PROMOTING LIFELONG HEALTHY EATING HABITS

Nutrition Education in Primary Schools

A PLANNING GUIDE FOR CURRICULUM DEVELOPMENT

Vol. 2: The Activities

COMPLETE DISPLAY DIAGRAM

PRINCIPLES, CONCEPTS, GOALS AND OBJECTIVIES

- The WHO definition of health
- Key messages
- Goals and objectives
- Nutrition literacy

WHAT NEEDS DOING

- The local dimension
- Objectives for the classroom curriculum
- Priority needs for the classroom curriculum
- Objectives for the school environment
- Priority needs for the school environment
- Other needs xxxx

HOW TO DO IT

- Change management
- Links with the family
- Family approaches
- Links with the community
- Community resources and approaches
- Classroom approaches
- Strategies for good nutrition education

PLANS FOR ACTION

- Classroom programme for nutrition education
- Whole-school activities on nutrition issues
- Agenda for discussion

Objectives and action plans

Nutrition Education in Primary Schools

Vol. 2: The Activities

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NOTES FOR FACILITATORS AND WORKSHOP ORGANIZERS

Purpose – What is the aim?

The Planning Guide is an exercise, a procedure for designing or improving a nutrition education curriculum. It is usually run as a workshop involving a number of people who are concerned with the health and education of schoolchildren. These participants agree on principles, identify needs and take decisions about the nutrition education curriculum, based on these principles and needs.

As explained in the Introduction (B4 *User and uses*), the curriculum planning exercise can be done at different levels – national level, district and regional level, at the level of individual schools or groups of schools, or as an initial teacher training exercise.

Depending on the level, the workshop may aim at producing a policy document, a national curriculum, or action plans for school classrooms and school environments.

Facilitators will need to adapt their approaches according to the perceived purpose. Some of the activities are geared specifically to the local level, but there is guidance for national level curriculum developers at the beginning of each unit of the Reader.

Participants – Who will take part?

Facilitators and workshop organizers need to ensure that the workshop participants represent the main stakeholders, and that there is appropriate representation from other relevant sectors and from important sources of information or aid. There are three sorts of participant:

Participants from the education service – Depending on the level of the project, these may be:

- several teachers and other staff from one school;
- a selection of staff from several schools and resource centres;
- head teachers, inspectors and teacher trainers at district level;
- trainee teachers in an institute of education;
- inspectors, curriculum developers, writers, teacher educators at national level;
- policy-makers at national level.

Other main stakeholders belonging to the school "environment" and who must be involved are:

- parents and families (local or national PTA);
- non-teaching school staff or their representatives;
- health services and school health services, including nutritionists;
- school feeding programmes.

Since it is difficult to involve children in the workshop directly, participants should understand that they have the extra duty of representing children's interests and points of view.

Representatives of other sectors and organizations - Other interested groups are:

- community services, community organizations
- agricultural extension services
- NGOs and aid agencies
- teachers' unions
- the media (local or national)
- exam boards and publishers.

Depending on their interest or their importance to the project these may be invited to participate in the whole workshop, or invited to attend one or two sessions as guest consultants or speakers.

The intersectoral approach applies at every level (local, district or national). For example, at local level parents and health services could be represented by the school PTA and the local clinic; at national level, by the national PTA and the education officer of the Ministry of Health.

Every member of the workshop makes an essential contribution to this planning exercise in experience and expertise. All full participants should therefore nominate a deputy in case they have to be away, and all workshop materials should be available to the deputies.

Action

Answer these preliminary questions:

- **What level is the workshop aimed at?**
- **What does it aim to produce?**
- **Who are the main participants?**
- **Who can/should be invited to make a special contribution?**

Content and scheduling – What are the main phases? Who needs them?

The five phases of the workshop are outlined in the Introduction (B3 *Outline*, and Table 2 and in Figure 1 at the end of this chapter).

Before the main workshop

Preparatory units: These provide basic nutritional information required by the workshop and establish common ground on ideas of good and bad diet. The units should be studied by all participants before the main workshop, either individually or in special preparatory sessions. Expert nutritionists should also look through them to ensure that they share the the standpoint of the Guide and that it is appropriate to the local context.

Data-gathering (the initial assessment phase): Data have to be gathered on the nutrition situation, the schools and the curriculum (see *Information Input* below). This is essential to the situation analysis in Phase B and must therefore be done before the main workshop, or during Phase A, or both.

The main workshop

Phase A Concepts and Principles: (Four units) This establishes the main nutrition education principles and the approaches promoted in the Planning Guide – the concept of health, the holistic idea of nutrition education, appropriate learning approaches. Both the Reader and the Activities are essential at all levels as a foundation for a shared approach.

Phase B Situation Analysis: (Six units) This analyses the health and education situation in detail, based on the data gathered and the expert opinions of the participants, and establishes priority needs. The Phase B activities are geared to local schools but the same questions must be asked and answered at national level (see *Notes for National Curriculum Developers* at the beginning of each Reader unit).

Phase C Action Plans: (Three units) This applies the principles and approaches to dealing with the needs, and produces principled action plans for improving nutrition education in the school environment and the classroom. The activities in this phase are mainly aimed at local schools working in collaboration with PTAs and the health sector. However, the activities are also essential for national planners and curriculum developers if they are concerned with helping schools to integrate new curriculum content, adapt to new approaches, respond to local needs and practices, and extend nutrition education into the family, community and the school environment.

Each unit takes about four hours to complete. The main workshop (13 units) will therefore require about ten days of full-time activity (11 if the Preparatory Units are included as group sessions rather than as individual preparation), or four months at one unit a week, or the equivalent.

Action

Decide the scheduling for the workshop, allowing time for preparatory collection of data. If the Preparatory Units are to be circulated beforehand for individual work, allow appropriate time for them to be completed; if not, organize workshop sessions to cover them.

Information input – What information is needed and where will it come from?

Some of the data necessary for the Phase B situation analysis will be available at the workshop in the persons of participants and guests. Some will be in published documents. Some will be gathered by means of questionnaires or focus groups (see *Questionnaires and data sheets* below). The data required are listed on the title page of each activities unit and are summarized in the table below.

Kind of information needed	Sources
Information on agriculture, climate, development in the area, region or country (Unit B1)	Participants and guests Agro-ecological descriptions of the region
Information about the school and its environment and the community resources for nutrition education (Units B3, B4, B5, B6)	Questionnaires and data sheets Participants and guests Descriptions of grant schemes and funding possibilities Literature on school feeding programmes
Information about health and nutrition in the area (Units B1 and B2)	Questionnaires and data sheets Research reports on health and nutrition problems Food composition tables (local, if they exist) Expert participants and guests National dietary guidelines (if they exist)
Information about the present school curriculum for nutrition education (Unit B5)	Questionnaires and data sheets National curriculum documents and national syllabuses for appropriate subjects (e.g. environmental science, home economics) School course descriptions Teaching materials in relevant subjects Participants and guests
Information about the players, such as teachers, school staff, parents, and children. (Units B2, B3, B4, B5, B6)	Questionnaires and data sheets Participants and guests

Informants and sources will differ according to the level of the planning exercise. The questionnaires and data sheets are designed for local level, but at national level the same kind of information will need to be gathered. This can be of aggregate, national or regional nature, where available. Otherwise, specific small-scale exploratory surveys in selected regions may need to be conducted. These will provide an adequate basis for decisions about the focus and content of nation-wide school-based nutrition education programmes.

Most of the sessions, and especially those in Phase B, can and should have inputs from appropriate expert participants or guests, who may make short presentations or simply be available to answer questions. Such inputs provide information, illuminate points

of view, provoke discussion, harness the group's expertise, and help to vary the workshop activities. In this way, a discourse community is created. If the workshop is to be repeated, it is a good idea to record the inputs in some form: they can also provide raw material for future teacher education packages.

Collecting data and documentation, and making contacts, should be spread among participants rather than done single-handedly by workshop organizers. The work needs to be coordinated and organized well in advance.

Action

Decide how the information is to be collected – for example, by distributing questionnaires, collecting documentation, arranging focus groups or inviting experts. If the workshop is to be held over a long period there will be more time to organize. Call a preliminary meeting of participants to explain what's needed, and allocate responsibilities.

Materials – What do we have to work with? How do we use it?

The Planning Guide consists of the Reader, the Activities, the Classroom Curriculum Chart and the Questionnaires/Data Sheets.

The Reader is a summary text which outlines the nutrition education principles and the curriculum planning process. It contains cross-references showing what activities should be done and when (e.g. ■ ACTIVITY 1). It acts as a reference text: facilitators will need it for preparing workshop sessions; participants can use it for preparatory or follow-up reading. It can also be used on its own, as a summary of the Guide, for advocacy or information.

The Activities, the core of the planning exercise, develop and firm up the ideas and processes outlined in the Reader, and are used to arrive at decisions and conclusions. The workshop sessions consist mainly of these activities, reinforced by inputs from experts and experienced practitioners. Each activity has a suggested length (e.g. 30 minutes). Some have Keys, which are printed at the end of the unit. These are not "right answers", but give the comments and opinions of the Guide for comparison with participants' own conclusions. A few activities (marked *Optional*) are only for reinforcement.

The results of each unit's work are summarized in documents of record (called **Display Documents**) on which decisions are later built.

The **Classroom Curriculum Chart** is an extensive plan for a classroom curriculum and is used for selecting and planning the classroom programme. Several copies are needed.

The **Questionnaires and Data sheets** are to be completed by or on behalf of health professionals, parents, children, teachers and other school staff. They gather much of

the information necessary for the situation analysis in Phase B (see *Information Input* above). The findings from each group are summarized on a Data Sheet for easy reference. If the workshop has a limited participation (e.g. mainly teachers), the questionnaires are particularly important to make sure that other voices are heard.

All participants should have individual copies of all the materials so that they can prepare for sessions, catch up on missed sessions or follow up unclear points. This also allows all participants to act as facilitators, and to repeat the workshop (or parts of it) with other groups.

The figure on the next page illustrates how the individual materials of the Planning Guide are meant to be used for arriving at a nutrition education work programme.

Action

Distribute all materials to all participants and their deputies, preferably at a preliminary meeting.

Facilitating and organizing – Who are the facilitators and organizers? What do they do?

