goal to achieve their personal appearance. They will implement their personal improvement record for one week or more. It will depend on the student's needs, and the place you teach.

The form to be copied by the students could be done during the next hand writing lesson. The follow up (discussion of the personal improvement records with the students) should be made during other school activities such as; social topics and oral language, free activities, story sessions.

After reaching one goal, students might like to choose another goal to work on. Encourage them to do this. Invite the school nurse to help them. Inform the parents about their children's efforts to look at their best; because some goals like treating lice, scabies and other skin diseases involve community's cooperation, and their parents' cooperation.

Preparation

- Write the goals for personal improvement on the black board.
- The form concerning the personal improvement record should be put on the chalkboard for students to copy, or, if possible, it should be photocopied.

Time : 30 minutes

Method

- 1) Tell the students that they will have to do something to look at their best, and that they will have to choose one goal.
- 2) Present the goals for personal improvement, describe the activities and the foods listed.
- 3) Explain that to reach any goal student must :
 - Do the activity each day listed under that goal
 - Eat at least one food each day listed under that goal.
- 4) After each student has chosen a goal, they are to make a personal improvement record showing the things they will have done to reach the goal. They can keep the record for one week. Everyday, they should write down the name of the food they have eaten and the activity they have done to reach their goal. Help them to start, using the example of the lesson as a guide.

- 5) After one week, discuss the records with the students. To keep improving, students should continue the good habits they have started; they might like to choose another goal to work on. Encourage them to do this.

LIST FOR PERSONAL IMPROVEMENT RECORD

1. Hair - To make it glossy and shiny

Foods - Fish, beef, eggs, milk, chicken, leafy vegetables (like cabbage, sweet potato tops, pumpkin tips, squash leaves, chili pepper leaves, kangkong, tapioca leaves, dryland taro leaves, or Japanese okra leaves), shellfish, turtle, pork.

Activities - Comb or brush hair 100 strokes every day; wash hair everyday if possible. At least, once a week.

2. Skin - to make it smooth and soft

Foods - Milk, fish, liver from fish, chicken, pig, or beef, sardines, eggs, mango, papaya, orange, yellow passion fruit, cabbage, green onions, yellow sweet potato tops, dryland taro leaves, yam, yellow squash, pumpkin.

Activities - Daily bath with soap, then rub with coconut oil.

3. Fingernails - to make them strong - To keep them clean

Foods - Lean pork, fish, chicken, shellfish, turtle, eggs, beef, milk, green leafy vegetables (like dryland taro tops, squash leaves, cabbage, kangkong, chili pepper leaves, tapioca leaves, pumpkin tips or sweet potato leaves).

Activities - Clean fingernails ; cut fingernails so there are no broken edges.

4. Too thin - to gain weight

Foods - Milk, coconut cream, fish eggs, chicken, pork, beef, liver from chicken, fish, also shellfish, turtle, cheese, and coconut meat.

Activities - Exercise; do not eat sweet foods before eating other foods. (This will make a person less hungry for other foods).

5. Too fat - to loose weight

Foods - Fresh fruits like orange, pineapple, mango, melon, star-apple, papaya, guava, grapefruit, passion fruit, vegetables like green beans, cabbage, green pepper, dryland taro leaves, sweet potato leaves, fern tips, knagkong, okra, tomatoes, chili pepper leaves, pumpkin tips, squash, radishes, cucumbers, carrots, Japanese okra leaves.

Activities - Exercices ; do not eat foods with sugar or a lot of fat in them.

Name: _____

Goal: _____

Foods to eat to reach my goal: _____

Activities to do to reach my goal: _____

Day	Name of Food	Name of Activity

PERSONAL IMPROVEMENT RECORD

Name: Mary B.

Goal: Hair - to make it glossy and shiny

Foods to eat to reach my goal: Fish, meat, eggs, milk, chicken, green leafy vegetables, shellfish, turtle, pork

Activities to do to reach my goal: Comb or brush hair 100 strokes every day, wash hair once a week

Day	Name of Food	Name of Activity
Tuesday	Fish, kang kong	comb hair 100 times
Wednesday	egg, milk	washed hair
Thursday	crab, taro leaves	comb hair 100 times
Friday		
Saturday		

6. Muscles - to make them larger and stronger

Foods - Fish, lean pork, chicken, turtle, beef, eggs, cheese, milk, liver from fish, chicken, pig or beef, shellfish, green vegetables like dryland taro tops, sweet potato leaves, pumpkin tips, squash leaves, chili pepper leaves, kangkong, tapioca leaves, green onions.

Activities - Exercise, such as lifting weights, running or swimming.

TEACHING HEALTH IN YEAR 5

Lesson 3 . FUNCTIONS OF BONES

Objectives :

- To learn about the functions of bones.
- To learn about bones hygiene.

Teacher's notes

1) VOCABULARY

Frame work (of bones) : underlying support of the body

To bend.v : To turn in new direction. To incline from perpendicular.

Bone.n : One of the parts making up the skeleton of a human being or other vertebrate.

Bony.adj. : of, like bone

Fracture.n : Breaking of bones

Sprain.n : Violent twist of a body joint, especially ankle or wrist, so as to cause pain and swelling.

Luxation.n : or dislocation - when bones are put out of joint. This can happens when falling, slipping, or making a violent movement.

2)MEDICAL INFORMATIONS

THE SKELETAL SYSTEM (BONES)

This system is made up of a large number of bones which include a large proportion of solid material. Bones are joined together by tendons and muscles to form the *skeleton*.

THE FUNCTION OF THE SKELETON

1. To give shape to the body;
2. To give support to the body;
3. To protect the various organs of the body;
4. To give attachments for muscles;
5. To allow movements of the body;
6. To produce red blood cells (in some of the long bones in the bone marrow).

It is important to note that bones have different maturation rates, e.g.. in a baby the small bones of the hands and feet are not dense enough to show on an X-ray plate.

The skeleton may be divided into groups of bones according to the functions they perform :

1. Backbone or *spinal column* (which may be likened to a number of cotton reels on a string). It holds upright and supports the body trunk. It is strong but not rigid. It protects the main nerve stem.

2. The *skull* protects the brain and some sense organs such as eye, ear, nose, and tongue. It has a number of cavities so that breathing and talking may take place. It also has movements of the jaws bones so that chewing and talking can take place.
3. *Ribs* and *breast-bone* or *sternum* protect the heart and lungs. The construction of the rib cage allows for movements so that air can be drawn in and out of the lungs.
4. The *shoulder* and *pelvis girdles* are strong structures to allow attachments of the limbs and head to the trunk. They also help to protect the internal organs, e.g. the bladder, behind the pelvic girdle.
5. Limb bones in arms and legs to provide for movements of the body.

KINDS OF BONES

1. Long bones (arms and legs) for strong movement and for red-blood-cell formation ;
2. Short bones (*phalanges* or the small bones of fingers) for fine movements;
3. Flat bones (skull) for protection;
4. Irregular bones (e.g. *vertebrae of spine*) for support and protection.

Bone injury or fractures to bones may be caused by direct or indirect violence. A fracture may be *simple* (with the skin not broken) or *compound* (with a broken bone piercing the skin and causing an open wound).

JOINTS

Bones are connected to each other by fibrous tissue and this forms the *joints* of the body.

Types of joints;

1. Hinge joint--(for back and forward-movements); e.g. elbow and knee;
2. Ball and socket joint (for free movements rotating) e.g. hip and shoulder;
3. Pivot or turning joint (for rotation of the forearm);
4. Gliding (bones slide on each other, as in wrist and ankle).

Time : 30 minutes

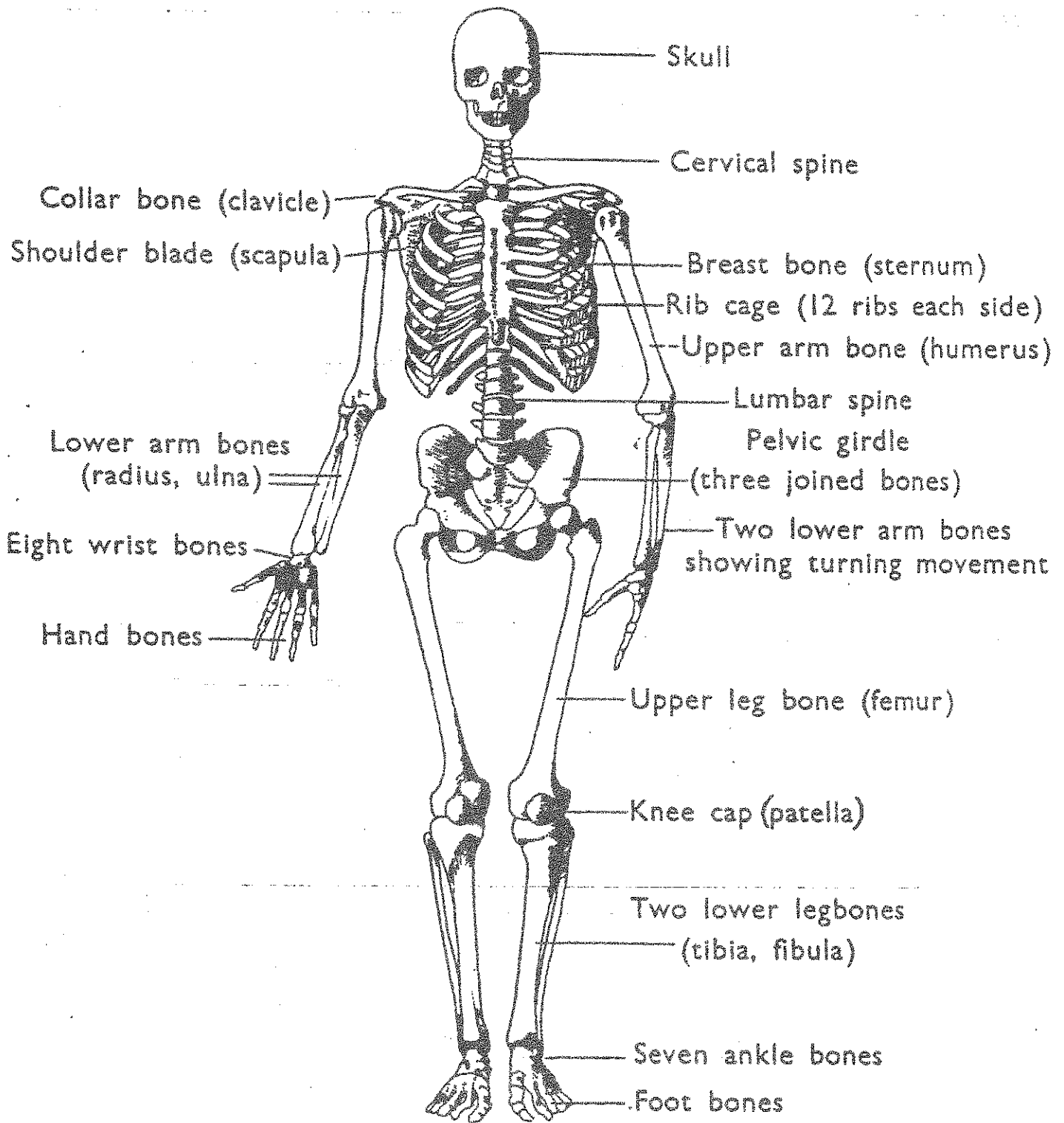
Method

- 1) Show the following pictures and explain the informations given with each picture. Detail them the most appropriate way to your students' level. The teacher's notes should help you in this task.
- 2) Have the students draw a line picture of their legs showing how many joints they use to sit down. Compare their drawings to the one of this book (beside the skeleton last picture of this lesson).
- 3) Enlarge this drawing on the chalkboard and have students compare their drawing to it.
- 4) If you still have time ask students to fill in the correct answers to the questions about bones :
 - 1) The skeleton is made of _____
 - 2) The skeleton gives _____ & _____ to the body
 - 3) The _____ bones are not made to move.
 - 4) _____ are where bones meet.
 - 5) Your arms and legs _____ because of joints.

Answers 1) Bones; 2) support & shape; 3) skull; 4) joints;
5) bend.

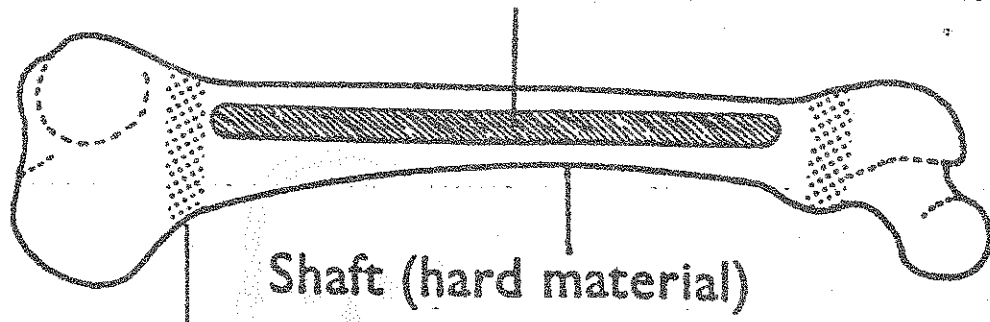
To remember :

- The skeleton is made over 200 bones in human body
- The skeleton gives support (hold our body up) and shape to our body.
- Bones are connected to each other by joints
- Eating good foods and keeping our body in a straight position are important to have strong bones.



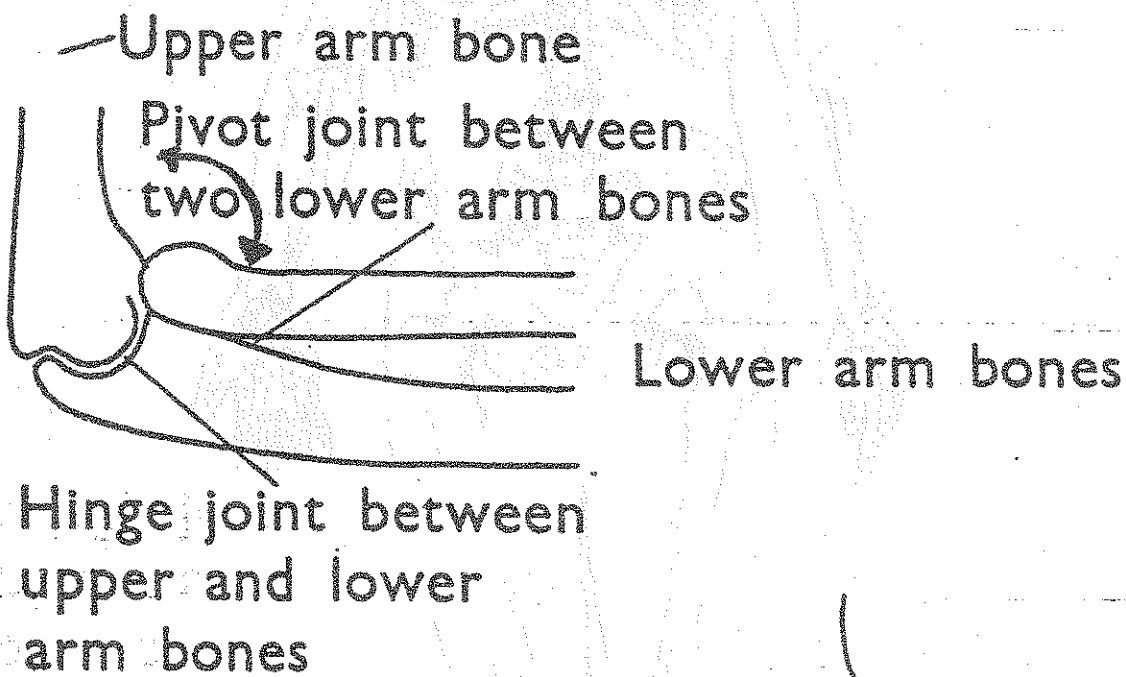
— The Skeleton —

Marrow (soft material - makes red blood cells)



(Cartilage plate where growth continues)

- Long bone showing marrow -

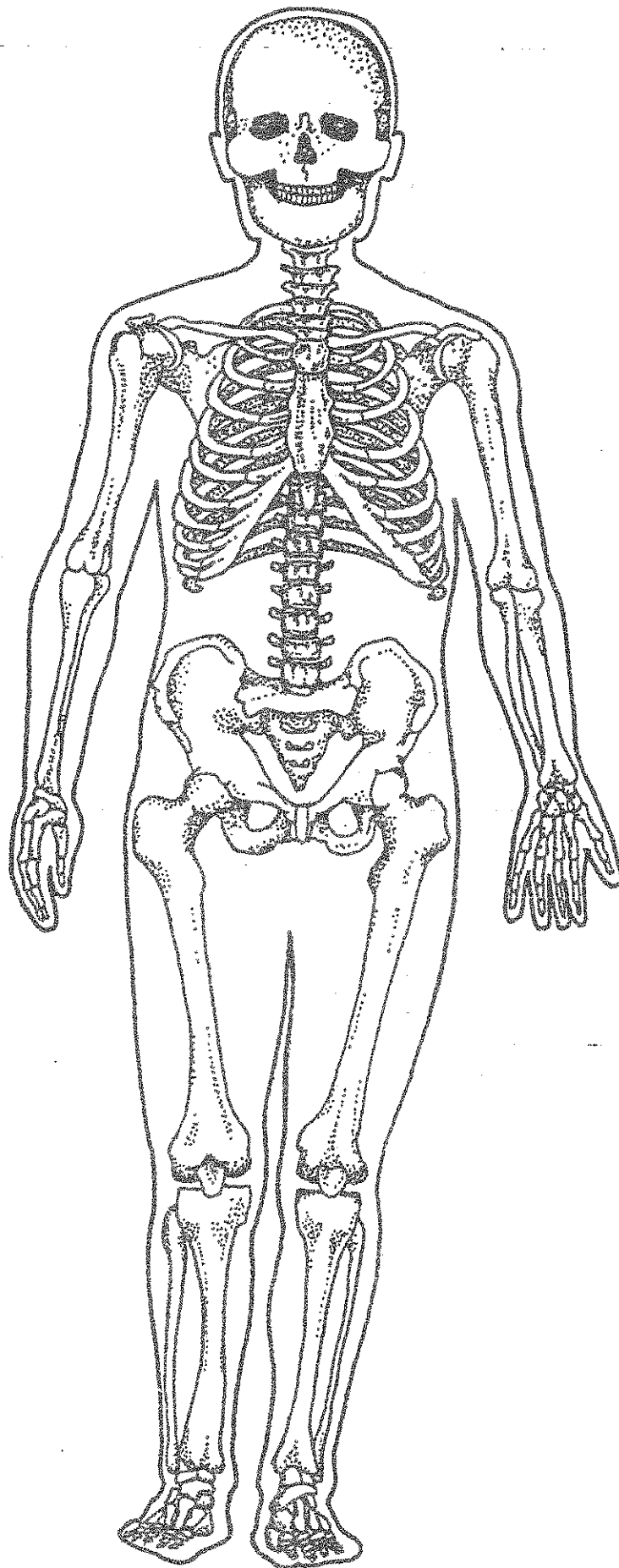


Head of femur

Pelvic girdle bones

Ball and socket joint

- Joints -



A framework of bones called the Skeleton hold our body up. It is said that the skeleton gives shape and support to the body.

There are over 200 bones in our body.

The bones work together to make it possible for our body to move.

HOW TO KEEP OUR BONES HEALTHY

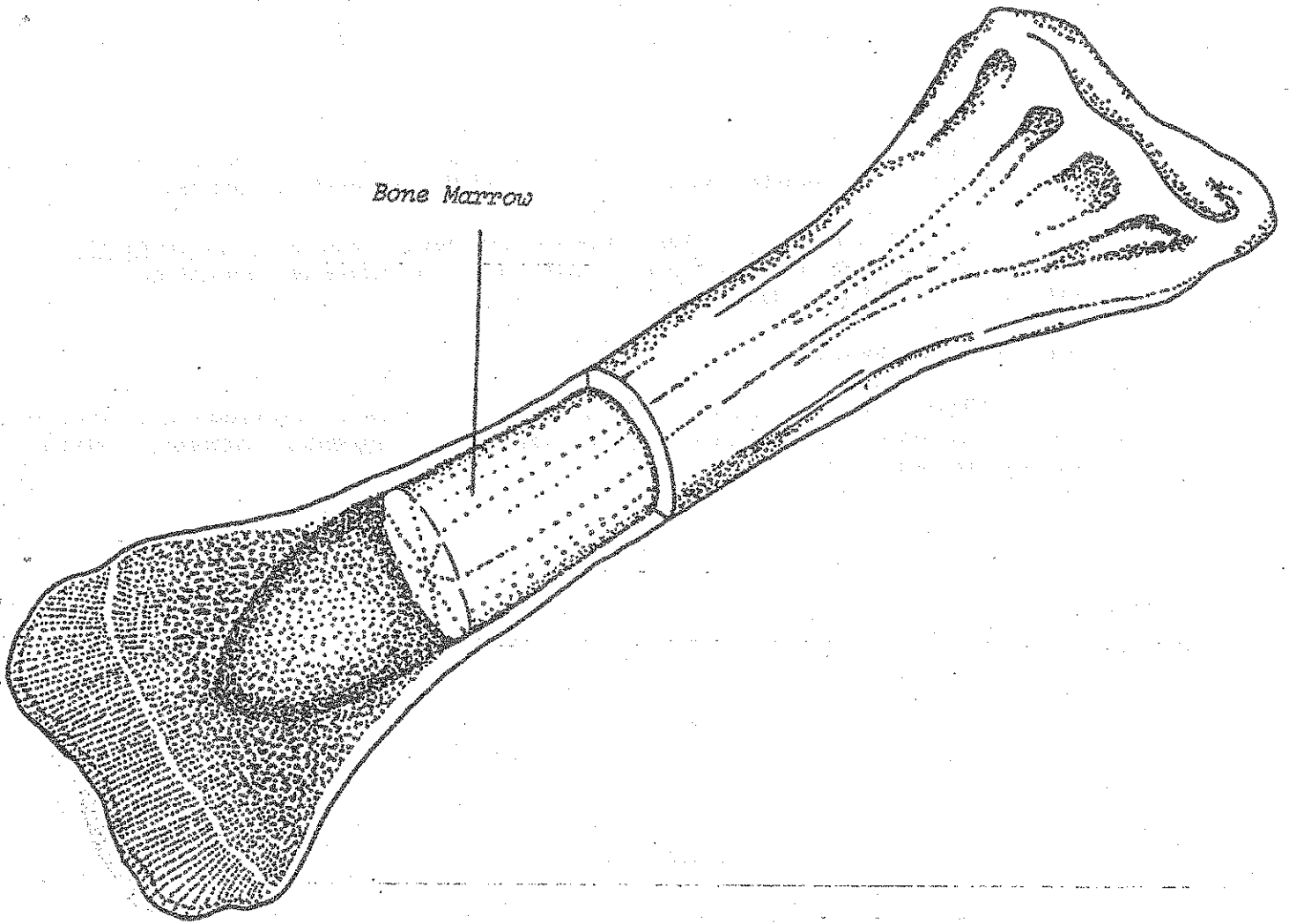
- It is important to hold our body in straight position for standing, walking or sitting. Straight position prevents pain in the back, and prevents to become round shouldered. A good straight position allow the organs of the body to develop and work as they should.

- Eating good foods such as milk, cheese, fish, meat, fresh local fruits and vegetables help to have strong and straight leg bones.

- Bones can break. It is important to avoid violent games and to be very careful when climbing trees. We should know, before climbing which trees are safe and which ones break easily.

- A person with broken bones should be sent to the dispensary or hospital. A hard cast will be put on the broken bone to hold it still while it heals.

The bones of our skeleton are alive. Inside most bones there is a soft center called the bone marrow, where parts of our blood (blood cells) are made. If you break open a bone, such as a chicken leg bone, you will see the bone marrow.

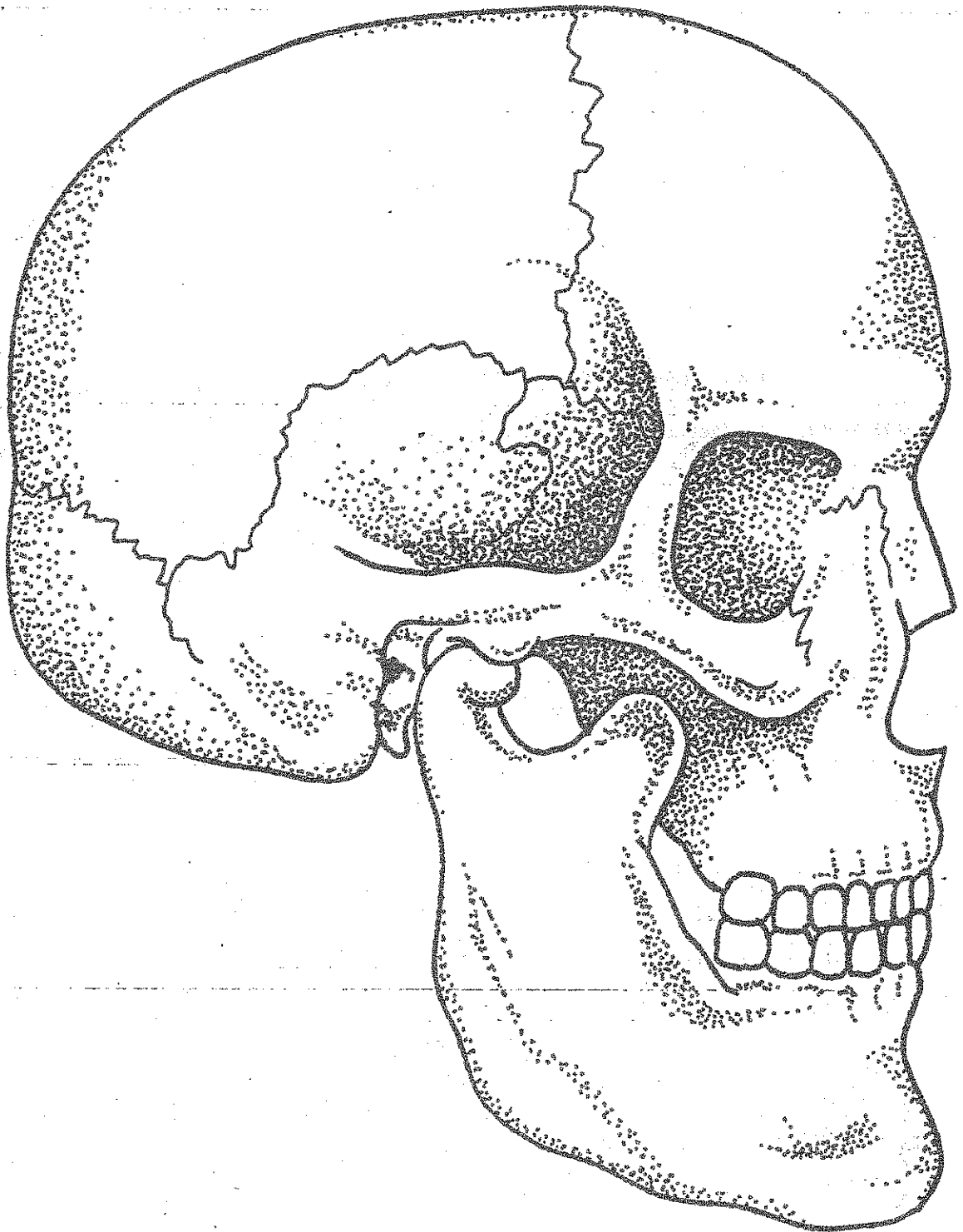


- This is the skull. The skull is not of one piece. It is made up of 26 different bones.

- The skull, like some other bones protect soft parts of our body. What do these bones protect ? (the brain)

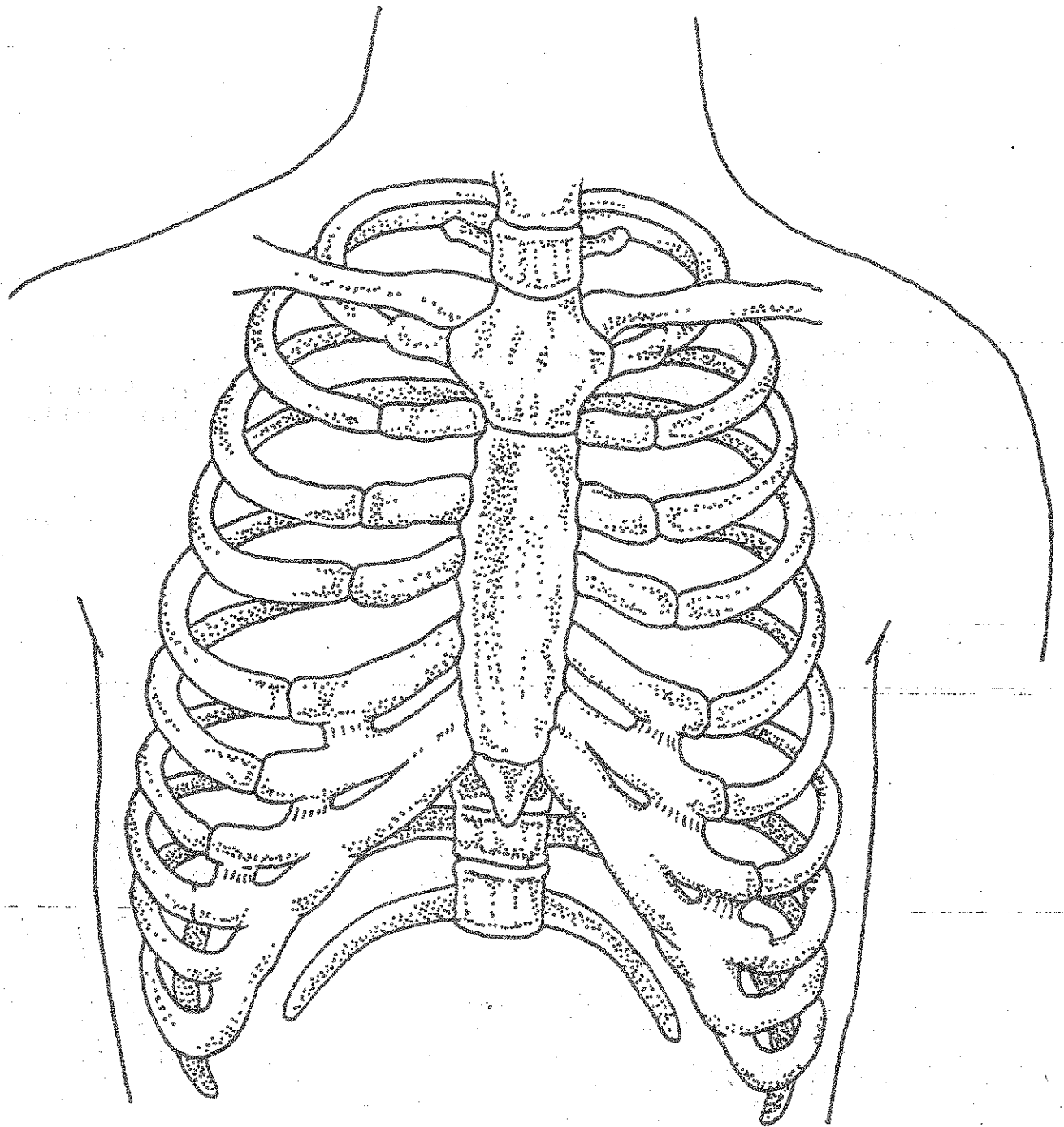
Complet answer :

- The skull protects the softer organs inside from damage, organs like brain, eyes, nose, ears and tongue.



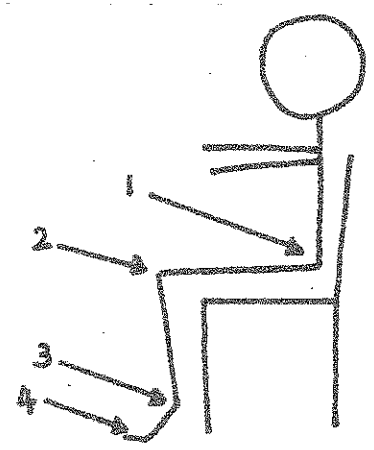
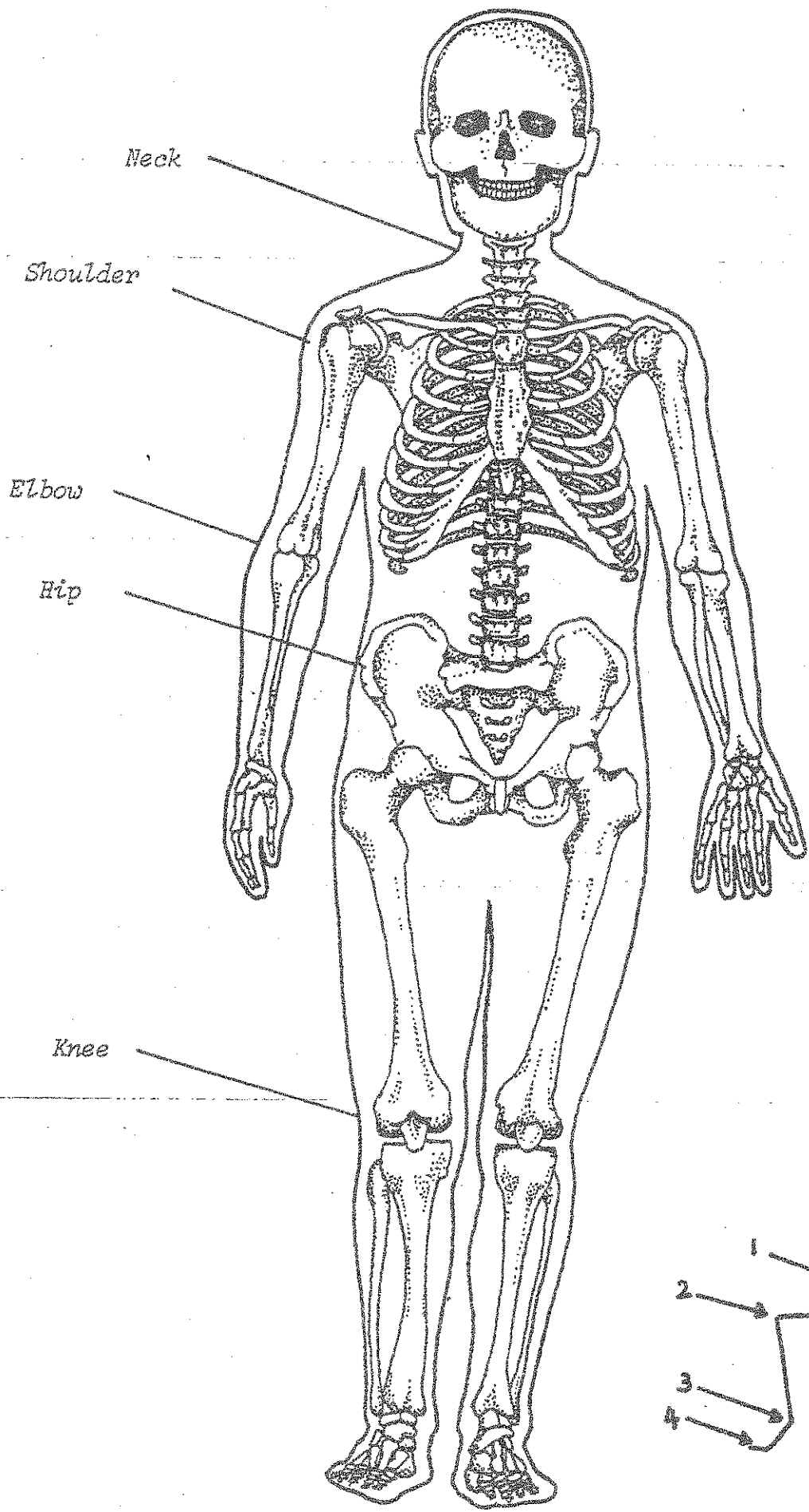
- What parts of our body do these bones protect ?

Answer : heart and lungs



The places where bones join and we can bend are called joints. These are different kinds of joints. Some joints let us move more than other joints.

Try to walk or pick something up without bending your knees or elbows. You will see how important our joints are.



TEACHING HEALTH IN YEAR 5

Lesson 4 . FUNCTIONS OF MUSCLES

Objectives :

- To learn about the functions of muscles
- To learn about muscle hygiene.

Teacher's notes

MEDICAL INFORMATIONS

THE MUSCULAR SYSTEM

The muscular system provides the means by which all body movements are carried out.

SKELETAL MUSCLES (VOLUNTARY MUSCLES)

These muscles provide for movements of the body and completely cover the skeleton. They give shape to the body. The muscle fibres are grouped together to form small bundles which, when gathered together, are bound into larger masses or individual muscles. The appearance of muscles can be illustrated by the lean meat of a cow or sheep. Each muscle is enclosed in a strong skin of connective tissue. Each end of the muscle is attached to a bone either by itself or by a tendon. Muscle tissue can contract and therefore cause movements of the joints.

Body muscles protect the bones, blood vessels, and organs of the body. They are generally paired; the action of a muscle is to pull, not to push, so that each muscle must have its opponent to carry out the opposite movement.

THE MUSCLES OF THE INTERNAL ORGANS (INVOLUNTARY MUSCLES)

The muscle cells fit tightly together and form flat sheets which are joined together to form the walls of body organs, e.g., heart, stomach.

The involuntary muscles produce movements of the contents of the organs, e.g., the muscle of the heart wall pushes blood out of the heart; the muscles in the artery walls force blood into the capillaries in the tissue; the muscles of the food canal squeeze food along the canal.

The muscles produce movement because groups of muscles contract and relax with a steady pulsing action, e.g., feel-pulse at wrist.

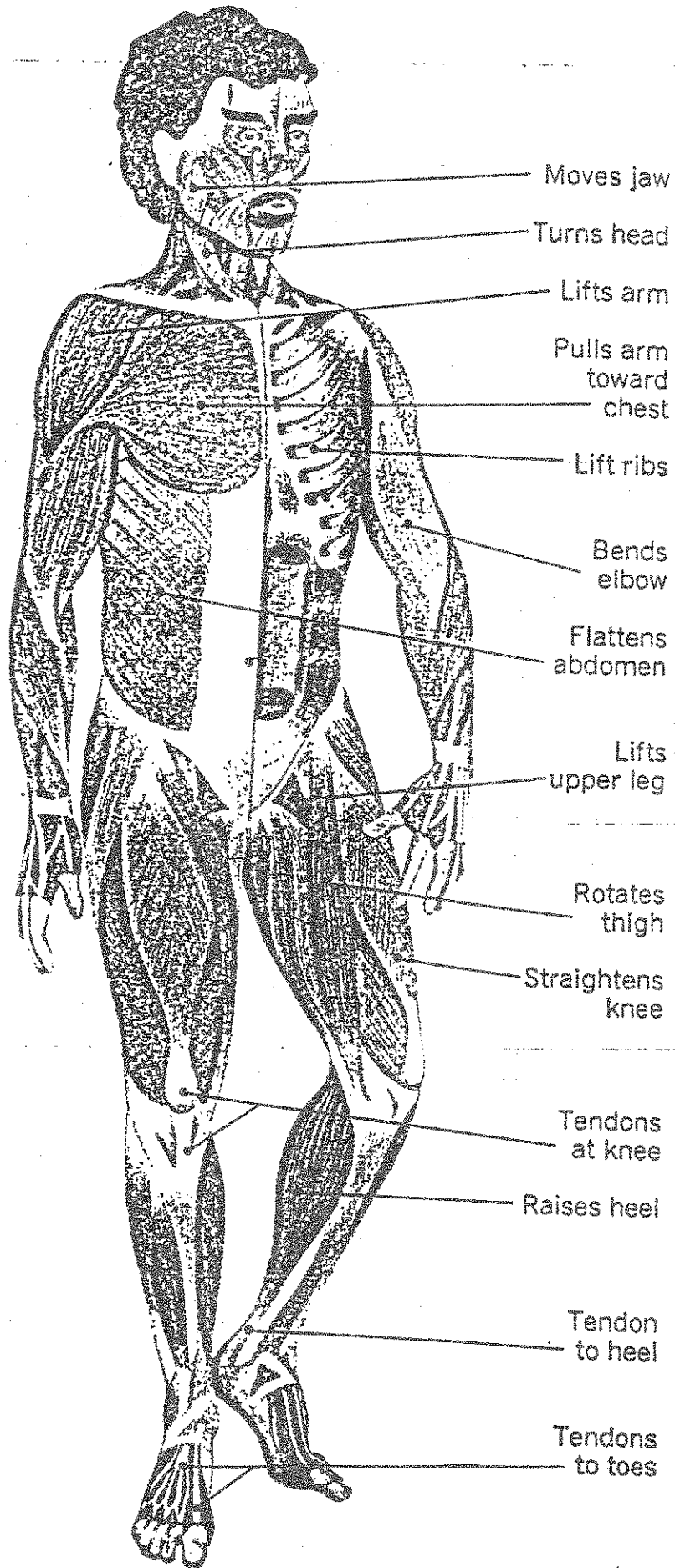
These muscles act, as do other muscles, on messages received from the vital centres in the brain but are not controlled by the will, i.e., we cannot make the heart muscle contract as we can make our limbs move.