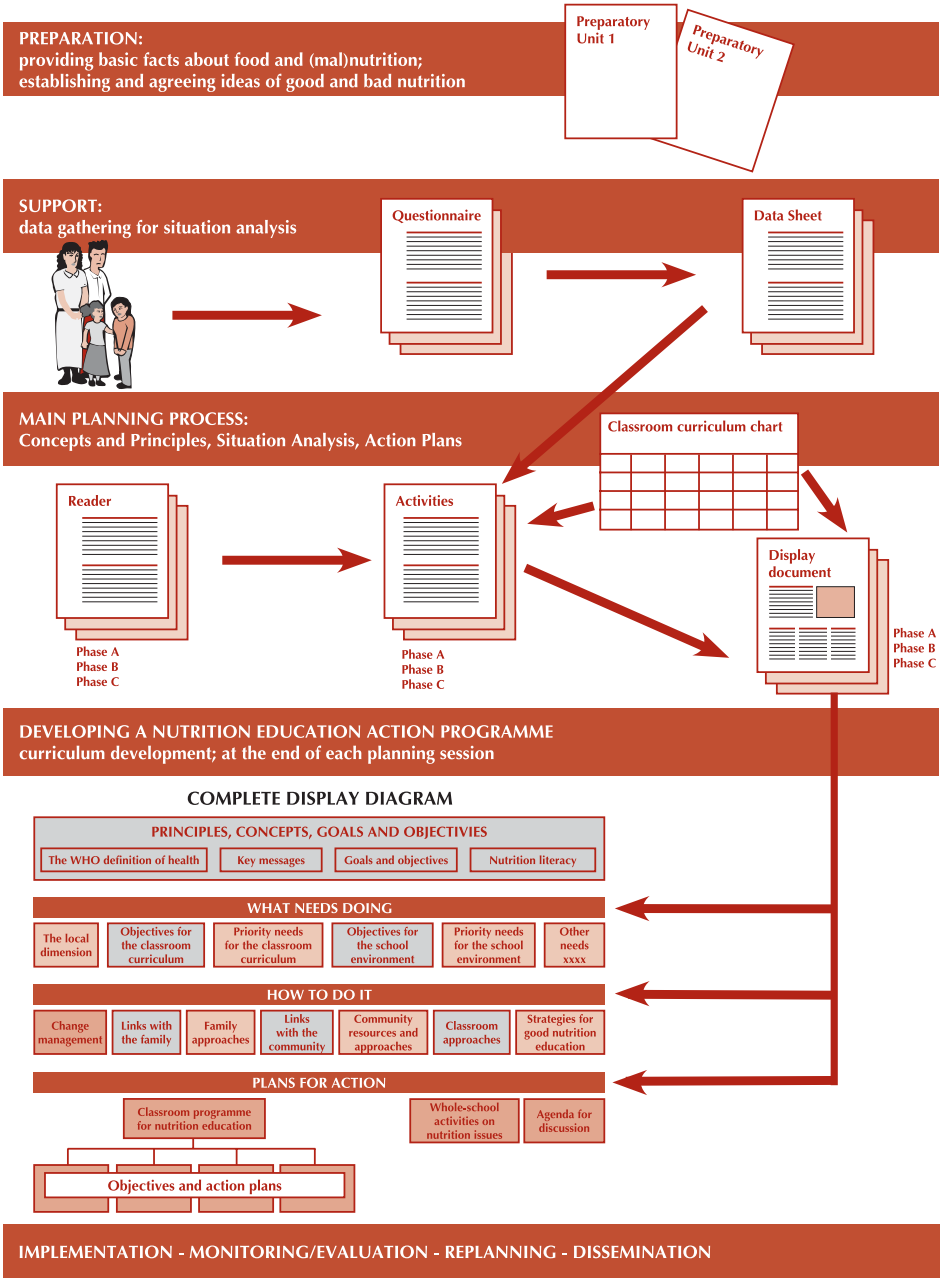
The Planning Guide is a collaborative exercise to which all participants contribute. All the information is available to all participants, and the participants are in charge of the process.

This affects the way the workshop is organized and run. There should be one or two permanent organizers, but any participant can act as facilitator, or the role of facilitator can be rotated among all or several of the participants. This has several advantages:

- it makes good use of human resources;
- it reflects the distributed ownership of the exercise;
- the group doesn't get bored with one facilitating style;
- facilitators tend to do their best if they have only one or two sessions to run;
- good facilitators can be used several times;
- poor facilitators can be used minimally.

Specific expert participants – such as nutritionists, teacher educators, head teachers, council members – can be asked to run particular sessions, e.g. on diet, teaching style, classroom conditions, school environment. Having two facilitators for each session is also desirable: it spreads the load and improves the quality.

THE ROAD TO EFFECTIVE NUTRITION EDUCATION – USING THE MATERIALS OF THE PLANNING GUIDE



Ways to organize the workshop

Options are:

a) The facilitators prepare the session, and take the participants through the Activities (participants read the Reader as a follow-up or if they miss the session).

OR

b) Participants read the Reader before the session and go through the Activities together in the session.

OR

c) Participants prepare some parts of the Reader and some of the Activities before coming to the session.

Option (a) is preferred by many as the participants come fresh to the subject, existing ideas and positions get a good airing, common positions are worked out on the spot and it is not necessary for everyone to have done their homework. Options (b) or (c) can be used to speed up the process if time is limited.

The organizer's job

Organizers are responsible for:

- getting the necessary permission and funding;
- contacting and keeping in touch with workshop members;
- contacting and inviting extra participants and speakers;
- tracking down important documentation;
- scheduling and timetabling;
- organizing a preliminary meeting for distributing materials, organizing data gathering, appointing facilitators;
- organizing travel, accommodation, refreshments;
- finding premises, distributing materials and ensuring materials are provided (pens, paper, etc.);
- organizing facilitators;
- introducing the sessions;
- setting up a final evaluation;
- organizing follow-up.

The facilitators' job

Some time before the session, facilitators should check what human and information resources are needed (speakers, documents) and make sure they will be available.

Before the session, facilitators should prepare well in advance by:

a) reading the Reader and looking through the Activities and the Key;
b) deciding what needs special emphasis;
c) adapting the content to the local situation (if necessary);
d) deciding what can be skipped or reduced;
e) deciding if participants need to prepare part of the material before the session;
f) deciding how the activities are to be organized (plenary, pairs, groups, reporting back, etc.);
g) deciding approximately how long activities/inputs should take;
h) briefing any other workshop participants or guest experts they want to involve;
i) making photocopies;
j) assembling paper, pens and so forth;
k) liaising with the organizer(s) as necessary.

At the beginning of each session facilitators should:

a) make sure the main document display is in place;
b) make sure all necessary documents are available (there is a list in each Activities unit).

Facilitators should start the session by:

a) recalling what the workshop has done so far and where it is going;
b) outlining the content, purpose, and objectives of the unit, and the expected outcomes;
c) indicating what activities are to be done in the session, including any inputs from speakers, with an approximate time allocation.

During the session facilitators should:

a) welcome and introduce any visitors, chair any sessions with visiting speakers, and thank them;
b) organize the activities, e.g. decide how to feed back;
c) provide connecting links between the activities;
d) actively monitor group work;
e) make breaks and organize "loosening up" physical activities as necessary;
f) keep an eye on the time, or organize a timekeeper to do this;
g) arrange to display key concepts, conclusions, ideas, and manage the main display.

At the end of the session facilitators should:

a) allow five minutes for summing up;
b) decide what needs to be done for the next session and who will do it;
c) end on an upbeat note.

Above all, the facilitators should set a tone of independent enquiry, exploration and decision. The Planning Guide is a guide, no more – the conclusions must be the conclusions of the workshop.

Other participants

If the workshop is hosting expert informants, facilitators should ask them to act as advisers and resource persons rather than as instructors. They should listen, answer questions, correct misconceptions, fill in important gaps and make *short* prepared inputs, but not take the initiative away from the participants.

Action

Decide who will be the facilitators (preferably two for each session) and allocate the tasks at a preliminary meeting. Draw facilitators' attention to these briefing notes.

Activities – How should the activities be organized?

Pairwork, groupwork or plenary discussion?

The instructions sometimes specify whether an activity should be done in plenary session, in small groups, by individuals, or in pairs. But mostly it is for facilitators to decide. The choice will depend on:

- the size of the whole group – is it too big for useful discussion?
- the scope of the activity – does it need to be distributed among several groups?
- how many different areas are represented in the workshop – for example, are there three different schools/regions with different plans and policies?

Group work is not a good in itself, but is valuable for allowing everyone to be heard, exchanging information, generating ideas, establishing points of view, and coming to planning decisions. It is also essential where a group represents a particular school or district. If there are several technical experts in the workshop, spread them around the groups.

Although group activities do serve to take the pressure off facilitators, they should not be seen as facilitators' free time. Groups need to be monitored to make sure they do not go off on a tangent. Participation in the groups keeps facilitators informed and helps them organize feedback better.

Organizing plenary feedback

Group work generally takes time, as it often requires a plenary feedback session. Facilitators should consider if this is necessary. For example, it may be valuable for groups to share their policy decisions about the school environment, but detailed implementation plans may not be so interesting to the group as a whole. Ways to organize plenary feedback are:

- All groups report to plenary. This is time-consuming – groups should be asked to reduce their conclusions to three short points, display them and answer questions about them.
- Each group sends a reporter to each of the other groups to explain their conclusions.
- Groups display their conclusions on a poster and leave a group member to stand by it and answer questions, while they circulate to look at others' posters and ask questions.

Display documents

Each unit results in a display document. These are pinned up one by one to form the "big picture" of principles and key concepts, priority needs and favoured approaches, on which action plans will be based. Suggestions for the layout of the main display are given at the end of each Activities unit. See also the back cover of this booklet. Facilitators should make sure there is enough wall-space (visible to all) for this display, and that it remains in position throughout the workshop.

At the end of the workshop the main display exhibits all the thinking and planning of the group. It can be used for future reference by curriculum planners or for presentations to interested outsiders. It can be turned into a booklet, transformed into PowerPoint slides, and so on.

Apart from the main display, facilitators should decide what else needs to be exhibited and in what form. Several copies of the Classroom Curriculum Chart should be pinned up; information about nutrition and malnutrition from the Preparatory Units will also be useful. Other useful reference documents may be local dietary guidelines, curriculum documents and (local) food composition tables. Group conclusions can be written on flipchart sheets; ideas can be written on cards and posted up for discussion, classification and so on.

INTRODUCTION

CONTENT

1. Nutrition, health and education
2. The Planning Guide

WHAT YOU NEED

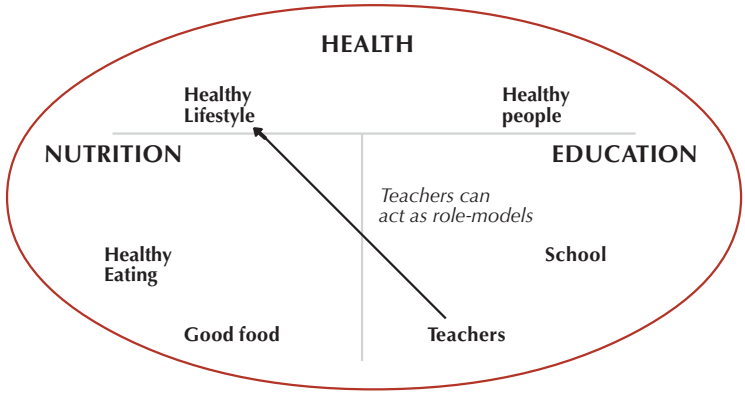
People	All participants contribute to these activities: health experts, nutritionists, teachers, educationists, administrators
Information	Your own experience and expertise is all the information required Planning Guide, Vol 1: The Reader, Introduction; figure 2 in Introduction
Equipment	Flipchart, coloured marker pens, poster paper (or use a flipchart sheet)

ACTIVITY 1

NUTRITION, HEALTH AND EDUCATION

20 minutes

What are the connections between nutrition, health and education? For example, *teachers can act as role models* for children, demonstrating a healthy lifestyle. This connection is represented by the arrow in the figure below.



a) In plenary session, brainstorm all the connections you can think of – long-term as well as short-term. This is just to air the question – there are no right answers!

b) Draw lines between the elements and write in the connections.

c) Copy up the diagram on the board or on a flipchart.

d) What do you think are the cause-and-effect connections between the three sections – health, nutrition and education? Discuss this all together.

e) Refer to Figure 2 in the Reader Introduction. Get a volunteer to copy out Figure 2 on a poster, and display it for future reference.

ACTIVITY 2

THE PLANNING GUIDE

15 minutes

Here are some statements about the Planning Guide, the basis of this workshop.

a) Read each one aloud and think of any questions that come to mind. Record the questions in a list and divide them up between you.

b) To get answers to your questions, you can:

- ask the Facilitator OR
- read the INTRODUCTION to the Planning Guide, Part B.

c) Find out the answers then report back to the whole group.

STATEMENT 1
The Planning Guide is an exercise in developing a nutrition education curriculum based on the needs of the area and involving all the relevant players.

STATEMENT 2
The purpose of the Planning Guide is to help curriculum developers plan and produce curricula and materials for nutrition education in primary schools. Planning curriculum development may involve:

- changes in the classroom curriculum;
- new teaching materials and materials for teacher training;
- ideas for incorporating nutrition topics into other subjects;
- special lessons, projects and materials on urgent topics;
- research by schools and pupils into food and diet in the area;
- ways of involving parents and the community;
- a school policy document on health and nutrition;
- action plans for the school environment;
- a staff training plan;
- new working groups – for example, a school Health and Nutrition Committee, special task forces;
- new contacts for the school – for example, with local clinics, local industry, NGOs.

STATEMENT 3
The Guide has three main phases. Phase A establishes the principles, Phase B deals with situation analysis, and Phase C develops an action programme.

PREPARATORY UNIT 1

A GOOD DIET

CONTENTS

WHAT YOU NEED

People	If the facilitator is not a nutritionist, ask a nutritionist or health worker knowledgeable in nutrition to run this session, or to sit in as an adviser.
Information	This expert may also be able to adapt the Tables and Figures in the Reader to the local situation.
Documents	Copies of national dietary guidelines, if they exist, for Activity 9. Local food composition tables if available.
Equipment	A large flipchart sheet to make a poster, and coloured marker pens.

N.B. As far as possible, adapt the content of this unit to the local situation, substituting local foods and food practices.

ACTIVITY 1

A GOOD DIET

30 minutes

1. A good diet is a healthy diet. Discuss what you think are the elements of a "good diet" and write your ideas below. You may get some ideas from the words and pictures below (but these are certainly not complete). Pool your ideas.
2. Check your ideas with the definition of a good diet in the POSTER MATERIAL at the end of this unit (and in the Introduction to the Reader unit). How many of these concepts did you touch on?
3. Add any missing elements to your table.

In the following activities we are going to follow through several of these aspects of good diet.

Elements of a good diet

A good diet is/has/provides:
e.g: *a variety of foods*

protein
variety
meals
cereals
traditional
meat
energy
sufficiency
breakfast
individual needs
snacks
safety
fruit and vegetables
minerals
taste
frequency

ACTIVITY 2

WHY DO WE NEED FOOD?


20 minutes

What exactly do we need food for? Brainstorm the possibilities:

e.g: *for energy*

Check in the Key.

ACTIVITY 3

WHAT NUTRIENTS DO

20 minutes

You probably remember the main nutrients:

- carbohydrates
- proteins
- vitamins
- fats
- minerals

These nutrients carry out all the functions you discussed in the previous activity.

Do you remember the functions of each one? What do they do in the body?

1. Here are six quiz questions – discuss them and see if you agree on the answers. (Note that we are talking about *nutrients*, not about specific foods.)

a) What nutrients supply energy? .....

b) What is the relationship between fats and vitamin A?

.....

c) Why is protein important for children?

.....

d) What nutrients are needed for repairing and maintaining the body?

.....

e) What is particularly important for healthy bones and teeth?

.....

f) What is particularly important for the eyes?

.....

2. Check with Fact sheet 1, *The main nutrients, their functions and food sources*, at the end of Preparatory Unit 1 in the Reader, or with the summary version in the Poster Material at the end of the unit.

3. Make up three more quiz questions about the functions of nutrients and ask these questions of each other.

ACTIVITY 4

FOODS AND NUTRIENTS

30 minutes

How good is your nutritional knowledge of particular foods, and in particular of local foods?

1. To refresh your memory, discuss what foods are rich in particular nutrients and fill in the table below. For example, peas and beans are good sources of vegetable protein, but also supply plenty of carbohydrate, as well as some minerals and vitamins.

2. Check your ideas in Fact sheet 1, *The main nutrients, their functions and food sources*, in Preparatory Unit 1, or in the summary in the Poster Material at the end of this unit. For local foods, you will need to call on your local expert or local food composition tables.

Nutrients	**Good sources**
Proteins	Meat, ...
Carbohydrates	Beans, ...
Fats	.....
Vitamin A (animal vegetable)	.....
B Vitamins	.....
Vitamin C	.....
Vitamin D	.....
Iron	.....
Calcium/Phosphorus	.....
Iodine	.....

3. See if you have a good idea of the nutrient content of some common local foods.

   Divide into pairs. One person looks at the table, *Selected foods and their main nutrient content*, in the Reader (Preparatory Unit 1, Table 1) and selects a food that is common to the area. The other person has to guess what nutrients the food is particularly rich in (if any).

   After a few minutes change roles.

4. Report back to the whole group on any findings which surprised you.

ACTIVITY 5

YOUR OWN DIET

20 minutes

(Optional)

1. Make a list of the foods you eat in a typical day.

2. Run through your list with one or two partners.
   Ask their opinion.

   Does your diet appear to have enough…..

Protein?	Yes ☐	No ☐
Vitamin A?	Yes ☐	No ☐
Iron?	Yes ☐	No ☐

3. If not, what foods could be added to improve your diet?

ACTIVITY 6

INDIVIDUAL NEEDS

15 minutes


A
Running child


B
Bedridden old woman


C
Manager working at desk


D
Labourer


E
Baby


F
Pregnant woman


G
Child in school

What? ..... **How much?** .....
How often? ..... **When?** .....

An old Caribbean joke:

There was one chicken for dinner. How many chicken legs did the man get?
- One? No!
- Two? No!
He got THREE chicken legs. The woman got the bones. The children got the gravy.

Does everyone in the house get the food they need?

- What are the special dietary needs of these people?
- How should their diets be composed – amount of food, types of food, frequency?

1. Discuss and record your ideas.

2. Check with the Key.

A) .....
B) .....
C) .....
D) .....
E) .....
F) .....

ACTIVITY 7

GOOD AND BAD DIETS FOR SCHOOLCHILDREN

20 minutes

Shown here is one day's eating and drinking for five different school-age children. Of course, one day's food is not a diet, but let's assume that this day is typical. We are not considering individual needs – for example, a child who walks five kilometres to school will need more energy than one who lives near their school.

You should ask these questions –

- Are there enough foods from each food group? The groups are: cereals, roots and tubers, fats and oils, legumes (peas/beans/groundnuts), vegetables, fruit, animal foods.
- Is there enough variety in general?
- Is there enough of each nutrient – proteins, carbohydrates, fats, vitamins and minerals?
- Does the diet sound appetizing?
- Is the food well distributed through the day?

What would be your comment on these diets? Take one each, discuss and report back. Before you start, find names for the children.

Children	First meal	Mid-morning	Midday	Mid-afternoon	Evening
A 	Coffee and bread roll	Coffee and bread roll	Spaghetti with tuna	Tea	Meat, vegetables
B 	Cereal and orange juice	Banana	Egg with mushrooms and bread	Fruit	Vegetable soup with barley
C 	Rice		Rice and vegetables		Rice and fish
D 	Nothing	Coke and chocolate bar	Cheese sandwich	Cup of tea, potato crisps	Sausage and chips, ice cream
E 	Maize meal porridge	Roast cassava			Maize meal, fish, pumpkin leaves

You'll find some comments in the Key at the end of the unit.

ACTIVITY 8

DIETARY GUIDELINES

15 minutes

National dietary guidelines aim to guide countries in improving their diets.

Refer to the *Examples of dietary guidelines for the general public* in the Reader, Preparatory Unit 1, Fact sheet 2, and also to the *Guatemala Food Guide* in The Reader, Preparatory Unit 1, Figure 2.

Study the guidelines drawn up for other countries – take one set for each group.