They function automatically as long as nerve messages are brought from the brain stem.

All muscles have their own blood and nerve supply. If the blood supply is reduced, the muscle does not function properly, as is illustrated when one sits in an awkward position for a long time. When one stands up, one's leg feels numb and it does not function properly till the blood flows freely again. Muscles are at work all the time in walking, sitting, etc..

Time : 30 minutes

MUSCULAR SYSTEM



Method

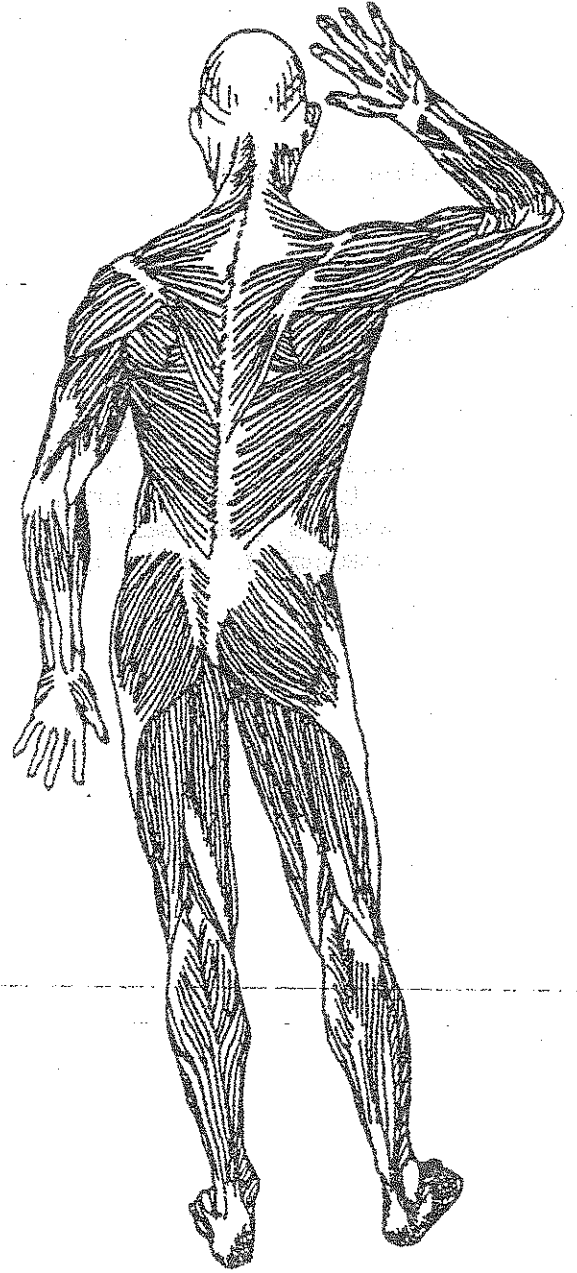
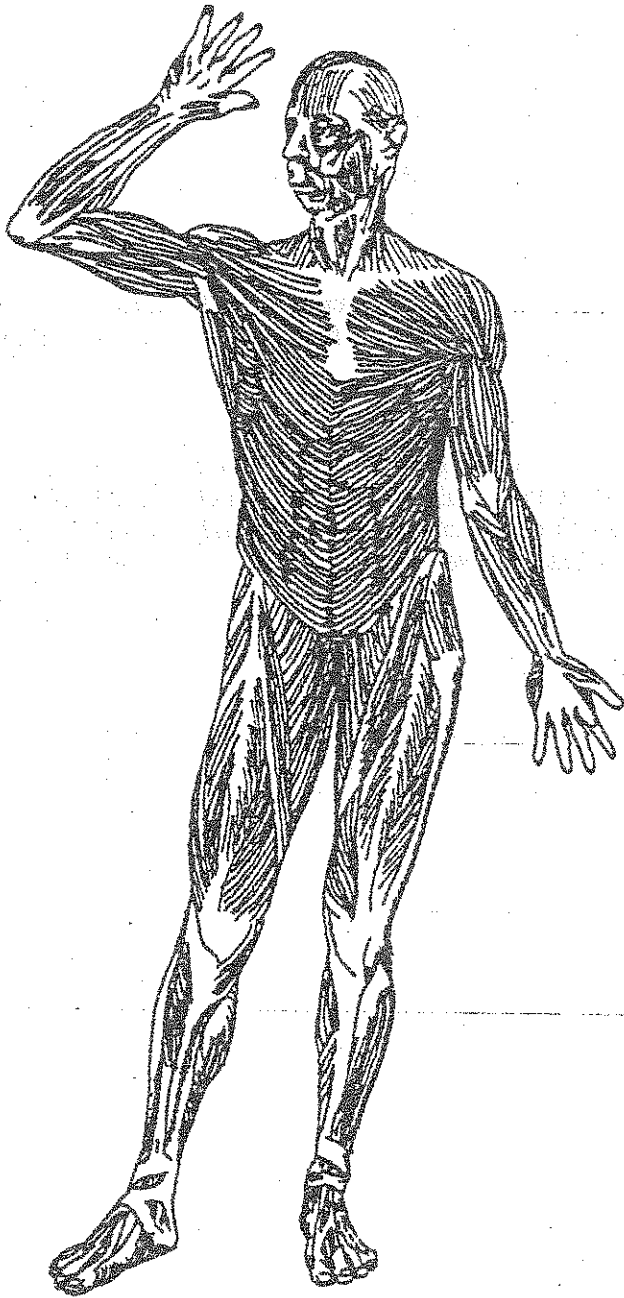
1. Show the following pictures and explain the information given with them.
2. Have students bend their arms and make a fist so that they feel the muscle on the front of their upper arms. Have them bend their arms and make the muscle hard and then soft.
3. Explain that our muscles and bones work together. The arm muscles are attached to the bones. When the upper arm muscles move they move the bone in the lower arm.
4. Tell students we have about 600 muscles attached to our bones throughout our bodies.
5. Repeat all the necessary advices related to muscles hygiene.

HOW TO KEEP OUR MUSCLES HEALTHY

- Muscles need regular exercises to stay healthy. Sports and gymnastic develop muscles.
- After hard exercise, rest is necessary, like a good sleep.
- Muscles are fed by blood. When somebody drinks alcohol, it travels through blood and poisons the muscles. The more alcohol a person drinks, the greater the loss of control over their muscles. This is why drunken people cannot walk or stand straight. Drunken people cannot speak clearly, because the tongue which is a muscle, cannot be controlled.
- Drinking alcohol is a poison for the muscles and can lead a person to injuries of all sorts.

To remember :

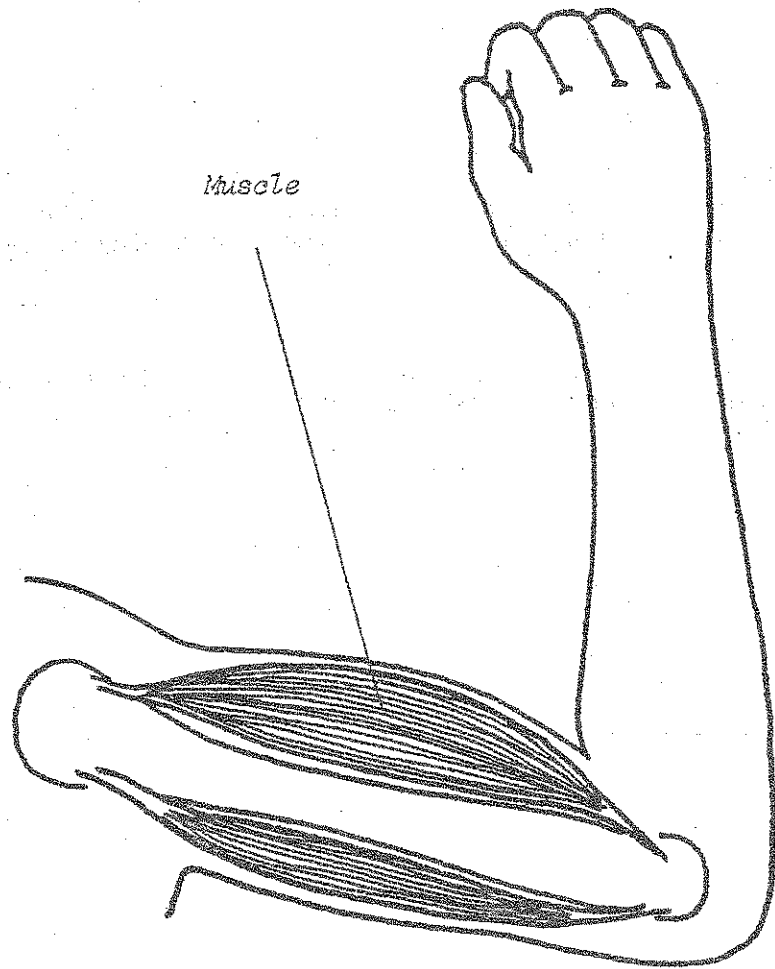
- We can MOVE because of our MUSCLES.
- Muscles need regular exercise to keep them healthy.
- Drinking alcohol is a poison for the muscles and can lead a person to injuries of all sorts.



This is the bone in a person's arm. (Point to the bone).

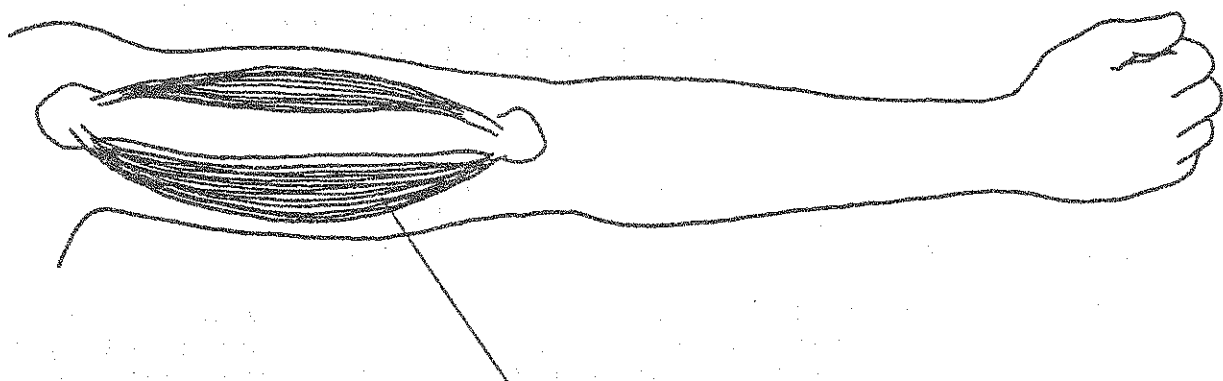
Muscles are attached to bones. This is the muscle a person uses to bend their arm. (Point to the muscle)

Muscles can only move by contracting—getting smaller. This is how the arm is bent like it is in this drawing. Muscles cannot push out. How does a person move his arm so that it will be straight again ?



The answer is that there is another muscle underneath the bone that pulls the arm straight again. It also pulls the top muscle out again.

Most muscles work together in pairs. One pair pulls your arm up and down. Other pairs move different parts of your body.



Muscle

TEACHING HEALTH IN YEAR 5

Lesson No. 5 - THE HUMAN DIGESTIVE SYSTEM

Objectives

- To learn about the digestive system
- To learn about hygiene of the digestive system.

Teacher's notes

MEDICAL INFORMATIONS

The digestive system is concerned with the food canal and the organs connected with it. It lies in all the main cavities of the body, beginning at the mouth, passing through the chest, abdominal and pelvic cavities, and ending at the anus at the lower end of the trunk. It consists of :

1. The food canal ;
2. The organs connected with it (the salivary glands, liver, gall bladder, and pancreas).

THE FUNCTIONS OF THE DIGESTIVE SYSTEM are :

- To make food soluble;
- To allow soluble food and water to be absorbed into the blood;
- To prepare soluble food for use by the cells;
- To get rid of unwanted food material;
- To destroy organisms taken in with the food;
- To provide a sense of taste (tongue)
- To allow sounds to be made, e.g., talking by movements of the tongue, teeth, and lips.

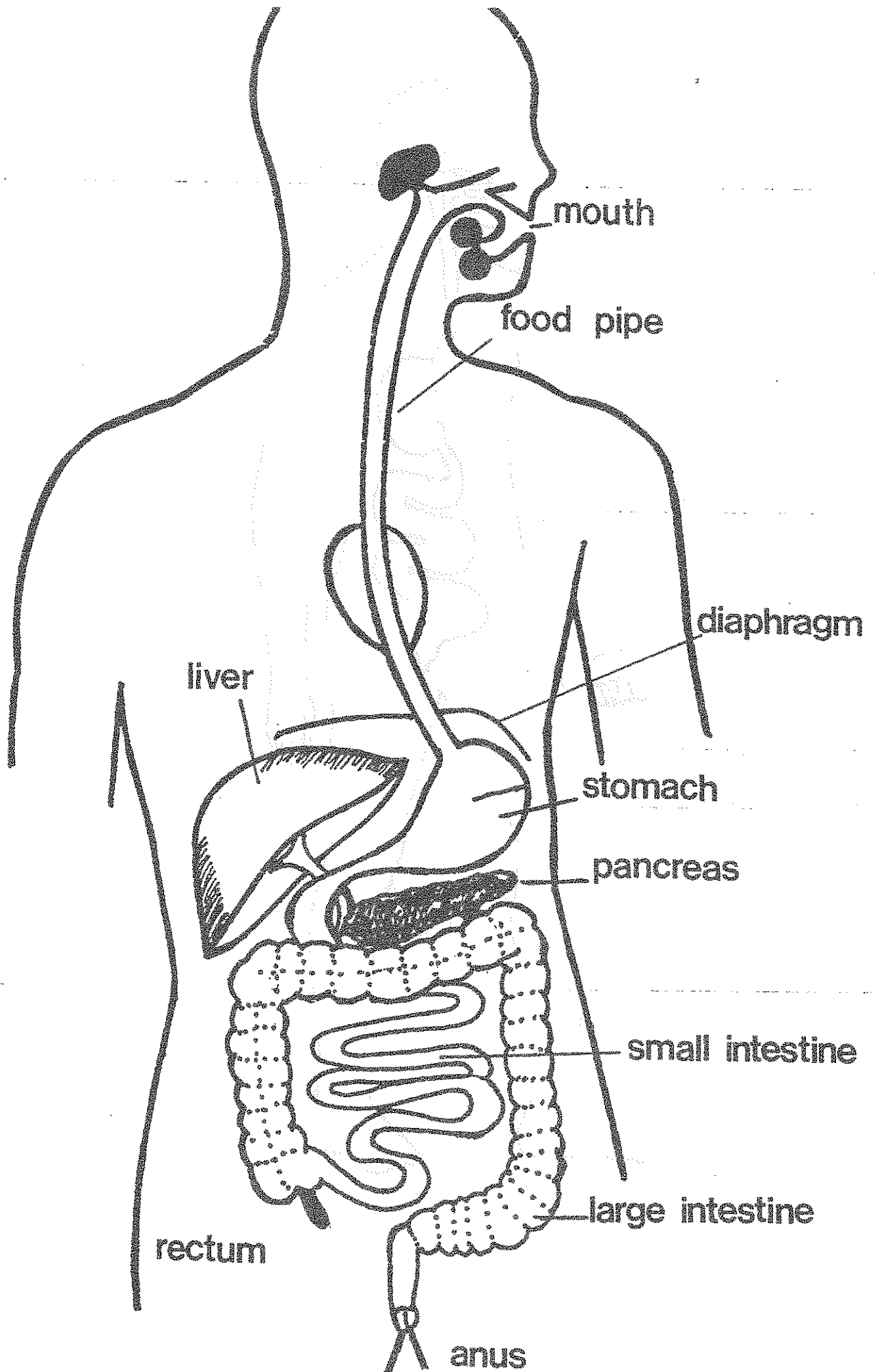
Digestion is therefore to make food soluble or to break down foods into forms (sugar, amino acids, and fatty acids) that can be absorbed into the blood stream. Digestion is made up of three activities :

1. The physical breaking up of large lumps into smaller ones. This is carried out mainly in the mouth by the action of the tongue and the teeth (chewing) and further by the churning action of the stomach;
2. The melting of substances as a result of the heat of the body. This occurs mainly in the stomach but also in the mouth.
3. The chemical breakdown of the large insoluble parts of starch and protein into soluble parts. This work is done by enzymes in all parts of the canal, but mostly in the stomach and small intestine (enzymes are chemical substances which promote and speed up chemical reactions in the body).

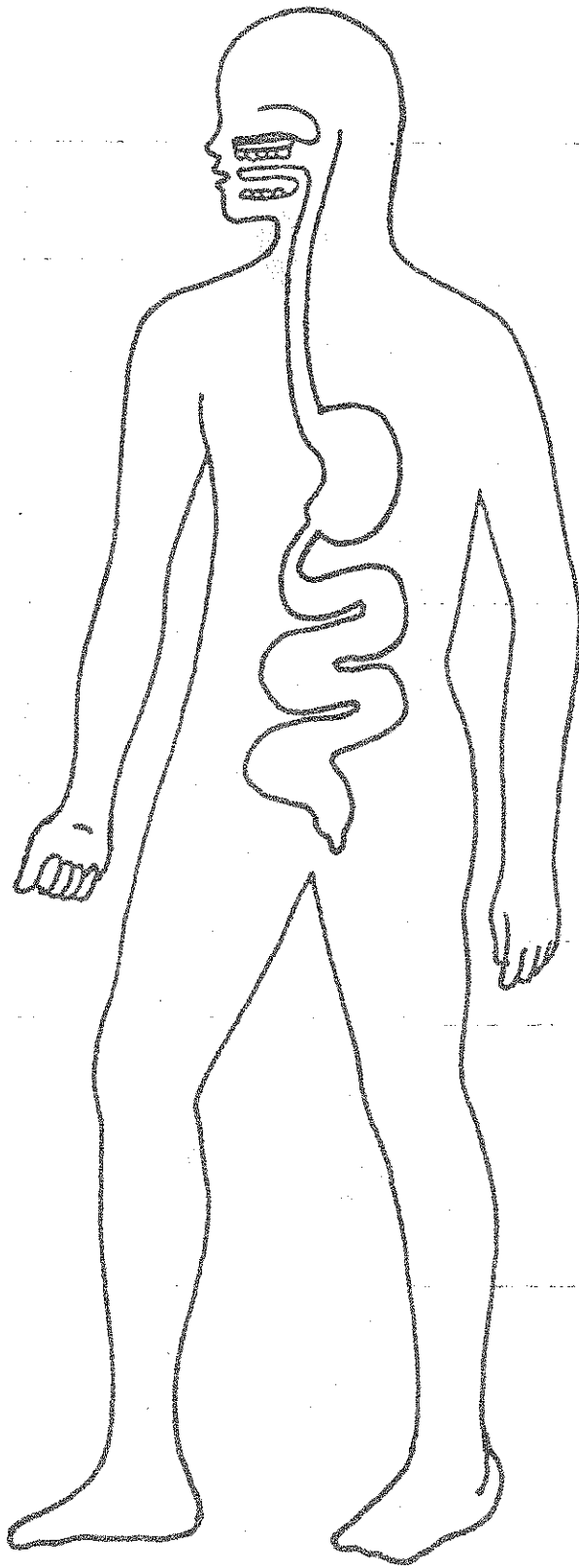
Enzymes are produced by cells in the walls of the canal and in the glands connected with it, e.g., the salivary glands and the pancreas.

Digestive activities are carried out as food is being pushed along the canal, and because they take place slowly the canal must be very long (about 28 feet).

During its passage through the canal most of the food becomes soluble. The insoluble part of roughage is passed out of the anus approximately 24 hours after being taken by the mouth.



DIGESTIVE SYSTEM



The **MOUTH CAVITY** contains three structures :

- The tongue;
- The teeth;
- The tonsils;

The *tongue* is made of muscle tissue and fixed to a small bone low down at the back of the mouth and by a fold of skin to the floor of the mouth. The tip is free. The upper surface is rough and bumpy because of small mounds known as *taste buds*. The *teeth* are in two sets, upper and lower. The *tonsils* are two oval fleshy masses fixed to either side of the back of the mouth. They are made up of groups of white cells covered by thin tough skin.

The **SALIVARY GLANDS** consist of three pairs, one on each side of the face just below the ears, one on either side of the front of the mouth just below the lower jaw, and two glands below the floor of the tongue.

They all make a water fluid called *saliva* which pours into the mouth through narrow tubes or ducts.

The **FUNCTIONS OF THE MOUTH, THROAT, AND SALIVARY GLANDS** are to :

1. Begin the process of digestion in the breaking and chewing of the food by the teeth and tongue, mixing the food with saliva, which contains an enzyme which brings about the first stage in the digestion of cooked starch. (Salivary glands are stimulated by the sight, taste, and smell of food);
2. Provide a sense of taste (the taste buds on the tongue are sensitive to sweet, salt, sour, and bitter things);
3. Help to remove bacteria from food (they are trapped by the white cells of the tonsils);
4. Swallow food and then push it on to the rest of the food canal.

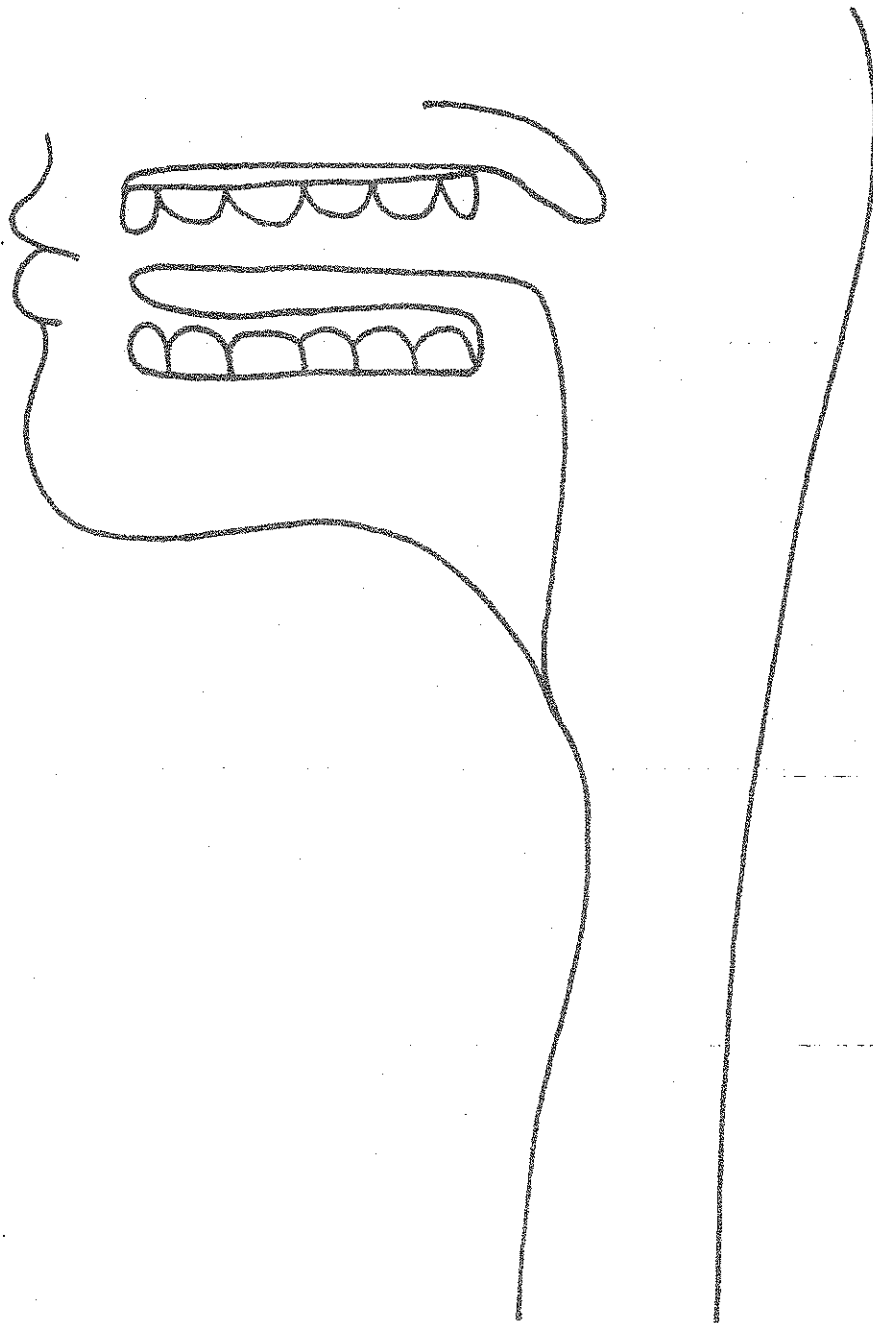
The **OESOPHAGUS** (gullet) is a narrow tube from the mouth to the stomach.

The **STOMACH** is a wide bag-like region of the food canal situated in the upper abdominal cavity just below the diaphragm and is shaped like a letter J.

The **FUNCTIONS OF THE GULLET AND STOMACH** are :

1. To push food further along the canal;
2. To provide a large area to store food so that a person is able to go without food for some hours without eating;
3. To help to digest food by churning it and mixing it with gastric juices;
4. To absorb some foods through the stomach wall, e.g., sugar;
5. To kill by means of the acid in the stomach some of the bacteria which have entered with the food.

The **SMALL INTESTINE** is a narrow tube about 20 feet long which is coiled in the abdominal cavity. It leads from the stomach and enters the first part of the large intestine. There are a large number of gland cells in its walls which produce digestive juice. The ducts from the gall bladder and pancreas enter the small intestine bringing other juices to help with digestion.



The **FUNCTIONS OF THE SMALL INTESTINE** are :

1. To complete the digestion of food. This is done by three types of juices: bile, which is made by the liver and stored in the gall bladder till needed, breaks up the fat droplets; *pancreatic juice*, from the pancreas gland, acts on starches, proteins, and fats while the intestinal juices complete the changes of starches and proteins;
2. To allow soluble food to be absorbed into the blood or the lymph capillaries;
3. To destroy bacteria which may have entered with food.

The **APPENDIX** (the small appendage attaches to the large intestine) is useless and therefore can be removed without loss.

The **LARGE INTESTINE** is a large wide tube about four to five feet long lying around the abdominal cavity and ending at the *anus* low down in the pelvis cavity. The anus is closed by a ring muscle. Its functions are to :

1. Absorb water
2. Remove waste matter and dead bacteria. Roughage helps to make bulk to stimulate contractions of the large intestinal muscles.

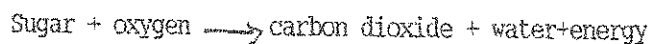
How to avoid constipation : eat a variety of foods; get a reasonable amount of exercise; drink water; develop regular bowel habits.

The **LIVER** is situated in the right upper abdominal cavity below the diaphragm. Its functions are to :

1. Remove unwanted sugar from the blood and store it for future use;
2. Remove drops of fat from the blood and change them to sugar;
3. Store iron and Vitamin B until needed;
4. Make substances which help the blood to clot;
5. Make bile (to help the digestion of food);
6. Change amino acids (protein breakdown substances) to suitable substances for storing and excretion.

THE USE MADE OF SOLUBLE FOOD BY THE BODY CELLS

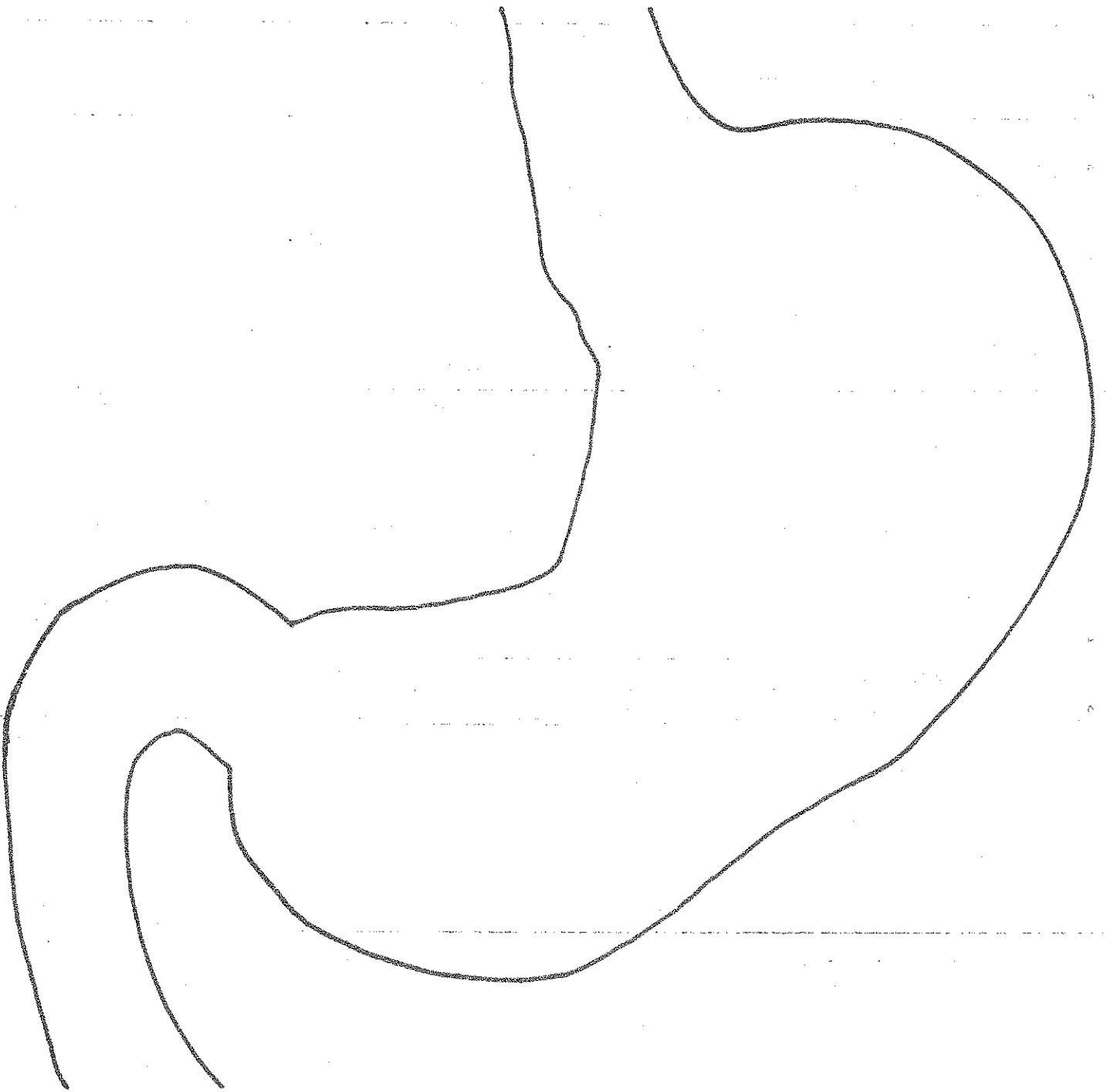
Sugars and fats are broken down by the cells to obtain energy they require for their normal work, e.g. sugar reacts with oxygen in the cells so that it releases energy and forms waste products.



Some of the energy escapes as *heat* and this regulates the body temperature.

Proteins, vitamins, mineral salts, and water along with some sugars and fats are used to build up new cells, cartilage, and bone, etc. As growth takes place by the continual formation of new cells, growing children need these basic foods. Even after growth has stopped new cells are needed to replace old or damaged cells.

Proteins, mineral salts, and water are used to make body fluids (blood, lymph, etc.).



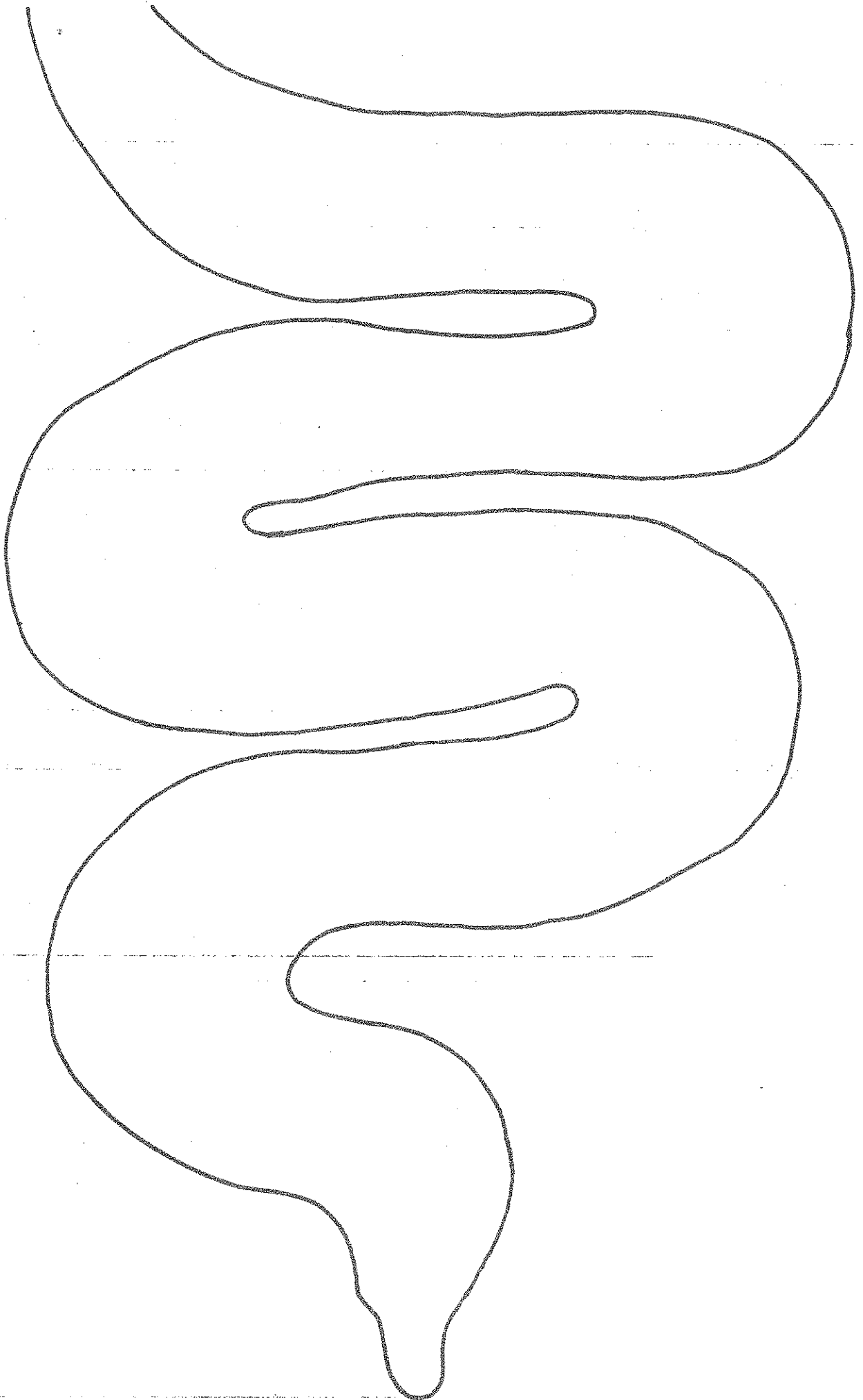
Materials needed

- 1) A copy of the three parts drawing representing the food canal (mouth- stomach - intestines/anus) of the digestive system. Draw on the chalkboard or on a big piece of paper the outline of a body, where to glue the digestive system. Draw also the liver.
- 2) One set of matching cards large enough to be seen by the class and displayed on the chalkboard. Prepare the chalkboard before this lesson.
- 3) Optional - If you can easily get a fresh fish - open it carefully to show the students its digestive system. This is very helpful for your lesson because when students understand what happens to food inside a fish, they understand what happens to food inside people too.

Time : 30 minutes

Method

- 1) Tell children that, in this lesson, they will know what happens to the food they eat, and that they are going to see inside the human body.
- 2) Introduce and explain the new words. The digestive system is the food canal where the foods come in, pass through, and leave the body. The digestive system transform the foods we eat to make us strong and healthy.
 - digest - Breaks down the food into liquid
 - system - several parts of our body working together to do one special kind of work.
 - transform - change of shape, of form, of substance, as from solid to liquid. Examples : a hard piece of cooked yam, crushed with coconut milk, becomes liquid; when the water is boiling it becomes steam etc...
- 3) Show the students the model of the digestive system you prepared. If you prefer ask one child to be a model and fix the drawing in front of his (her) body). Ask students to imagine where all the parts are inside of that person. Let the students feel their bodies and try to imagine where each part is found inside of themselves. Where is their stomach ? Where is their intestine?
- 4) Fix the drawing of the digestive system on a big piece of paper, or on the chalkboard, and, with the matching cards you prepared, show the name of each part, and tell how each part works.



5) Play the matching game :

This game asks the students to match the parts of the digestive system with the job that it does.

First ask students to find all the body parts and line them in the right order on the board.

After - Ask the students to match them with the remaining cards, and to read them.

The set of matching cards :

Parts	Their job
:MOUTH/TEETH	SOFTENS - CUTS UP FOOD
:FOOD TUBE (oesaphagus)	MOVES FOOD TO THE STOMACH
:STOMACH	MIXES AND MAKES LIQUID FOOD
:LIVER	HELPS BREAK DOWN FOODS (digest)
:SMALL INTESTINE	BREAK DOWN FOOD (digests) Broken down food to liquid. It is taken up by the blood to all part of the body from the small intestine.
:LARGE INTESTINE	STORE WASTE FOOD. WATER IS REMOVED AND GOES INTO THE BODY.
:ANUS	WASTE FOOD (excreta) LEAVES THE BODY.

6) Remind the students the main rules (they already know and hopefully practise) concerning the hygiene of the digestion.

It is important to wash hands with soap and water before eating.

It is important to wash fresh foods before eating and to protect them from flies.

It is important to masticate foods very well to prepare them for a good digestion.

Teeth must be cleaned after each meals

Water is the best drink - Alcohol is a poison for the digestive system.

To remember

- The digestive system is made up of a special tube which goes from our mouth to the anus. This tube takes care of the food we eat.
- The first part of the tube goes from the mouth to the stomach. Food is broken and mixed with juices from the mouth, the stomach, the liver.
- The second part of the tube is called the small intestine. The small intestine changes the foods so that it goes to the blood. The blood carries the food to all parts of the body.
- The third part of the tube is called the large intestine. It removes the waste (or excreta) which passes out through the anus.
- Clean hands, clean and healthy teeth, clean foods and clean drinking water make a good digestion.

TEACHING HEALTH IN YEAR 5

Lesson No. 6 - THE RESPIRATORY SYSTEM

Objectives

- To learn about the respiratory system.
- To learn about the hygiene of the respiratory system.

Teacher's notes

MEDICAL INFORMATIONS

The organs of respiratory system lie in the head and chest cavities of the body and they consist of :

1. The nose and throat;
2. The air passages - windpipe (trachea);
- bronchi (bronchial tubes),
- fine branching tubes;
3. The lungs.

THE RESPIRATORY SYSTEM

1. Provides a large surface area over which blood and air can be brought into close contact with each other so that oxygen can be absorbed into the blood;
2. Moves air in and out of the body;
3. Provides the sense of smell;
4. Helps in talking;
5. Helps in hearing.

The NOSE is formed mainly by the bones of the the skull; the lower part is formed by cartilage and muscle. It is divided from the mouth by the hard and soft palates.

The lower part of the nose has two openings (*nostrils*) leading into two cavities divided by a wall of cartilage. The upper part of the nose leads to the back of the throat. There are small openings at the back of the nose that lead into air passages (*sinuses*) in the bones of the face.

All inner surfaces of the nose are lined with a thin moist hairy skin which secretes a watery (*mucous*) fluid into the cavities. The hairs in the upper part of the nose are those which are sensitive to smells.

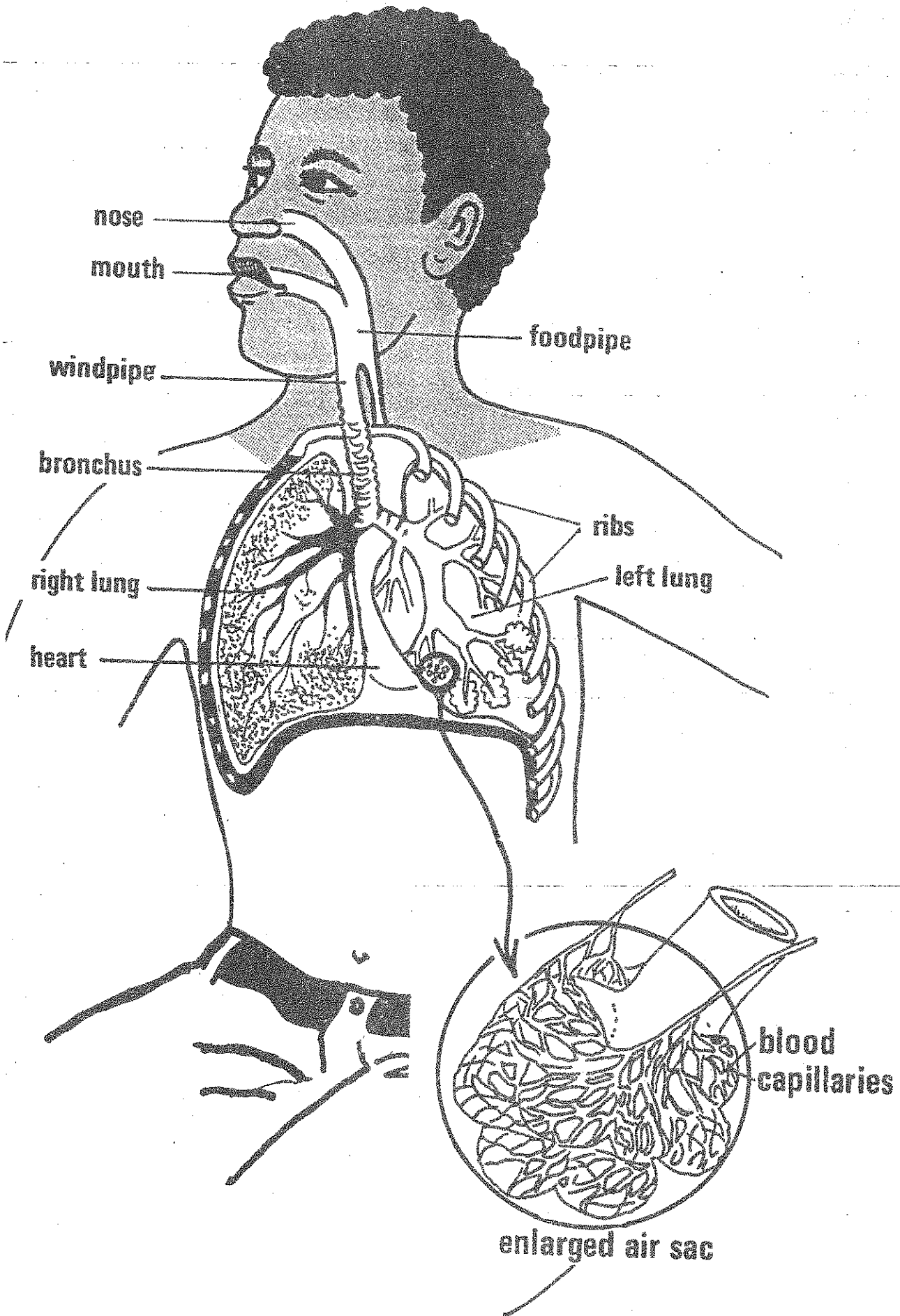
Where the upper end of the nose cavities joints the throat there is a mass of white cells (*lymphatic tissue*) known as the adenoids. If they become enlarged and block the air passages, they can be removed.

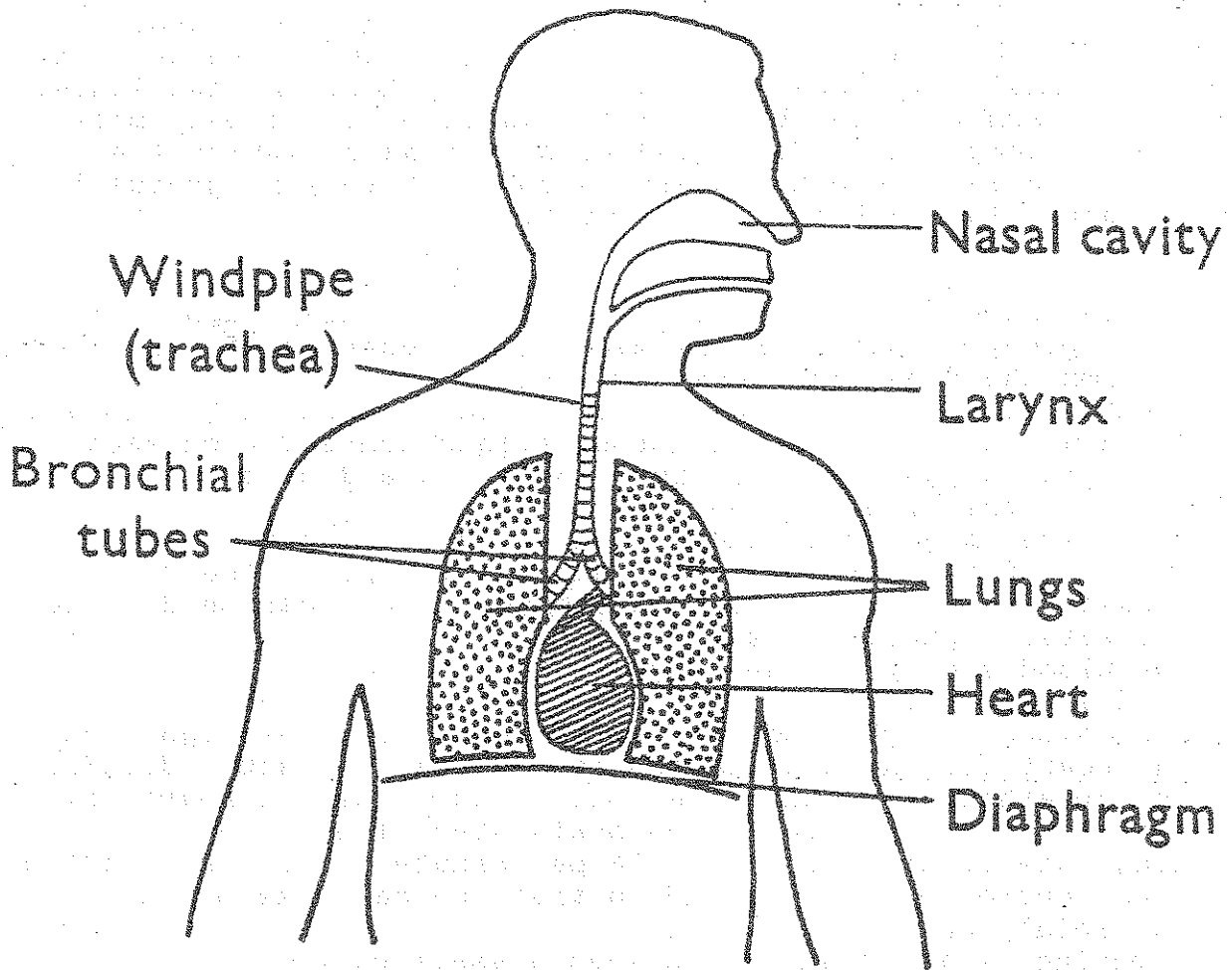
THE FUNCTIONS OF THE NOSE :

1. To provide openings through which air enters the body;
2. To warm moisten, and clean air before it enters the lungs (dirt and bacteria are trapped by the fine hairs).
3. To help to destroy the bacteria by means of the mass of special white cells;
4. To provide a sense of smell;
5. To give resonance to the voice in talking (note how you talk if you pinch the end of your nose).

The THROAT is a small cavity which connects the nose and the mouth cavities with the windpipe and the food canals. The soft palate hangs down into it, and on each side in its upper region a narrow tube leads from it to the middle ear (*Eustachian tube*).

RESPIRATORY SYSTEM





Respiratory System

THE FUNCTIONS OF THE THROAT are :

1. To direct food from the mouth into the food canal (*oesophagus*). When food is swallowed, a small flap of cartilage moves over the entrance to the windpipe and the soft palate contracts to prevent food entering the nose;
2. To direct air from the nose to the windpipe. The air then passes through the voice box (*larynx*).

THE AIR PASSAGES. The trachea, bronchi, and the fine air tubes which form the air passage are all lined with the same warm, moist, hairy lining as the nose. The fine air tubes open out into clusters of small air sacs, and together they form the two lungs.

Air is warmed by the blood in the walls of the tubes, moistened by the damp lining, and cleaned by the hairs, which trap dirt and bacteria. These hairs are in constant motion, gradually sweeping particles back into the throat.

THE LUNGS. The two lungs and the heart fill the entire chest cavity with their lower surfaces resting on the diaphragm. The lungs are spongy, elastic organs made up of hundreds of tiny sacs opening from the fine air tubes. (*alveoli*)

The function of the lungs is to provide a very large surface over which air and blood can be brought into contact with each other, so that oxygen can pass into the blood and carbon dioxide can pass from the blood to the air.

Air which enters the lungs contains about 20 percent of oxygen and a little carbon dioxide and water vapour. The air which leaves the lungs contains less oxygen, more carbon dioxide, and more water vapour. It is also warmer.

The blood supply to the lungs is

1. Arterial blood needed to feed the cells of the lungs.
2. Venous blood, which needs oxygen, brought from the right side of the heart for oxygenation and the removal of carbon dioxide.

The breathing movements are controlled, like the heart, by nerves from a vital centre in the brain stem. The average breathing rate of an adult is 15-18 per minute. There is a little conscious control over breathing in that one can make oneself breathe rapidly or slowly.

Coughing is a reflex action when a small particle is irritating the inside of the air passages.

Sneezing is a similar irritation in the nose.

Laughing is a long intake of breath followed by sharp, rapid, noisy breathing.

Yawning is a reflex action which takes place when we are mentally or physically tired and is often the result of too much carbon dioxide in the blood (e.g. in a stuffy room).

Chocking occurs if food or a solid substance gets into the windpipe instead of the food canal (going the wrong way) so that air intake is reduced. It is necessary to dislodge the particle as quickly as possible by a sharp slap between the shoulder blades. If it is not dislodged get the sufferer to a doctor or hospital quickly. Young children, especially those under three, choke easily, so avoid giving them hard sweets, peanuts, apples, pills, coins, buttons, etc.

Oxygen soon gets used up in a closed space (such as cars and rooms) when two or three people are present; carbon dioxide increases. It is therefore necessary to have good ventilation, allowing plenty of fresh air into the room.

Time : 30 minutes

Preparation :

If you choose to play the matching game prepare on cards the different parts of the respiratory system and their jobs.

Method :

- 1) Explain to students that when we breathe in and out, that is called respiration or breathing.
- 2) Point to each part of the respiratory system : Read their name and explain their role.
 - "When we breathe air through our mouth or nose it travels down a long tube in the throat called the "windpipe". The trachea divides into two parts called "bronchial" tubes and each tube enters a lung".
 - Once inside the lungs, the tubes divide like the branches of a tree. At the end of each tiny branch are many small air sacs like balloons. There are so many of them that if they were flattened out, they would cover half of a tennis court.
- 3) Lead the class in a breathing activity. Check to see that every one is sitting up straight.
 - 3-1) Ask children to put their hands on their chest.
 - "What do you feel under your hand?"
(we feel the ribs)
 - "Where do your ribs start ?"
 - "Where do your ribs finish ?"Explain that the ribs make a strong cage around the lungs. The ribs stop the lungs from getting hurt if we fall over or get a hit on the chest.
 - "Why do we have ribs ?" (to protect our lungs)
 - 3-2) Ask children to let their hands on their ribs and to breath in deeply, then blow out for as long as possible.
 - "What happened to your hands ?"
(our hands move in and out)Explain that when we breathe in, the air is going into our lungs; it makes our lungs get bigger or expand. When our lungs expand, then it makes our hands move.Ask students to block their nose and mouth and do not breathe (what happens ?)
Strees the fact that **WE CANNOT LIVE WITHOUT AIR** and that our respiratory system is **VERY IMPORTANT**.
- 4) Show the first picture card of the lesson and point out the picture of the alveoli (air sac). Tell the students :
 - "The air we breathe in goes down into the small sacs of our lungs. There are tiny blood tubes (vessels) here. These blood tubes (vessels) take the good air to all parts of our body. They, also, drop off the wasted air the body will not use. When we breathe out, the wasted air goes away from our body.

5) The matching game card set, (optional). Divide the chalkboard in two columns :

One for the parts of the respiratory system, the other on for their jobs.

Ask children to first find all the body parts and then to match them with the remaining cards. Ask students to read the cards once they are well matched. The matching game card set

THE MATCHING GAME - CARD SET
RESPIRATORY SYSTEM

<u>PARTS</u>	<u>THEIR JOBS/S</u>
:NOSE	AIR ENTERS, AIR IS CLEANED BY HAIRS: IN THE NOSE.
:WINDPIPE	TUBE FOR AIR TO PASS FROM THE MOUTH: TO THE LUNGS.
:TUBE TO LUNGS :(BRONCHI)	AIR TUBES FROM THE WINDPIPE TO LEFT AND RIGHT LUNG
:LUNGS	HOLDS LOTS OF AIR SACS FOR AIR TO PASS INTO THE BLOOD
:BLOOD NETWORK :IN AIR SACS :(ALVEOLI)	ALLOWS USED AIR TO BE BREATHED OUT FROM THE BODY. ALLOW GOOD AIR THAT COMES IN, WITH INSPIRATIONS, TO GO TO THE BLOOD.

6) Respiratory hygiene.

- Because the air we breathe in goes to all parts of our body it is important to breathe clean and fresh air. When two people or more, live in a closed room, they breathe out their wasted air and very soon, the air they also breathe in becomes poisoned (polluted). The same thing happens when there is plenty smoke in the air we breathe in : polluted air makes people, and specially children, sick with cough and fever. It is important to have a good ventilation in the room where we live, allowing plenty of fresh air.

- The sun kills microbes : The sunny fresh air is the best air to breathe in.

- Smoking cigarettes poisons all the respiratory system from the mouth to the small air sacs, and, also, poisons the heart.

- That's why it is very important to never start to smoke cigarettes.

To remember

- People need air to live, WE CANNOT LIVE WITHOUT AIR.
- The respiratory system moves good air in the body and moves wasted air out of the body.
- The sunny fresh air is the best air to breathe in.
- Smoking cigarettes poisons the respiratory system and the heart.
- It is very important to NEVER START TO SMOKE CIGARETTES.

TEACHING HEALTH IN YEAR 5

Lesson No. 7 - THE CIRCULATORY SYSTEM

Objectives

- To learn about the circulatory system.
- To learn about the hygiene of the circulatory system.

Teacher's notes

Some Simple Definitions :

- The circulatory system carries the blood to all parts of our body.
- The heart is a very powerful muscle.
- The heart is a pump that pushes blood out into our body in tubes called "arteries".
- The "artery" is a blood tube that carry the blood away from the heart to all parts of our body. The arteries connect to veins through the capillaries.
- The "capillaries" are the smallest blood tubes where blood drops off its good supplies for the body and picks up waste. (Remember the work of blood vessels in the alveoli)
- The "vein" is a blood tube that returns the blood from all parts of the body to the heart.

Medical Informations

THE CIRCULATORY SYSTEM

This is a closed system of tubes called *arteries*, *veins* and *capillaries*, through which the blood circulates and reaches all parts of the body. The *heart* pumps the blood round the blood system.

The main organ of the system is the heart. The heart has two sides, right and left. The left side of the heart pumps the blood to the body through the arteries, and the blood returns through the veins to the right side of the heart. The right side of the heart pumps the blood into the lungs, where it picks up oxygen from the air and is returned to the left side of the heart. Arteries take blood from the heart and veins bring blood back to the heart. The average rate at which a heart beats is about 70 per minute.

THE SPLEEN is an oval-shaped organ about five inches long lying to the left side of the abdominal cavity below the diaphragm.

It :

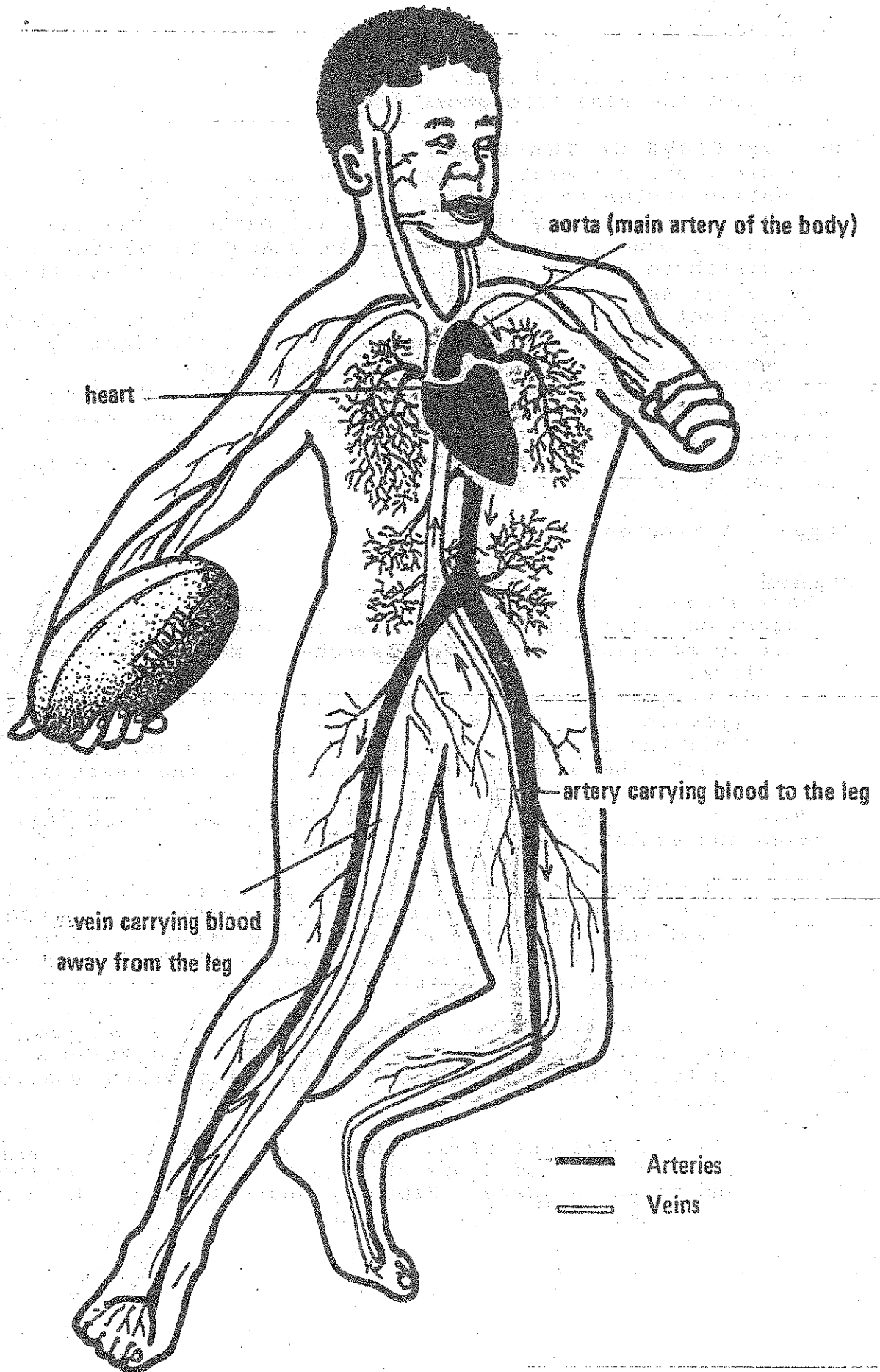
1. Breaks up worn-out red cells and stores iron;
2. Stores and supplies extra blood when needed, e.g., after excessive haemorrhage;
3. Makes more white cells to replace those lost in fighting bacteria.

LYMPH is a watery fluid which surrounds all cells of the body. It is part blood fluid and also contains waste matter given out by the cells. It :

1. Keeps the body cells moist;
2. Carries to the cells all the things needed for building new cells, e.g. food;
3. Removes the waste products of cell cavity.

The lymph vessels, similar in structure to veins, join up to form two large lymph vessels which enter a large vein on either side of the heart. They do not lead directly to the heart.

CIRCULATORY SYSTEM (HEART AND BLOOD VESSELS)



LYMPH GLANDS lie in groups along the paths of lymph vessels : the main groups of lymph glands are in neck, groin and the armpits. They :

1. Act as filters by removing from the lymph any bacteria or other invaders moving towards the heart ;
2. Make new white blood cells to keep the level of white cells in the blood the same throughout life.

THE FUNCTIONS OF THE BLOOD are :

1. To carry nourishment, water, and mineral salts from the digestive system to all parts of the body;
2. To bring oxygen from the lungs to all parts of the body;
3. To take products from the endocrine glands to various organs.
4. To distribute warmth evenly over the body as it flows through the warmer and colder parts;
5. To protect the body against disease (by producing antibodies to give resistance against, and white cells to fight, germs);
6. To arrest haemorrhage by clotting processes.

Red blood cells contain iron (haemoglobin), which has the power to combine with oxygen, carbon monoxide, and carbon dioxide.

White blood cells are larger and fewer than red cells; their function is to destroy germs.

Time : 30 minutes

Method

- 1) Have students sit quietly. Tell each student to put their fingers on their wrists. Tell them to move them until they feel a little movement. If you have watches time the movement using the clock.
 - "How many movements can you feel in one minute ?"
(approximately 70 times)
 - "Tell the students that this movement is called the "pulse". The pulse indicates every time the heart beats".
- 2) Point to each part of the circulatory system : read their names and explain their roles.
 - 2-1) - ~~The blood is pumped by a very powerful muscle called the "heart".~~ When it contracts or squeezes, it forces the blood through a "valve" into large vessels called "arteries", and through them to all parts of the body. The role of a valve is to prevent any backflow of blood.
 - 2-2) - The "arteries" are blood tubes (or vessels) that carry the blood away from the heart. The blood travels to all parts of the body in blood tubes which become smaller and smaller.
 - 2-3) - In the smallest blood tubes, which are called "capillaries", the blood drops off its good supplies for the body and picks up waste. (Remember what happens in the air sacs of lungs (alveoli)).

2-4) - From the capillaries the blood, then, travels back to the heart through blood tubes called "veins". The vein is a blood tube that returns blood to the heart.

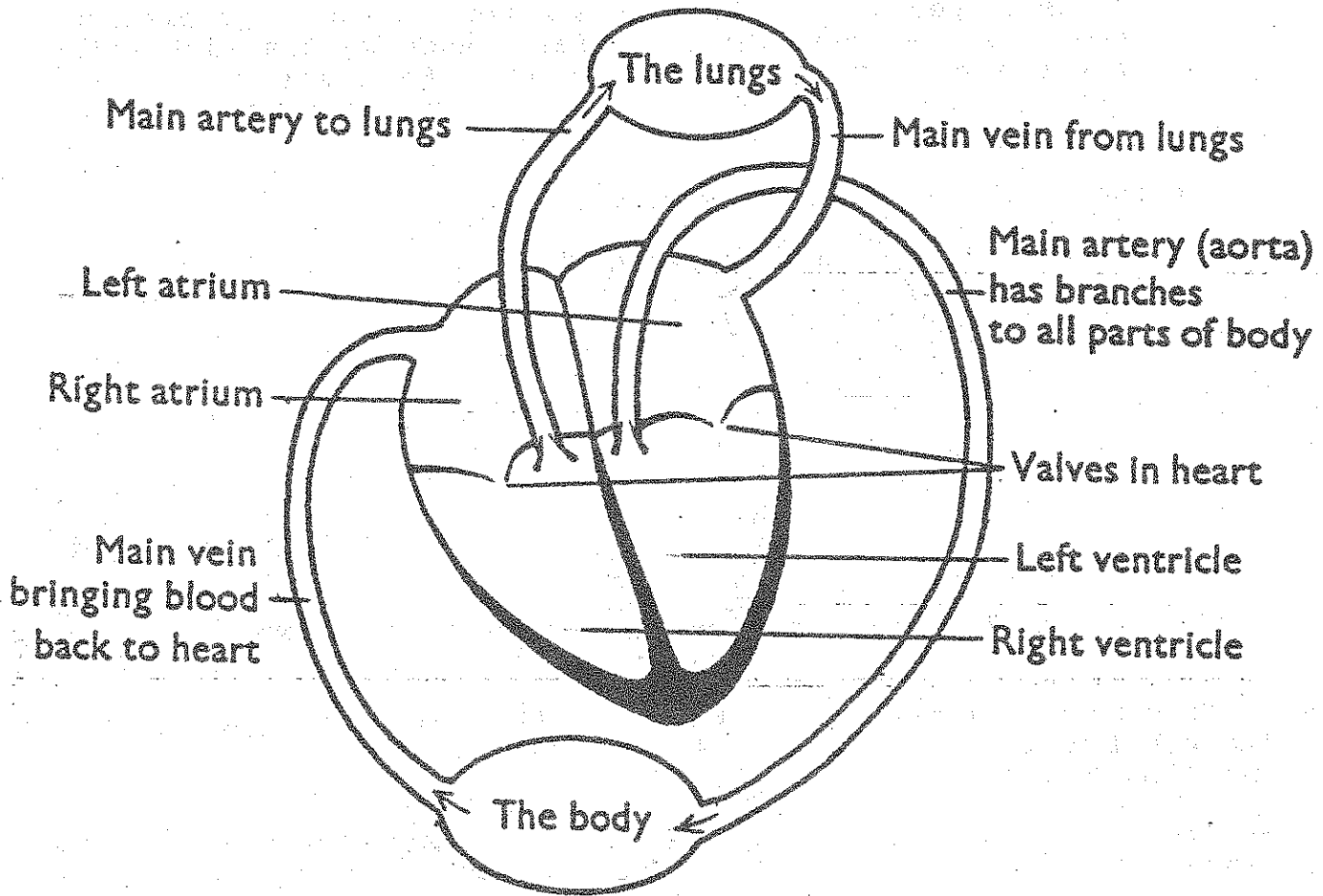
2-5) - If we think of our body as a big town, then the heart sends the blood on hundreds of round trips everyday, each trip taking less than a minute. Every time the heart beats, it is sending another wave of blood through the body. When we are resting, the heart beats approximately 70 times per minute. When we are working hard or playing sports it can beat twice as fast. When we are sick with fever the heart beats faster than 80 times a minute. (When somebody works hard, his body needs more oxygen : this explains why the heart beats faster)

3) Hygiene of the circulatory system.

- The best way to keep our heart healthy is to eat fresh, nutritious food and exercise often.
- Drinking alcohol poisons the heart (that becomes coated with plenty fat);
- Alcohol poisons also the veins and the arteries (that hardens and blocks)
- Smoking cigarettes brings poisoned blood to the heart and makes it sick.
- To control bleeding from a wound : see lesson No. 24. If you have time.

To remember

- The circulatory system carries the blood to all parts of our body.
- The heart pumps the blood. The arteries take blood from the heart. The veins bring blood back to the heart.
- The best way to keep our heart healthy is to eat fresh, nutritious food and exercise often.
- Cigarette and alcohol are poisons for the circulatory system.



Heart and main vessels and circulation of blood

TEACHING HEALTH IN YEAR 5

Lesson No. 8 - THE URINARY SYSTEM

Objectives

- To learn about the urinary system
- To learn about the hygiene of the urinary system.

Teacher's notes

In the past lessons, body wastes have been mentioned very quickly - except in lesson No. 5 - (the digestive system). Then, it is important, to have an idea on the complete excretory system of the body before studying in details the urinary system.

MEDICAL INFORMATIONS :

The EXCRETORY SYSTEM of the body is made up of :

1. The urinary system, which eliminates water and nitrogenous waste;
2. The lungs (carbon dioxide and water vapour);
3. The liver which plays a small part in removing waste substances;
4. The skin e.g. mineral salts;
5. The large intestine which stores wastes food to leave the body.

THE URINARY SYSTEM

The structure included in this system are :

1. Two *kidneys*, right and left, at the back of the abdomen in front of the ribs;
2. Right and left *ureters* which pass urine from the kidney to the bladder;
3. *bladder*, which, situated in front of the pelvic cavity, collects urine;
4. *Urethra*, a tube which allows the passage of urine from the bladder to the outside of the body. This is controlled by a muscle at the opening to the bladder.

The FUNCTIONS OF THE URINARY SYSTEM are :

To remove soluble waste products from the blood and excrete them from the body in the form of urine - the waste material comes mainly from the breakdown of cells;

To control the levels of mineral salts and other substances in the blood;

To control the water balance in the body.

WATER is taken into the body by :

Drinking water, tea, coffee, milk, etc (2-3 pints daily);

Eating food containing water (potatoes, etc)

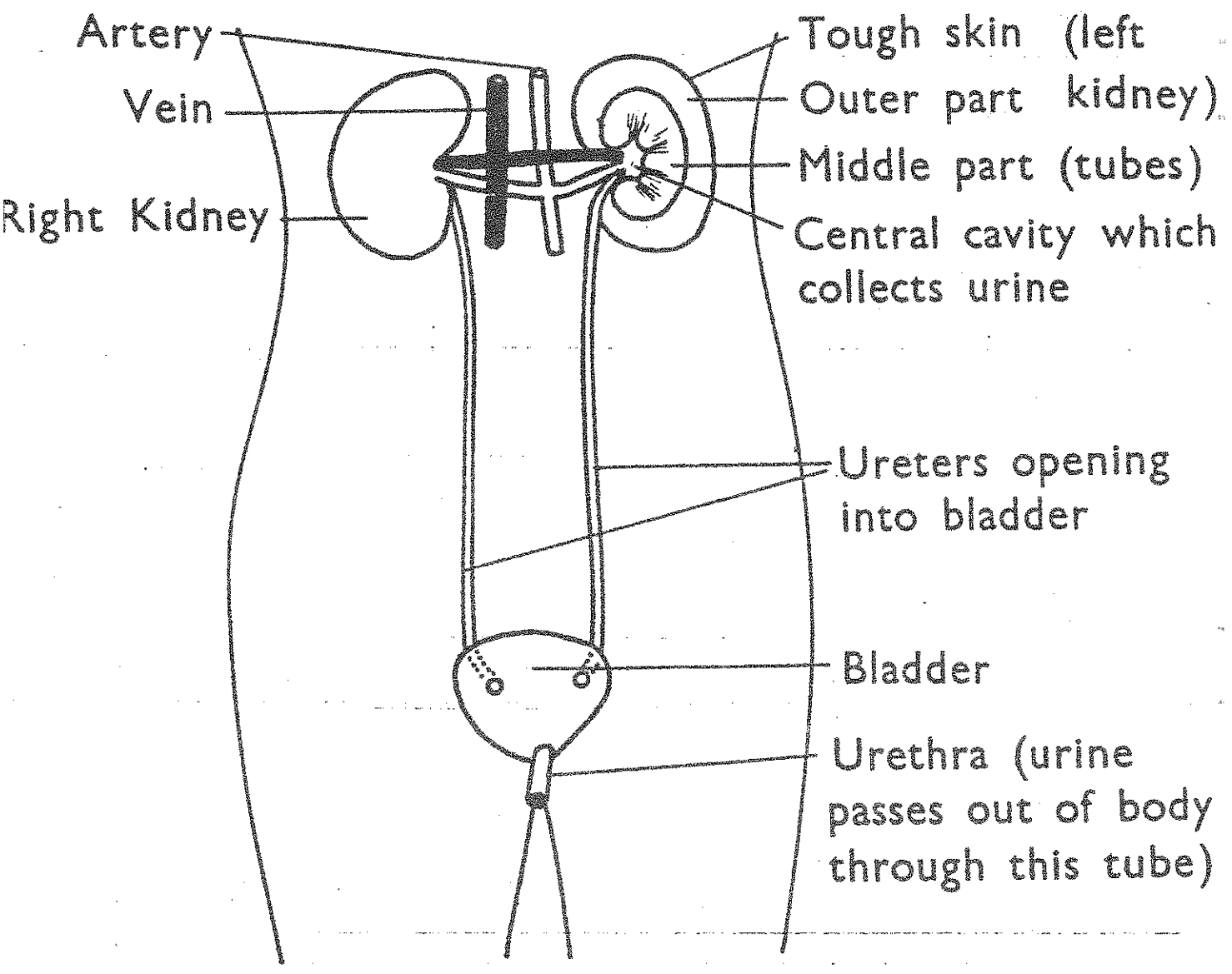
The body uses water :

To make body cells, which are 70 percent water;

To make blood and other body fluids, digestive juices, etc;

To dilute the urine in order to prevent the waste products from burning the ureters and bladder.

Time : 30 minutes



Urinary system lying behind the stomach and intestines

Method

- 1) Tell the children that there are liquid wastes in our body. These wastes enter the blood from all parts of the body. In the former lesson on the circulatory system we have already seen that the smallest blood tubes called "capillaries" pick up the wastes. Where do they send them? They send the wastes to our two kidneys.
- 2) Show the students where their kidneys are.
 - "Our kidneys are just below the ribs on our back".Ask the students to place their hands on their back, just below their ribs, and on each side of the spine.
- 3) Present the urinary system.
 - 3.1) We have two kidneys which protect our body from harmful poisons. There are many little tubes in our kidneys. Some of these tubes are very tiny blood tubes (blood vessels).
 - 3.2) The water or other liquids that we drink pass through the kidneys. The kidneys filter and clean about 50 gallons of fluid (liquid) from the blood everyday.
 - 3.3) The liquid wastes and poisons go away from the kidneys down to the urine tubes and down to the bladder.
 - 3.4) The bladder is a very small ballon. It gets filled up bigger before we need to go to the toilet.
 - 3.5) Waste water passes from our bladder to the outside of our body through another little tube called the urethra or urine tube.
 - 3.6) Ask the children
 - "Can someone tell me the name of the liquid that comes from our bladder?"
 - (urine)
 - "What colour should our urine be?"
 - (very clear with no colour)When the urine is yellow in colour it means that the person does not drink enough water. And this is very bad for the health of the kidneys.
4. Hygiene of the urinary system.
 - Stress the fact that in Vanuatu we sweat a lot. That means that some of the wasted water is going out through our skin in sweat. Therefore less water is going through our kidneys.
 - Explain that when people do not drink enough water everyday, the wastes from their blood will stop inside the kidneys. It will not be washed away with the urine.
 - When the waste stops it will block the tiny tubes in the kidneys. Sometimes little stones like sea coral will form and the kidneys will be very painful and very sick.

- To keep our kidneys healthy we have to
 - . Drink at least 8 big cups of glasses of water everyday.
 - . Be very careful when playing sport. Not to kick or beat anyone in the kidney area.
 - . After a hard game or sport drink some MORE WATER.

To remember

- The urinary system cleans the blood and eliminates liquid wastes from our body.
- To keep our kidneys healthy we must drink plenty water, many times a day, and more water after playing sports or working hard.
- We should never kick or beat anyone in the kidney area, and we should be very careful when playing sports.

TEACHING HEALTH IN YEAR 5

Lesson No. 9 - THE NERVOUS SYSTEM

Objectives

- To learn about the nervous system.
- To learn about the hygiene of the nervous system.

Teacher's notes

This subject is complex and too difficult to teach in its totality, to children of class 5. Therefore, the content of teaching is over simplified.

Meanwhile, the teacher's informations cover the whole subject to allow him (her) to answer correctly to some students' questions. The two first illustrations are mainly for the teacher's use.

Medical informationa

The nervous system provides the means by which the body responds to stimuli (events taking place inside or outside the body). It is the system of communication in the body and controls the functions of the body.