- Find the most frequent messages.
- Find any guidelines that you think apply to your own country.
- Compare them if possible with dietary guidelines prepared for your own country.
- Report back to the whole group.

ACTIVITY 9

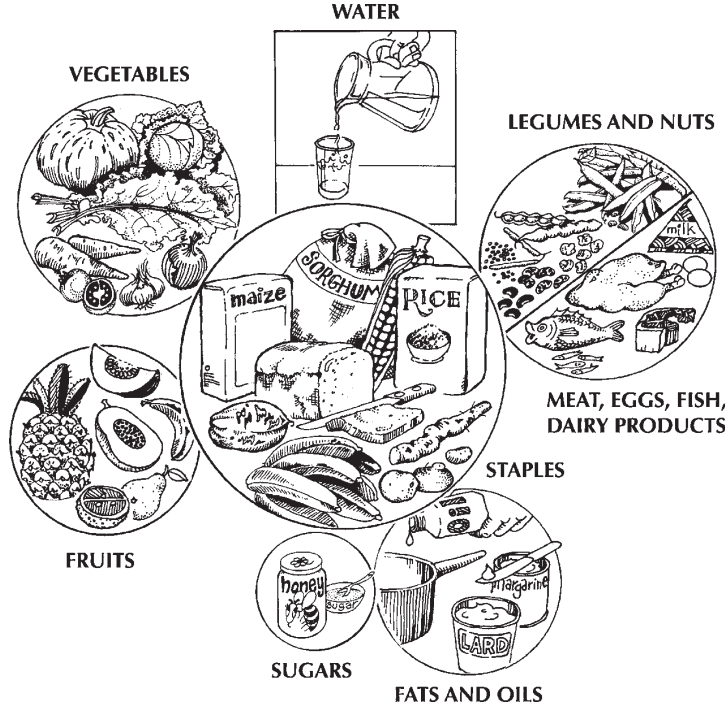
THE LOCAL DIET

15 minutes

1. What is normally eaten in your area? Look at the *Family mixed meal guide* below. Discuss the local diet in the same way. For example:

   "*In our region the staple food is nshima, made from cassava flour. We eat this at lunch and at supper. We have the nshima on one plate, and on another plate we have one or two "relishes" – usually a dish of vegetables, and some kind of meat or fish in a savoury sauce, which we eat with the nshima. There is vegetable oil in the sauce and all sorts of flavouring. Sometimes we cook pounded groundnuts with the vegetables, which is very tasty. We don't usually have eggs or dairy products with the main meal, and we don't usually eat fruit after the meal either.*"

2. Does the diagram fit? Is it a useful way to describe your local diet? Is it easy to see how the diet could be improved?



ACTIVITY 10

SUMMING UP

15 minutes

You have looked at:

- the general idea of a good diet;
- what food does for the body;
- nutrients and their functions;
- the nutritional content of various foods;
- good and bad diets;
- individual needs;
- a way of describing a diet and seeing how it can be improved;
- national dietary guidelines.

On the next page is a summary of some important ideas and facts about diet from this unit, in the form of poster material.

1. **Display**
   Arrange to enlarge the next page or copy it, and display it as a poster for future reference. Leave it on display throughout the curriculum planning exercise so you can refer to it when needed.

If you have a copy of your national dietary guidelines, add them to the display.

2. **Test yourself**
   Use the poster material to test yourself or your partner. Ask:

- Can you say what a good diet consists of?
- What are carbohydrates for? What are fats for? And proteins? And vitamins and minerals?
- Name some foods which are rich in Vitamin A, or protein, or fat … etc.
- Give an example of a local food that is rich in iron, protein, etc.

3. **Presentation**
   If you are in a group, make groups of three. Take one of the Key Messages each and explain them to each other, giving details and examples.

N.B. The details and examples are essential!

POSTER MATERIAL

A GOOD DIET

A good diet consists of

- Enough
- Varied
- Nutritious
- Safe
- Enjoyable and acceptable
- Food and drink
- For all the household
- Throughout the day
- Throughout the year.

Nutrient functions	
Carbohydrates and fats are for	energy, growth, maintenance.
Fats also help us to	absorb some vitamins, especially Vitamin A.
Proteins are for	growth and maintenance.
Enzymes (also proteins) are for	basic body functions.
Vitamins and minerals are for	proper functioning, repair, health, development, protection against infection.

Rich in carbohydrates	cereals, starchy root vegetables
Rich in fats	oils, meat fats, dairy fats, margarine, nuts, some fish
Rich in proteins	meat, fish, beans, groundnuts, dairy products
Rich in vitamin A	liver, eggs, dairy products, carotenes in dark-coloured fruits and vegetables
Rich in iron	meat, fish, poultry, liver and other organ meats. Also legumes, dark-green leafy vegetables, dried fruits and groundnuts. Vitamin C helps to absorb iron from vegetable sources
Rich in iodine	seafood, foods grown on iodine-rich soils and iodine-enriched salt
Rich in vitamin C	many fruits and vegetables
Rich in B vitamins	dark-green vegetables, legumes, cereals, meat, groundnuts, fish and eggs
Rich in vitamin D	fish oils, eggs and milk
Rich in calcium and phosphorus	milk and dairy products

WE NEED A VARIETY OF FOODS TO BE HEALTHY AND GROW.

DIFFERENT GROUPS HAVE DIFFERENT DIETARY NEEDS.

A HEALTHY DIET IS NOT SOPHISTICATED OR EXPENSIVE.

KEY TO ACTIVITIES FOR PREPARATORY UNIT 1

ACTIVITY 2 *Why do we need food?*

Some answers are:

- to stay alive
- to satisfy hunger
- for energy
- for warmth
- for socializing (hospitality, celebrating, caring and sharing)
- for protection against diseases
- for proper functioning of all parts and systems of the body
- for repair
- for growth
- for enjoyment?

ACTIVITY 6 *Individual needs*

All these people need all kinds of food. But in particular:

a) and g) All children, whether they are playing or studying, need a lot of energy and high protein foods for activity and growth. They also need to eat frequently, because their needs are large and their stomachs are small.

b) This person is old and sick. It may be important to give her easily digested food, or food which doesn't need to be chewed. If she has diarrhoea the most important thing is liquid. If she is not eating very much we must especially make sure she gets enough micronutrients.

c) The manager has a sedentary job and if he spends a lot of time at his desk he shouldn't eat too much fat and carbohydrates. Other than that, he needs all kinds of food.

d) This man is using up a lot of energy, which needs to be renewed with energy-giving foods (cereals, potatoes, fats and oils).

e) The baby needs a diet rich in all nutrients. Breastmilk is the best food he can get and he should be fed at least four or five times a day.

f) A pregnant woman has to eat for two, since her unborn child is growing all the time. She needs a diet rich in all nutrients, and more food than usual.

KEY TO ACTIVITIES *contd.*

ACTIVITY 7 *Good and bad diets for schoolchildren*

A		Plenty of animal protein, but not enough fruit and vegetables; only one kind of cereal.
B		A good diet, with plenty of fruit and vegetables, fibre, grains, carbohydrate protein.
C		Needs much more variety, and some snacks to keep going.
D		An urban child? This diet badly lacks fruit and vegetables and has too much sweet food.
E		Needs more variety, more fruit and vegetables, and a good midday meal.

PREPARATORY UNIT 2

MALNUTRITION AND ITS CAUSES

CONTENTS

WHAT YOU NEED

People	Ask a nutritionist or health worker knowledgeable in nutrition to run this session or to sit in as an adviser. School Health Service personnel would be particularly welcome as well.
Information	Your own experience of local children's behaviour.
Course documents	The poster from Preparatory Unit 1 should be on display.
Equipment	A large flipchart sheet to make a poster, and coloured marker pens.

N.B. As far as possible, adapt the content of this unit to the local situation, substituting local foods and food practices.

ACTIVITY 1

TERMINOLOGY

20 minutes

Start by getting the vocabulary right. Here are some of the terms used when talking about malnutrition:

- Undernutrition
- Malnutrition
- Overnutrition
- Hunger
- Protein-energy malnutrition
- Micronutrient
- Deficiency

1. Discuss the differences between them.

- Which is the most general term? Which other terms are covered by it?
- Which terms are the result of specific lacks in the diet?
- Which terms have to do with quantity?
- Which is the most subjective term?

2. Check your ideas on the page of POSTER MATERIALS at the end of the unit.

PREPARATORY UNIT 2

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ACTIVITY 2

EFFECTS OF MALNUTRITION

15 minutes

How do doctors recognize different kinds of malnutrition? What are the warning signs?

In the table below are some of the commonest forms of malnutrition.

- What effect do you think they have on the body?
- How do they affect learning behaviour – how would you recognize them in school?

1. Discuss and make notes on the table – the first row has already been filled in.

2. Compare your answers with Table 8, *Conditions of malnutrition and their effects on learning* in the Reader, Preparatory Unit 2, page 48, or with the shortened table in the POSTER MATERIAL at the end of the unit.

Condition	Clinical signs	Effects on education
Protein-energy malnutrition (PEM) Lack of food energy, protein and other nutrients	*low weight for height, low height for age*	*Tired, listless, inattentive, restless, irritable, poor memory*
Short-term hunger Long gaps between meals temporarily reduce the body's energy supply		
Anaemia (iron deficiency)		
Vitamin A deficiency (VAD)		
Iodine deficiency		
Vitamin B deficiency		
Overweight/obesity		
Parasites, especially worm infections		

ACTIVITY 3

RECOGNIZING SIGNS

40 minutes

Let's apply this theoretical knowledge to some cases.

1. **Before starting**, discuss these questions:

- Is expert diagnosis a teacher's job?
- Is it a teacher's job to be aware of children's health problems?
- Are there any problems of recognizing symptoms of malnutrition in class?
- What do teachers normally do if children are not paying attention?

2. **The signs** – Sometimes malnutrition is not easy to recognize. Read the three case reports on the next page and underline the signs and symptoms which sent alarm signals to the teachers concerned. You may like to form groups of three, divide the three cases among you, read one each, then come back together and report on them.

3. **Categorizing the signs** – Recognizing the signs sometimes requires detective work. Apart from physical signs, learning difficulties and behavioural factors can also be strong indicators. Put the signs and symptoms you underlined into the categories below. Add any others from your own experience which you think are important.

4. **Check your answers** in the Key to Activity 3(3).