For simplicity it may be divided into three parts :

1. The central nervous system;
2. The autonomic nervous system;
3. The sense organs, e.g., skin, eye, ears

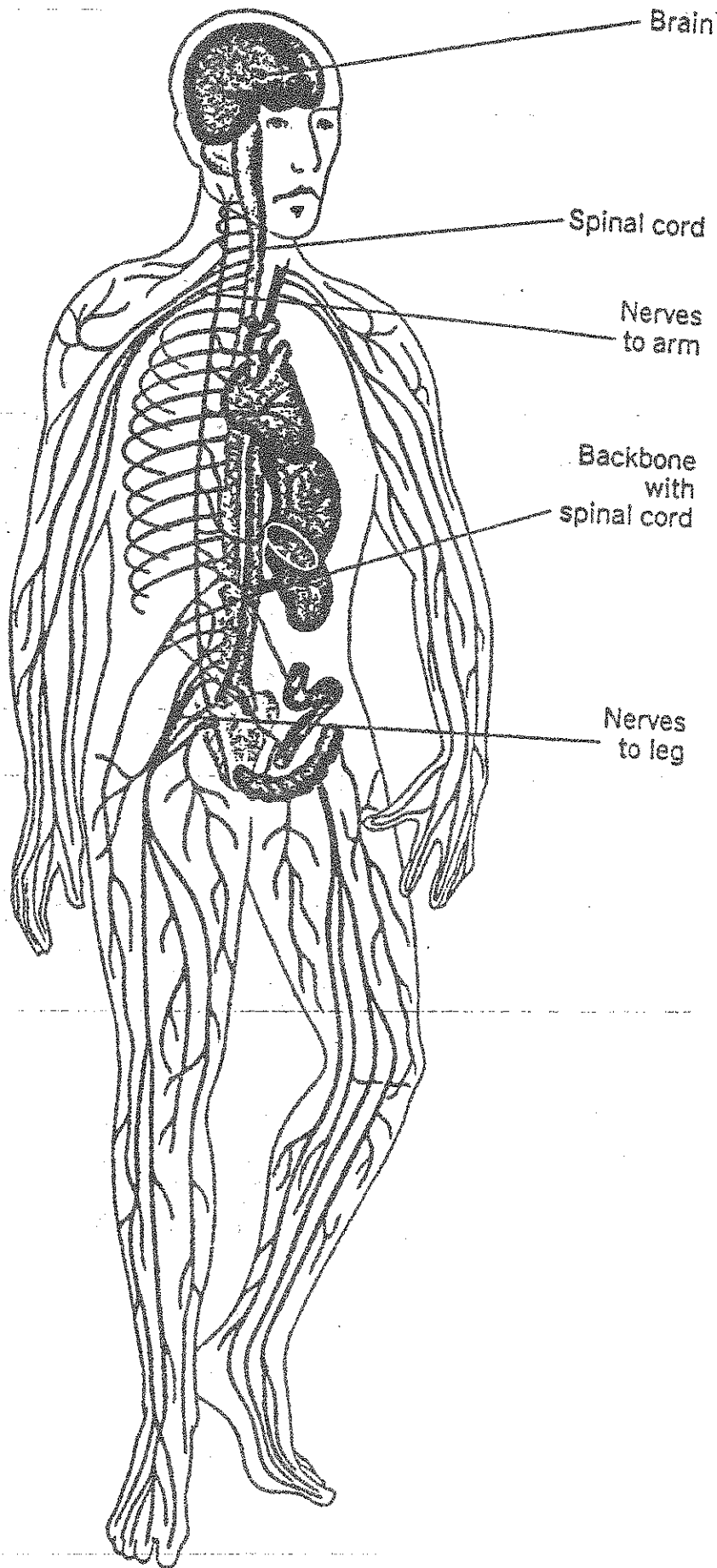
The **CENTRAL NERVOUS SYSTEM** consists of :

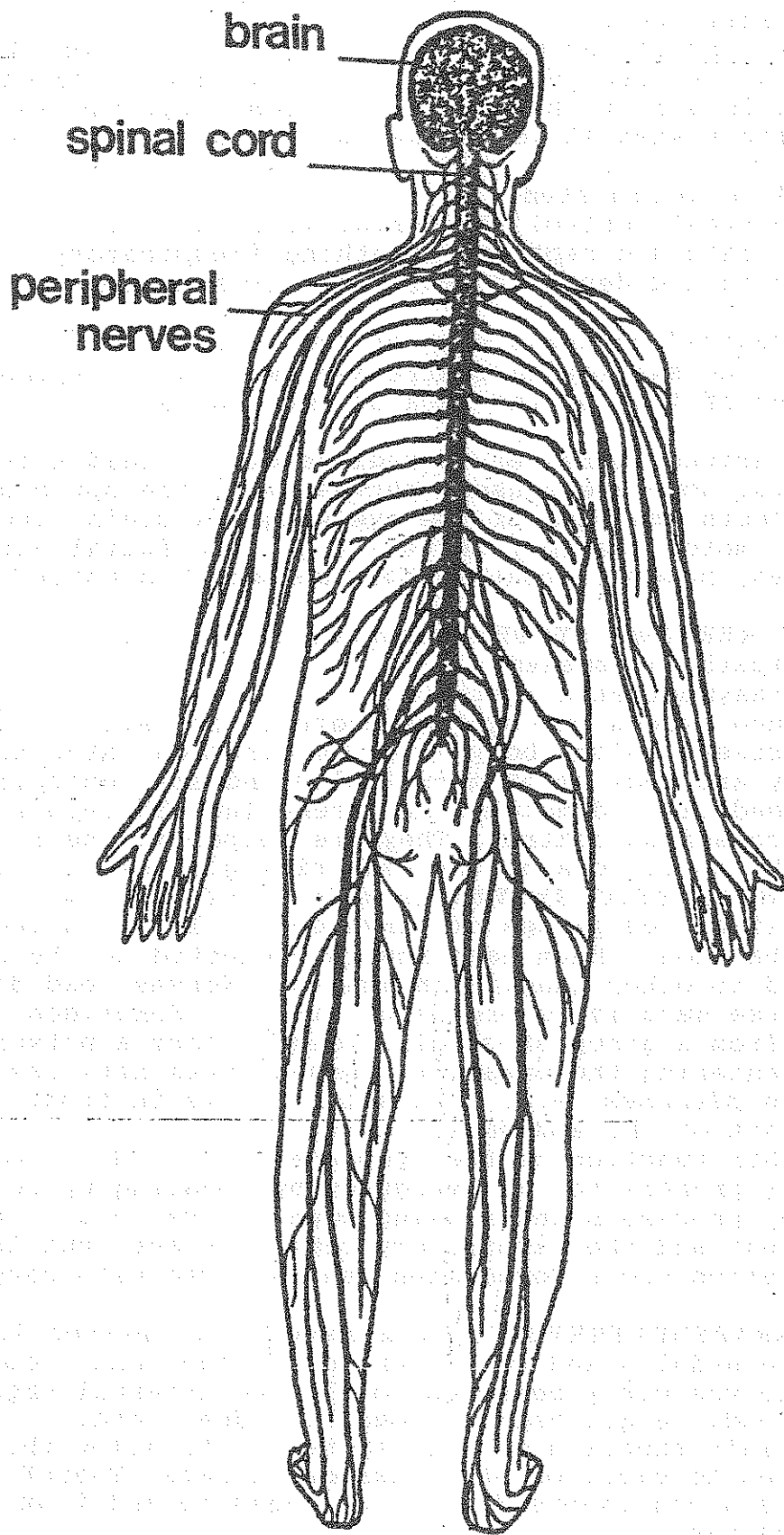
- a. The **BRAIN** and its peripheral nerves;
- b. The **SPINAL CORD** and its peripheral nerves.

The brain lies in the skull cavity and consists of a soft mass of nerves tissue. It appears wrinkled and has a few deep folds at certain places almost dividing it into separate parts. The whole brain is covered by three protective membranes, ones of which goes into all the folds.

1. The **CEREBRUM**, which
 - a. Receives all messages of sensation and interprets them, e.g., heat, cold, pain, sound, taste, etc..;
 - b. Decides on actions to be taken and stores the knowledges for future use;
 - c. Sends out messages which produce the appropriate action;
 - d. Controls the activities of the brain and unconscious control of general activities of the body.
2. The **CEREBELLUM**, which
 - a. Co-ordinates messages of movements so that complicated actions can takes place: e.g., walking needs movements of the hip, knee, ankle, and foot joints together with the moving of the body weight from one foot to the other;
 - b. Is responsible for the awareness of body positioning or balance.

NERVOUS SYSTEM





The PERIPHERAL NERVES and the SPINAL CORD provide the pathway along which sensations travel from the sense organs to the brain. They also provide the pathway along which the action impulses are transmitted.

The spinal cord is the main centre of reflex action. When sensory messages are acted upon immediately without reference to the brain, this is said to be a reflex action, e.g. the abrupt removal of a finger when it is pricked with a pin or needle.

3. The MEDULLA or brain stem

- a. "Vital Centres" control the normal vital activities of the body, e.g. rate and depth of breathing (*respiratory centre*), rate and depth of heart beat (*circulatory centre*).
- b. "Reflex Centre" controls some of the reflex actions of the body, e.g. the swallowing centre (we swallow in response to the feeling of food on the back of the tongue)
- c. Various peripheral nerves to regions of the head arise in the medulla. Some are sensory nerves, e.g. the optic nerve which connects the back of the eye with the brain, and others are motor (action) nerves, e.g., the facial nerve. Most nerves, however, contain both sensory and motor fibres.

The AUTONOMIC NERVOUS SYSTEM consists of two parts :

- a. The sympathetic system;
- b. The parasympathetic system.

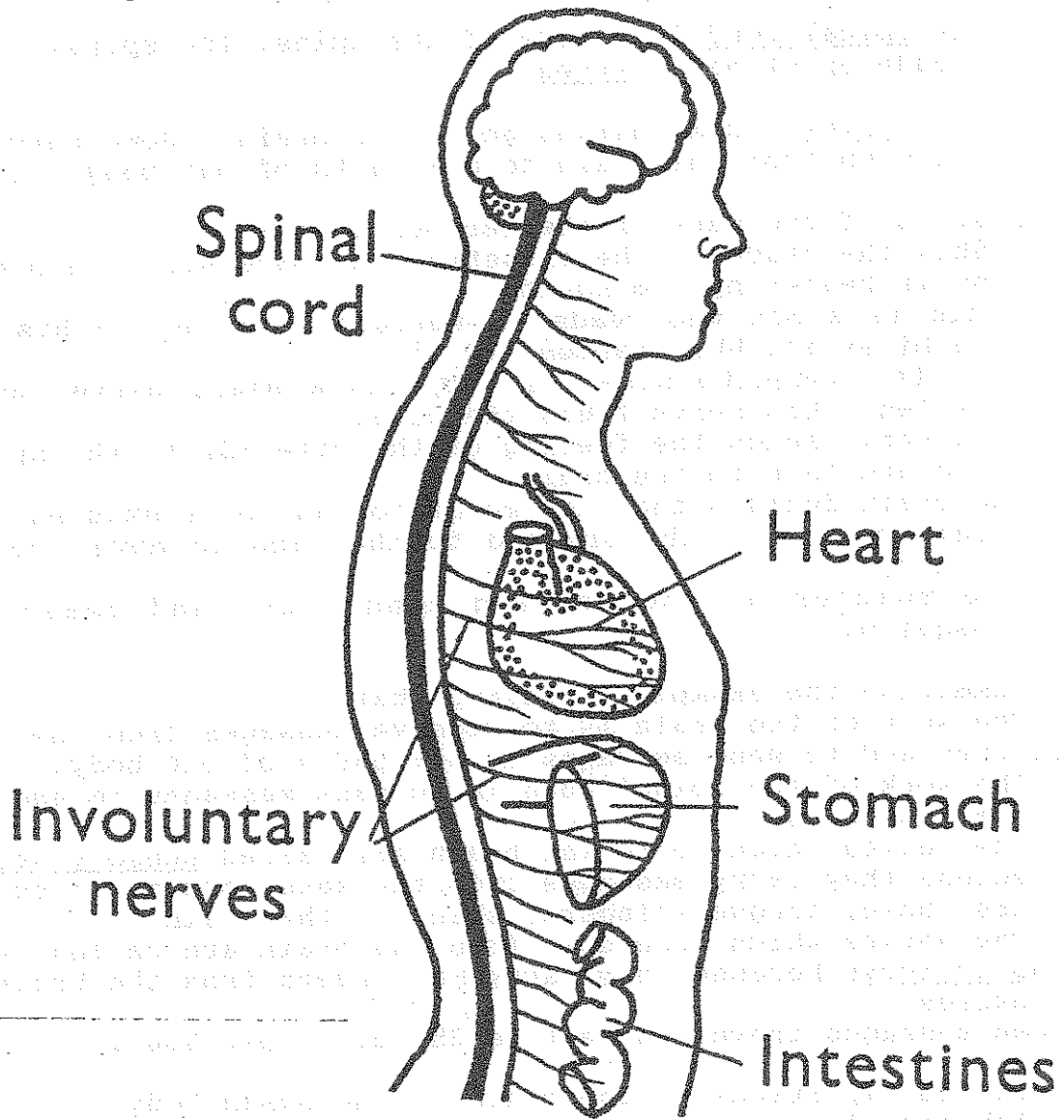
Between them, these two systems control the rate of working of all the processes in the body, e.g. respiration rate, heart beat, etc. They are made up of nerve cells and are controlled mainly by the medulla and not by the cerebellum. Therefore they are not under conscious control. They are helped in their functions by the secretions of the endocrine glands.

- a. The SYMPATHETIC SYSTEM is made up of two rows of *ganglia* (isolated groups of nerve cells) lying on each side of the backbone. Each ganglion is connected to the spinal cord and to other ganglia in the row. Nerves lead direct from these ganglia to organs or tissues. Sometimes several nerves from a group of ganglia join to form a network just before entering the organ or tissue. These networks are known as *plexuses*, e.g., the solar plexus in front of the upper part of the abdominal cavity.

The main function of the sympathetic system is to help the body prepare for an emergency by speeding up some of the body processes and slowing down others, e.g., the heart beat and the respiratory rate increase, but the rate of digestion slows down, when one is faced with danger.

- b. The PARASYMPATHETIC system consists of nerves leading from the medulla and the lower end of the spinal cord. These nerves carry messages to all the internal organs of the body, e.g., heart, stomach, kidney, etc.

The main function of this system is to allow the body processes to carry on at a reasonable rate. Therefore there is a continuous flow of messages to and from along these nerves.

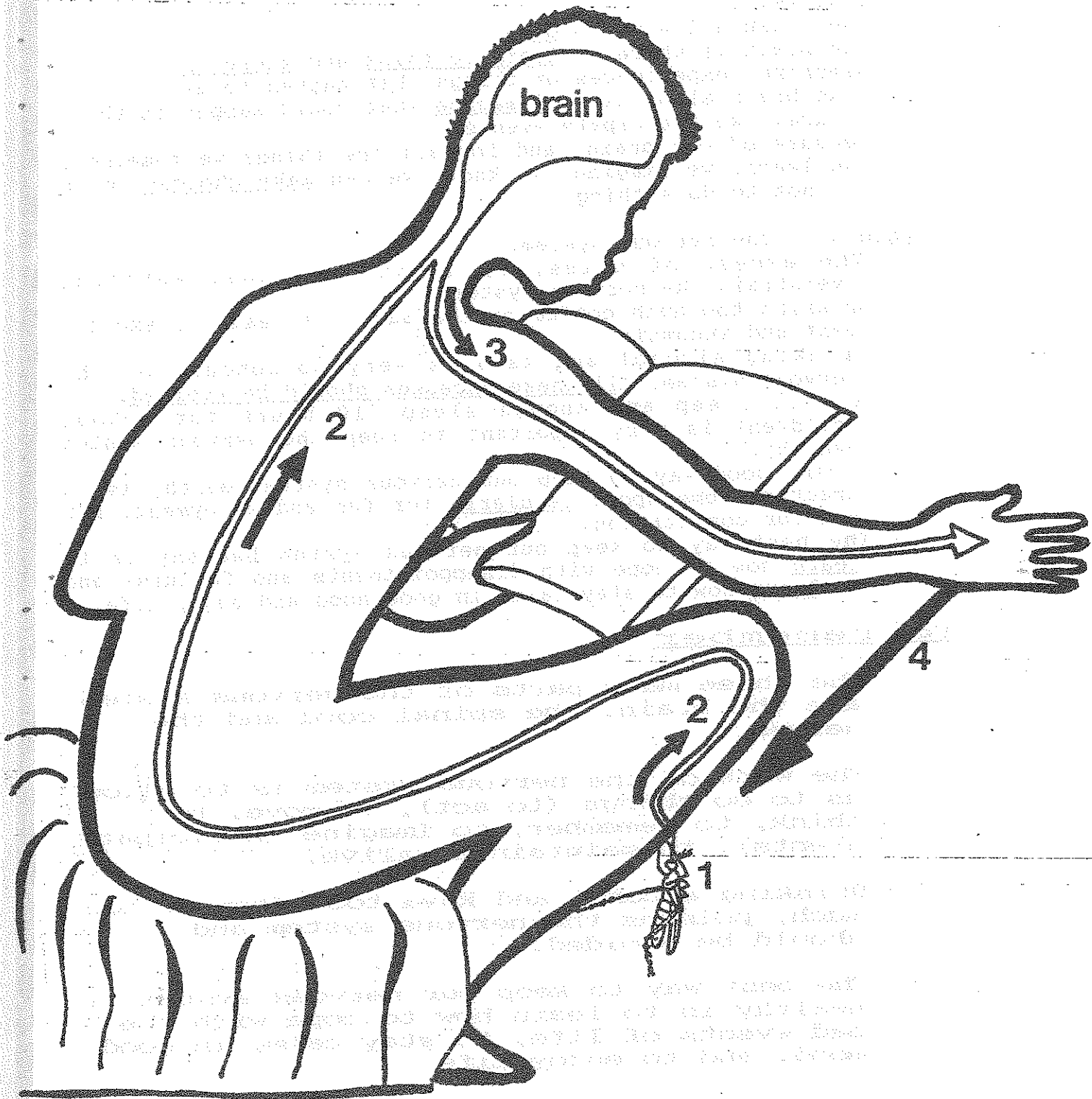


Autonomic nervous system

Time : 30 minutes

Method

- 1) Presentation the Nervous system. Show the simplified illustration. Introduce the new words.
 - 1.1) - The brain is the top part of the nervous system. The brain is in the head, in the skull cavity.
 - 1.2) - The spinal cord is inside of the spine. The spinal cord is made up of many nerves.
 - 1.3) - The nerves - Some nerves go to the brain - Some nerves come down from the brain to all parts of our body.
- 2) Explanation of the work of the nervous system.
 - 2.1) - Show the students the illustration concerning the man who is beaten by a mosquito.
 - "This is a man who reads. A mosquito arrives on his leg and bites it. What happens?"
 - When the mosquito bites (1) it hits a small nerve inside the leg. This nerve feels the bite.
 - This nerve sends the feeling of the bite (2) to the spinal cord and then to the brain.
 - The brain decides that the mosquito has to be smashed. The brain orders to the arm and to the hand to move consequently (3).
 - The muscles of the arm and hand obey, and smash the mosquito.
 - 2.2) Summarize the example by saying that :
 - The work of the brain is to receive messages from the nerves and to send messages to all parts of our body.
 - The work of the spinal cord is to pass messages to and from the brain.
 - The nerves which go to the brain are called sensory nerves because they carry messages from the sense organs (eyes, ears, nose, tongue, fingers, skin) to the brain.
 - The nerves which come down from the brain are called the motor nerve because they carry the orders from the brain to muscles.Some messages travel as fast as 250 miles per hour.
3. Stress the importance of the brain in the human body.
 - 3.1) Ask the class :
 - "What do you do when you hear a scream in the night ?" (run, be quiet and wait, hide, heart beat fast, etc)
 - "What tells you to do when you hear this noise ?" (your brain sends messages back to your muscles and to the thinking part of the brain)



Work of the nervous system

3.2) Show the illustration of the brain with its main centres - Name them and explain their work.

3.3) Summarize :

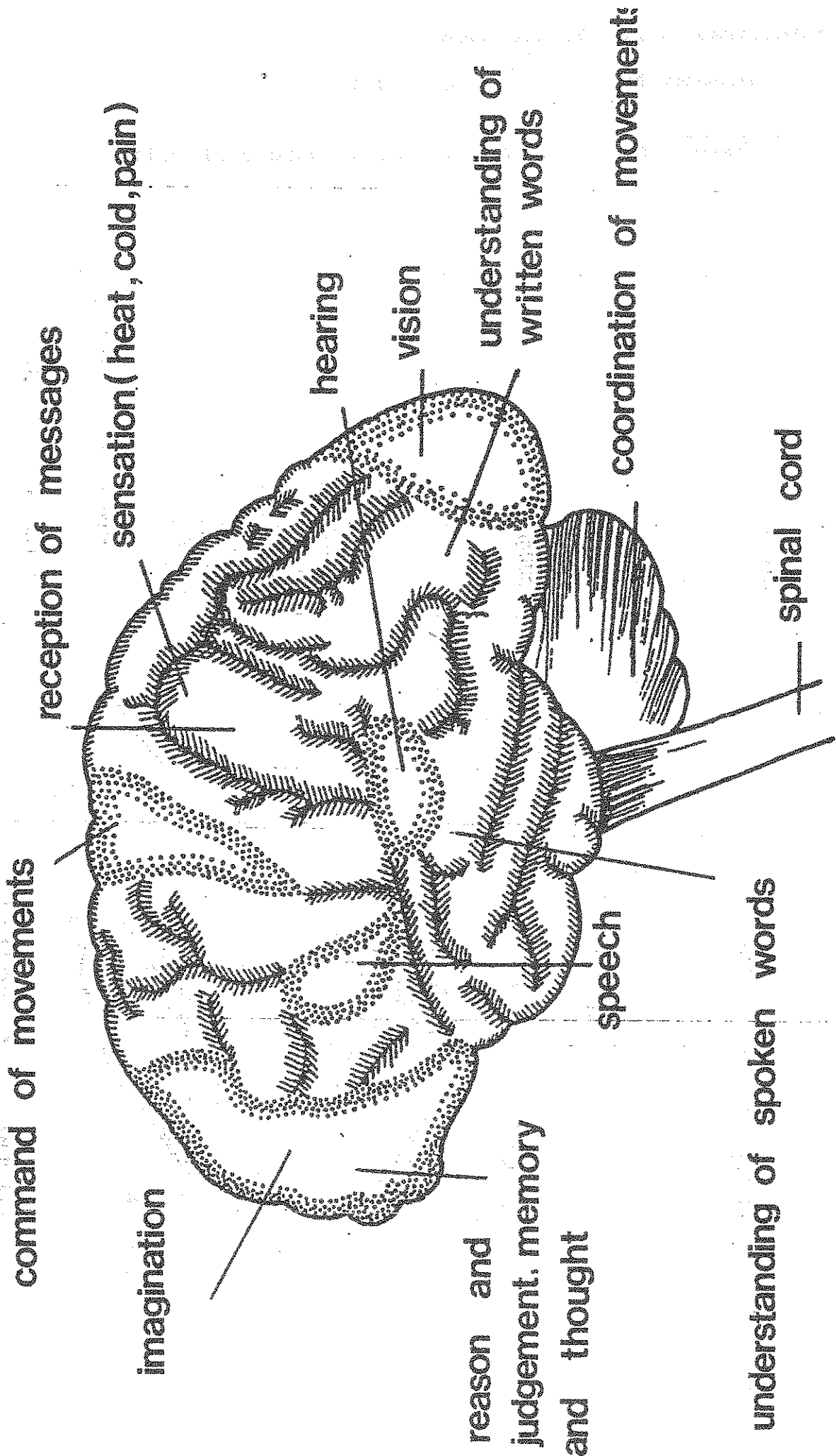
- The brain allow us to do things (to act) and to maintain us alive.
- The brain allow us to move.
- The brain is where we learn to think and store up (memorize) experiences or things that happen to us.
- The brain allow us to imagine what could happen in the future. (we anticipate events)
- Because of our brain, and for all the things we remember, we learn, we imagine, we know, we can make choices to do or not to do a thing.

4. Hygiene of the Nervous system.

- The excess of noise, of light, of video watching overstrain the nervous system.
- Drinking too much coffee or too much tea leads to excitement and insomnia.
- Drinking alcohol and kava is very poisonous for the nervous system. All these excesses should be avoided.
- A good sleep and enough sleep (10 hours for school children) is very important to keep the nervous system healthy.
- A very good way to keep our nervous system healthy is to practise some sport regularly for fun and enjoyment, but not for competition.
- The best way to keep our nervous system healthy is to learn how to cope with disappointments and failures and to learn how to stay calm, in good mood and enjoy life.

To remember

- The three main parts of the nervous system are the brain, the spinal cord and the nerves.
- The work of the nervous system is to allow us to do things (to act), to move, to think, to remember, to imagine (anticipate events), to maintain us alive.
- Drinking alcohol and kava too often or too much, poisons the nervous system and should be avoided.
- The best way to keep our nervous system healthy is to learn how to cope with the bad events of life, to stay calm, in good mood, and to enjoy life.



Brain, showing its main centres

TEACHING HEALTH IN YEAR 5

Lesson No. 10 - 11 - 12

Objectives

- Have a revision of the topics found difficult to learn

TEACHING HEALTH IN YEAR 5

Lesson No. 13 -- CAUSES OF DISEASES : IGNORANCE

Objectives

- By the end of the lesson students should have listened to the story and discussed about people's ignorant attitudes and behaviors, and their consequences for people's health.

Time : 30 minutes

Method

1) Divide the class by groups of 5 or 6;

Tell them you will read a story about malaria, and they will have to discover what causes malaria in this story.

2) Read this story to the class :

- Pakoa and Leitangi lived in a place where there was a lot of malaria sickness.

From time to time each of them would become very sick with the fever. Their three children often had malaria and missed school very often.

- Malaria teams had visited their village several times. Pakoa and Leitangi refused to let the team spray their house. They had heard that the spray would kill their dog. They did not sleep under a mosquito net : it was too hot. They knew that they could get anti malaria medicine from the nearest aid post. The medicine didn't taste nice, so they did not take it.

Several persons in the village had died in the past years from malaria. Pakoa and Leitangi knew that their children might die from malaria too. But this was the way things were. A person just had to learn to live with these problems and accept them.

3) Tell the students you have some questions for them to discuss in their groups :

1) Are Pakoa and Leitangi being wise in the way they behave about malaria ?

(No because they refuse the spray, the mosquito net, the medicine)

2) Why do they refuse ?

(they heard that the spray kills animals- They don't like to sleep under a mosquito net - The medicine has a bad taste)

- What should they do ?

- Before refusing, they should listen to what nurses or malaria teams tell them about malaria and they should discuss with them.

4) It is important to summarize clearly the end of group discussions and to stress the following points.

- Many sicknesses are caused by ignorance.
- Many people do not understand what causes diseases and are given wrong informations by others. This encourages diseases and sickness. Many diseases can be prevented.
- Health workers like nurses, health inspectors, malarie teams, have learned correct informations on diseases, ways to cure them and prevent them.
- People who listen to health workers (nurses) and who follow simple health rules everyday, prevent many diseases. Malaria is one of these disease which can be prevented.

To remember

- Many diseases are caused by ignorance
- The right informations on diseases are given by nurses and other health workers.
- Many disease can be prevented.
- People who listen to nurses and who follow simple health rules everyday prevent many diseases.

TEACHING HEALTH IN YEAR 5

Lesson No. 14 - CAUSES OF DISEASES : POOR HYGIENE

Objectives

- By the end of the lesson students should have listened to the story and explained the errors the people made.

Time : 30 minutes

Method

- 1) Divide the classe by group of 5 or 6; Tell them you will read a story about John and his family, and they will have to discover what makes people sick in this story.
- 2) Read this story to the class :

John was a clever boy. He liked to go hunting in the bush with his dog Tiger. John and Tiger would spend most of the afternoon looking for birds and wild pigs or anything else to hunt.

Usually they caught at least one animal to take home.

By the end of one afternoon when John returned to his village he proudly showed his family the young wild pig he had caught. His mother cooked the pig for lunch next day. When it was ready, she called John from his play on the dusty field near his home. John came straight home and sat down to eat. The family used their fingers to eat the pig. They never bothered to wash their hands before eating. The food was put on banana leaves. Flies sat on the banana leaves and on some of the food while they were eating.

They drank dirty water from the water hole nearby. The family did not know that flies carry disease germs. They did not know that germs live in dirty water. When John ate his food he also ate germs.

John's baby sister had been sick for two days. She had pain in her stomach and had been passing a lot of watery stool. John's mother did not wash her hands after she had changed her small girl called Linessa. John's mother forgot to wash her hands before preparing lunch. Linessa was very thin and weak. John became worried. He was frightened that Linessa would die. He asked his parents to take Linessa to the dispensary. They decided to go to the dispensary to the next morning.

John was the first out of bed. He woke and found out that he too was having stomach pains. He did not feel like eating. He began to have diarrhoea (watery stools). He became frightened. The dispensary was two miles away. The family carried Linessa and John walked slowly behind. The pain in his stomach made him feel very weak.

Finally they arrived at the dispensary. They told the nurse what was happening to Linessa. The nurse looked at Linessa. Then he looked at John and asked what had happened to him. John explained that he had only been sick since early this morning.

The nurse gave some medicine and boiled sugar - salt water to John and to Linessa to drink. You must give her some boiled sugar- salt water every 15 minutes, and she will stay here for a while he said. The nurse told the family that people get this sickness called diarrhoea because they do not keep their hands and their food clean. Then the nurse sat down near John and his family.

"Now I will tell you how to keep from getting diarrhoea again he said".

- 3) Ask the groups to answer to some questions. Allow 10 minutes for discussion and report.
 - 3.1 - Who cooked John's food ?
(his mother)
 - 3.2 - What work did John's mother do before she cooked the pig?
(she cleaned Linessa. - John sister who had diarrhoea)
 - 3.3 - Did John's mother wash her hands before cooking ?
(no)
 - 3.4 - Did John wash his hands before eating ?
(No)
 - 3.5 - Was the food protected against flies ? (No)
 - 3.6 - What kind of water did John and his family drink.
(A water full of germs that carry diseases)

Summarize by asking :

"Why people get sick with diarrhoea ?"

- (Because they drink dirty water - They eat dirty food with dirty hands).

- 4) If you have time, you can develop the preventive aspect of this topic.

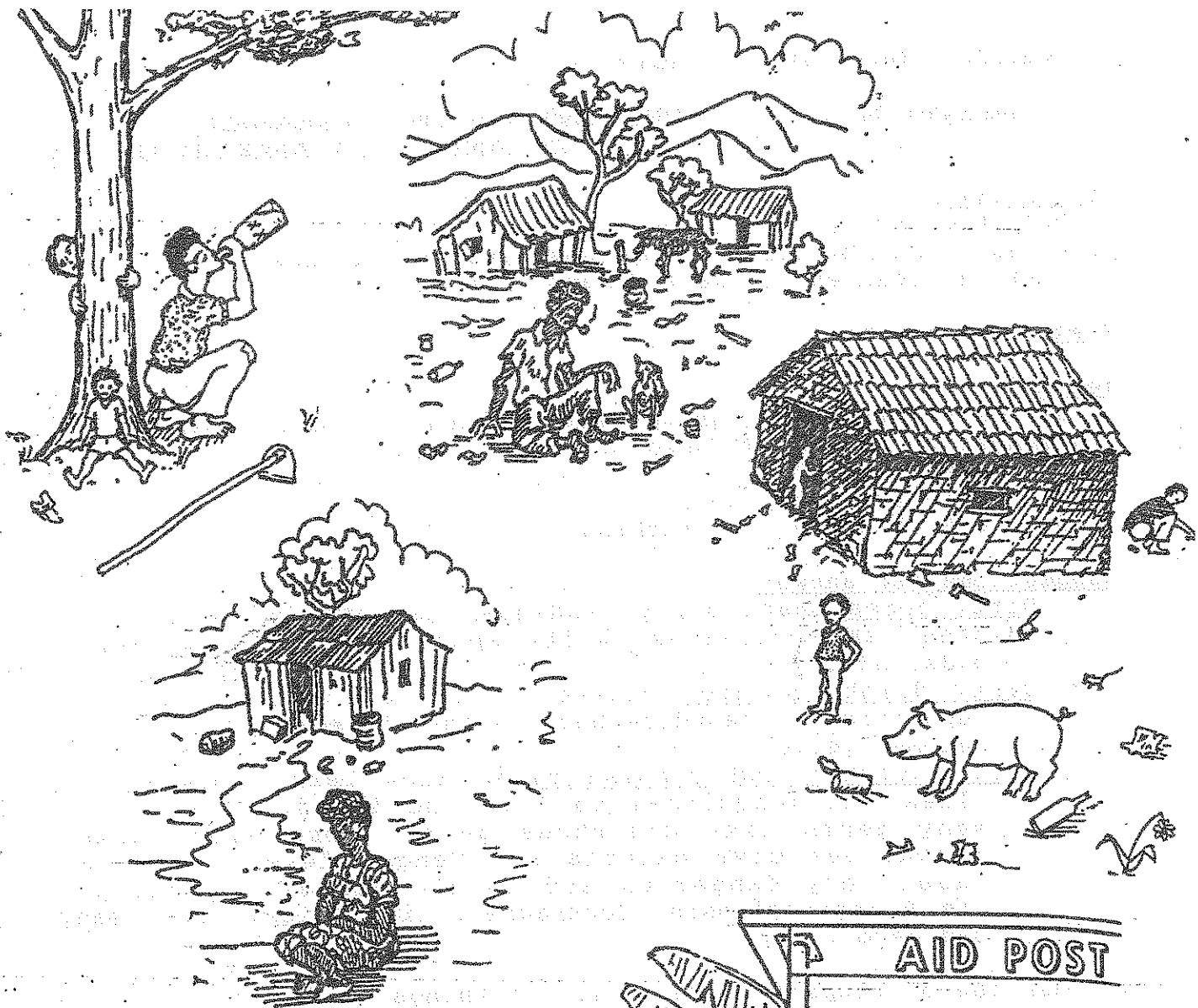
Ask the groups to tell what they think the nurse told John and his family to keep from getting diarrhoea again. The students will have to guess because nothing is said - on purpose - in the story about this.

Check the rules that the group has given with the followings

- 4.1 - Always wash hands before cooking and eating.
- 4.2 - Boil water before you drink it when you know it contains bad germs.
- 4.3 - Wash all raw vegetables and raw fruits before eating.
- 4.4. - Keep flies off food - cover it.

To remember

- Diarrhoea (watery stools) is given by dirty water, dirty foods, dirty hands.
- Diarrhoea can be cured with some medicine and boiled salt-sugar water.
- Diarrhoea can be prevented with clean water clean food - clean hands.



TEACHING HEALTH IN YEAR 5

Lesson No. 15 - PREVENTION OF DISEASES : CLEANLINESS AROUND US

Objectives

By the end of this lesson, students should have named some diseases caused by dirty environment and should know how to maintain a clean environment around them.

Time : 30 minutes

Method

- 1) Divide students in 3 groups and ask them to name as many diseases as they can caused by :
 - 1.1 - dirty homes
 - 1.2 - dirty drinking water
 - 1.3 - dirty kitchen and rubbish piles

Suggestions for answers -

Dirty homes means dirty beddings that spread scabies and other skin diseases (white spots and boils) - bed - buds and lice.

Dirty drinking water causes diarrhoea, (watery stools), hepatitis (or jaundice because the white part of the eye becomes yellow)

Dirty kitchen and rubbish pile allow rats, cockraches, flies and mosquitoes to live and breed. Flies carry many germs like diarrhoea germs, sore eyes germs. Mosquitoes give malaria and dengue fever. Rats may cause very dangerous and deadly diseases (meningitis & leptospirosis) Cockraches, like flies, carry many bad germs.

- 2) Ask the 3 groups to make a list of things to do and not to do to prevent water pollution - To have a clean house inside of it. To have a clean house outside of it. Correct and complete the answers of the groups with the following suggestions :

2.1 HOW TO PREVENT WATER POLLUTION :

- Don't put human waste (stool & urine) into the sea inside the reef, in lagoons, near the spring or river or the well. Shellfish like clams, oysters, mussels and other shells, living in polluted waters may cause very dangerous diseases like hepatitis, diarrhoea, dysentery, typhoid fever.
- Use a proper toilet away from the sea, the river and the well. Faeces (human waste) and urine pollute the water by putting germs in water that people use for drinking, bathing, washing dishes etc..
- Collect, bury and burn garbage. Garbage thrown into water is a water pollutant. Do not throw garbage into the wells, the river or the sea inside the reef. In lagoons, garbage pollution is one of the main cause for fish poisoning.

2.2. HOW TO HAVE A CLEAN HOUSE - Inside

- Do clean dishes and pots as soon as meal is finished, as well as table and floor.
- Protect food and drinking water from flies, cockraches and rats.
- At least, once a week, put the beddings outside in the sun.
- Maintain the toilets clean everyday.
Keep the slab or seat clean. Scrub it with a brush and use disinfectant or soap.

2.3. HOW TO HAVE A CLEAN HOUSE - Outside

- Collect, bury and burn garbage often. At least once a week. Don't let flies, rats pigs, dogs, chicken, live and breed among them.

Mosquitoes breed in small collection of water. Therefore, don't let any small containers, cans of beer, coconut shells, and tyres stand outside in the rain, all around your house. Bury the cans burn the tyres and coconut shells - Do this at least once a week.

To remember

- **WATER IS NECESSARY FOR LIFE.**
- We must work together to keep our water **CLEAN** and **SAFE**.
- **Inside the house :** it is very important to have clean kitchen, clean toilets, clean beddings.
- **Outside the house :** it is very important to collect, bury and burn garbage, to destroy mosquitoes breeding sites at least once a week.

Lesson No. 16 - PREVENTION OF DISEASES :
FITNESS

Objectives

- By the end of the lesson the children
1. Should have participated in a game of acting out either a "fit" or an "unfit" person.
 2. Should have answered questions on habits which cause a person to be "fit" or "unfit".
 3. Should have chosen and played a game which helps them to keep physically fit.
 4. Should have discussed how physical activity and eating play a role in keeping a person physically "fit" or "unfit".

Organisation : Class meets on the outside playing area;
divide class into 2 groups.

You will need : - To read the lesson well before class.

Time : 30 minutes

Method

FINDING OUT WHAT IT MEANS TO BE PHYSICALLY FIT.

1. ASK the children :
 - What does it mean when we say a person is "fit"?
 - What is the difference between a fit person and an unfit person?
(Free answers)
2. DIVIDE the class into two halves. One half of the class are called "fit". The other half are called "unfit".
3. ASK the "fit" half to show you how a fit person can run on the spot. (run, stop, sit down)

~~ASK the "unfit" half to show you how an unfit person runs on the spot. (run, stop, sit down)~~
4. ASK the "fit" half to show you how a fit person climbs a steep hill. (climb, stop, sit down)

ASK the "unfit" half to show you how an unfit person climbs a steep hill. (climb, stop, sit down)
5. ASK the "fit" half :
 - What do "fit" people eat ? (right amounts of energy, protein and protection foods).
 - How many meals a day would "fit" people eat ? (Three balanced meals a day)

6. ASK the "unfit" half :
 - What do "unfit" people eat ? (wrong kinds of foods like cakes, sweet biscuits, lollies, lemonades, too much energy food)
 - How many meals a day do "unfit" people eat ? (they eat snacks all the time between meals etc.)
7. ASK the "unfit" half :
 - What daily habits do you have that make you unfit ? (drinking too much beer, smoking, eating too much, no regular exercise).
8. ASK the "fit" half :
 - What daily habits do you have that make you fit ? (regular exercise, not eating too much, not smoking, drinking at least 8 glasses of water or fluid every day. ALWAYS drinking water after playing sports and games.
 - Why do you always drink lots of water every day ? (To keep your kidneys working well. Otherwise you will get little stones in your kidneys. This will cause great pain).
9. ASK the "unfit" half of the class to show how an "unfit" person might move when he is 40 years old. (bent, stiff, slow because of weight)
10. ASK the "fit" half of the class to show how a "fit" person might move when he is 40 years old. (still strong, walks standing straight, not slow, because a fit person is not fat)
11. ASK the whole class to tell you some games that help to keep people fit.
12. PLAY a quick, easy game.
13. EVERYBODY HAVE A DRINK OF WATER AFTER THE GAME.

To remember

- Fitness means enjoyment of life.
- Fitness is an important part of health
- Healthy habits practised daily bring fitness, even at old age.