Signs of malnutrition

Physical signs	Learning signs	Other behavioural signs
e.g. *walks slowly*		

ACTIVITY 3 *contd.*

5. **Guessing causes** – A proper diagnosis is a job for professionals; the best you can do is make a good guess. Look again at Table 8, *Conditions of malnutrition and their effects on learning* (Reader, Preparatory Unit 2, p.48) or in the Poster Material, and re-consider the cases of A, E and J. What do you think are the physiological causes of their problems? Check with the Key to Activity 3(5).

6. **Own cases** – (Optional) If you can supply a case history of your own, narrate it to the others, or record it or write it down. If your group has rich experience, discuss how it can be used. For example, it might be valuable to make a collection of case histories for discussion with the health services or with the PTA, or for teacher training and development. (If you do this make sure that you use false names so that the identities of the children concerned are protected. It is often a social disgrace to be regarded as malnourished.)

A CASE STUDY

The original names of these three children were Amos, Edith and Joshua. Before you start reading the case studies, substitute names which are familiar to you.

Case 1

'A' is always tired at school. He hates learning because he does not understand what the teacher is saying – he would much rather be outside, lying under a tree.

'A' never eats before he leaves for school at seven in the morning. He never has time, because he likes to sleep late. He has a five-kilometre walk to school and hurries so as not to be late. He only drinks water at school; he does not take anything to eat with him. By the time he gets home in the afternoon he is very hungry. However, he does not look sick or underweight and he doesn't miss lessons.

His teacher was concerned about him and suspected that he might not have proper eating habits. She thought it was worth investigating and so paid the family a visit one Saturday afternoon to discuss the problem with his mother.

Case 2

'E' is twelve and has lived with her aunt since her mother died four years ago. She has two sisters, and her aunt has three children of her own – so the house is crowded and there is a lot of work to do. Since she is the eldest girl she started school later than the other children in her class, because she had to help her aunt and uncle with the household and other children.

'E' misses school lessons regularly and has skipped ten days of lessons in the last six weeks. The school doctor told E's teacher last week that she isn't growing properly and is underweight. Her stepfather says she should stay at home and help her aunt but her aunt wants her to have some schooling, and so far has had her way.

Sometimes when food is short E and her brothers have to ask the neighbours for food, but they seldom go without a meal. There isn't much variety – fish soup (which she hates!) bread, and sometimes maize. When she comes to school she looks tired and can be irritable and aggressive with the other children. She never does her homework because she says she doesn't have time. She doesn't seem to be able to concentrate in class either, or follow the lessons.

Her teacher is worried because she is falling behind the other children in her class, especially in the literacy programme. The teacher also noticed that E's throat is swollen, although the doctor said nothing of any other problems.

Case 3

'J' is eight years old and finds it difficult to follow lessons. He is a shy child and sits at the back of the class, which contains 40 pupils. He can't write the things the teacher puts on the blackboard because he can't see them well. He is the oldest in his class.

The teacher noticed he had difficulty reading and that he never wrote anything in his book. He also seemed to be reluctant to play with other children – especially outside games – and was often unhappy.

The teacher spoke to the doctor who came to see the child. The doctor tested J's eyes and found that he couldn't see well. He asked if 'J' ate fruit, or yellow, orange and green fruit and vegetables, but 'J' felt shy and didn't answer clearly.

ACTIVITY 4

REFORMING 'A'

15 minutes

(Optional)

Can some problems be solved easily? Read the conclusion of Case 1 which describes a solution found for A's poor dietary habits.

'A' is a boy. Give him an appropriate name before you start.

Case 1: Conclusion

The teacher told A's mother that 'A' was always tired at school and was not learning very well. They discussed the importance of a good education. Together they decided on a way to help 'A'. he was given the responsibility of putting some food aside, covered, in a clean place for his breakfast the following day. He could choose to eat this at home with some tea, or on his way to school. His mother also agreed to put some leftover food from the evening meal into a clean container for him to take with him to eat at school.

At first 'A' was not very enthusiastic about getting up earlier to eat breakfast and having to carry a lunchbox with him to school. He thought that the heavier school bag would make him even more tired than usual.

After a few days of this arrangement he was surprised to notice that he was no longer tired during classes, and that what the teacher had to say was actually rather interesting. In fact, after a few weeks, 'A' decided that he quite liked school after all. After a few more weeks he decided that getting up a few minutes earlier each morning in order to eat breakfast was fine, and that he really looked forward to going to school. The year progressed and the teacher was happy to report to A's mother that 'A' was managing much better at school. At the end of the year, 'A' even received a prize – as the student who had improved the most.

This case was chosen to demonstrate how a child can be empowered to improve his or her situation. How realistic do you think it is?

ACTIVITY 5

WHAT'S WRONG WITH 'E'?

40 minutes

A role-play (Optional)

('E' is a girl – give her an appropriate name before you start.)

A child's behaviour at school can be an alarm signal to teachers – especially when obvious physical signs of disease or malnutrition are not evident. The first aim of this role-play is to help you to observe and understand the social complexity surrounding the case of a malnourished child and her achievement at school.

But what kind of action is possible? The second aim is to help participants recognize the importance of different players in understanding and dealing with the problem. There is no single solution to the role-play, and a certain amount of unpredictability is part and parcel of the activity. The comments on the role-play are as important as the role-play itself.

To make sure that all the groups finish at the same time and can share their reactions, set time-limits to the role-play (15 minutes) and to writing up comments (10 minutes).

How to do the role-play

It is Saturday. The teacher pays a visit to E's family.

1. Divide into groups of four.

2. The group re-reads Case 2 in ACTIVITY 3 to understand the background.

3. Each member of the group chooses one of these roles and gives the person a name:

- 'E' (a 12-year-old schoolgirl)
- E's school teacher
- E's aunt
- E's uncle

4. Each "character" reads his/her role card, below, twice (don't read the other cards).

5. Decide yourselves how to begin!

When you have finished the activity make a few notes as a group in the "Observations" box on the next page, then share your conclusions with other groups.

ACTIVITY 5 *contd.*

Role card 1: E's teacher
You are worried about 'E' – a 12-year-old girl in your class of mainly 10–11 year olds. She never does her homework and when asked why, she says she has no time. You think she is a bright girl with potential, but you have seen her be aggressive and unfriendly to other children in her class. The letter you sent back with her two weeks ago received no reply. The school doctor says she isn't growing as she should be and is a little underweight. You have also noticed that she has a swollen throat. You are going to visit the family because you want to see if they are aware of these problems, or know where to seek help. You would also like to learn a little about her home life. The doctor says she is underweight. Is she eating properly? Perhaps you can help or give some advice to E and her family.

Role card 2: 'E' – the child
You don't like school very much because the other children are younger than you. You work a lot to help your aunt and you usually help your uncle in the field – you never have time to do your homework and your aunt never asks you about it. You don't like fish soup, which your aunt makes sometimes, and you try to eat other foods – you're a bit thinner than you were six months ago and you often feel tired during the day. You lost the letter your teacher gave you for your aunt and uncle, and anyway, you forgot all about it.

Role card 3: E's aunt
Your niece 'E' is a good girl; she is very helpful with the housework and with looking after the other children. You want her to go to school so that she can get a job in adult life and earn her own living. Your husband has other ideas – about an early marriage with another farmer – but you think 'E' is a bright girl and could make something better of her life. You have noticed that your niece has been a bit irritable recently, and thinner too. She never eats fish when you make it – even though fish is a rare and special treat. This upsets you. Why is she becoming so difficult? She eats maize and rice and she likes soybeans. You're glad to see the teacher because you have had no news about E's progress, and you want to know what you can do to help her. You also have other pre-school children.

Role card 4: E's uncle
When your wife's sister died you were worried about looking after her three orphaned daughters. You have grown fond of the kids, but you struggle to make ends meet. Occasionally you have to ask the neighbours for help. You have a little plot for maize, and you fish now and then in the river, but there aren't many fish these days. When you do catch one your wife makes a special fish soup for the family. However, there's always a fuss with 'E' – she won't eat it! You sell some produce to the local market but keep most for the family. E is a good girl and helps you in the fields when you need it. You think she should marry soon and your friend's son is looking for a bride. Your wife has some modern ideas and wants her to go to school and get a good job. Sometimes you argue with her over this – but nothing serious. You would like to know what E's teacher thinks of her chances. You picked up a letter for your wife from the school about ten days ago. You put it in your pocket but forgot all about it.

Observations after the role-play activity:

Dealing with a malnourished child

ACTIVITY 6

THE CAUSES OF MALNUTRITION

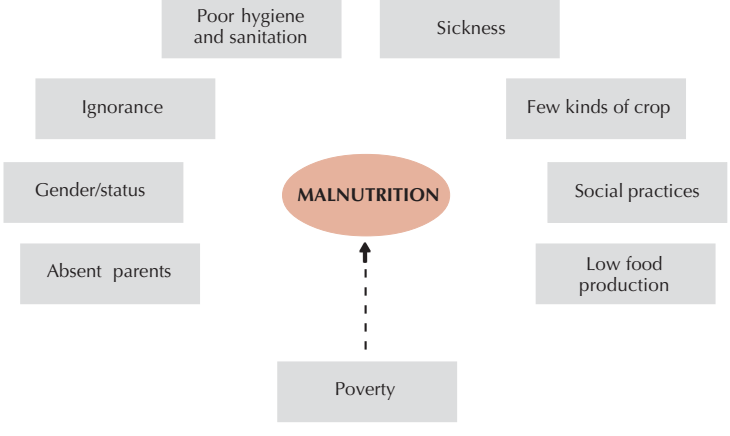
30 minutes

People often think that malnutrition is caused by lack of food *due to poverty* – see the arrow on the diagram below. Indeed, this is one of the main causes. But malnutrition is part of a whole web of interacting forces.

a) Look at the diagram below. Discuss the connections between the various factors and draw arrows between them.

b) Come together and explain the connections you have made. Draw the diagram large on a flipchart sheet and collect and explain all the connections.

c) Look at the discussion in the Reader Preparatory Unit 2, Part C, CAUSES OF MALNUTRITION, and add to your diagram. You may want to get someone to read it out as you check your picture.