TEACHING HEALTH IN YEAR 5

Lesson No. 17 - PREVENTION OF DISEASES : IMMUNIZATION

Objectives

By the end of this lesson the students should have discussed immunization as one way of helping children to be healthy.

Time : 30 minutes

Method

1) Ask the children :

- What do you think parents should *do to* keep their young children from getting sick ?
(allow 2 - 3 to answer)

2) Ask the children to look at their left upper arm.

See if someone has had a B.C.G. Immunization which leaves a scar.

3) Children show their immunization scars or if no one has one, perhaps the teacher or teachers child would have a scar to show the class. This scar shows they have an immunisation to help prevent tuberculosis.

4) Read the following story to the class :

Today is a big day for Linda and her young baby Peter: it is M.C.H. clinic day in the Church garden in the village. Linda gave her two older children their school lunches. She said : "Hurry and get going to school before you are late".

I have to take Peter to the M.C.H. clinic today ! ("M.C.H." means, Mother and child health)

As she gets ready she thinks of the help the M.C.H. sisters have given her when the older children were growing up. She feeds Peter his mashed pumpkin and then starts to put on his clean clothes. They set off for the clinic. Linda knows Sister will also weigh Peter to see that she is feeding him the right foods.

Today is the day for Peter to get his second injection to ~~stop some~~ ~~sicknesses~~. Linda can only remember the one called "Whooping cough". She has seen many children sick with this bad cough in the village.

When Linda gets to the clinic the sister prepares the medicine; Then she holds Peters' arm firmly while she gives the injection into his arm. Peter cries a little and then he is alright.

Linda asks the sister about the big name. Sister laughs : "Oh, you mean "Immunisation ?" Linda repeats the word two times very softly : "Immunisation, Immunisation. You keep my family from getting sick".

Linda asks the sister : "what does the word Immunisation means ?"

The sister replies : "It means you get (or your child gets) a very small amount of harmless disease germs in your body either by injection or by mouth".

- "And what happens after immunisation ?"
- "Our body is able to recognize the germs. This makes our body stronger against big amounts of these same disease germs, and able to kill them".
- "Which diseases can be prevented by immunisations ?"
- "Whooping cough, Tetanus, Diphteria, Polio and Tuberculosis. Young babies and children should get immunisations to prevent them getting bad diseases that may kill them.

5) Summarize the story and tell the students :

- When you go home today look in your younger brother or sister's Health record book your mummy should have. Find out when they had their immunizations at the M.C.H. clinic.
- Tell the story and explain to your parents how immunizations keep us healthy.

6) Follow up suggestions :

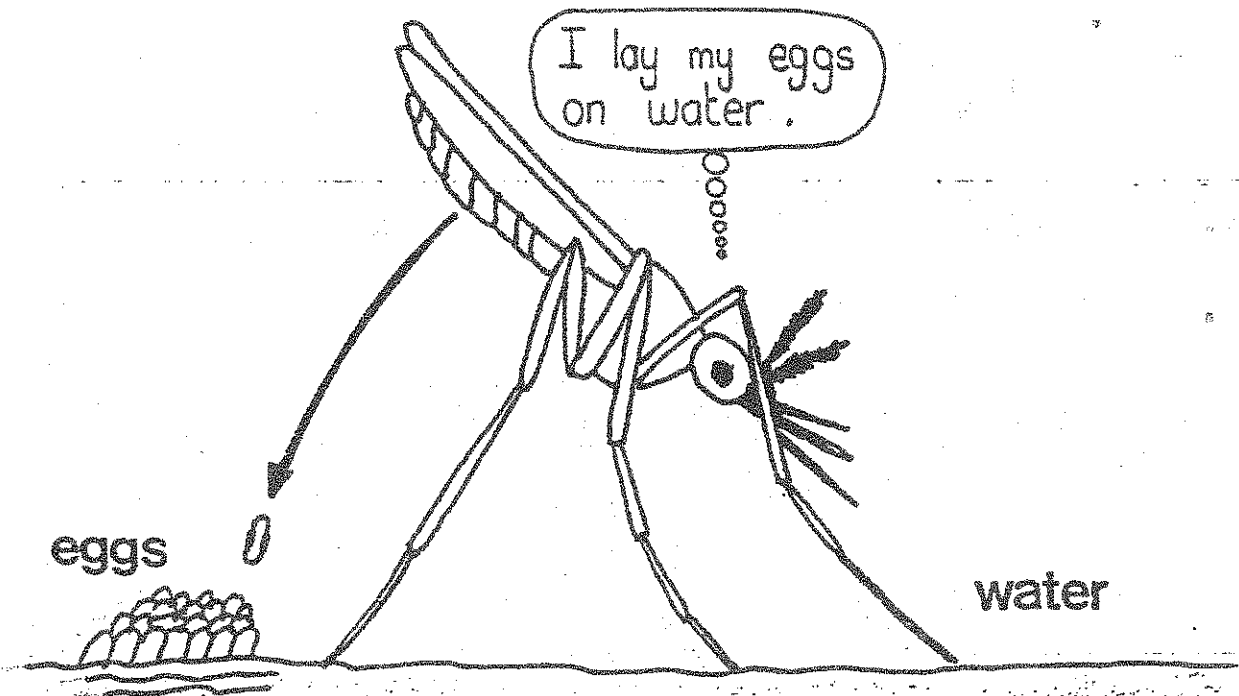
- Take the class to the M.C.H. clinic to see immunizations being given or listen to the nurse talking on immunizations.
- Each child could make a picture story, telling their family about immunizations.

To remember

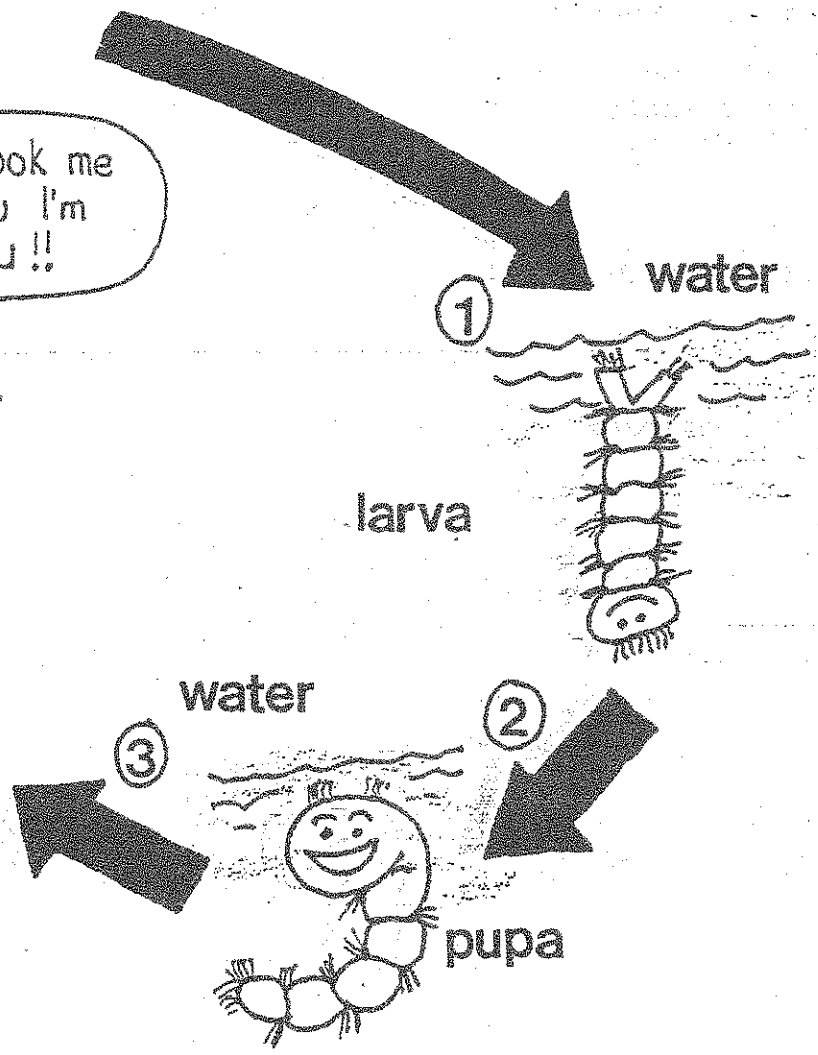
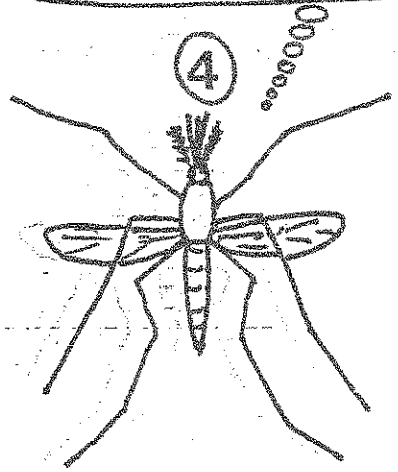
With Immunisation we are protected :
Some strong diseases cannot make us sick.

PREVENTION IS BETTER THAN CURE

LIFE CYCLE



Ha! Ha! It only took me seven days - Now I'm ready to bite you!!



TEACHING HEALTH IN YEAR 5

Lesson No. 18 - PREVENTION OF DISEASES : - PREVENTION OF MALARIA AND DENGUE FEVER

Objectives

By the end of this lesson students should know :

- The role of mosquitoes in the transmission of malaria and dengue fever.
- The life cycle of mosquitoes
- How to control mosquito breeding sites.

Teacher's notes

Malaria is a dangerous disease mainly among children because it can cause death, anaemia, malnutrition, and school absenteeism. In 1987, malaria was the first reason for people's admission in hospitals; it was the second leading cause of death among 0 - 4 years children. In 1989 Dengue fever killed many people in Vanuatu.

Therefore it is very important for this topic to go beyond the more classroom teaching, and implement an active programme, at the school level, especially during the raining season. During the lessons No 19 to No. 22, and No 30 to No. 36 you have plenty time to develop an active programme in cooperation with the nurse and malaria technicians.

But remember that a good teacher sets the example, because the pupils and their parents are more likely to pay attention to what you do, than what you say. Before you ask your students to eliminate breeding sites, be sure that you have got rid of them around your home.

Time : 30 minutes

Method

Explain the following points :

1) The role of mosquitoes

- Mosquitoes are dangerous animals for human life because they carry, in their bodies (their stomach) germs of malaria and dengue fever.
- Mosquitoes give these diseases to people they bite. Mosquitoes need human blood to feed. They suck up the malaria germs with the blood from a sick person, and inject them into the next person they bite. The same thing happens with dengue fever.

2) The life cycle of mosquitoes

This chapter is particularly important, because mosquito control measures derive from it. The life cycle lasts one week : in the South Pacific it takes about one week for an egg to become an adult mosquito.

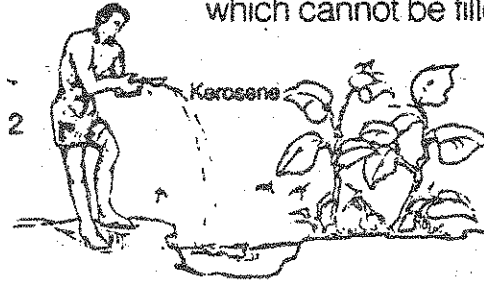
- Eggs are laid on the surface of standing waters, on riversides and puddles, in empty tin, can, storage drums, roof drains and gutters, old tyres, buckets, empty bottle coconut and cocoa husks etc... These things and places are called mosquitoes breeding sites. Mosquitoes need water to live and develop.

- The Mosquito is our enemy, because it gives us Malaria.
- In Vanuatu, many people are sick with Malaria, mainly during rainy season, because the Mosquitoes needs water (breeding sites) to develop.
- Let us eliminate the breeding sites around us ! we have to :

Clean and drain streams and puddles. Allow standing water to run away.



Pour kerosene or old car oil onto ponds which cannot be filled or not drained.



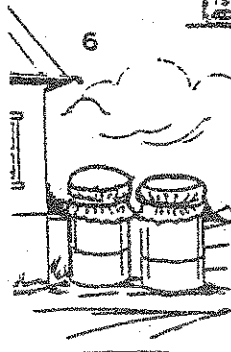
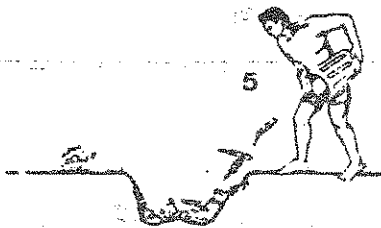
Clean bush and plantations.



Pierce or crush empty tins.



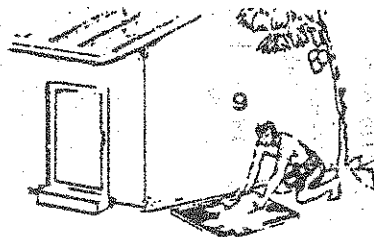
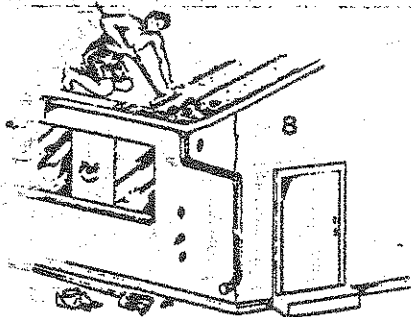
Put garbage and crushed tins in a hole covered with a layer of earth or sand.



Cover water tanks with a piece of material like a rice bag, closely tightened around them.

Clear leaves and other rubbish from the roof gutters.

Not to leave empty tins, bottles, buckets and drums around. Turn them upside down and protect them from rain.



Make sure that soakaways, septic tanks, and traps are tightly closed. Fill in any holes and cracks round their cement tops.

We must also :

- Cooperate with malaria teams.
- Seek medical advice (dispensary, hospital) for early and complete treatment.

- The larva soon emerges from the egg, but it still lives in the water. It makes frequent visits to the surface, for respiratory purposes. It attaches itself to the surface film with spiracles for the intake of air.

- Few day later, the larva changes into a pupa. It consists of an enlarged head and thorax. The pupa still live in the water.

- After few days again, the pupa skin splits, and the adult mosquito emerges.

3) How to control mosquito breeding sites

The principle is very simple : once a week people have to find and eliminate mosquito breeding sites. No standing water means no mosquitoes. Very often, in people's mind, mosquitoes are associated with dirtiness and thick bush. When people cut the bush and leave, on the spot, beer cans, empty tins and coconut shells, they spend time and energy for nothing, because water reservoirs are still there, and mosquitoes will continue to breed and develop.

How to eliminate mosquito breeding sites :

- 1) Clean and drain stream and puddles. Allow standing water to run away.
- 2) Pour kerosene or old car oil onto ponds which cannot be filled or not drained.
- 3) Clean bush and plantations.
- 4) Pierce or crush empty tins.
- 5) Put garbage and crushed tins in a hole covered with a layer of earth or sand.
- 6) Cover water tanks with a piece of material like a rice bag, closely tightened around them.
- 7) Not to leave empty tins, bottles, buckets and drums around. Turn them upside down and protect them from rain.
- 8) Clear leaves and other rubbish from the roof gutters.
- 9) Make sure that soakaways, septic tanks, and traps are tightly closed. Fill in any holes and cracks around their cement tops.

4) Follow up of the lesson

- Ask students to start now to put into practice what they have learned.
- Encourage them to adopt few simple rules to follow once a week.

- If the collected items have to be stored before being eliminated, protect them from rain. When children clean the bush, check that beside cutting the grass they also have to collect any empty tins, bottles, and coconut shells, and to destroy them (burn, bury, pierce, crush them).

**TEACHER'S NOTES ON THE LESSONS SERIES
"BEING HEALTH RESPONSIBLE"**

1. The series of the lessons "Being Health Responsible" are undertaken for developing among school children, a sense of responsibility for their family and community health.

Families and communities are healthy when the people who live in them :

- Understand what they need to do to be healthy;
- Know what services are available and how to use them well;
- Care about the health of everyone else.

Children can help in making their family, and community a better place to live in.

These lessons show some ways in which children can do this, for instance by :

- Finding out about the health care resources in their community.
- Passing on to their families and others, important health informations.
- Caring about the health of others, particularly children who live near them, by helping their families make the best use of available health services.

Teachers and health workers can plan these lessons together

PARENTS SHOULD BE TOLD WHAT THEIR CHILDREN ARE DOING AND WHY

2) The series of these lessons do not seek to give one set of activities which will work in all the islands of Vanuatu. It gives a selection to choose from. We expect that many of the activities will be changed to fit local conditions. We hope that many of them will be ones suggested by the children themselves.

Besides the set of activities, you will find broad but precise guidelines to help you to organize yourselves, to implement the learning activities, and to make these lessons better (evaluation). The series of these lessons, contrary to the other ones, give you and your students a lot of initiative and freedom, to respect the local problems and the local health needs and priorities.

3) With this type of lessons you must be prepared to spend time on preparation to know, the set of activities, to work out the students tasks, to discuss with people who can help, before starting the series. As these lessons are time consumer, often you can adapt their regular teaching time for this purpose. We could imagine, for instance :

- a mathematic lesson spent on counting the 0 - 4 years old babies in all the families of the classroom. The ones who are immunized, the ones who are not etc...
- a language lesson spent writing stories about good and bad health habits; these stories being read later on at home etc...
- A craft lesson where children made masks, puppets, prepared a drama, etc...
- a science lesson spent learning to measure salt and sugar for the special drink.
- a lesson on the Environment spent to make a map of the village, etc...

P.S. :

If you are interested with these lessons series, you will get more informations and more activity sheets to the following address :

CHILD TO CHILD PROGRAMME
c/o Institute of child Health
30 Guilford Street
LONDON WC 1N1EH - ENGLAND

TEACHING HEALTH IN YEAR 5

Lesson No. 19 - BEING HEALTH RESPONSIBLE : ... WHAT TO DO ? ...

Objectives

By the end of this lesson the students should have chosen one topic to improve health practices in their local area.

Preparation of the lesson

- You need to know the set of all the topics to present them to your students and to allow them to choose one.
- You need to work out the students' tasks for each activity
- You need to discuss with people who can help to implement these activities.

For year five the set of topics which are proposed is the following one :

- 1) better health habits
- 2) Immunisation (or vaccinations)
- 3) Prevention of accidents
- 4) Malaria
- 5) Helping handicapped children

You will find all the activity sheets in the next pages.

Teacher's notes

When you refer to the annual school programme you see, in the last school term, plenty time for seven lessons of the series "Being health responsible".

As it is very important to end this type of lessons, you will carry on, during the last term, the topic chosen in lesson No 19 and the activities which have not been finished at the end of the lesson No 22.

Method

- 1) Introduce the objectives of these lessons series "Being Health responsible" (refer to the preceding pages).
- 2) Present all the five topics.
- 3) Organize group discussions to allow students to choose one topic.

TEACHING HEALTH IN YEAR 5

Lesson No. 20 to 22 - BEING HEALTH RESPONSIBLE

Objectives

Implement the topic chosen in lesson No. 19 and, if there is any time, make an evaluation. If not, the evaluation will be made at lesson No. 30.

Method

1) The activities

are detailed in each topic. See the next pages.

2) Evaluation

We must learn never to be satisfied with what we do. In any activity two questions need to be asked :

- How well did it work ?
- How can we make it better ?

Obviously the more questions we ask the more we will know.

It will be very helpful if we know :

- What knowledge we taught was remembered and who remembered it best ? for example how many children remembered the role of immunisation ?
- What action took place as a result of our activities, what kind and where ? how many children or their families cured their skin problems ? (like scabies)
- What attitude in communities began to change as a result of the activities ? for example, did parents, and teachers, and health workers meet more often to discuss how children could help ?

TEACHING HEALTH IN YEAR 5

BEING HEALTH RESPONSIBLE : BETTER HEALTH HABITS

I. The idea

Being healthy and staying healthy is a result of good health habits. A community that has good health habits :

is clean and pleasant to live in;

has people who are strong and not often sick;

has people who are kind and care for all who live there.

Children begin to learn the health habits of their community from the time they are young babies. We can encourage the right health practices in children so that they become good habits.

Older children can help develop good health habits in younger children so that they learn how :

to keep their surroundings healthy;

to keep their bodies strong and healthy;

to live in a happy, healthy way with others.

II. Who can introduce the activity to children?

Teachers can involve school children;

Health workers and volunteer health workers can tell children at school or in out-of-school activities;

Guide, Scout and other youth leaders can help;

Press, radio, posters and songs can all be used to spread these ideas to children.

III. The activity

A happy healthy school

Children at school or in youth groups can be encouraged to discuss and make up their own rules for keeping their surroundings healthy :

clearing away rubbish and having it in special places;

keeping holes free of water and mosquitoes;

storing materials and equipment;

keeping the play areas safe.

They can form "health patrols" who are responsible for seeing that these habits are kept.

Sometimes children (and adults) lose their tempers or do things which seem cruel or unkind. Discuss these feelings with children :

Make up stories and games that help children realise the needs and feelings of others ;

Let them decide what is the kind thing to do in these difficult situations, for example, when children fight, or steal, or tease each other;

They can make up a play about a difficult situation like this, perhaps based on something that has happened to them. They can tell how it was solved in a kindly way;

The older children can each be made responsible for a young one to help him if he is in trouble of any kind.

Healthy habits

Healthy skin habits

Children often have skin diseases like infected sores, scabies, or itches from insect bites. Good health habits can help prevent these.

The following are some common skin conditions. Children can discuss them and how to prevent and cure them.

Scabies

This is an itchy skin disease. The insect is very small and lives in the skin. The insect bites in the dark, and at night, especially on the fingers, feet and buttocks.

If someone in the household has scabies everyone who lives there will need to be treated. A special lotion from the dispensary is needed. This is put all over the body.

All bedding and clothes need to be changed, washed and disinfected. Later on, it is important to put often the beddings outside, under the sun.

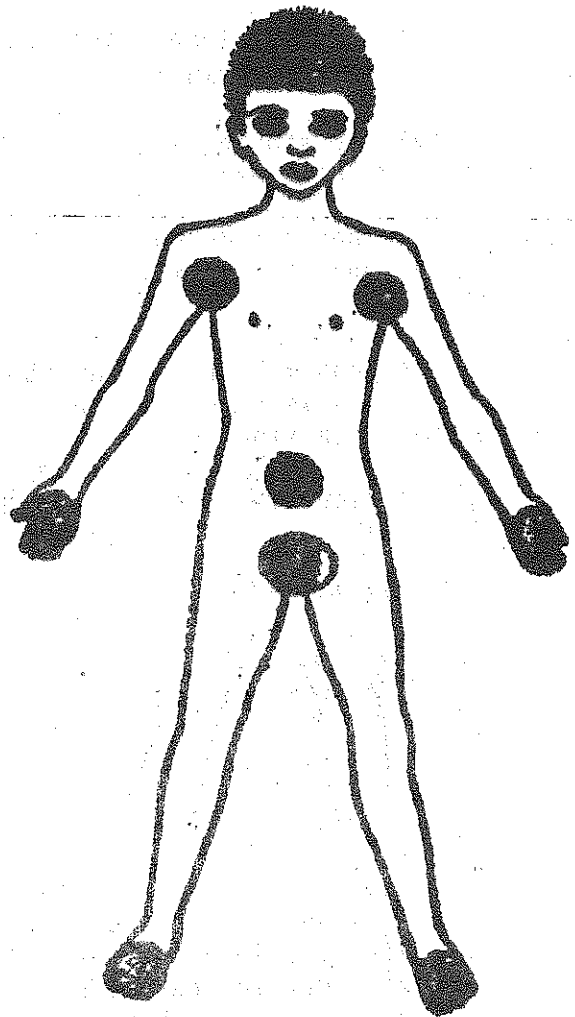
Lots of insects bite us and make us itch. Flying insects like mosquitoes bite skin not covered by clothes and make itchy lumps that last a day or so. Some of these insects breed in pools of water, so clearing the water will get rid of the insects.

Insects like fleas and mites get in clothes and on animals, can live in bedding. Keeping animals like dogs, cats and chickens out of the house will keep these insects out too.

Lice can live in hair and clothing. To get rid of them you need to clean bedding and clothing and to get a special lotion from the dispensary for washing the hair. Treat everyone in the house or class.

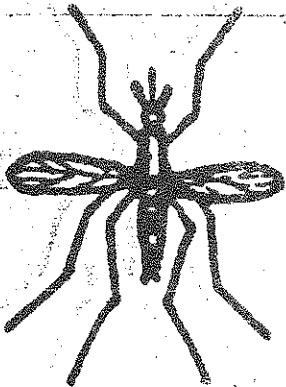


Ringworm

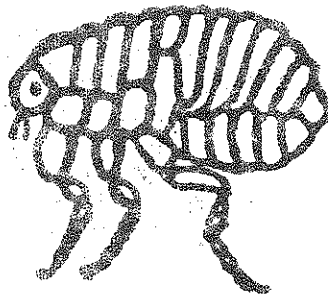


Scabies

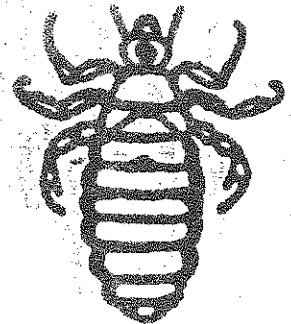
Itching



Mosquito



Flea



Louse

The children should learn to recognise these skin problems. They can organise regular inspections at school. If they see other children with any of these skin problems they can tell them how to get the right treatment.

Healthy teeth habits

Children should understand the importance of caring for their teeth every day. They should brush their teeth after eating, with a brush or brushing stick. They should not eat too much sweet food or fizzy drinks. These may rot teeth.

Let the children look at each other's teeth. When children were looking at teeth, did they notice that some teeth were black? Did they notice that some teeth have holes in them? These teeth have decay and are rotting.

- The hole needs to be filled by a dental worker. This may not be possible. The children could suggest local pain killers to put on the tooth. However, this does not stop the tooth from rotting.

Teeth go rotten if you eat a lot of sweet food, for example, cakes, fizzy drinks and sweets. Here is a simple experiment, if you can find two teeth (for example, teeth from children whose first set is falling out). Drop one in a fizzy drink (for example, Coca-Cola or Fanta orange). Drop the other in water. Leave them overnight. Look at them the next day. The tooth in the fizzy drink rots. The tooth in water does not.

The children can learn to brush their teeth the correct way. If they have a toothbrush show them how to use it.

Let each child make a brushing stick, which looks like this illustration.

Practise using the stick or toothbrush. Show the children how to brush up and down the front, back, top and bottom of their teeth. They should not brush from side to side.

The children can bring their brushing sticks or toothbrushes to school each day and brush their teeth together before school.

They can make a brushing stick for their younger brothers or sisters at home and teach them how to brush their teeth well.

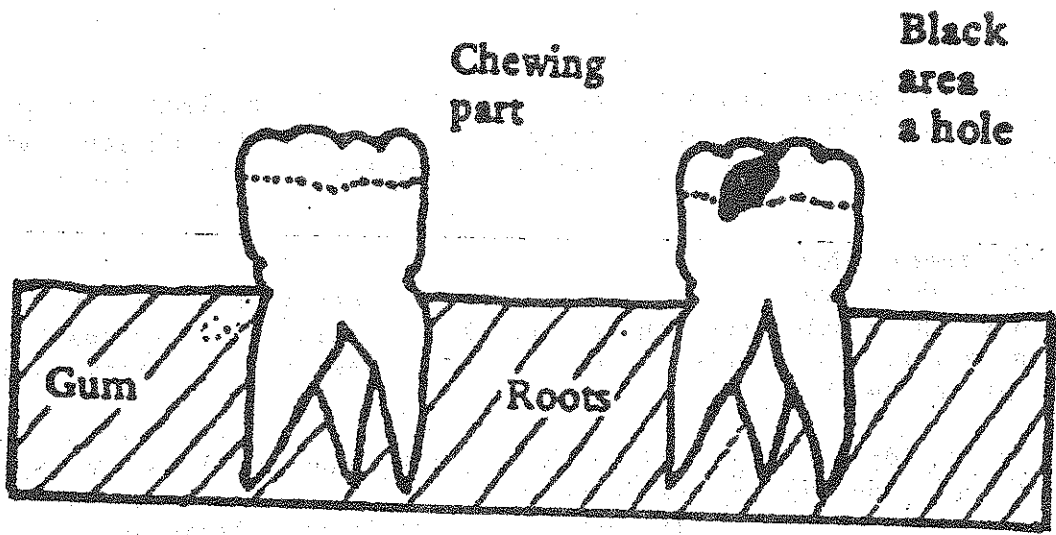
Healthy eyes

We all want to have bright, shiny eyes. Care of our eyes is very important.

Children should understand that it is important to eat foods like dark green vegetables and yellow and orange fruits and vegetables.

The children could visit the local market or walk around the village, and make a list of all the dark green vegetables, and yellow and orange fruits and vegetables, such as spinach, cassava and pawpaw leaves and pawpaw fruits, mango and many others. Are these foods expensive? Who eats them? How are they eaten? When?

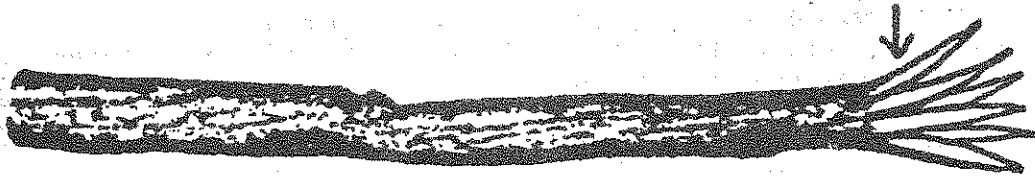
The older children can bring a piece of yellow fruit to school. They can share it with a younger child. They can try to see that their younger brother or sister at home eats some green leafy vegetable or yellow fruit each day.



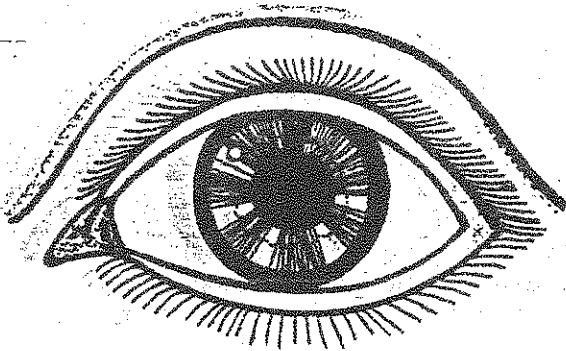
A good healthy tooth

A rotting tooth with hole

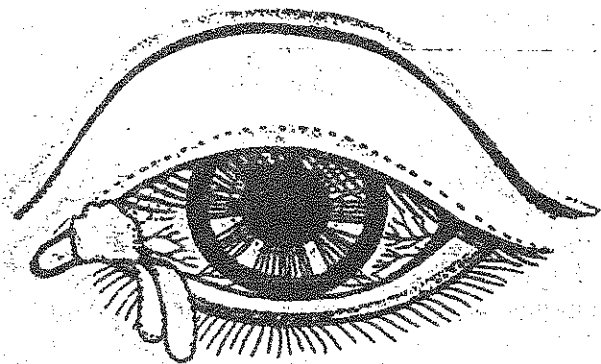
Chew on this end and use the fibres as a brush



Use the twig of a tree



Healthy eye



Infected eye

Often children get sticky eyes. They get dirt or pus in them. Older children can learn to wash eyes with clean water to keep them clear and healthy. If they notice pus in younger children's eyes they should tell an adult. This can help to prevent diseases which may cause blindness.

Healthy ears

Discuss with the children how it might feel if you can't hear well. Ask questions like :

Do you know anybody who does not hear well ?

Do you act differently with these people ? Why?

How would you feel if you did not hear well ?

The children can test each other's hearing in a game like this:

- (1) An older child stands several metres behind a line of younger children who are about to enter school
- (2) Beside each young child, an older child stands with pencil and paper

- (3) The first child says the name of an animal
VERY LOUD
- (4) The young children whisper the word to their older partner
- (5) And the older child writes it down

Then the first child says names of others animals, each one in a softer voice than the one before, until at last he is whispering.

After a list of about ten animals has been said and the words that the younger children hear are written down, the different lists can be compared.

If any child heard a lot less words than the others he probably has a hearing problem. Let him sit at the front of his class. If possible he should be examined by a health worker, especially if he has pus in an ear or frequent earache.

Older children can help look after the ears of brothers and sisters. They can regularly look in the ears of their brothers and sisters to see that there is no pus or small object. If they do see anything wrong they should tell an older person who should take the child to a health worker for help.

IV. Finding out how well the activity worked

Children can keep a chart and record on it each day if they ate green or yellow fruits or vegetables.

They can make a list of "healthy habits" to notice.

Older children can give a "brushing" test to children to see if they clean teeth the best way.

V. Other activities for children

Children can make a list of health habits to notice.

The children could do a play about their teeth. The characters be as follows :

Jimmy Germ	- a bad man
Sammy Molar	- a good but rather stupid man
Mr Dental Worker and Mrs Brushstick	- two good helpful people who stop Jimmy Germ from attacking Sammy Molar

The play can be developed by teachers and children.

Sammy Molar tells Mr Dental Worker what it is like to be a tooth. He says how frightened he is of Jimmy Germ.

Jimmy Germ appears and tells the audience how he plans to rot Sammy Molar.

Mr Dental Worker and Mrs Brushstick discuss how to stop Jimmy Germ from attacking Sammy Molar.

Sammy Molar gets covered in sweet food. Jimmy Germ jumps on Sammy Molar who starts to go bad. He calls for help. Mrs brushstick appears and pushes off Jimmy Germ.

Sammy Molar describes his lucky escape to Mr Dental worker. He explains the importance of not eating too much sweet food, and of cleaning teeth.

Children could plant vegetables in their gardens or trees producing yellow or orange fruits, such as pawpaw. They should eat many of these fruits and vegetables when they are in season.

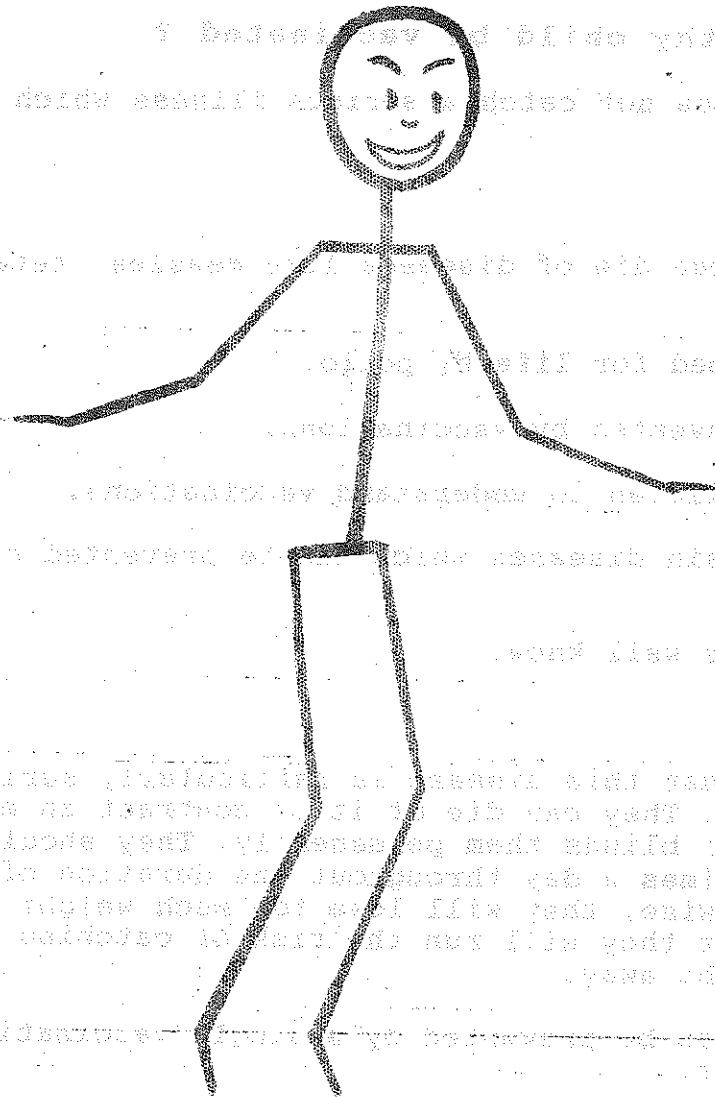
THIS IS A CHILD IMMUNISED BEFORE

THE MICROBES ENTER THE BODY.

BOY FIGHT THE MICROBES.

MICROBES DO NOT GROW IN THE BODY

MICROBES ARE KILLED.



THIS CHILD REMAINS HEALTHY.

THIS CHILD DOES NOT GET THE DISEASE.

PREVENTION IS BETTER THAN CURE.

TEACHING HEALTH IN YEAR 5

BEING HEALTH RESPONSIBLE : VACCINATIONS (or IMMUNIZATIONS)

I. Aim of activity

The child should understand the benefits of vaccinations :

Why should a healthy child be vaccinated ?

- . So that it does not catch a serious illness which may kill or maim it.

II. Basic idea

Many children can die of diseases like measles, tetanus, tuberculosis, etc...

Other are crippled for life by polio.

This can be prevented by vaccinations.

How to help children to understand vaccinations.

What are the main diseases which can be prevented by vaccinations ?

- a) Some diseases are well know.

MEASLES

We know that this disease is particularly serious for young children. They can die of it or contract an eye infection which blinds them permanently. They should be fed well several times a day throughout the duration of the illness; otherwise, they will lose too much weight and will be so weak that they will run the risk of catching another illness straight away.

Measles can be prevented by a single vaccination at the age of 9 months.

TETANUS

This is "lock-jaw". People very often die of it. New-born children may catch it if the umbilical cord is cut with a tool which has not been cleaned with alcohol.

Tetanus in new-born children can be prevented by vaccinating the mother during pregnancy - two vaccinations the first one at any time of her pregnancy, the second one four weeks after the first one. Or a single vaccination (booster) if the mother has already been vaccinated.

Tetanus may also affect older people, for example :

a wound which has not been properly cleaned,
a circumcision knife which has not been cleaned in
alcohol.

Both child and adult tetanus can be prevented by
vaccination.

One vaccination every month for 3 months (3
vaccinations) and then 1 vaccination (booster) every 5 years
(throughout ones life) the same for adults.

WHOOPING COUGH

The child coughs a lot and vomits. He must be fed well
several times a day throughout the period of the illness,
otherwise he will lose too much weight.

Whooping cough can be prevented by vaccination.
One vaccination every month for 3 months.

POLIO

We know that polio is a serious and common illness, and
that it exists in Vanuatu.

Polio can be prevented by vaccination.

One vaccination every month for 3 months (3 vaccina-
tions) and then 2 vaccinations (boosters) in class 1 and in
class 6.

TUBERCULOSIS

Is a common disease in Vanuatu. Small children can die
of it. Tuberculosis is prevented by B.C.G. vaccination.

A single vaccination as early as at birth.

b) Other illnesses are less well known.

But they are also very serious and can be prevented by
vaccination.

DIPHTHERIA

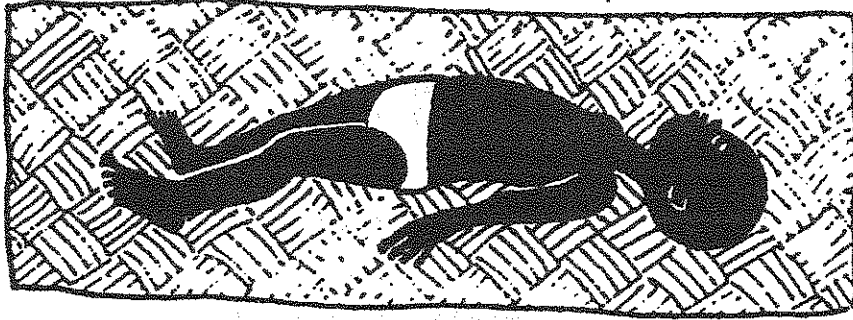
Can be prevented by vaccination.

1 vaccination every month for 3 months. 2 boosters with
an interval of 5 years.

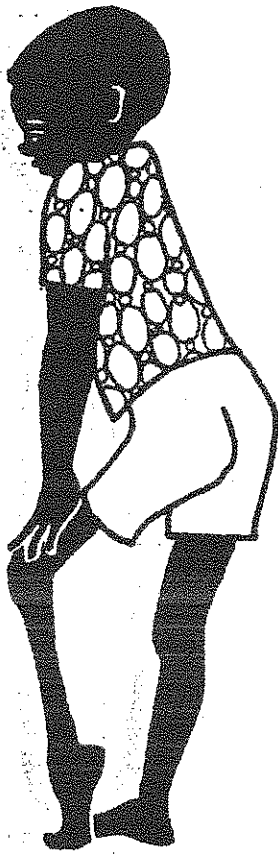
HEPATITIS B

Vaccine is given at birth, at 6 weeks old and the third
one at 14 weeks old.

The Hepatitis B is a very dangerous disease that
damages the liver; it is a common disease in Vanuatu.



TETANUS



POLIO



MEASLES



WHOOPIING COUGH

c) How do vaccinations work ?

Explain to the children :

When we are ill it means that a microbe has entered our bodies. The body then defends itself by producing special weapons to kill this particular microbe and none other. These very specialised and effective weapons are called antibodies.

Unfortunately, it takes time to produce enough of them.

And often the antibodies are not ready until it is too late. If the illness is not too serious or if the patients is treated with medicine, he will recover anyway. If the same microbe returns for a second time, the weapons are ready for it (this is why we do not catch measles twice, for example).

If the illness is serious or if the patient is too weak, there is a risk that he may die before producing any antibodies : using vaccination, we produce these weapons in advance so that, when the illness arrives we are ready for it. However, sometimes these antibodies produced by vaccination do not last a lifetime. A second vaccination, 5 or 10 years later, "reminds" the body to produce antibodies (this is the vaccination called a "booster").

d) Who should be vaccinated and when ?

Vanuatu has a programme of vaccination against these diseases. All families with children should be aware of this programme. Vaccinations are carried out by Maternal and Child Health - M.C.H. - Nurses.

Note : vaccination is always a good idea, even if the interval between two vaccinations is too long. Remember too that a little protection is better than none at all.

III. ACTIVITIES

a) How can children help with the vaccination programme ?

Children can learn about the vaccinations carried out at the nearest health centre or dispensary.

. Are there set days and times for vaccinations ?

. What vaccinations are carried out ?

(Teachers and health workers can help the children to obtain this important information).

b) Children can find out who needs to be vaccinated

They can ask who has these diseases in their families and discuss it at school.

Note who in the classes or in the children's families has not been vaccinated. Ask the children to speak to their mothers about it. If health sheets or vaccination cards are used, show the children where the vaccinations should be recorded. If necessary, remind them of the dates for vaccinations and boosters. The children should know that they must not lose their vaccination cards and that they should always take them along when they go to the health centre.

c) Group work

At school, the children could make health sheets for each new baby, with the dates for each compulsory vaccination; they could make posters together and make up songs and dances. They could make up stories together, or make puppets or masks or perform mimes or plays: for example, in one family the children are vaccinated but in another they are not. In one family one or more of the children have one of the diseases which can be prevented by vaccination. They could perform a play showing a vaccination team visiting the village.

A game could depict the horrible microbes which lie in wait and attack the nice children who have not been vaccinated (a measles microbe covered in red spots, a polio microbe on crutches, a whooping cough microbe coughing, etc.). Other children could play the part of the antibodies.

d) Work in the community

The children could help to publicise the vaccination campaign and help the adults to prepare for the vaccination team's visit. They could display their poster and perform their plays. It could be they who announce the vaccination campaign.

IV. ASSESSMENT (EVALUATION)

In order to assess their performance,

The children could ask each other questions to make certain:

- That they have not forgotten anything about vaccinations.
- They have fully understood the message.

To stay healthy, get vaccinated

TEACHING HEALTH IN YEAR 5

BEING HEALTH RESPONSIBLE : ACCIDENTS

I. THE IDEA

In some places as many as two children in a school will die each year because of accidents, and many more will be injured.

Many of these accidents need not happen

This activity is to help children to prevent as many accidents as possible. Different sorts of accidents happen to children who live in different places such as towns and rural areas. This activity sheet gives advice about only the most common accidents.

In order to help with accidents children must know.

- . What the most common dangers are;
- . How these dangers can be avoided;
- . What to do if an accident does happen.

II. WHO COULD INTRODUCE THE ACTIVITY TO CHILDREN ?

Teachers at school or out of school; Red Cross workers, health workers. Young farmers club workers, and other youth workers, writers in newspapers, comics and magazines.

When teaching children about care of wounds, you may be going against traditional treatments. You will need to explain carefully that although some traditional treatments may be useful, others are harmful.

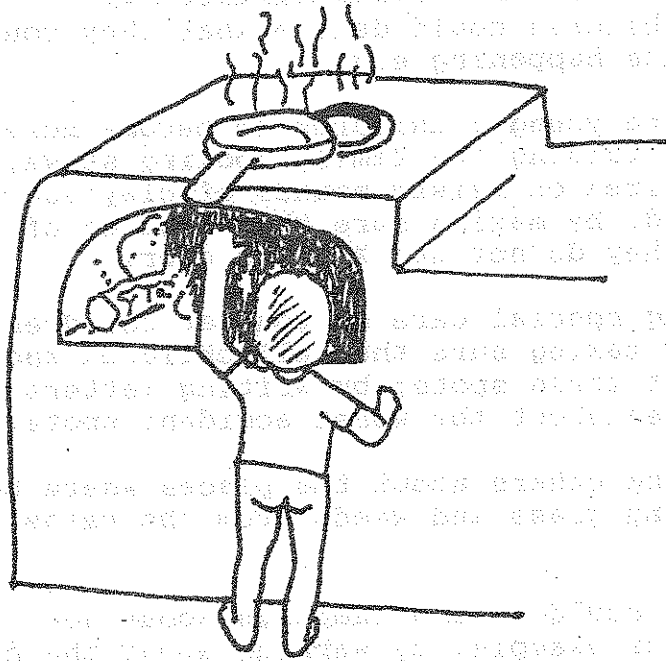
III. The activity what accidents happen to children ?

Children could talk with each other about what accidents happen, for example :

- . Ask why the accidents happened. If they can find out why, they will be better able to prevent them.
- . Record the accidents that have happened to children in their families.

Bad accidents in our families

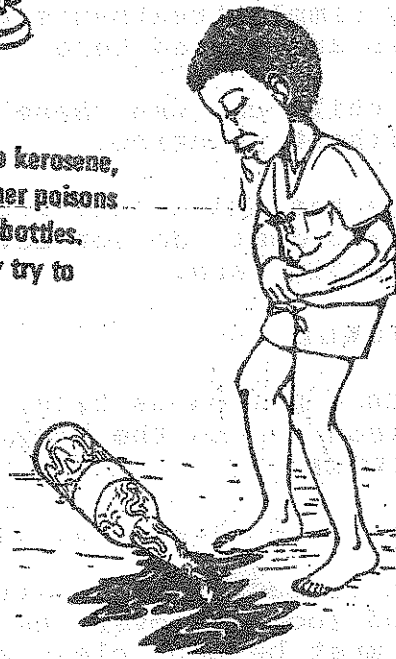
	BABIES	OLDER CHILDREN	GROWN UPS
BURNS	III	I	
CUTS			
AND	I	III	I
FALLS			
ROAD ACCIDENTS		II	III
SWALLOWING			
BAD THINGS	III		



Keep out of reach of young children .



NEVER keep kerosene, petrol, or other poisons in soft drink bottles. Children may try to drink them.



IV. PREVENTING ACCIDENTS

Together children could decide what they could do to try to prevent accidents happening e.g.

- . By helping younger children to become more careful with fire ; by raising the family cooking stove; by making open cooking fires on raised mounds of clay and not directly on the ground; by making sure that handles of pans are turned so that they do not get knocked over.
- . By taking special care of younger children at accident spots; by making sure that all children know about the dangers at these spots; by writing letters to proper authorities about the worst accident spots.
- . By warning others about the places where bees lives, and by clearing grass and weeds from the paths most commonly used.
- . Children could have a campaign about how to play more safely. For example, by warning about the dangers of climbing dead trees, throwing stones, swimming in swift-flowing rivers, running while chewing sticks, swimming in the sea where sharks have been seen.
- . They can warn young children about putting dangerous things in the mouth, for example, stones. Babies often choke on ground nuts, and put things in their ears and noses. Children should not drink out of strange bottles or eat strange fruits and plants.
- . They can identify places where there is danger from machinery, animals and broken glass.

V. If an accident happens

There are many simple treatments children can learn. Only the most common ones are listed here.

Remember : No child can use these simple measures on injured people without practice.

Accidents if someone has a bad fall from a tree or gets badly hurt in a car accident, do not move him. Cover him with a blanket to keep him warm.

GET HELP QUICKLY

If someone gets a poisonous bite, do not move him. Moving will spread the poison around the body.

GET HELP QUICKLY

Burns AT ONCE put in cold water. Put the whole body in water if necessary.

If the burn is bad, boil a little vaseline, put it on a CLEAN cloth and loosely cover the burn. NEVER use grease or butter. Burns must be kept clean and, if small ones, are best left uncovered.

Cuts and wounds When possible clean cuts with soap and water that has been boiled, or worm salt water. Wounds left dirty can turn into bad ulcers. Washing well is better than using things such as herbs. Do not use bandages unless they are very clean.

VI. Spreading the idea

Children should not try to do everything at once. For two weeks they could have a campaign against burns. Some time after the first campaign is finished they could start another one on accidents, and so on.

. Older children can write stories and act plays about accidents for younger children, that show why accidents happen and what can be done.

. They could make their own first aid and road safety tests - simple tests for young children, advanced tests for older ones - and award certificates to those who pass.

VII. Finding out how well the activity worked

. Children can compare the number of accidents before and after the campaign.

. They could talk about any accidents they think were prevented by the campaign.

. At the end of the year children can test for road safety drills learnt earlier in the year.

VIII. Other activities for children

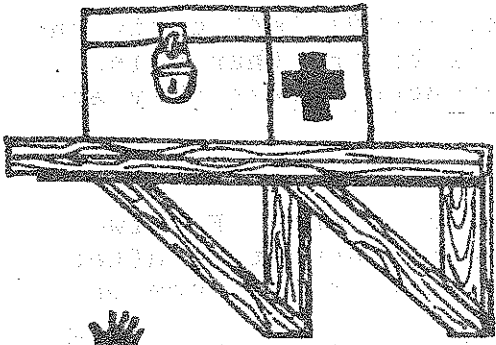
. Children at school can organise their own first aid clinic for treating simple cuts and wounds.

. Older children can adopt a younger child to see that they use the road safety or the way to and from school.

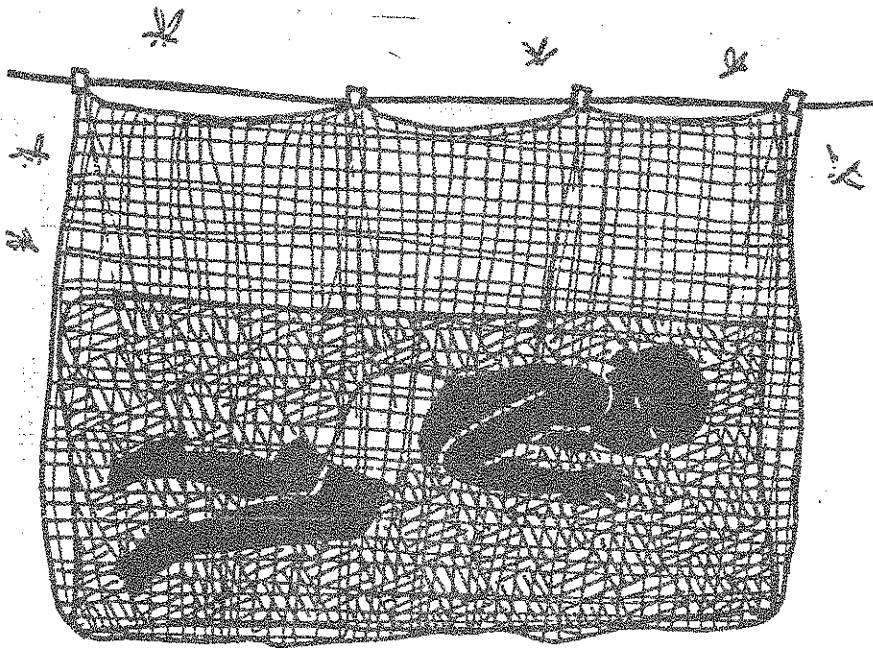
. They can make plays and puppets to teach about accident prevention. They can show these to others at school, waiting at clinics, and other village meetings.

Quickly

**Eliminate Mosquitoes
Breeding Sites**



**Keep Medicines out of
Reach of young children**



Sleep Under a Mosquito Net

TEACHING HEALTH IN YEAR 5

BEING HEALTH RESPONSIBLE : MALARIA

I. Aim of activity

The child will learn :

- . That it is mosquitoes which give us malaria by biting us.
- . how to get rid of mosquitoes.
- . what medicine to take for fever.

II. Basic idea

(If you like, refer to lesson No. 18) We know that serious fever may strike children and adults during the rainy mosquito season.

We call this fever "rainy season sickness".

This is malaria. Sometimes, especially in young children, malaria causes convulsions and coma.

It can kill.

It is mosquitoes which give us malaria.

Where do mosquitoes come from ?

Mosquitoes lay their eggs in water. The eggs become little worms, known as larvae, which, one week later, turn into mosquitoes.

How do we catch malaria ?

The malaria "germs" are in the sick person's blood. When a mosquito bites someone who has malaria it sucks his blood and swallows the germs of the disease. Afterwards, when it bites a healthy person, it injects the malaria "germs" into him and he too falls ill. In this way a single mosquito can carry malaria from a single sick person to many other people.

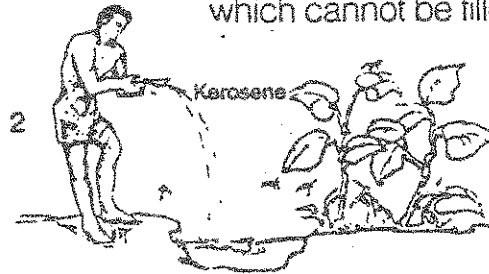
If there are no mosquitoes, we cannot catch malaria.

- The Mosquito is our ennemy ,because it gives us Malaria.
- In Vanuatu, many people are sick with Malaria, mainly during rainy season, because the Mosquitoes needs water (breeding sites) to develop.
- Let us eliminate the breeding sites around us ! we have to :

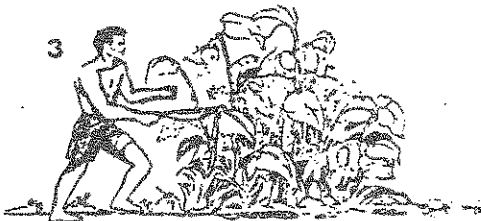
Clean and drain streams and puddles. Allow standing water to run away.



Pour kerosene or old car oil onto ponds which cannot be filled or not drained.



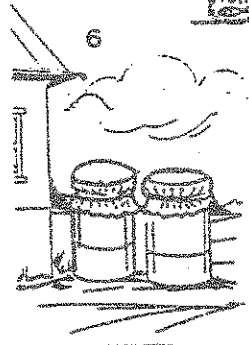
Clean bush and plantations.



Pierce or crush empty tins.

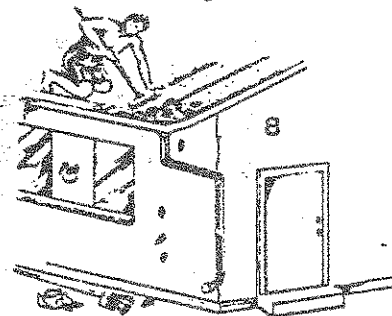


Put garbage and crushed tins in a hole covered with a layer of earth or sand.

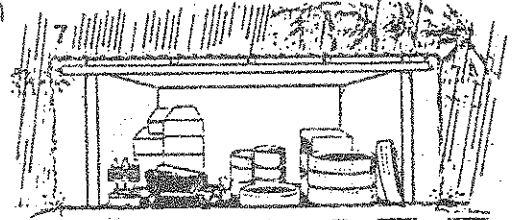


Cover water tanks with a piece of material like a rice bag, > closely tightened around them.

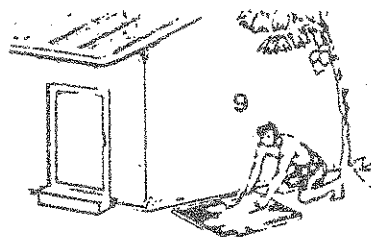
Clear leaves and other rubbish from the roof gutters.



Not to leave empty tins, bottles, buckets and drums around. Turn them upside down and protect them from rain.



Make sure that soakaways, septic tanks, and traps are tightly closed. Fill in any holes and cracks round their cement tops.



We must also :

- Cooperate with malaria teams.
- Seek medical advice (dispensary, hospital) for early and complete treatment.

III. Activities

a) How can we protect ourselves against malaria ?

First of all, we must understand how the mosquito lives. After it has rained, ask the children to take a close look at places where water is standing like the puddles. They will find little black worms wriggling about in the water. They come to the surface for a moment, then sink down and come back up again immediately. These are mosquito larvae and a place like this is a larvae pool.

Ask the children to bring a container holding water and larvae. Pour the water and the larvae into a basin; then covers it with mosquito netting. In a few days time, the larvae will become mosquitoes trapped beneath the netting.

In this way the children will be able to understand that if we kill these larvae (we just have to deprive them of water), that will be many dead mosquitoes which will not be able to cause the disease.

b) What to do in the house

In order to destroy larva pools, the children could :

- . Bury broken containers and old cans lying around the yard,
- . dig channels so that the water can drain from the puddles,
- . fill the puddles in with earth.

c) How to protect against mosquitoes

You can take very simple precautions :

- . see that children are wearing clothes at night, when the mosquitoes are biting ;
- . in the evening, burn grass or leaves : mosquitoes do not like smoke ;
- . when you have them, burn a mosquito coil;
- . ask the old people which plants deter mosquitoes. Learn to recognise these plants, make drawing of them.

The children could make up songs, stories, or act out plays explaining the role of mosquitoes in malaria.

They could explain the benefits of mosquito nets and of making sure that they are tucked in properly so that mosquitoes cannot get in.

If the mosquito nets have holes in them, the children could help to mend them.

d) How to treat fever ?

If you are far away from a dispensary :

When a sick person has a fever, it could be malaria. Give him Chloroquine.

If you have the possibility to see a nurse :

Send the sick person to the dispensary for a blood test. You will be given the right medicines.

- . Like all medicines, Chloroquine can be dangerous.
- . Do not leave Chloroquine within reach of children.
- . Give the correct dose : no more, no less. Follow exactly what you have been told to do.

The children, under the supervision of the teacher and the health worker, could produce drawings representing the doses of medicines to be taken according to the age of the patient. They should also understand that when a young child has a high fever, you should not cover him up; damp cloths should be put on its head, arms and legs to bring the temperature down and to prevent convulsions.

When a woman is pregnant she must take chloroquine, even if she has no fever. This protects her and the baby inside her. She should take 2 tablets once a week.

e) What to do at school

The children could record cases of fever among the children at school. Why is there so much malaria in our village ? The children could go in a group, with the health worker, if there is one, to look at larva pools. The children could think about what to do to fight against mosquitoes and larva pools.

The children could fill in the puddles or dig channels so that water does not collect in the school yard or round the village well or pump.

f) What to do in the village

The heads of households who have been made aware of the problems by their children and who understand the dangers of malaria can propose to the village that they should :

- . give assistance to the anti-malaria team in disinfecting the houses;
- . buy a large box of chloroquine for the village Aid post.

IV. ASSESSMENT (EVALUATION)

Ask the children :

- . where do mosquitoes come from ? How do they give us malaria ?
- . how many children had fever during the last rainy season ?
- . what have you done to protect yourself and your little brothers and sisters against malaria ?
- . what difficulties have you encountered ?
- . what solutions did you find ?

Against Malaria.

There is no Malaria when there is no mosquito.

There is no mosquito when there is no water.

Once a week destroy mosquito breeding sites.

TEACHING HEALTH IN YEAR 5

BEING HEALTH RESPONSIBLE : HELPING HANDICAPPED CHILDREN

I. What is a handicapped child?

Some children cannot walk, run or talk like other children. These children are handicapped. There are many reasons why a child may be handicapped.

Talk with your children

Talk about handicapped children. Use these questions to start your children talking :

- a) Do you know a child who cannot run or walk like you?
- b) Why cannot the child run or walk like you ?
- c) Do other children play with this child ?
- d) Can the child play some of your games ?
- e) Do other children laugh at this child ?
- f) Do you like children laughing at you ?
- g) Would you like to be handicapped ? Why not ?
- h) Do you like having friends ?
- i) Do you like playing with other children ?

II. Play a game

A game can help your children understand more about handicapped children. Tie a stick to one or both legs. It is difficult for the child to run. He cannot bend his leg.

Now the children play a running game like football or tag. After a few minutes let another child play with a handicap. Let several children try playing with a handicap.

All the children play the game. They behave in different ways with the handicapped child. Some help him.

III. What a handicapped child can do?

Some things a handicapped child cannot do well. Some things he can do as well or better than other children. A good example is a child who uses crutches or a wheelchair. This child usually has strong arms and hands. Can your children think of more examples ?

Do not look for what a child cannot do. Look for what he can do. Ask him to help you. This makes the child feel wanted and useful.

Some laugh at him. Some are friendly. Some do not talk to him. Let the children think of ways to behave.

After the game the children talk about what happened. Ask your children these questions :

- a) What was it like being handicapped ?
- b) Did you like being handicapped ? Why not ?

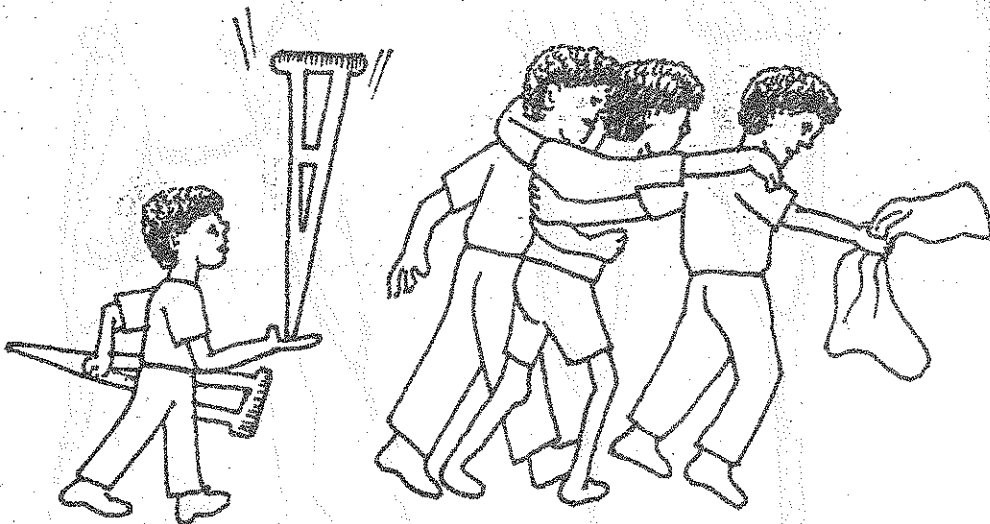
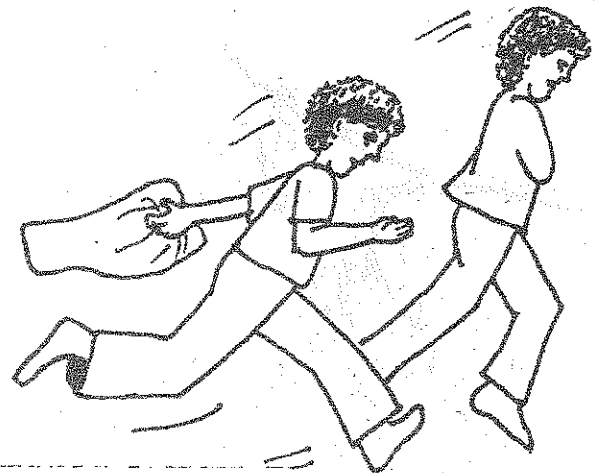
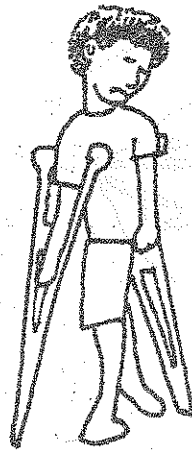
Remember : Children usually behave well to a child with a very bad handicap. Children are often more cruel to a child with a small handicap.

Let me try

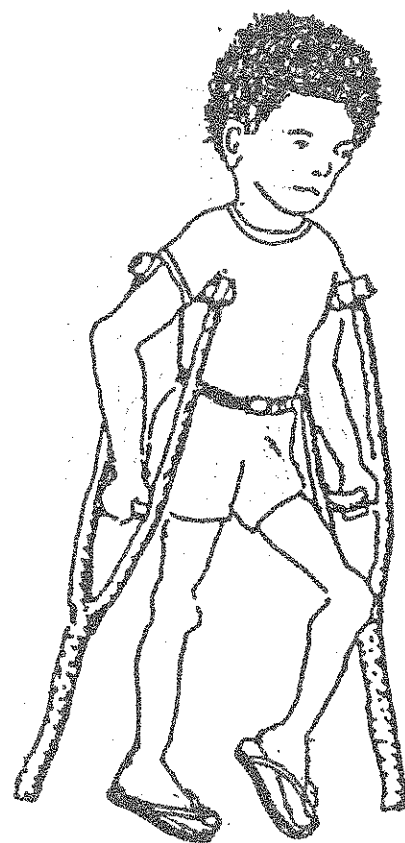
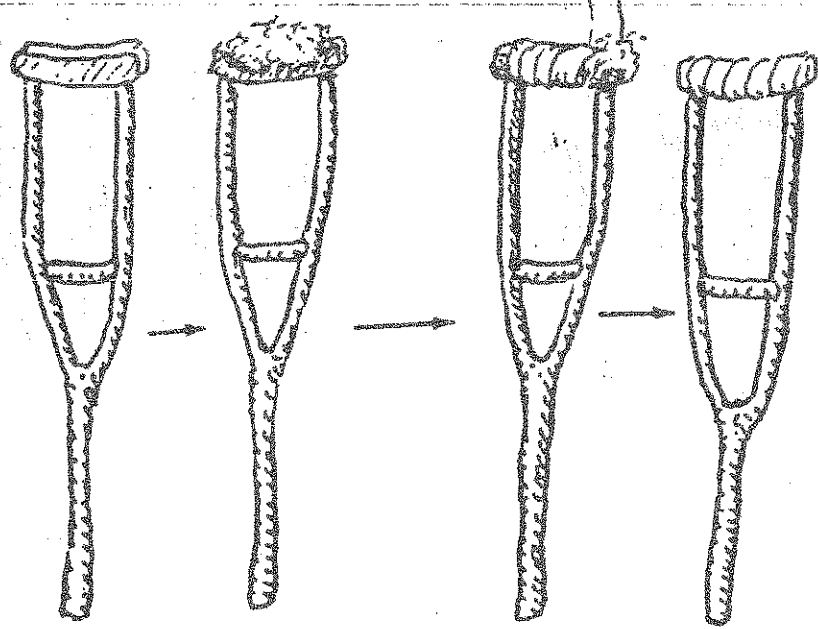
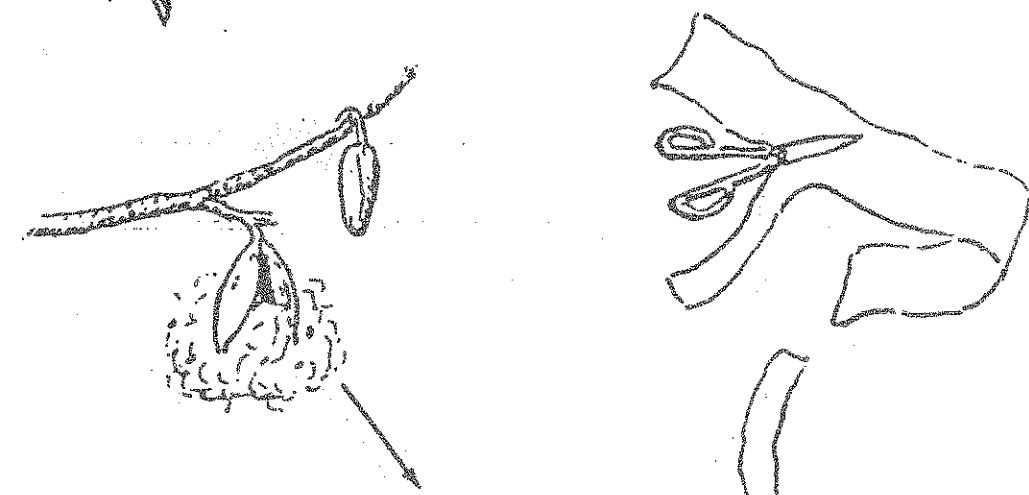
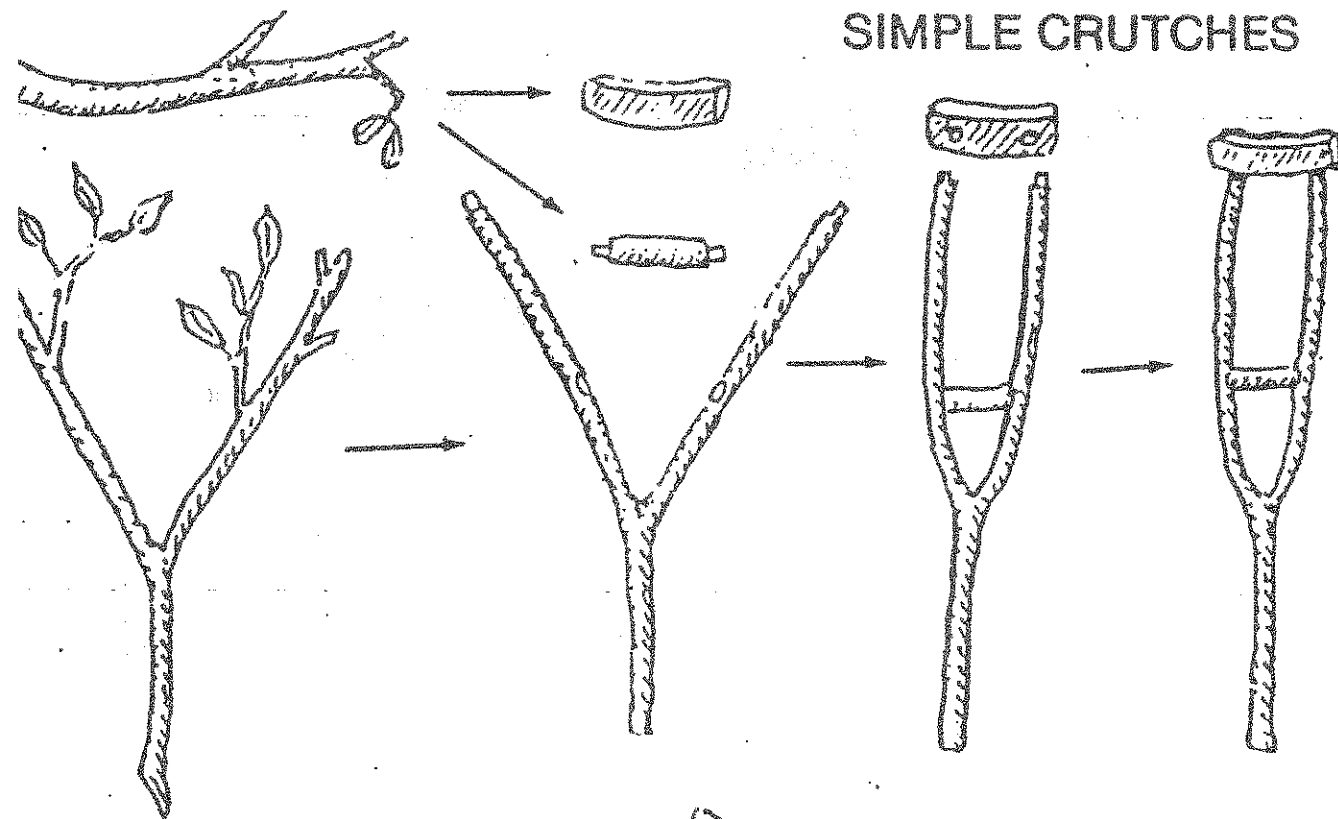
I can't open this.
You have strong hands.
Can you open it? please



Swimming



HOW TO MAKE SIMPLE CRUTCHES



IV. Play with a handicapped child

Handicapped children can play some games very well. Let them play with you. They need play and adventure like all children. Be friendly. This makes everyone feel good.

Remember : A handicapped child cannot do everything you can. Keep him away from danger. Protect him, but not too much. Too much protection is not good.

Children with very bad handicaps

Some children have very bad handicaps. They cannot swim or play many games. Sometimes they can learn simple games. They can play cards or guessing games.

Some children cannot speak or think well. But a child who cannot speak can often understand. This child may be very lonely and unhappy. Do you know a child like this? If you do, go and visit him. Talk and play with him.

Babies with problems

A baby may have a weak back or weak legs. It is difficult for the baby to sit, walk or crawl. Other children can help the baby learn. They can help him learn to use his mind and body.

Some babies cannot crawl. Other children can play crawling games with the baby. Two children hold his weight. Another child shows the baby a toy or some food. The baby crawls to the toy.

Play the game every day. Each day the children hold less of the baby's weight. Each day the baby will get stronger. Finally he may crawl without any help.

Swimming

Many handicapped children have strong arms. Often they can learn to swim. They can swim as fast as other children. But it is difficult for them to get to the water. Other children forget to take them. Ask a handicapped child to go swimming with you.

How you can help

Here are some ways you can help.

- 1) Visit a handicapped child or baby. Talk to him. Tell him stories. Play with him. Be his friend. Get other children to visit him. Get children to visit on different nights. The handicapped child will see someone every day.
- 2) Talk. Use a little time to talk to a handicapped child. This can help very much. It can make the child feel good. All children need someone to talk to.
- 3) Use games. Children learn faster when they are happy. Try and change exercises into games. The child will learn quicker when playing a game.

This is a rope swing. It is a good game. It can help a child learn to walk.

4) Help only when necessary. It is difficult for a handicapped child to do many things. BUT, there are many things he can learn to do. The child must learn to do as much as possible. Get the child to do a little more each day. If he tries doing too much he may stop. He may think he cannot do something.

5) Encourage. Be happy and pleased when the child does something new. This makes the child feel good. He will want to do more things.

6) Play with the child often. Play games that help his mind and body.

Remember : ALWAYS BE FRIENDLY !

**EACH BABY OF EVERY COMMUNITY SHOULD BE
VACCINATED AGAINST POLIO.**

TEACHERS AND SCHOOL CHILDREN CAN HELP.

TEACHING HEALTH IN YEAR 5

Lesson No. 23 - FIRST AID : WOUNDS

Objectives

By the end of the lesson, students

- 1) should have answered the questions on wounds.
- 2) should have discussed why and how to clean wounds.

Materials needed

- Old clean cloth or rags torn into strips to use as bandages.
- Soap and water.

Time : 30 minutes

Method

- 1) Show the picture card entitled "causes of wounds" and ask the questions related to this topic.
- 2) Show the picture card entitled "Prevent infection help wounds heal" and ask the questions related to this topic.
- 3) Demonstrate how to clean a wound.
Ask children to practise this activity.

To remember

Any cut, any wound, should be washed at once with soap and clean water and should be covered with a clean cloth. The hands which heal the wound must be clean too. For deep wounds you must see the nurse.

CAUSES OF WOUNDS

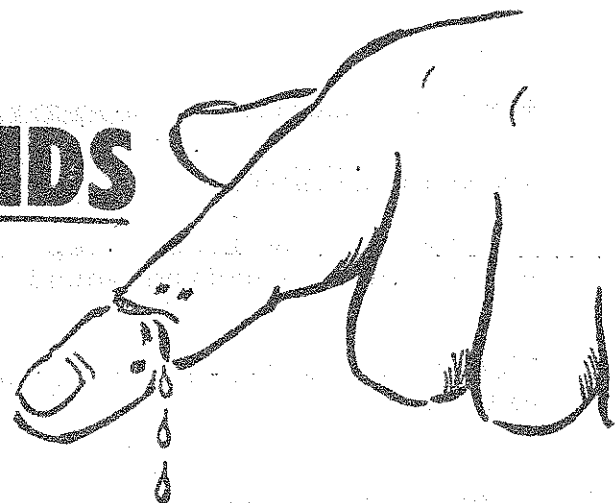
QUESTIONS

ANSWERS

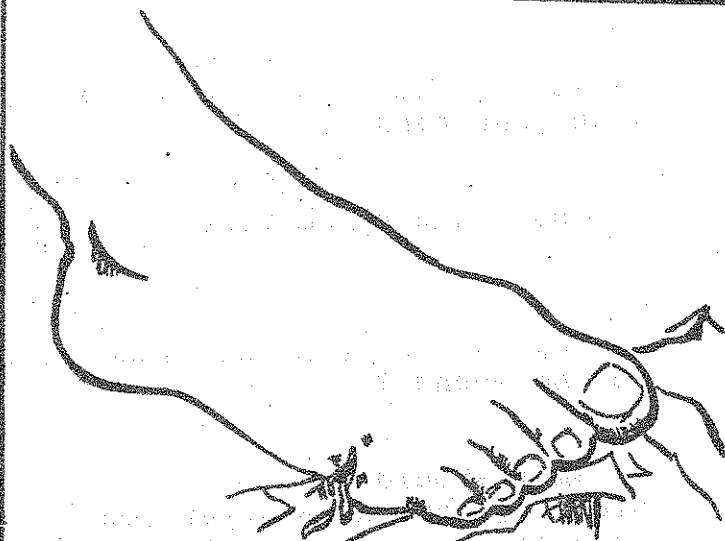
1. What sharp things cause deep cuts ?
 2. What can happen to a cut from a sharp knife ?
 3. What are some blunt things that may tear the skin ?
 4. What can happen to a tear in the skin from a blunt rock ?
 5. What does infected mean ?
 6. What causes deep wounds inside a person ?
 7. What kind of bleeding is caused from a spear wound ?
 8. What is internal bleeding ?
 9. Can wounds with internal bleeding become infected ?
 10. What animals in the villages can cause wounds ?
 11. Can a wound caused by a pig become infected ?
 12. What causes a wound to become sore and look red ?
1. Knives, axes, broken bottles.
 2. It will bleed a lot and may become infected.
 3. Rocks, tins, branches of trees and shells.
 4. The skin usually becomes infected.
 5. It means that germs have spread in the wounds making it become red and sore.
 6. Spears, nails, sharp sticks.
 7. Internal bleeding is caused from a spear wound.
 8. It is bleeding deep down inside the person. It may not show outside the person.
 9. Yes, they may become very badly infected.
 10. Pigs, and dogs.
 11. Yes, a wound caused by a pig is very dirty and will get badly infected.
 12. The wound has become infected with bad germs and becomes sore and red.