ACTIVITY 7

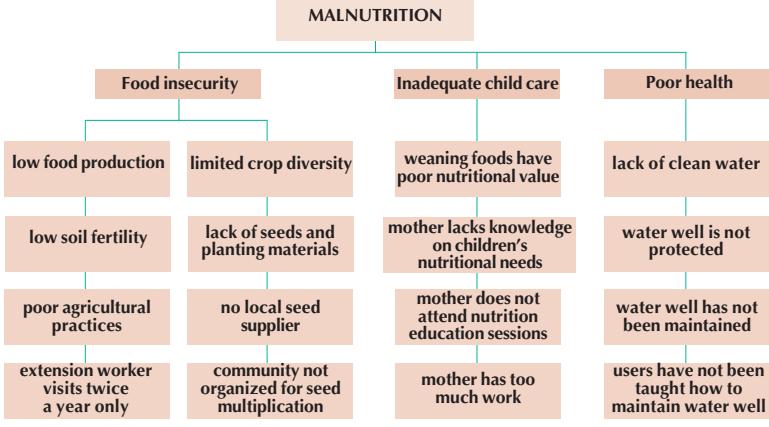
THE ROLE OF EDUCATION

30minutes

In the picture you have drawn above, what could be the role of education?

1. Look at each point on the "malnutrition web" in Activity 6, one by one. Brainstorm the ways in which education may have an effect at each point. Note down your ideas below, then share them.

2. Trace the cause and effect connections in the figure below, showing causes of malnutrition. Is there anything in common with your country's situation? Where could education play a role? Add to your list of ideas above.



ACTIVITY 8

SUMMING UP

POSTER

Recording information

On the next page is poster material which summarizes the main points and ideas of this unit. This should be enlarged and displayed throughout the curriculum planning exercise. It can be photocopied, or copied onto a large sheet of flipchart paper.

Presenting information

If you are in a group divide the tasks below between you and prepare them for five minutes. Then make short presentations to the whole group for each task (not more than five minutes each). Keep strictly to the time limit. The audience should correct and comment as necessary.

If you are working on these preparatory units alone, work through the tasks one by one and answer the questions, referring to the Reader, the Activities and the Poster Material as necessary.

TASKS

a) Explain the terms *malnutrition, overnutrition, undernutrition, protein-energy malnutrition, micronutrient deficiency, hunger.*

b) "Malnutrition is caused by poverty." Is this true? Explain.

c) "The answer to malnutrition is simple – more food." Explain why this is not quite true.

d) What are the warning signs that teachers should look for in the classroom?

e) Take one Key Message each, explain it and give as many examples as possible (one minute for each Key Message).

POSTER MATERIAL

MALNUTRITION AND ITS CAUSES

TERMINOLOGY

Malnutrition – health disorders due to too much or too little food energy or nutrients. Malnutrition includes *overnutrition* as well as *under-nutrition*.

Hunger is the subjective feeling caused by lack of food. It is sometimes used to refer to undernutrition in entire populations.

Undernutrition is a lack of food energy and nutrients. It can be divided into protein-energy malnutrition and micronutrient deficiencies. But in real life they generally go together.

FIGHTING MALNUTRITION

- Adequate income
- Sufficient, nutritious food
- Good health and sanitation
- Care and caregivers
- Knowledge and education

CONDITIONS OF MALNUTRITION AND THEIR EFFECTS ON LEARNING

Condition	Clinical signs	Effects on education
Protein-energy malnutrition (PEM) Lack of food energy and protein	*Mild:* low weight for height (wasting). *If chronic*: low height for age (stunting). *Severe* cases (*marasmus, kwashiorkor*) are not likely to be seen in the classroom.	Tired, listless, restless, irritable, poor attention, poor memory.
Short-term hunger *Dip in energy in long gaps between meals.*		Listless, inattentive, easily distracted.
Anaemia (iron deficiency)	Pale inner eyelid and beneath the nails. Most common in girls.	Tired, often breathless; problems with learning; often sick.
Vitamin A deficiency (VAD)	Night blindness and sometimes total blindness. Higher risk of infection. Measles and other infections make it worse.	Sees poorly in dim light; often sick and absent; doesn't do well at school.
Iodine deficiency	Goitre (swollen thyroid gland in the throat); slow growth and brain development; higher risk of infection.	Often sick; problems with learning and also with speaking (deaf-mutism).
Vitamin B deficiency	*Severe/chronic* weak muscles, paralysis, mental confusion, nervous disorders, digestive problems, cracked skin, severe anaemia, heart failure.	Clumsy (poor motor control); pain in legs; learning difficulties; frequent absences.
Obesity/overnutrition More food energy in than out	Fat and slow; high cholesterol and blood pressure; chronic diseases in adulthood.	Little interest and (at the worst) finds it hard to move around.
Parasites especially worm infections	Poor growth; diarrhoea and dehydration; nutrient deficiencies	Tired and weak; often absent.

MALNUTRITION AFFECTS LEARNING.
MALNUTRITION CAN BE DIFFICULT TO RECOGNIZE.
TEACHERS SHOULD RECOGNIZE WARNING SIGNS.
MALNUTRITION HAS MANY CAUSES.
EDUCATION CAN FIGHT MALNUTRITION.

KEY TO ACTIVITIES FOR PREPARATORY UNIT 2

▪ *ACTIVITY 3* *Recognizing the signs*

(3) Categorizing the signs

SIGNS OF MALNUTRITION

Physical signs	Learning signs	Other behavioural signs
walks slowly tired hungry underweight swollen throat poor eyesight	no concentration falling behind with work problems understanding problems reading and writing	absent often irritable aggressive skips homework shy unhappy doesn't want to play

(5) Guessing causes

- *A's problem* looks like short-term hunger, and may be quite easy to resolve.
- *E's problem* seems to include iodine deficiency, which can also be resolved quite easily. But there may be other micronutrients lacking, since she doesn't have a very varied diet.
- *J'* could be suffering from Vitamin A deficiency, but again there may be other forms of malnutrition.

PHASE A:
CONCEPTS AND PRINCIPLES

UNIT A1

HEALTH AND HEALTHY LIFESTYLE

CONTENTS

WHAT YOU NEED

People	Health workers and nutritionists could contribute a great deal to this session.
Information	Your own experience is all you need.
Equipment	A flipchart sheet to act as a poster, and coloured marker pens.

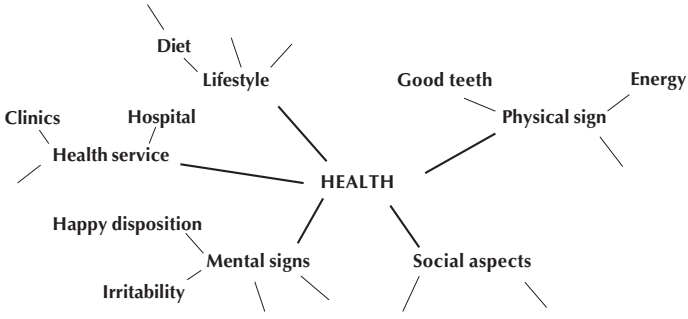
ACTIVITY 1

WHAT IS HEALTH?

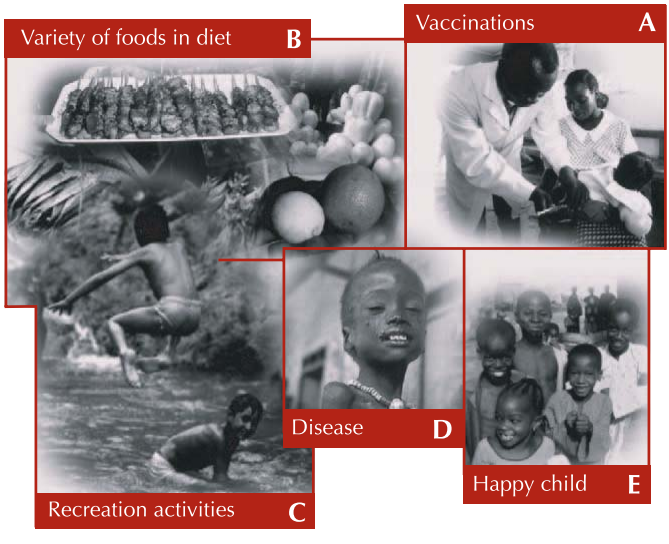
15 minutes

When you think of health, what first comes into your mind? What are the signs of health?

Write up the word HEALTH, brainstorm the question and collect a few ideas onto a spider diagram. Sort them as you go. For example:



Use the pictures below as a stimulus to add ideas.



ACTIVITY 2

A DEFINITION OF HEALTH

20 minutes

1. Discuss the reasons behind your choices in Activity 1. Do you agree that health involves social and mental aspects as well as physical?

2. Sum up your idea of good health in not more than 30 words in the space below. Make sure that you cover mental and social aspects, as well as physical. For example:

   For me health means a general feeling of well-being.

3. Bring your definitions together. Select the widest one and write it up, then read out the others. Add to and refine the first definition until you all agree. Keep it under 30 words.

4. Look at the WHO definition in the Reader, Unit A1, Figure 11, or in the display document CONCEPTS, PRINCIPLES and OBJECTIVES at the end of this unit.

5. Compare the WHO definition with your own. Are they essentially the same? Can they contribute anything to each other? Finalize your own definition of health.

6. Do you agree that social, psychological and physical factors interact? Can social problems make you physically ill? Can psychological illness lead to social problems? Can you give examples?

ACTIVITY 3

CONDITIONS FOR HEALTH

15 minutes

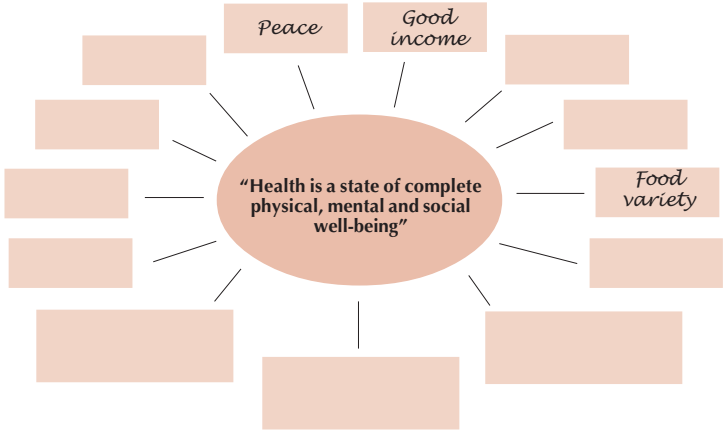
(Optional)

Health depends on many things and some of them are outside our personal control.