CAUSES OF WOUNDS

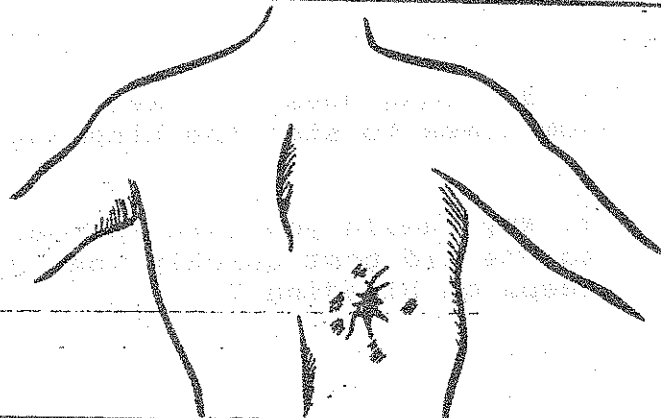
SHARP THINGS — knives, axes, broken bottles — make deep cuts. They usually bleed a lot. **THEY MAY BECOME INFECTED.**



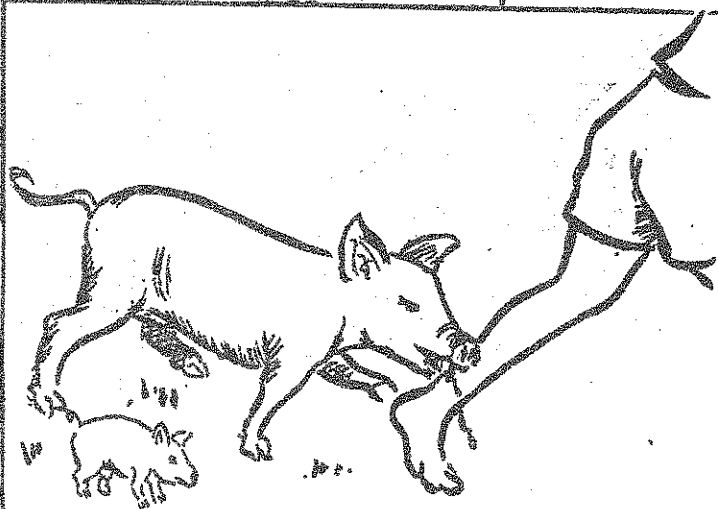
BLUNT THINGS — rocks, tins, branches of trees and shells — may tear the skin. Usually not deep. Does not bleed a lot. **THEY USUALLY BECOME INFECTED.**



SPEARS, nails, sharp sticks make holes. They do not bleed much. **THEY MAY BECOME INFECTED WITH VERY BAD GERMS.** There may be bleeding inside the person. This is called internal bleeding.



BITES from pigs, dogs or people. **THEY MAY BECOME INFECTED WITH VERY BAD GERMS.**



HOW TO CONTROL BLEEDING ; FROM A WOUND

QUESTIONS

ANSWERS

1. What is the first step in caring for a bleeding wound ?

1. RAISE the injured part.

2. Why do you raise the injured part ?

2. To stop the blood from running to the wound. This slows down the bleeding.

3. What is the next step in caring for a wound ?

3. PRESS the wound with a clean cloth. KEEP PRESSING.

4. Why do you press the wound with your hand ?

4. Pressing causes the blood to move slower. It can then form a clot.

5. What is a blood clot ?

5. A blood clot is thickened blood that gets hard.

6. How do you keep the blood clot on the wound ?

6. Tie the pad which covers the blood clot with a firm cloth bandage.

7. What should you do if bleeding continues after you have tied the firm cloth bandage ?

7. Put some more cloth pads on top of the cloth pads, and KEEP PRESSING. TRY TO GET A CLOT TO FORM.

8. How long does it take sometimes to stop the bleeding ?

8. 15 minutes

9. Why should you take the person to the aid post quickly when he keeps on bleeding ?

9. The person may bleed to death.

PREVENT INFECTION — HELP WOUNDS HEAL

QUESTIONS

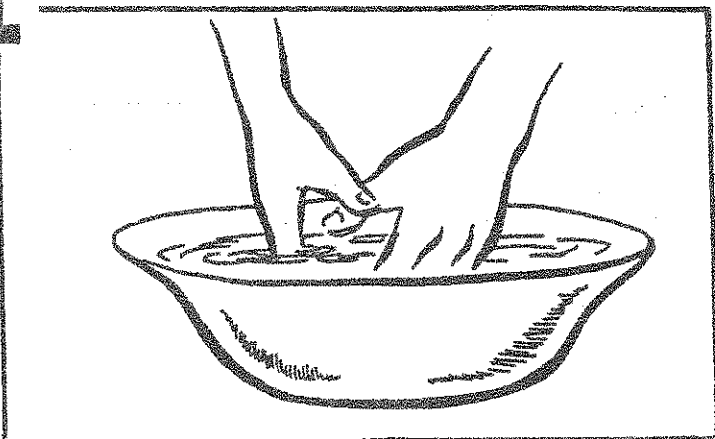
1. What is the first thing you must do before cleaning a cut or wound ?
2. Why should you wash your hands ?
3. What will you do next ?
4. What do you use to wash out the wound ?
5. Why should you use cool boiled water?
6. Why should you clean out the wound?
7. How do you keep the wound clean?
8. Why should you go to the Aid Post or Clinic with deep wounds ?
9. What will happen when the wound is left dirty ?

ANSWERS

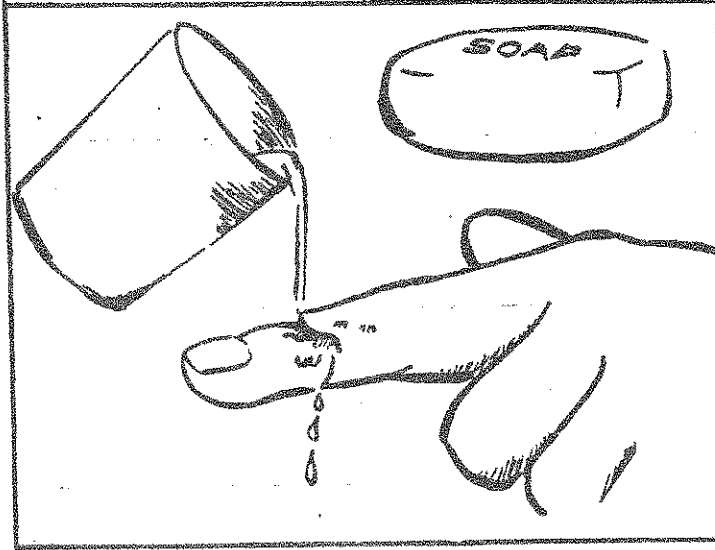
1. Wash your hands in soap and water.
2. Your hands are dirty and have germs on them.
3. Wash the wound well.
4. Cool, boiled water and soap.
Rinse it off with cool boiled water after the soap is used.
5. Germs live in unboiled water.
Be sure the boiled water is cool so that it will not burn the person.
6. The wound will not heal when it has dirt, stones etc. in it.
7. Put a bandage on it, or use a clean leaf to cover it.
8. The wound may need stitches to close it properly.
You may need a tetanus injection to prevent a sickness called tetanus or low-jaw.
You may need a penicillin injection so you won't get a bad infection.
9. You will get infection in the wound and have a fever. You may become very sick.

PREVENT INFECTION-HELP WOUNDS HEAL

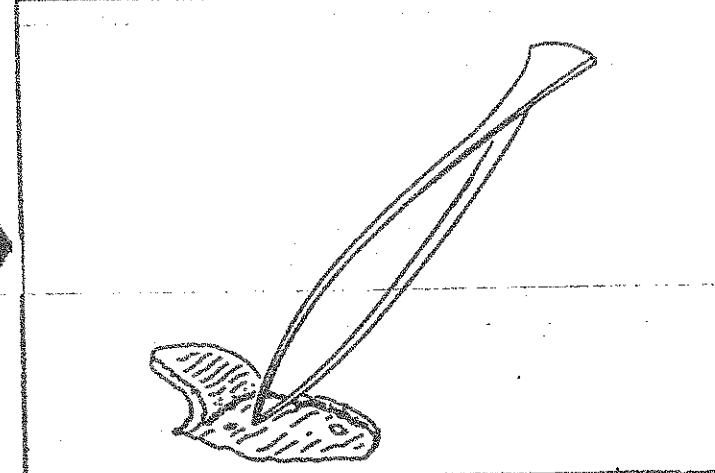
1. WASH YOUR HANDS very well with soap and water.



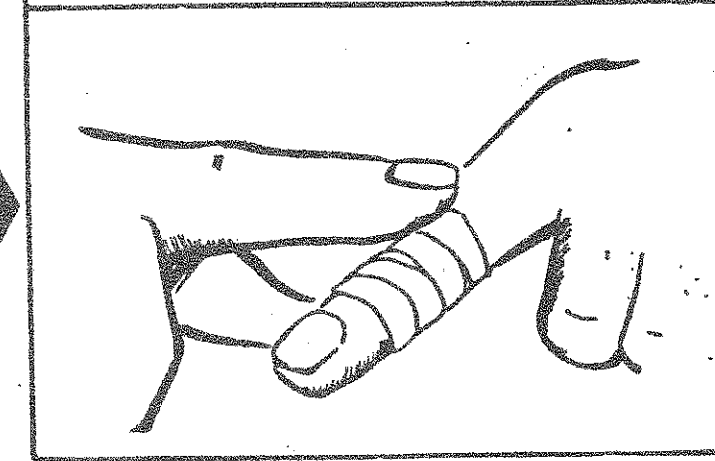
2. WASH THE WOUND WELL with soap and water.



3. CLEAN OUT ALL THE DIRT. Clean under any pieces of loose skin. You may use tweezers. Boil tweezers to prevent germs going into wound.



4. COVER THE WOUND WITH CLEAN CLOTH, and bandage. Go to the Aid Post or Clinic.



TEACHING HEALTH IN YEAR 5

Lesson No. 24 - FIRST AID : BLEEDINGS

Objectives

By the end of the lesson, students

- 1) should have discussed the steps in controlling bleeding of the leg, arm or of the nose.
- 2) should have practised these steps.

Time : 30 minutes

Method

- 1) Revise the causes of wounds - Insist on the ones which bleed.
- 2) Show the picture card entitled "How to control bleeding from a wound" and ask questions related to this topic.
- 3) Show the picture card entitled "how to stop nose bleed" and ask questions related to this topic.
- 4) Demonstrate how to control bleeding from a wound. Ask children to practise.

To remember :

- The first step to control bleeding from a wound is to raise the injured part.
- Next, PRESS the wound with a clean cloth.
- If bleeding continues KEEP PRESSING.
TAKE the person to Dispensary

HOW TO CONTROL BLEEDING ; FROM A WOUND

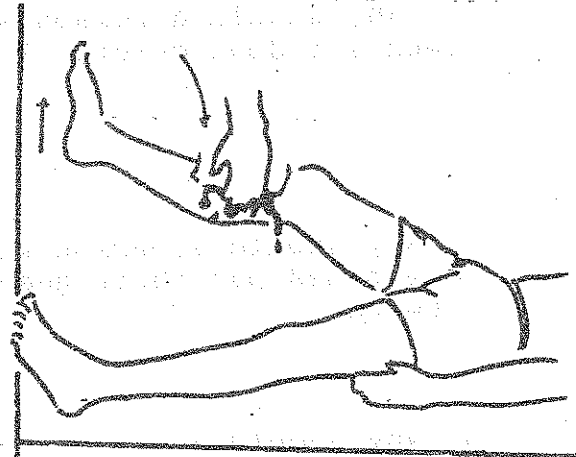
QUESTIONS

ANSWERS

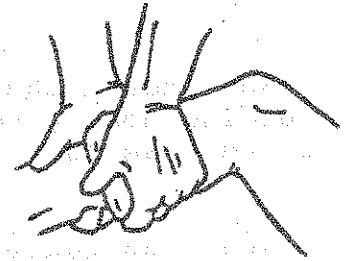
1. What is the first step in caring for a bleeding wound ?
1. RAISE the injured part.
2. Why do you raise the injured part ?
2. To stop the blood from running to the wound. This slows down the bleeding.
3. What is the next step in caring for a wound ?
3. PRESS the wound with a clean cloth. KEEP PRESSING.
4. Why do you press the wound with your hand ?
4. Pressing causes the blood to move slower. It can then form a clot.
5. What is a blood clot ?
5. A blood clot is thickened blood that gets hard.
6. How do you keep the blood clot on the wound ?
6. Tie the pad which covers the blood clot with a firm cloth bandage.
7. What should you do if bleeding continues after you have tied the firm cloth bandage ?
7. Put some more cloth pads on top of the cloth pads, and KEEP PRESSING. TRY TO GET A CLOT TO FORM.
8. How long does it take sometimes to stop the bleeding ?
8. 15 minutes
9. Why should you take the person to the aid post quickly when he keeps on bleeding ?
9. The person may bleed to death.

HOW TO CONTROL BLEEDING FROM A WOUND

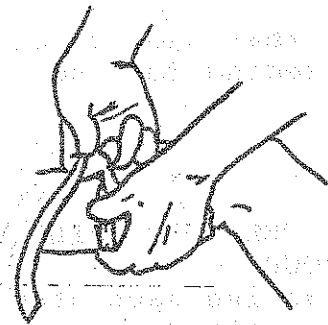
1. **RAISE** the injured part.



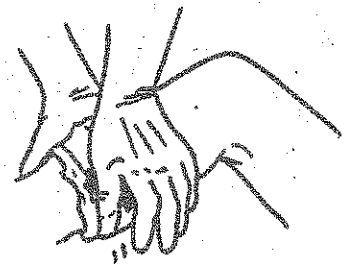
2. **PRESS** the wound with a clean cloth — or your hand if there is no cloth. **KEEP PRESSING** until the bleeding stops. This may take 15 minutes or more.



3. **TIE** the pad with a firm cloth bandage. If bleeding continues put more pads on top. **KEEP PRESSING.**



4. If bleeding continues — **PUT MORE PADS ON TOP.** **KEEP PRESSING.**



5. **TAKE** person to **AID POST QUICKLY.**

HOW TO STOP NOSE BLEED

QUESTIONS

1. Why should a person with nose bleed sit down quietly ?

2. Why should a person with a nose bleed put their head forward?

3. Why should a person with nose bleed breathe from the mouth ?

4. Why should the child with a bleeding nose pinch the soft part of the nose shut ?

5. What can cause a nose to bleed ?

6. What should you do when the bleeding does not stop ?

7. TELL THE CHILDREN IN THE GROUP.

Practise each step in stopping nose bleed, as you see it on this picture card.

ANSWERS

1. When you sit quietly your heart beats slower. That causes the blood to move slower through the circulatory system. This will keep you from bleeding so fast.

2. This will prevent them from getting dizzy.

3. Breathing through the mouth does not disturb a blood clot in the nose.

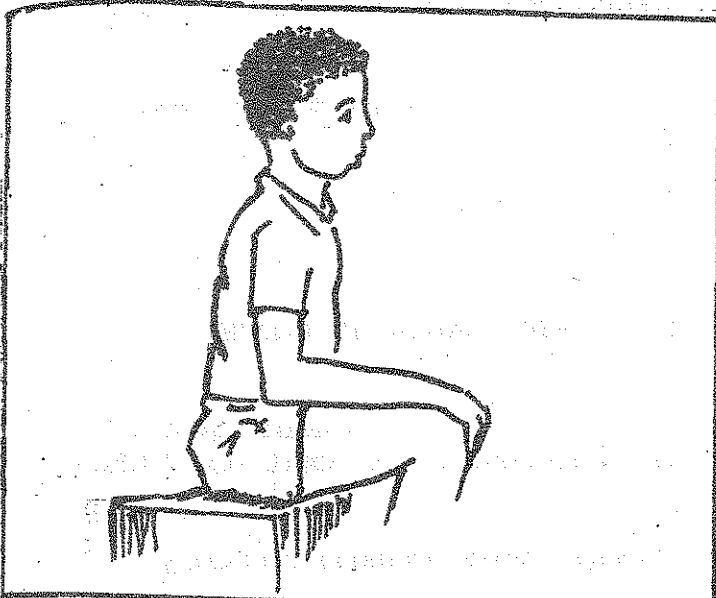
4. This will allow a blood clot to form in your nose and help stop the bleeding.

5. Picking the nose, breathing hot dry air, and injury or accident to the nose can cause the nose to bleed.

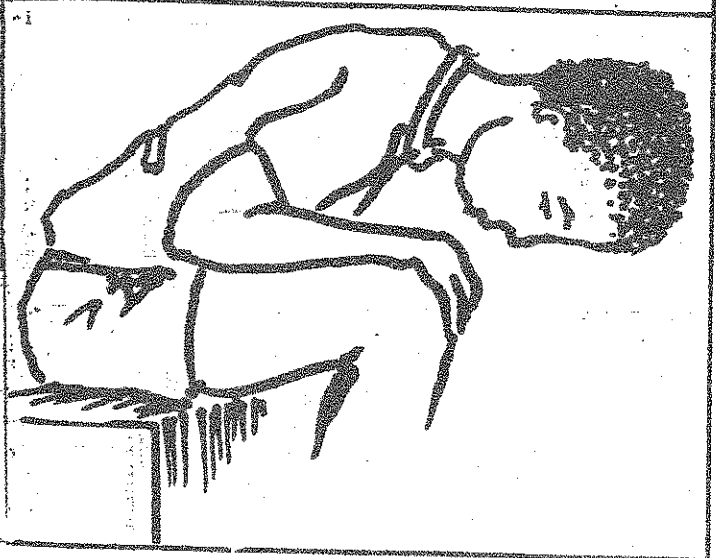
6. Tell the child to keep pinching his nose shut. Take the child to the clinic immediately. Carry the child so the heart beat will stay slow.

7. CHILDREN PRACTISE OR MINE THE TREATMENT OF A NOSE BLEED.

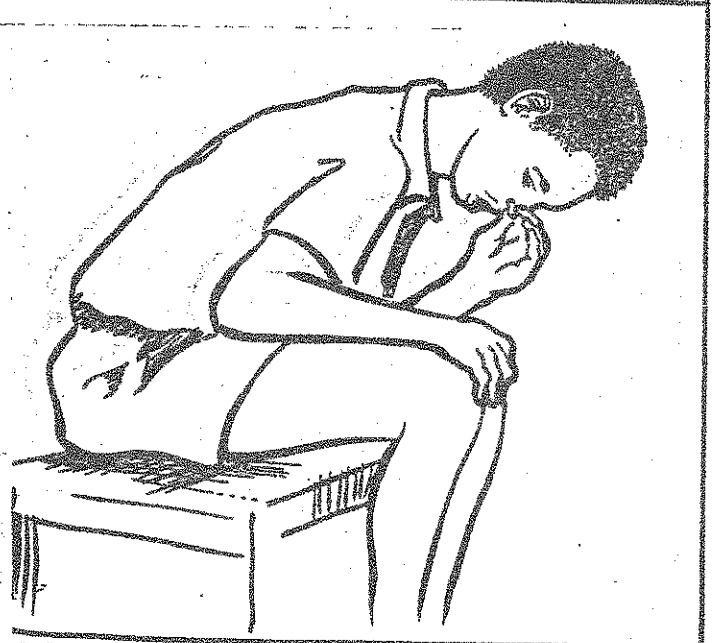
HOW TO STOP NOSE BLEED



1. **SIT DOWN** quietly.



2. **PUT HEAD** slightly forward.



3. **BREATHE** through the mouth.

4. **PINCH** the soft part of the nose firmly for 10 minutes.

TEACHING HEALTH IN YEAR 5

Lesson No. 25 - THE RESPIRATORY SYSTEM

Objectives

Make a revision of the lesson No. 6 to prepare the next lesson on smoking.

Time : 30 minutes

To remember :

- WE NEED AIR TO LIVE - WE CANNOT LIVE WITHOUT IT

- The respiratory system moves the fresh good air in the body and moves wasted air out of the body.

- Smoking cigarettes poisons the respiratory system and the heart.

TEACHING HEALTH IN YEAR 5

Lesson No. 26 - HEALTH HAZARD : SMOKING

Objectives

To discuss and to learn some dangers of smoking.

Time : 30 minutes

Method

1. Show and explain the following pictures using the explanations on the opposite page.
2. Read and discuss the following story with the class.

Thomas and John were walking along the beach. The wind was blowing, and the waves were strong. Suddenly they saw Mr. Kalo trying to get his boat up on the beach. He pulled the boat in, but the waves pulled it out again. Mr. Kalo tried to go after it, but he fell down in the shallow water. He did not get up. Thomas ran to swim after the boat. He yelled to tell John to pull Mr. Kalo to safety.

Soon John had Mr. Kalo sitting against the trunk of a coconut tree, and Thomas had the boat pulled up safely onto the beach.

"Are you all right, Mr. Kalo" asked Thomas.

Mr. Kalo was very short of breath. It was a little while before he could speak.

"Thank you, boys," he said. "I might have lost my boat if you had not helped me".

"You are welcome", said John. "What happened to you ?".

"Sometimes it is very hard for me to do things like getting the boat through the waves. I have a disease called emphysema", said Mr. Kalo

"Oh, I am so sorry to hear that", said Thomas "How did you catch this disease ?"

"Emphysema is not a disease that a person catches from others", Mr. Kalo answered. "It mostly happens to people who smoke. That is why I cough, and why I am short of breath when I try to work".

"But you still smoke", said Thomas.

"Yes, I have smoked for many years. That is why I got the disease. But I think it is too late for me now. I don't think I can ever stop".

The boys were sad. They liked Mr. Kalo, who had always been kind to them. They were very sorry to hear that he had such a bad disease.

That evening John went to see his friends. Matthew had a new music tape for his tape player, and the boys were having a good time listening to it.

Matthew pulled out a package of cigarettes. "I got these when I bought the tape", he said. "Everybody can have one".

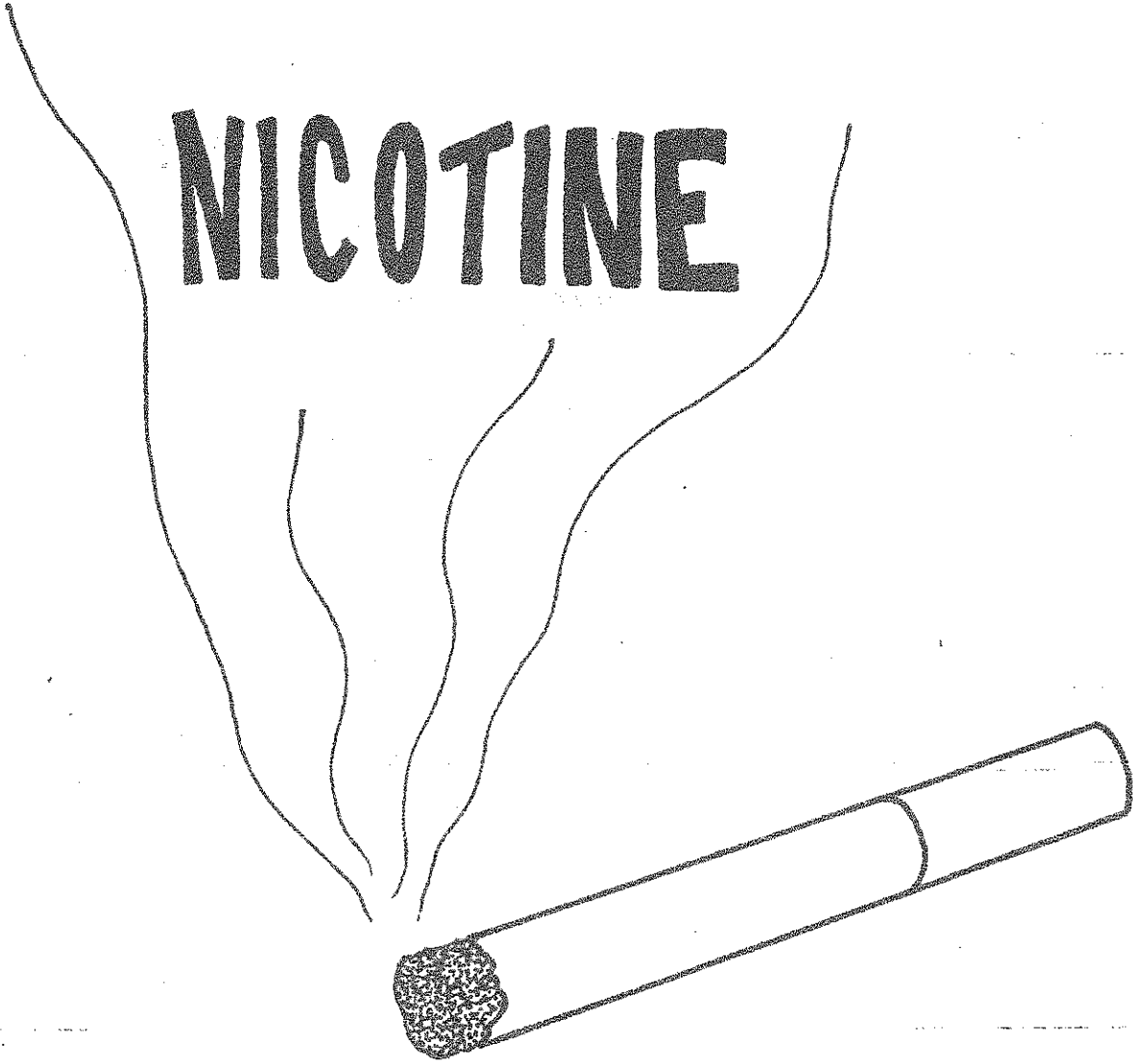
The cigarettes were passed around the circle of friends. Some people smoked one, and some people did not. When the package was passed to John, do you think he smoked one ?

DISCUSSION QUESTIONS

- How did Thomas and John help Mr. Kalo ?
- Why couldn't Mr. Kalo get his boat up on the beach ?
- What is emphysema ?
- What causes emphysema ?
- Why didn't Mr. Kalo stop smoking ?
- What were the boys doing that evening ?
- Why do you think John might have decided not to smoke cigarettes ?

Did you know that cigarette smoke has over 1000 different chemicals in it? Some of them are chemicals which cause dangerous changes in our bodies. Nicotine is an example of one of these drugs. When a smoker breathes in nicotine, changes happen in their body. One such change is in the beating of the heart. The heart beats faster, causing the heart to work harder than it should.

NICOTINE



Another dangerous chemical in cigarette smoke is tar. Tar can cause cancer, a very serious lung disease that can result in death.

A smoke will have tar in the air passages leading to the lungs, and inside the lungs. The lungs do not work as they should, making it harder for the smoker to get needed oxygen out of the air they breathe in. The sticky tar in their lungs can make them cough.

TAR



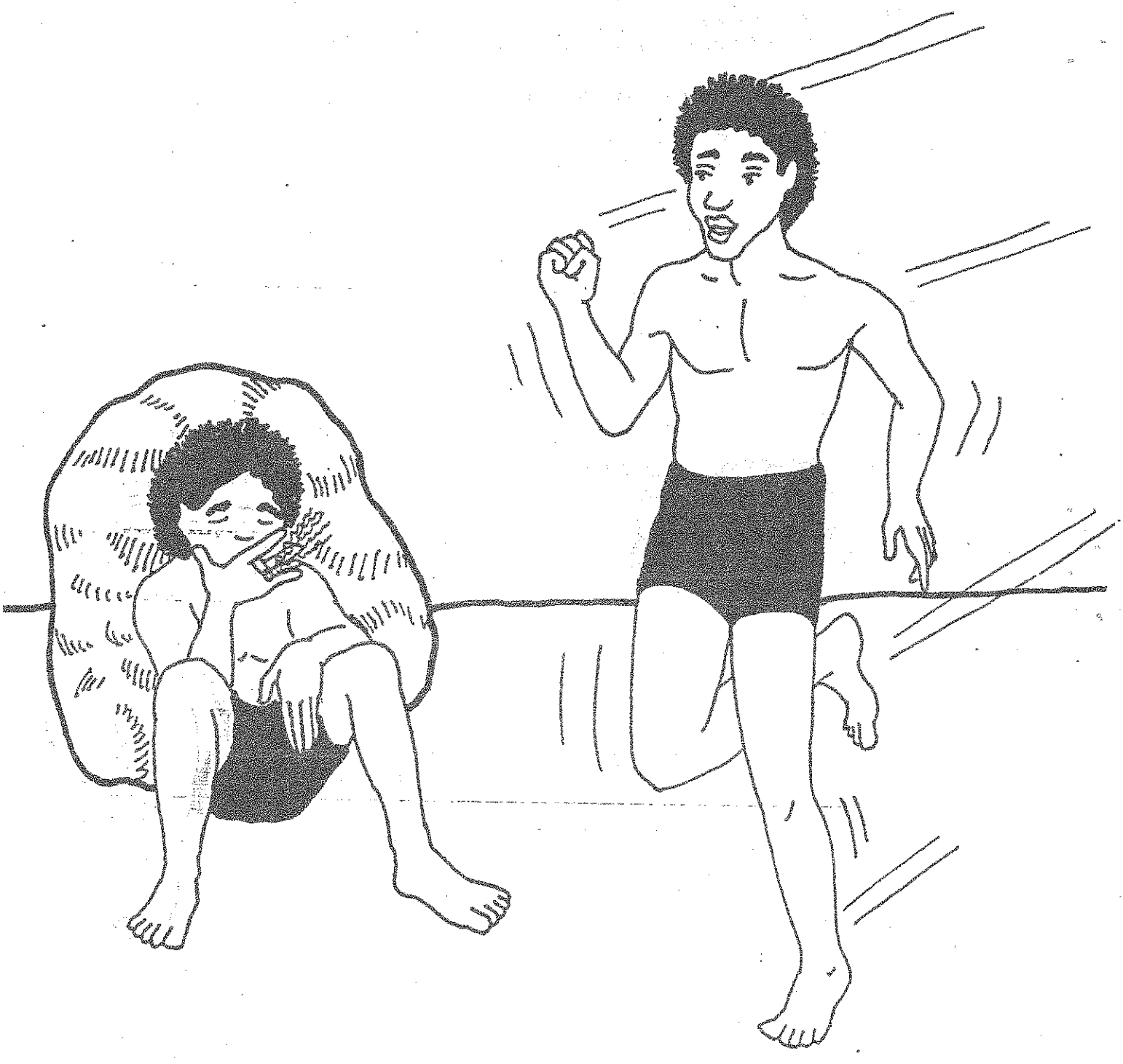
Here are two boys, John and Mark, John is a good runner. He does not get tired easily. His heart and lungs are strong and healthy.

Look at Mark. He gets tired easily. He cannot run a long distance. He starts breathing hard after running only a short distance. His heart and lungs are in danger. Why? (he smokes cigarettes).

If Mark continues to smoke cigarettes, it will become harder and harder for him to stop smoking. His body is becoming used to the chemicals in cigarettes, and this can lead to not being able to stop smoking. The best way to prevent this is to never start to smoke cigarettes.

To remember

- SMOKING LEADS TO SICKNESS AND DEATH
- SMOKING CIGARETTES CAN LEAD TO NOT BEING ABLE TO STOP LATER ON.
- THE BEST WAY TO PREVENT THIS IS TO NEVER START TO SMOKE CIGARETTES



TEACHING HEALTH IN YEAR 5

Lesson No. 27 - THE NERVOUS SYSTEM

Objectives

Make a revision of lesson No. 9 to prepare the next lesson on alcoholism.

Time : 30 minutes

To remember

- The work of the nervous system is to allow us to do things (to act), to move, to think, to remember, to imagine, to maintain us alive.

- Drinking alcohol and Kava too often or too much, poisons the nervous system and should be avoided.

TEACHING HEALTH IN YEAR 5

Lesson No. 28 - HEALTH HAZARD : ALCOHOL

Objectives

To learn some of the dangers of alcohol, and to learn to choose to do something else than to drink.

Time : 30 minutes or more.

Method

1. Show and explain the following pictures using the explanations on the opposite pages.
2. Read and discuss the following story with the class.

Some men were having a drinking party in the village. They had been drinking beer most of the night. John's mother had been angry about the noise they had been making and the big fight two of the men had. She made John and his sister Maria stay in the house. Early the next morning John's friends Mattew and Thomas came over to see him.

"Come with us", said Thomas. "We have something to show you". The boys led John to the woods behind the village. Mattew reached under a pile of coconuts and pulled out six cans of beer.

"Where did you get that ?" asked John.

"We found it where the men were drinking last night", said Thomas "they really had a lot of beer there".

"Yes", said Mattew "there is still beer there. We can drink this and get some more if we want it".

Just then John heard his older brother Luke calling him. It was time to go to school. Thomas quickly put the beer under the coconuts again.

~~"Meet us here after school"~~, said Mattew "We will have a lot of fun".

Luke gave John a ride to school in the back of his truck. Before going to his classroom, John told Luke he would like to talk to him after school. Luke told him he would meet him when school was over. Luke was going fishing, but he would be back by then.

When Luke met John that afternoon, he asked if there was anything wrong.

John asked, "Why didn't you drink with the men in the village last night, Luke?"

"You know I don't like to drink with them", said Luke. "They always seem to end up fighting. They don't get their work done, and people in their families get angry with them. I tried it a few times, but then I decided it was not a good thing to do and then a friend of mine drank a whole bottle of whisky and almost died. He was in the hospital for a long time. I don't want that to happen to me. I want to feel good and be healthy so that I can be a good fisherman, and earn money for the new boat engine I saw at the store in town".

"Do they still ask you to come and drink with them?" asked John.

"Sometimes", answered Luke. "At first I did not like to say no, because I thought they would laugh at me, and I would not have many friends".

"What did you do?" John asked.

"Usually I just said I was planning to go night fishing, or that I had promised to help father with something", said Luke. "Why are you asking all of these questions, John? Is something wrong?"

John looked down. "Well", he said, "some of my friends found some beer last night. They want me to drink it with them".

"Now-I-understand", said Luke. "That is a problem. You want to stay friends with them, but you know it is not good to drink the beer. And are you sure they really found the beer? They may have taken it, you know".

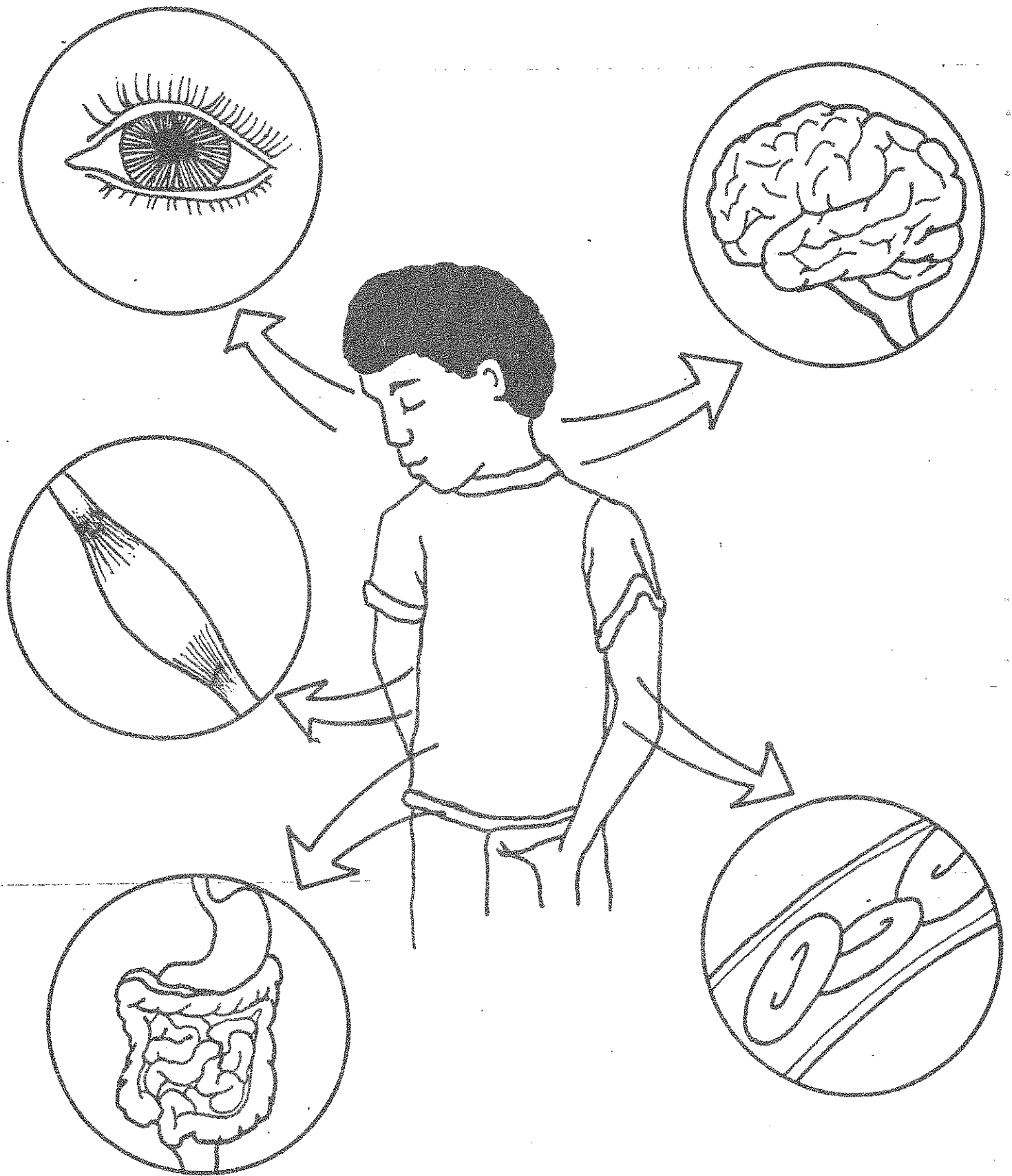
"You are right", said John. "They probably did. And I know it is wrong to drink it with them. I just did not know how to tell them I did not want to".

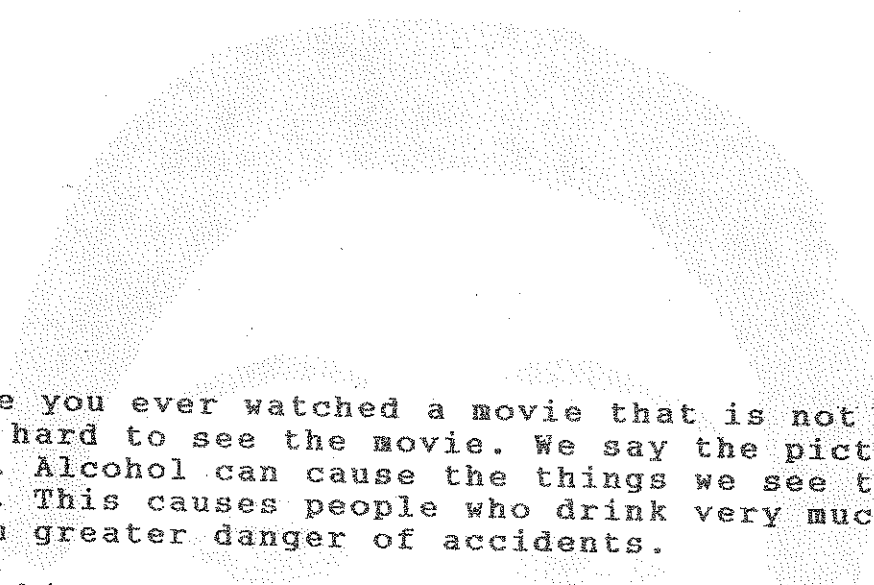
"Never be afraid to say no", said Luke with a smile. "When you know something is wrong, you have to. But you can tell them that you need to help me with the fishing nets after school. And if you have problems like this again, come and talk to me. I will always be ready to help you".

Discussion questions

- What did John friends want him to do ?
- Why did John want to talk to his big brother Luke ?
- What did Luke tell John ?
- What do you think John said to his friends about drinking the beer?

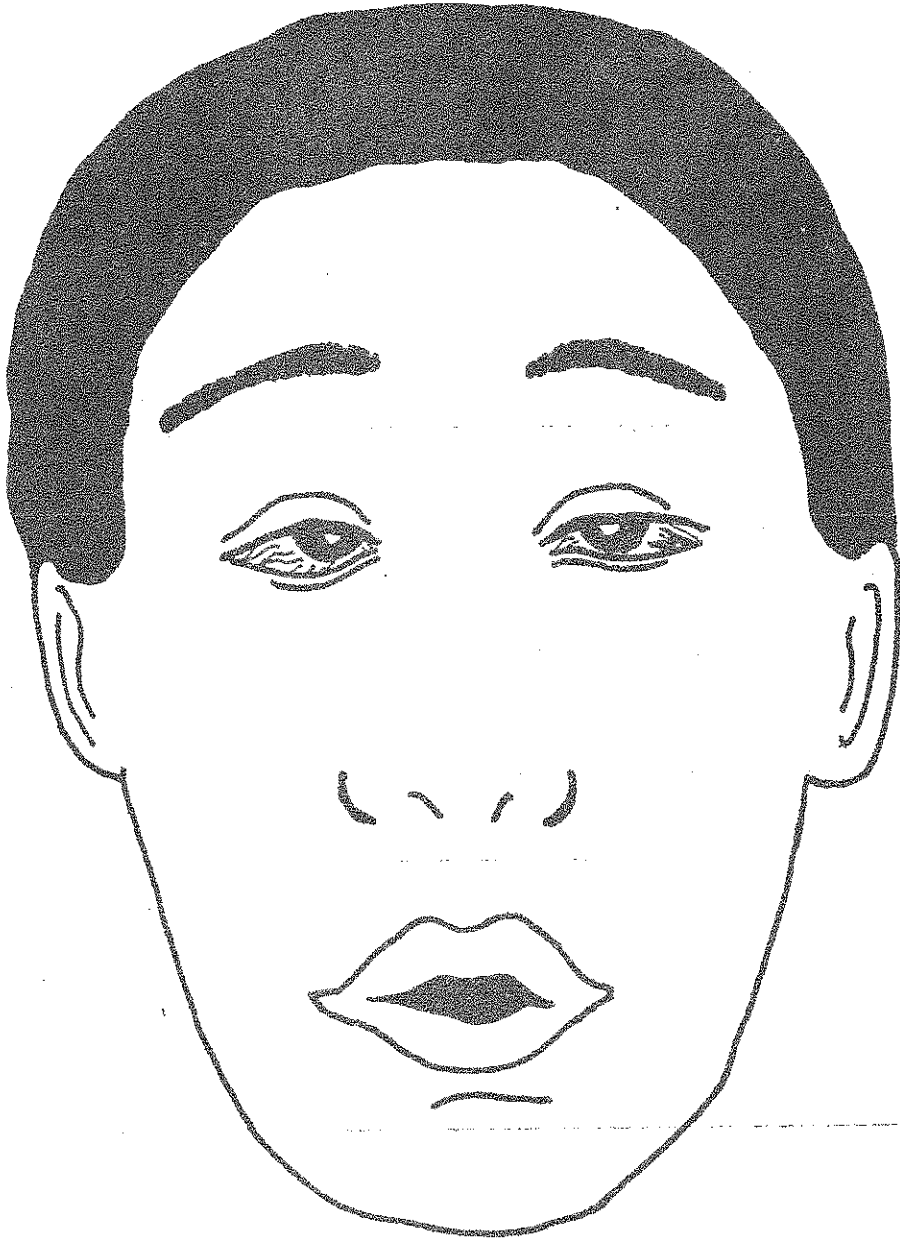
Alcohol is a drug that is in beer, wine, whisky and some other drinks. Alcohol affects every part of a person's body - their blood, stomach, intestines, muscles and brain. Soon after a person drinks alcohol it goes into their blood and is carried to all of these body parts. The effects can be felt in several minutes. The person may feel different from their usual self. If they drink a lot of alcohol, they may act silly. They may get angry very easily. They may say and do things they will be sorry about later.





Have you ever watched a movie that is not in focus ? It is hard to see the movie. We say the picture is blurred. Alcohol can cause the things we see to look blurred. This causes people who drink very much alcohol to be in greater danger of accidents.

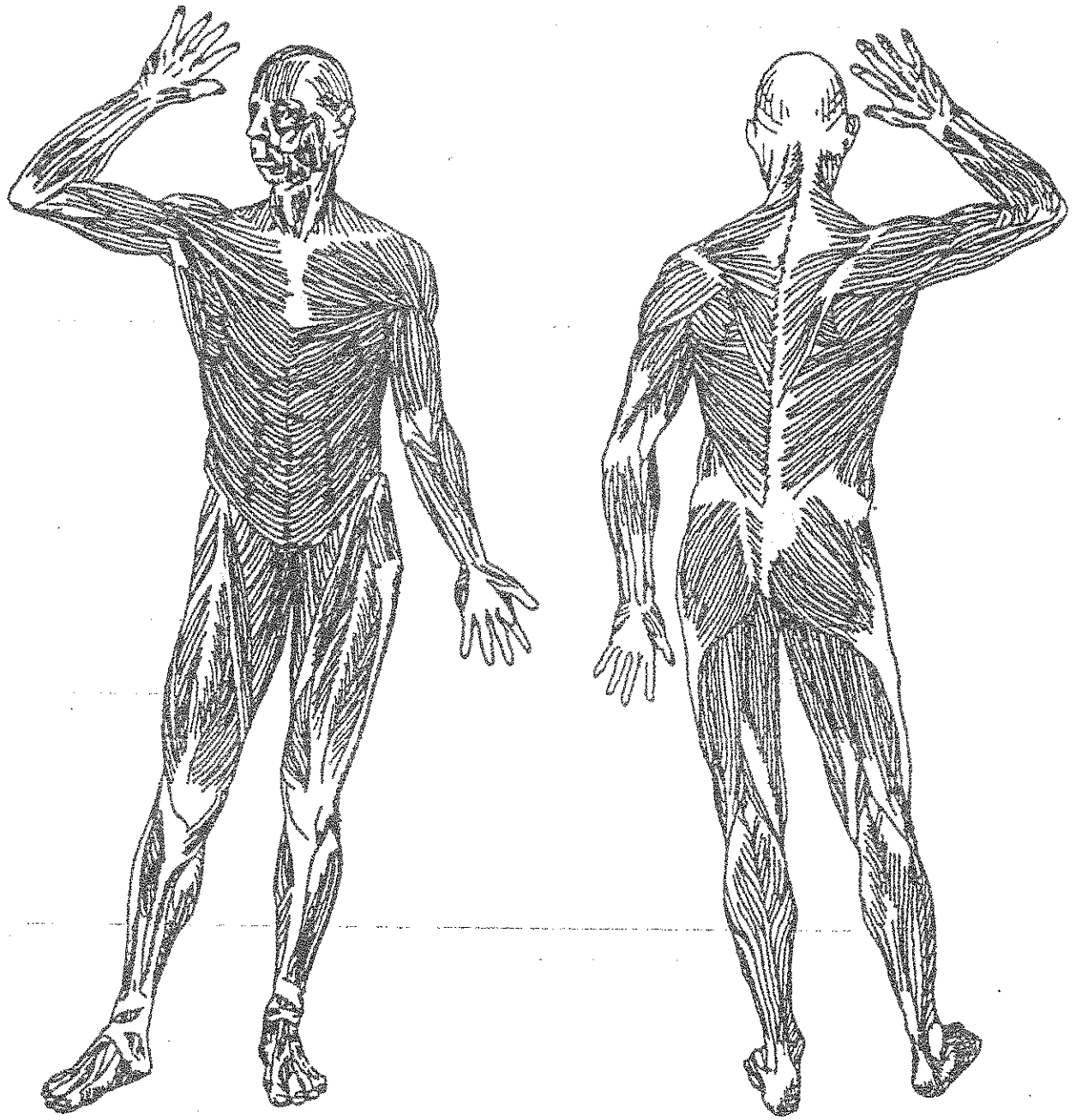
Drinking a lot of alcohol also makes it hard to balance the body. The person feels dizzy, just as you might if you spin your body around in circles. This means that people who drink too much alcohol often fall down. They can have accidents, and they can cause harm to themselves and others.



Alcohol can affect how well a person's muscles work. The more alcohol a person drinks, the greater the loss of control over their muscles. This is why drunk people cannot walk or stand straight. Drunk people cannot speak clearly, because the tongue, which is a muscle, cannot be controlled.

Alcohol also affects other body parts. People who drink too much alcohol for many years can harm their livers and their hearts.

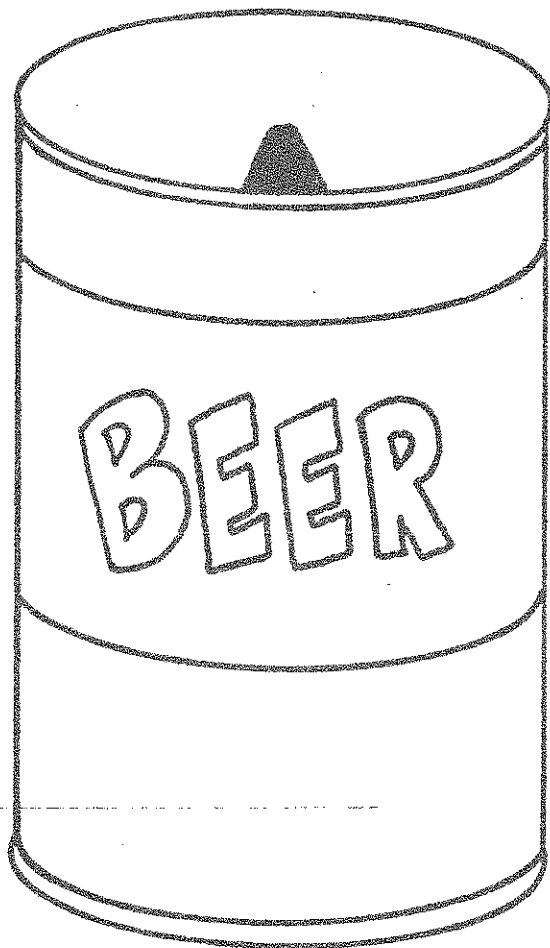
People who drink too much alcohol for many years can become dependent on alcohol. This means that their bodies have become used to a lot of alcohol everyday. If they try to stop drinking alcohol, they feel terrible. It becomes harder and harder for them to stop drinking alcohol, even if they want to stop. This is a very serious illness. It can make people very sick. It can even cause death.



People drink too much alcohol for many reasons. They may drink a lot of alcohol to celebrate a special occasion, such as a wedding or a birthday. But you might see people who choose a more healthy way of celebrating than drinking too much alcohol. They may choose to cook and eat good food with friends, sing songs, or tell stories.

Sometimes people drink too much alcohol to forget about their problems. But drinking too much alcohol can cause even more problems, and it can keep people from thinking of ways to solve their problems.

Some people have friends who drink a lot of alcohol. They think that if they drink a lot of alcohol also, their friends will like them better. But people do not have to drink a lot of alcohol to be liked by others.



Why do some people choose not to drink too much alcohol ?

Some people have learned that too much alcohol is harmful to the body. They keep their bodies healthier and think more clearly by not drinking too much alcohol.

Some people have learned that people who drink too much alcohol can harm themselves and others. They can cause car wrecks and other accidents. These people do not drink too much alcohol because they do not wish to harm themselves or others. They never drink when driving.

Most young people wish to respect their family's views on alcohol. They know their parents want them to have happy, healthy lives. When friends try to get these people to drink alcohol, they say "No". They feel good about this decision. Their parents are very proud of their decision.



TEACHING HEALTH IN YEAR 5

Lesson No. 29 - THE HEALTHY PERSON

Objectives

By the end of the lesson the students :

- Should have answered questions on the three short stories.
- Should have discussed the idea that health has three sides - physical, mental and social.

Time : 30 minutes

Method

1. READ each story and ask the questions that follow each story.

STORY no. 1

John noticed that his friend Peter was behaving very differently. He seemed to be worried about something. Usually he was happy and full of energy. He was always ready for a game of football. But now he wanted to be by himself. He wanted to think. "Peter is worried about something", John said.

ASK the children :

- How could John tell that Peter was worried?
- How did Peter normally behave ?
- Do you think that Peter was healthy ?
- Is it normal for us to be worried about something once in a while ? (yes)
- Is it a good idea to keep your worries to yourself ?
- What is the best thing for Peter to do when he is worried about something ?

STORY no. 2

In Peter's class at school there were several groups. For example, Peter and John were good friends. They played a lot with Fred and Leitangi. Another group of friends were Mattew, Pakoa and Maria. There were a lot of friends in their group.

Paul did not have any friends. No one wanted to play with him. Paul always wanted to argue and fight when things weren't the way he wanted them to be. He thought he was much better than his classmates at everything. He acted like he didn't want friends. He had come from another Island. He did not know how to make new friends.

ASK the children :

- Why didn't Paul have friends ?
- Would you say he was healthy ? (no, a normal healthy person has at least one or two close friends).
- What do you think he can do about getting some friends ?
- How could the other boys in the class help Paul ?
- What kind of health are we talking about in this story ? (mental and social health - feeling good in our mood or mind, and getting along with others.)

STORY no. 3

Peter and John's other friend, Pakoa was at home sick. He had caught the flu and was quite sick. His parents were keeping him at home in bed until he felt better. They did not want the other boys in the class to get the sickness. Pakoa's mother had been taught it was important to give a sick person good food to eat. She was making sure that Pakoa ate his food. Usually Pakoa was a very healthy boy.

ASK the children :

- Was Pakoa healthy in the story ? (no, he was sick)
 - What kind of health are we talking about in this story? (physical health)
 - What kinds of food do you think his mother gave him ? (energy, protein, protection/health)
 - It is normal for people to get sick sometimes ? (yes)
 - When a person is physically sick, what should he do ?
 - How can you keep from getting in a bad mood or feeling sad mentally ? (get good food and good sleep. Talk to people and make friends)
 - Who are people in our community that can help us sometimes when we have big worries and get sick from these worries ? (pastor, church people, our parents, teachers, etc..)
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TEACHING HEALTH IN YEAR 5

Lessons No. 30 to 36 - BEING HEALTHY

Objectives

Implement one topic chosen from the set presented at lesson No. 19 - or Carry on the topic started at lesson No.19, if it has not been finished at the end of lesson No. 22.

Method

1) The activities are detailed in each topic. Refer to them each time.

2) Evaluation

We must learn never to be satisfied with what we do. In any activity two questions need to be asked.

- How well did it work ?
- How can we make it better ?

Obviously the more questions we ask the more we will know.

It will be very helpful if we know :

- What knowledge we taught was remembered and who remembered it best ? for example how many children remembered the role of immunisation ?
- What action took place as a result of our activities, what kind and where ? how many children or their families cured their skin problems ? (like scabies).
- What attitude in communities began to change as a result of the activities ? for example, did parents, and teachers, and health workers meet more often to discuss how children could help ?

3) Presentation of the work

- Try to involve the adults who helped the students, to present the results of the activities to the other members of the community.
- Encourage children to make posters, or display or to present drama on the topic.
- The presentation could be made during the "open days" before Xmas holidays.
- The posters or display should be put in the dispensary, or any public meeting places as follow up of the activities.

- GLOSSARY FOR HEALTH BOOKS -
YEARS 5 & 6

This vocabulary is listed in the order of the alphabet.

- ABDOMEN** The part of the body that contains the stomach, liver and guts. The belly.
- ACUTE** Sudden and short lived. An acute illness is one that starts suddenly and lasts a short time. The opposite of acute disease is "Chronic" disease.
- ADDICTION** Condition in which the body depends on a drug; people feel they must keep taking the drug to feel good.
- ADOLESCENT** The years in which a child becomes an adult. The teens : 13 to 19 years old.
- AIDS** "Acquire Immune Deficiency Syndrome". Is a set (a number) of diseases called "Syndrome". This syndrome is caused by a virus which affects the body immune system, making it liable to infections and cancers which it would normally be able to resist.
- ALCOHOL** A drug that poisons the brain and other parts of the body. Alcohol is a colourless liquid found in beer, wine, whisky, rum and so on.
- ALCOHOLISM** A continual need a person cannot control to over use alcoholic drinks. Addiction to alcohol. A very dangerous disease for oneself and the others.
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- ALVEOLI** The air cells of the lungs.
- ANTISEPTIC** A soap or cleaning liquid that kills microbes.
- ANTITOXIN** Substances formed within the body (antibodies) and Medicines that act against, or neutralize, a poison or a toxin.
- ANUS** The outlet of the rectum, the lower end of the large intestine.

AORTA The main artery or vessel which carries oxygenated blood from the left ventricle of the heart; arteries branch from the aorta to all parts of the body.

APPROPRIATE Something that is easiest, safest, and most likely to work in a particular situation or condition.

APTITUDE Talent or natural ability that makes a person learn easily and quickly.

ARTHRITIS Inflammation of a joint.

ARTERY A vessel carrying blood from the heart through the body. Arteries have a pulse. (veins, which return blood to the heart, have no pulse).

ASCARIS (or Roundworm) - Large worms (23cm) that live in people's intestine and cause discomfort, weakness and sometimes intestines obstruction (blocking of the intestines).

ATTITUDE The way we feel about something. Attitudes reflect our likes and dislikes. They either attract us to things or make us wary of them. Attitudes influence the way we learn and behave.

BACTERIA Tiny germs that can only be seen with a microscope. Some bacteria are helpful. Harmful bacteria cause diseases.

BACTERIOLOGY Study of bacteria - especially as a branch of medicine.

B.C.G. "Bacilli Calmette Guerin" from the doctors' names "Calmette Guerin who were the first to prepare the vaccine against Tuberculosis.

BEHAVIOUR Manners, conduct. There are many reasons why people behave the way they do.
If we want to encourage healthy ways of life, we must know the reasons behind behaviour that causes or prevent illness. The main reasons for our behaviour are our kinds of knowledge, our beliefs, attitudes, value, culture and environment (physical and social).

- BELIEFS** Acceptance as true or existing. Beliefs are usually derived from our parents, grand parents, and other people we respect. We accept beliefs without trying to prove that they are true. Some beliefs can be harmful for somebody's health, some can be helpful, some are neutral. In health education it is important to know the 3 kinds of beliefs. Beliefs influence the way people behave.
- BILE** A bitter green liquid made by the liver and stored in the gallbladder. It helps digest fat in the intestine.
- BIOLOGY** Science of physical life, dealing with the morphology (study of the form of animals & plants), the physiology (science dealing with the functioning of living organisms), the origin and the distribution of animals and plants.
- BLOOD PRESSURE** The force or pressure of the blood upon the walls of blood vessels (arteries and veins); it varies with the age and the health of the person.
- BLOOD VESSEL** Tubes that carry blood through the body. Arteries and veins are blood vessels.
- BOOSTER** A repeat vaccination to renew the effect of an earlier series of vaccinations.
- BRAIN** Organ in the head that control the rest of the body. It receives messages through the senses; and it sends messages to the muscles which produce an action. People, thanks to their brain, decide on action to be taken, they think, they remember, they learn, they anticipate (foresee) Because of their BRAINS HUMANS can IMAGINE the FUTURE.
- BRONCHIAL tube** (Bronchi) - The tubes leading to the lungs through which air passes when a person breathes.
- BRONCHITIS** An infection of the bronchial tubes.
- CALORIE** Basic unit of heat used to measure energy supplied by food.
- CAPILLARY** Any one of the minute blood vessels which form the network of vessels connecting the smallest branches of the arteries and veins.

- CARDIAC** Pertaining to the heart.
- CELL** - Smallest living part of plants and animals.
- CEREBELLUM** The part of the brain that helps to control balance and to co-ordinate movements.
- CEREBRUM** The main part of the brain; situated in the upper part of the skull cavity.
- CHRONIC** Long term or frequently recurring. A chronic disease is one that lasts a long time. (contrary = acute)
- CIRCULATION** The flow of blood through the arteries and veins by the pumping of the heart.
- COMA** A state of unconsciousness from which a person cannot be wakened. It is caused by disease, injury, or poison, and often ends in death.
- COMMUNICABLE** Disease - Disease that can be passed from one person to another.
- COMMUNITY** - A group of people living in the same village or area, who have similar living conditions, interests, and problems.
- CONGENITAL** Existing at the time of birth
- CONJUNCTIVA** A thin, protective layer that covers the white of the eye and inner side of the eyelids.
- CONJUNCTIVITIS** Inflammation of the conjunctiva.
- CONTACT** Touch - some diseases can be spread by a sick person coming in contact with (touching or being close to another person or sleeping near her).
- CONTAGIOUS disease** A sickness that can be spread easily from one person to another.

CORNEA	The clear outer layer or "window of the eye", covering the iris and pupil.
CORTEX	The outer layer of grey matter of the brain
DECAY	Process in which bacteria change (or rot) dead plants and animal into simple parts.
DEHYDRATION	A condition in which the body loses more liquid than it takes in. This lack of water is especially dangerous in babies.
DERMATITIS	An infection or irritation of the skin.
DIABETES	Persons with diabetes have too much sugar in their blood.
DIARRHOEA	Frequent runny or liquid stools.
DIET	The kinds and amount of foods that a person should eat or avoid eating.
DIPHTHERIA	A communicable disease affecting the throat and air passages. Can be prevented with immunizations.
DISEASE	Sickness
DRUG	Substance that changes the way people's mind or body works. A drug may be a medicine or a poison. As medicine, drugs are used to treat sickness and lessen pain.
EARDRUM	Thin, soft sheet inside the ear. It moves back and forth quickly when air touches it. This movement allows people to hear sound.
EMERGENCY	Something unexpected, that happens suddenly and requires immediate action.
ENDOCRINE glands	Glands which manufacture hormones and secretions which pass directly into the blood.
ENERGY	Power the body uses to grow, move and do work.

ENVIRONMENT Everything around an object or living thing. Our environment has in it air, soil, plants, water, animals, buildings and houses, other people and everything else outside us.

ENVIRONMENT (social) and BEHAVIOUR A great reason for our behaviour is the influence of people who are very important to us, because we have a tendency to do what these people do. School teachers are very important persons to their pupils and their parents. An important reason for people's behaviour concerning their health/illness is whether or not they have certain resources in their social environment such as money, time, service facilities (a dispensary near their home), skills and materials.

EPIDEMIC An out break of disease affecting many persons in a community or region at the same time.

EVALUATION A study to find out the worth or value of something, or how much has been accomplished often done by comparing different factors or conditions before and after a project or activity is underway.

FAECES Stool; shit; the waste from the body that is moved out through the bowels in a "bowel movement".

FECES-TO-MOUTH Diseases spread or transmitted from stools of one person to his or another person's mouth, usually by food or drink, or on fingers. Worm diseases are transmitted this way.

FETUS (FOETUS) The developing baby inside the womb.

FEVER A body temperature higher than normal. (from 37°C and above).

FIRST AID Emergency care. Help given right away to a sick or hurt person before the doctor begins work.

FLU A bad cold, often with fever, pain in the joints, and sometimes diarrhea.

FLUORIDE A compound substance which helps to prevent tooth decay

FLUORIDATION The process of adding a fluoride to drinking water in the proportion of one part fluoride to one million parts water. Many toothpastes contain fluoride.

FONTANEL The "soft spot", on the top of a young baby's head.

FRACTURE A broken bone

GALLBLADDER A small sac attached to the liver. The gall bladder collects bile, a liquid that help digest fatty foods.

GANGLION A mass of nerve tissue which receives and sends out nerve fibres; a globular hard tumor situated on a tendon.

GASTRIC Pertaining to the stomach; gastric juice is the digestive fluid secreted by the glands in the lining of the stomach.

GENITALS The organs of the reproductive system, especially the sex organs.

GERMS Very small organisms that can grow in the body and cause some infectious diseases. micro-organisms microbes.

GONORRHEA A communicable disease that is spread from persons to person through sexual contact.

GUT Intestines

HABIT 1) Learned action that people have done so often that they no longer need to think about it. Washing hands, brushing teeth are healthful habits.
2) Dependence on a drug.

HAEMOGLOBIN The colouring matter of the red blood cells. It is capable of absorbing oxygen and carbon dioxide.

HEMISPHERE Half of the thinking part of the brain. The brain has a left and a right hemisphere. Each side controls certain kinds of thinking involved in certain kinds of activities.

- HEMORRHAGE** Severe or dangerous bleeding.
- HEPATITIS** It is a disease caused by virus infection that harms the liver.
- HEART** Organ made of muscle that pumps blood through blood vessels to all parts of the body.
- HEART BEAT** Thumping noise made by the heart when it squeezes. This squeezing pushes blood through the body.
- HEREDITARY** Passed on, from parent to child.
- HORMONES** Chemicals made in parts of the body to do a special job. For example some hormones control growth; another ones regulate a woman's period and possibility of pregnancy.
- HYPERTENSION** High blood pressure.
- IMMUNE** Protection against any particular infection.
- IMMUNITY** The power of the body by which infection is resisted and overcome.
- IMMUNIZATIONS** (Vaccinations) Medicines that give protection against disease, for example : diphtheria, whooping cough, tetanus, polio, tuberculosis, measles, hepatitis. The process of rendering a person immune.
- INFECTIOUS** Penetration of bacteria or viruses growing in the body. Infection may affect part of the body (such as an infected sore), or all of it (such as measles).
- INFECTIOUS diseases** A disease that is easily spread or communicated (passed from one person to another); contagious.
- INFLAMMATION** An area that is red, hot, and painful, often because of infection.
- INSECTICIDE** poison that kills insects.

- INSULIN** A hormone secreted by the pancreas which enables the body to use sugar. In its artificially prepared form, it is used to control diabetes.
- INTESTINAL PARASITES** Worms and tiny animals that get in people's intestines and cause diseases.
- INTESTINES** The guts or tube - like part of the food canal that carries food and finally waste from the stomach to anus.
- JAUNDICE** A yellow color of the eyes. It is a sign of disease in the liver, gallbladder, pancreas or blood.
- JOINT** Place in the body where one bone is joined to another.
- KOCH ROBERT** (1843-1910) German scientist who studies the microbes known as bacteria. His best known discovery was the bacteria (bacillus) of tuberculosis (1882).
- LARVA**
larvae (plur) The young worm like form, that comes from the egg of many insects and parasites. It changes form when it becomes an adult.
- LARYNX** The upper part of the windpipe, a hollow cavity containing the vocal cords : the voice box.
- LENS (of the eye)** Part of the eye behind the pupil. The lens sends light to the retina at the back of the eye.
- LIGAMENTS** Strong bands that hold bones together at joints.
- LIVER** A large organ under the lower right ribs that helps clean the blood and get rid of poisons.
- LUNGS** Two organs in the chest that are like bags. When people breathe in, their lungs fill with fresh air. When people breathe out, their lungs get rid of used air.
- MARIJUANA** Drug made from the dried leaves of a plant called "cannabis. It can change way people think and act. Marijuana is also called "pot". In Vanuatu, this drug is prohibited.

- MARROW** The soft substance in the cavities of bones.
- MENSTRUAL cycle** Or woman's period - The monthly period when blood is discharged from the womb.
- MICROBE** Plant or animal, so small, people need a microscope to see it. Virus and bacteria are two kinds of microbes.
- MICRO ORGANISM** Microbe
- MICROSCOPE** Instrument that makes tiny things look bigger. With microscopes, we can see things that are too small to see other wise.
- MICROSCOPIC** Something so small that it can only be seen with a microscope.
- MORPHINE** A dangerous drug, derived from opium, used by doctors to induce sleep and deaden pain. Private use is prohibited in Vanuatu.
- MUCUS** A thick, slippery liquid, that moistens and protects the linings of the nose, throat, stomach, guts, urethra, vagina.
- MUSCLES** Group of cells in the body that people can tighten or loosen to make themselves move.
- NARCOTIC** A drug that affects the nervous system. Some cause the loss of feeling and produce drowsiness and sleep; some, in small amounts, relieve pains; others cause excitement and sleeplessness. Marijuana, heroin, morphine are classified as narcotics.
- NASAL** Of, or relating to the nose.
- NERVES** Thin threads or strings that run from the brain and from the spinal cord to every part of the body and carry messages for feelings and movement.
- NERVOUS SYSTEM** Group of organs that control all the actions of the body. They include the brain, spinal cord and nerves.

- NICOTINE** Drug found in cigaret smoke. It makes the heart beat faster. It also makes some of the blood vessels get smaller. If this happens to the circulatory system too often, diseases may occur, like heart disease. At high dosages, Nicotine is a violent poison. It is utilized as insecticide.
- NON-INFECTIOUS disease** A disease that does not spread from person to person. Heart disease is non infectious.
- NUTRIMENT** Any substance found in food that the body can use for energy, growth and good health.
- NUTRITION** Process of eating and using foods; Process by which food is changed to living tissues, resulting in body growth, development and repair.
- NUTRITIOUS** Nourishing. Nutritious foods are those that have the things the body needs to grow, be healthy and fight off diseases.
- OESOPHAGUS** The tube by which food passes from the mouth to the stomach; the gullet.
- OLFACTORY NERVE** The nerve of smelling, leading from the nose to centres in the brain.
- OPHTALMIC** Of the eyes
- OPHTALMOSCOPE** An instrument for inspecting the interior of the eye.
- OPTIC NERVE** The nerve of seeing, leading from the retine at the back of the eye to the visual centres in the brain.
- ORGAN** Part of the body, such as the heart, lungs, or kidneys, that does a certain job. For example the lungs are organs for breathing.
- ORGANISMS** Living things (animals or plants)
- OTTITIS** Inflammation of the ears

- OVARIES (OVARY single)** Two small sacs in a woman belly next to her womb. Ovaries are two glands that make hormones. Ovaries produce the eggs (ovules) that join with a man's sperm to make a baby.
- PALATE** The roof or top part of the mouth.
- PANCREAS** A digestive gland below the stomach, on the left side, that produces insulin.
- PARASITES** Worms and tiny animals that live in or on another animal or person and cause harm. Fleas, lice, intestinal worms, amebas, mites causing scabies, are parasites.
- PASTEUR, Louis** (1822-1895) French chemist and biologist. He was the first to discover and prove that microbes (or germs) cause changes such as fermentation, and that microbes cause serious diseases. He was the first to begin studying vaccination (or immunization) and to make vaccines.
- PASTEURIZATION** The process of heating milk or other liquids to a certain temperature (60°C or 140 °F) for about 30 minutes in order to kill harmful bacteria. Process discovered by Pasteur Louis.
- PELVIS** Hip bones
- PENIS** A male genital organ - verge
- PERSONALITY** All the ways people look, think, act, and feel.
- PITUITARY GLAND** Small gland in the head, which is the master gland of the body. It makes hormones that control growth and the actions of other glands.
- PLACENTA** The flat round organ in the womb which establishes communication between the mother and the child by means of the umbilical cord. The after birth. It is evacuated after the delivery.
- PLASMA** The fluid part of the blood.

POLLUTION Any harmful change in the environment. Pollution can be caused by garbage, smoke, too much noise, or anything else harmful to living things.

PREVENTION Action taken to stop sickness or accident before it starts.

PRIMARY HEALTH CARE

Seeks to meet the essential health needs of as many people as possible, at the lowest possible cost. It includes the work of health centres, clinics, dispensaries, and doctor's offices in communities and neighbourhoods. But it also includes what individuals and families can do for themselves. The goal (the aims) of Primary Health Care (P.H.C.) is defined by the formula "*Health for all by the year 2000*". P.H.C. was first defined by the World Health Organization (W.H.O.) in 1978.

PROPHYLACTIC Means preventive, prevention.

PROTEINS Body building foods necessary for proper growth and strength

PSYCHIATRIST A doctor concerned with the study and treatment of disorders of the mind.

PSYCHOLOGIST A scientist who studies the ways people think, act, and feel.

PUBERTY Time of rapid growth, when girls begin changing into woman and boy into men. The earliest age at which a person is capable of reproduction.

PULSE Spurt of blood through an artery caused by each beat of the heart. The pulse can be felt in the wrist and at the side of the neck.

PUPIL (of the eye) Opening through which light enters the eye. The pupil looks like a black circle in the middle of the colored part of the eye. It gets smaller in bright light and large in the dark.

RATE The number of times something happens in a given amount of time.

- RECTUM** The end of the large intestine close to the anus.
- REFLEX** An automatic reaction or movement that happens without a person's trying to do it. Example : sneezing, shivering.
- REHYDRATION drink** A drink to correct dehydration which can be made with boiled water, sugar and salt.
- RESISTANCE** Ability to fight microbes that cause disease.
- RESOURCE** What is needed or available for doing or making something. People, land, animals, money, skills and plants are resources that can be used for improving health.
- RESPIRATION** Breathing. The respiratory system includes the nose, the mouth, the bronchial tubes and the lungs.
- RETINA** Thin layer of nerve cells lining the back of the eye. When light hits the retine, the nerve cells send message to the brain.
- SANITATION** Public cleanliness involving community efforts in disease prevention, promoting hygiene, and keeping public places free of waste.
- SENSES** Ways somebody get messages from outside and inside his body. Seeing, hearing, touching, tasting, smelling, and balancing are some of human senses.
- SEPTICEMIA** An infection of the blood. Sometimes called "blood poisoning".
- SHOCK** A dangerous condition with severe weakness or unconsciousness, cold sweat, and fast, weak pulse. It is caused by dehydration, hemorrhage, injury, burns, or a severe illness.
- SKELETON** Bony framework of the body
- SKILL** Ability to do thing well, gained by pratice.

SPLEEN An organ normally the size of a fist, under the lower edge of the ribs on the left side. Its job is to help make and filter the blood.

SPRAIN (STRAIN) Bruising, stretching, or tearing of ligaments or tendon in a twisted joint.

SOUTH PACIFIC COMMISSION

Is a regional agency for the South Pacific. Its purpose is to promote the economic and social welfare of the peoples of the South Pacific region for whom it works. It provides, on request, expertises and educational materials that can be utilized by schools. It is based at Noumea. Its address : P.O. Box D5, CEDEX Noumea, New Caledonia.

STERILE 1) Completely clean and free from living micro-organisms. Things are usually sterilized by boiling or heating.
2) also means permanently unable to have children.

STOMACH Organ that receives food that has passed down the throat. The stomach mixes, softens, and digests some of the food.

STOOLS See feces

SYPHILIS A communicable and dangerous disease that is spread from person to person through sexual contact. It is also called a venereal disease. This disease exists in Vanuatu. The first sign is generally a sore in the genital area. The sore only lasts a few days and then goes away by itself, without treatment.

BUT THE DISEASE CONTINUES SPREADING THROUGH THE BODY. Without treatment, syphilis can invade any part of the body causing heart disease, paralysis, insanity, sterility and others. In case of sore on the genitals or any strang rash, people should get medical advice & treatment. The use of condoms prevent venereal diseases.

SYMPTOMS The feelings or conditions a person reports about his sickness. Signs of an illness.

TABLE SPOON A measuring spoon that holds 3 teaspoons or 15ml.

TABOO Something that is avoided, banned, or not allowed because of a cultural belief.

- TAR** Sticky brown material that comes from burning tobacco. If people smoke too much, tar can harm their lungs.
- TASTE BUDS** Group of cells on the tongue that can tell people if a food is sweet, sour, salty, or bitter.
- TEA SPOON** A measuring spoon that holds 5ml. Three teaspoons equal one tablespoon.
- TEMPERATURE** The degree of heat of a person's body. The normal temperature of human's body is between - roughly - 36°C and 37°C . Above, a higher temperature is called fever.
- TENDONS** Tough cords that join muscles to bones (distinct from ligaments that joint bones with bones at joints)
- TESTICULES (testis)** The male sex gland in which the sperm (or male cells) are produced.
- THYROID** A gland situated in the front of the neck secreting hormones which affect growth.
- TRACHEA** Windpipe between the lungs and the back of the throat.
- TRANSMIT** To pass on, transfer, or allow to spread from one person to another.
- UMBILICAL CORD** The cord that connects a baby from its navel to the placenta on the inside of its mother's womb.
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- UNESCO** UNITED NATIONS EDUCATIONAL SCIENTIFIC AND CULTURAL ORGANISATION. is one of the specialised agencies of the United Nations. UNESCO helps to combat illiteracy; raise living standards through education. Promote international collaboration through education, science and culture.
- U.N.I.C.E.F.** UNITED NATIONS INTERNATIONAL CHILDREN'S EMERGENCY FUND. is one of the specialised agencies of the United Nations. The aims is to help protect the lives of children and promote their development. These books on Health, Nutrition, Agriculture, as well as the project that enable to make them has been paid by UNICEF. Its regional bureau for the South Pacific Region is at FIJI. Adress : UNICEF c/o UNDP Private Mail Bag - SUVA FIJI.

- URETHRA** Urinary tube or canal that runs from the bladder to the hole a person urinates from.
- URINE** Liquid waste from the body; piss.
- UTERUS** Womb : a hollow muscular organ in which the foetus (baby in development) is nourished and grows.
- VACCINATIONS** See immunizations.
- VAGINA** The tube that goes from the opening of a woman's sex organs to the entrance of her womb.
- VENERAL disease** A disease spread by sexual contact. Examples, Gonorrhoea, syphilis, AIDS. Today these diseases are called "S.T.D." (Sexually Transmitted Diseases).
- VESSELS** Tubes. Blood vessels are the veins and arteries that carry the blood through the body.
- VIRUS** Tiny living things smaller than bacteria, that can cause diseases. Viruses are too small to be seen through an ordinary microscope. Example of diseases caused by viruses : flu, mumps, measles and polio.
- VITAMINS** A group of chemical substances present in various foodstuffs and essential to health and growth.
- WOMAN'S PERIOD** Menstruations.
- WOMB** The sac inside a woman's belly where a baby is made. Same: the uterus.
- W.H.O.** **WORLD HEALTH ORGANISATION** is a specialized agency of the UNITED NATIONS with primary responsibility for international health and public health.
In 1978 W.H.O. rose its symbolic international goal - Health for all by the year 2000. This was the beginning of Primary Health Care (P.H.C.) policies in many countries. Vanuatu is involved in Primary Health Care. These Health books have been developed in the spirit of P.H.C. more specially books 5 x 6 with the lessons "Being health responsables", (see at "Primary Health Care")
- W.H.O. has an office in Port-Vila, at the Health Department of VANUATU.