What are the essential factors for health in any society? For example, *peace* is essential. What other factors make an essential contribution?

Discuss and enter the essential conditions in the bubbles below.

Compare with Figure 9 in the Reader, Unit A1.



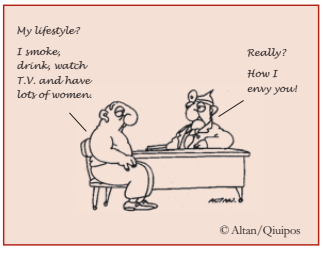
ACTIVITY 4

HEALTHY AND UNHEALTHY BEHAVIOUR

20 minutes

1. Think of what *behaviour* affects our health – both positive and negative behaviour. Remember the expanded concept of health – mental and social behaviour as well as physical.

   Add examples to the lists in the box below. Think not only of your own behaviour but of your friends and acquaintances, and your children.



2. Afterwards, pool your lists.

Positive behaviour	Negative behaviour
physical exercise	*smoking*
regular medical check-ups	*worrying/anxiety*

8. Look at what you have collected in the left-hand column.

   a) Would you agree that this *healthy behaviour* is one of the main targets of health education?

   b) Would you agree that if health education does *not* result in healthy behaviour, it has failed?

4. In the box is the beginning of a definition of a healthy lifestyle. Complete it.

Physical	*What we can do with our bodies to achieve well-being*
Mental	

5. Check the definition in the Reader, Unit A1, p.6.

HEALTH DEPENDS ON A HEALTHY LIFESTYLE.

ACTIVITY 5

THE HEALTHY LIFESTYLE GAME

(Optional)

30 minutes

The concept of a healthy lifestyle is well illustrated by the board game on the next two pages. The fact is that learning behaviour is very close to playing games! The game is adapted from a teaching manual on health education for developing countries. There is a board, with instructions, and a number of chance cards. Schools may be able to adapt the game for their own use.

If there is not enough time for this activity in your session, take a little time to look at it at home and consider if it would be suitable for your schools.

1. Examine the board game. What behaviours does it encourage concerning the individual? the family? the community? the environment?

Individual (mental and physical)	**Social** (family and community)	**Environmental**

2. How would you change some of the messages on the 'CHANCE' cards to match your local circumstances? Write three more in the space below. Don't forget to mention rewards or penalties.

a) .....

b) .....

c) .....

Game Instructions

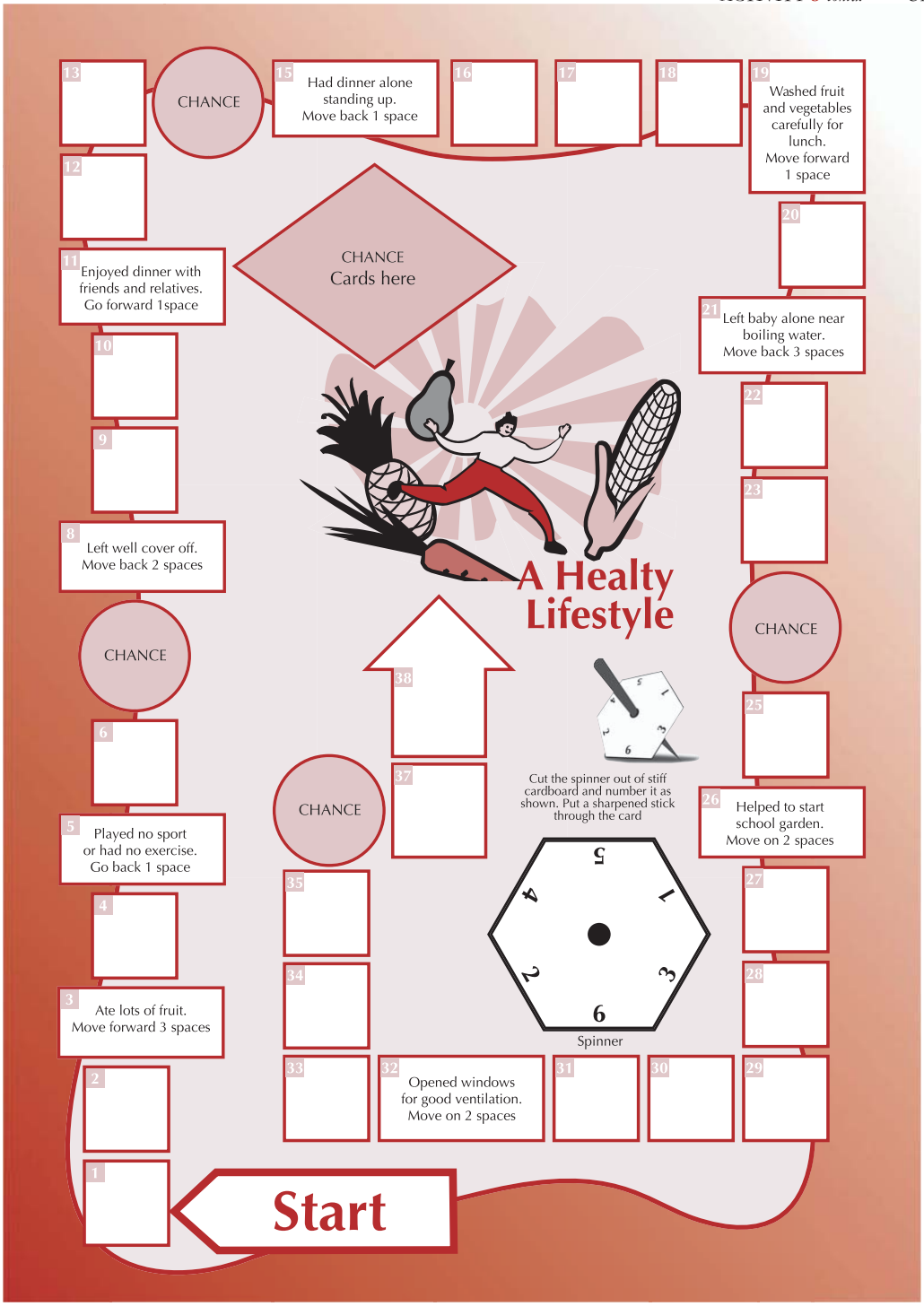
The board game on the next page is designed to highlight behaviours for a healthy lifestyle in a fun way for children.

With the board and a spinner, the class is divided into teams. Each team is asked a question on the same topic. When a team answers correctly, they use the spinner to determine how many spaces forward they move on the game board.

Some squares contain instructions to follow, involving either extra moves forward or penalty moves backwards. Other squares are marked CHANCE. When a team lands on one of these, they take a card from the pile of CHANCE cards and follow its instructions.

If a team cannot answer a particular question, or answers it incorrectly, the question passes to the next team.

The winners are the first to reach the 'healthy lifestyle' square on the board. You will find CHANCE cards on the page following the game board.


13
CHANCE
15 Had dinner alone standing up. Move back 1 space
16
17
18
19 Washed fruit and vegetables carefully for lunch. Move forward 1 space
20
12
CHANCE
Cards here
11 Enjoyed dinner with friends and relatives. Go forward 1space
21 Left baby alone near boiling water. Move back 3 spaces
10
22
9
23
8 Left well cover off. Move back 2 spaces
A Healty Lifestyle
CHANCE
CHANCE
38
25
6
37
Cut the spinner out of stiff cardboard and number it as shown. Put a sharpened stick through the card
CHANCE
26 Helped to start school garden. Move on 2 spaces
5 Played no sport or had no exercise. Go back 1 space
35
27
4
34
28
3 Ate lots of fruit. Move forward 3 spaces
Spinner
33
32 Opened windows for good ventilation. Move on 2 spaces
31
30
29
2
1
Start

ACTIVITY 5 *contd.*

CHANCE CARD You throw a dead cat into the lake. Miss 2 turns.	**CHANCE CARD** You write a short play for the school fair to show people how diseases can be spread by flies. Move forward 2 spaces.	**CHANCE CARD** You prepare a cake for your neighbour's daughter's birthday. Move forward 1 space.
CHANCE CARD You let a dog lick food from your plate at lunch. Lose 2 turns.	**CHANCE CARD** You have helped your father and other villagers fill the cracks in the inside walls on your home and neighbours' and whitewash them. Move forward 2 spaces	**CHANCE CARD** You went with your classmate to see the doctor who came to your school. Move forward 2 spaces.
CHANCE CARD You forgot to clean your family's water container. Move back 2 spaces.	**CHANCE CARD** Your teacher doesn't wash his hands before lunch! You don't say anything. Lose 2 turns.	**CHANCE CARD** You help serve food at the local orphanage. You always try to smile and be friendly with the kids there. Move forward 2 spaces.
CHANCE CARD You explain to the man selling chicken at the market why he must keep the flies off the meat. Move forward 1 space.	**CHANCE CARD** Your teacher has started a nutrition programme in your school; you want to do well in this course. Move forward 2 spaces.	**CHANCE CARD** You are caught urinating in the river. Lose your next turn.
CHANCE CARD You are caught urinating in the river. Lose your next turn.	**CHANCE CARD** You have been congratulated by the community worker for helping to build a new latrine for your home. Move forward 2 spaces.	**CHANCE CARD** You prepare some nutrition posters with your classmates to show villagers how to store food safely. Move forward 2 spaces.
CHANCE CARD You learn a good recipe at school and offer to cook it for family and friends. Move forward 1 space.	**CHANCE CARD** You refuse to eat the green vegetables your mother prepares for you. Move back 2 spaces.	**CHANCE CARD** You keep arriving late for dinner. Lose a turn.
CHANCE CARD You start a fire in a farmer's corn field. Move back 2 spaces.	**CHANCE CARD** You don't wash your hands before helping your mother prepare the dinner. Lose a turn.	**CHANCE CARD** You help your father recycle food leftovers to make a compost heap. Move forward 1 space.
CHANCE CARD	**CHANCE CARD**	**CHANCE CARD**

ACTIVITY 6

FOOD AND HEALTH MESSAGES

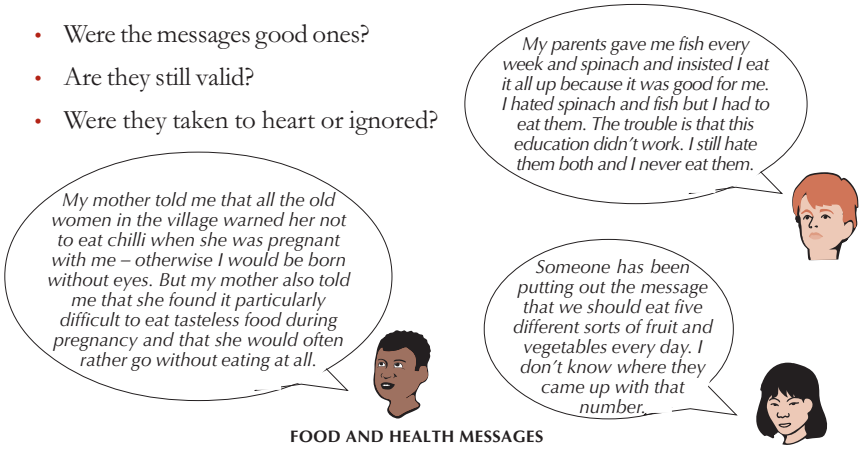
15 minutes

In our daily lives, we all recognize that *nutrition education is lifestyle learning*. Giving advice and instruction about eating and drinking behaviour is one of mankind's favourite activities.

What messages about healthy eating and drinking have you received from other people? What messages have you yourself given to others?

1. Think of some messages you have given or received about a few of the items below.

- Were the messages good ones?
- Are they still valid?
- Were they taken to heart or ignored?



FOOD AND HEALTH MESSAGES

Topic	Example
Food and growth	*Don't skip meals. Eat regularly.*
Eating habits	*Don't eat so quickly. Have sit-down meals with the family.*
Food and health	.....
Commercial products	.....
Shopping	.....
Keeping food	.....
Preparing food	.....
Food and hygiene	.....
Teeth	.....
Water	.....

2. Would you agree that these messages are a kind of popular nutrition education?

3. Would you agree that they are aiming at lifestyle learning?

NUTRITION EDUCATION IS LIFESTYLE LEARNING

WHAT DO YOU DRINK AND WHY?

Where do our eating behaviours come from? How are they created, maintained and strengthened? How important are they to individuals, and how hard are they to change?

1. In plenary session, read the bubbles and discuss what motives are influencing these people.

2. What do you personally drink in the morning, and why? Go round the group, collect the reasons for your behaviour (you may each have more than one) and try to classify them.

Name	Drink	Reasons
.		

3. Check your reasons against the bubble chart *Influences on food behaviour* in the Reader, Unit A1, Figure 10. Can you identify all your reasons on the chart?
4. Would it be easy to change your habits and preferences? Why? Why not? Discuss.
5. In conclusion, would you agree that:

- many factors contribute to people's eating and drinking behaviour?
- it may be difficult to change eating and drinking behaviour?

LIFESTYLE LEARNING HAS MANY SOURCES.

ACTIVITY 8

WHAT CREATES FOOD BEHAVIOUR?

30 minutes

(Optional)

What are the most powerful influences on food behaviour?

1. Choose a few pieces of behaviour from the list below for each pair/group. Discuss and record the influences which create and reinforce it. Think of the general public rather than your own social group. Use the bubble chart *Influences on food behaviour* (Reader, Figure 10) as a checklist.

2. To feed back from groups, draw a rough sketch of the bubble chart on a flipchart. Group reporters circle the causes and motives on this main poster each time they mention them, so as to build up a picture of those which are most frequent.

3. What appear to be the main motivations for food behaviour? Does the marked-up bubble chart give a realistic picture?

Food behaviour	Influences which create and reinforce it
Eating a lot of fresh fruit and vegetables.	
Eating meals at a particular time.	
Trying an attractive looking dish.	
Eating a lot of fast food.	
Having a particular kind of food at a festival.	
Avoiding a lot of animal protein.	
Eating a particular kind of staple food	
(e.g. rice, maize, potatoes).	
Eating regularly with other people.	
Cooking a particular dish for visitors.	
Refusing to eat a particular kind of food.	
Drinking a heavily-advertised drink.	
Eating chocolate or some other favourite sweet.	

ACTIVITY 9

THE GOALS AND OBJECTIVES OF NUTRITION EDUCATION

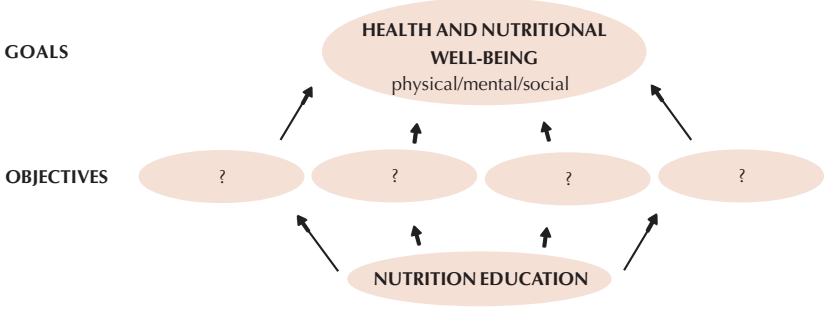
20 minutes

It is time to define goals and objectives more precisely.

1. Do a little brainstorming on the objectives of nutrition education.

- The goals are health and nutritional well-being.
- The objectives should lead to these goals.
- Nutrition education should assist in achieving the objectives.

What would you say the objectives are? What do we want to achieve? Discuss and fill in the bubbles with the question mark.



2. Compare your conclusions.

3. Compare your conclusions with the diagram in the Reader, Unit A1, Figure 11, or with the objectives in the display document CONCEPTS, PRINCIPLES AND OBJECTIVES at the end of this unit. Discuss the differences and come to any compromises you think are important.

ACTIVITY 10

KNOWLEDGE AND BEHAVIOUR

20 minutes

Nutrition education is concerned with physical behaviour and social action as well as with knowledge and understanding. What are the effects of dealing with these separately, rather than integrating them?

Here are three cases. In each case the school has to decide what is the best thing to do. Divide them between you, discuss them and decide:

- what are the strengths and weaknesses of each course of action;
- what action (or combination of actions) you would recommend;
- how these actions relate to the objectives of nutrition education developed in Activity 9.

Then come together to report. Comments to aid you are in the Key.

Case A
Many of the children suffer from mild Vitamin A deficiency and frequently fall ill because their bodies are not well protected against infections. Donors are ready to help. There are cheap foods rich in Vitamin A in the district, but the children don't eat them. What is the best thing to do?

a) Start a programme of Vitamin A supplementation and make pills available to all children. The school will help the children learn to take the pills themselves.

b) Persuade the school feeding programme to increase Vitamin A rich foods in the menu.

c) Persuade children/families to seek out available Vitamin A foods and build them into their diet.

d) Give three lessons a year to all school years on "food for health", about which foods are particularly valuable in protecting against disease.

Case B
Diarrhoea-related diseases are rife in the area. They are picked up when children go swimming in polluted water, or wash their hands in dirty water, or forget to wash them. What should we do?

a) Teach children in their science classes about bacteria and how they spread disease.

b) Teach children to purify drinking water by boiling or chlorinating.

c) Make rules about where to swim and when to wash hands and make sure they are enforced.

d) Take children to the river and ask them to explain where one should swim and why.

ACTIVITY 10 *contd.*

Case C

Food vendors come into the school playground at break time. A lot of the snacks they sell are unwrapped and attract flies. What action should the school take?

a) Allow only vendors with hygienic products to enter the school grounds.

b) Make a rule that children must only buy from certain vendors with hygienic products.

c) Give two lessons every year about vendors and snacks – calling on the children's knowledge – to discuss the risks, and role-play the transactions between vendors and children.

d) Provide healthy snacks for the children.

ACTIVITY 11

SUMMING UP

30 minutes

The purpose here is to establish consensus on the concepts and principles discussed in the unit, and to display them for future reference. This will be the first document in an ongoing display of objectives, principles, needs and action plans which will be built up through the workshop (see the Display Diagram on the back of the Activities booklet).

On the next page, in the document PRINCIPLES, GOALS AND OBJECTIVES, are the WHO definition of health, the definition of nutrition literacy, the key messages, and the goals and objectives of nutrition education.

Start the display – Copy each box from the next page onto a single piece of paper and stick them up side by side where everyone can see them clearly. Make a long strip, as in the diagram below. Leave plenty of space below it for further documents.

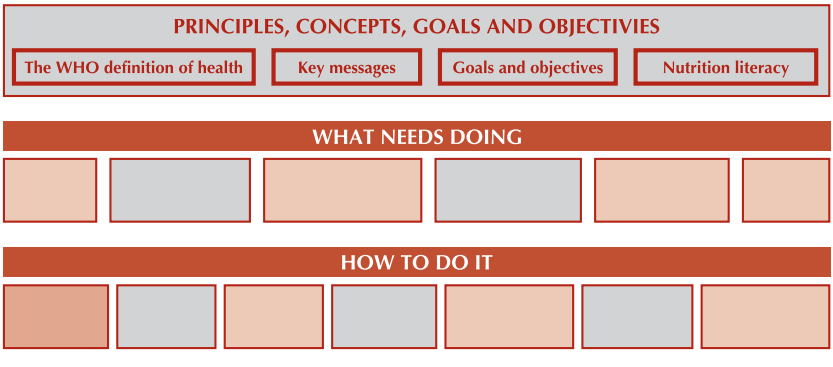
Prepare to present – One or two volunteers "adopt" each item and prepare to present them – that is, they elaborate on the message or diagram, saying what it means and giving examples if possible. Set a time limit of five minutes for each presentation.

Presentations – The presenters present their items. The meeting should:

- say if it agrees on the meaning as presented;
- say if it endorses the message fully or would like to modify it;
- write in any important qualifications, modifications or comments on the displayed documents.

Display – The principles and objectives should be on display at every session. a

DISPLAY DIAGRAM



DISPLAY DOCUMENT

THE WHO DEFINITION OF HEALTH

"… health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

WHO Ottawa Charter (1986)
(or use your adapted version)

KEY MESSAGES

HEALTH IS PHYSICAL, MENTAL AND SOCIAL WELL-BEING.

HEALTH DEPENDS ON A HEALTHY LIFESTYLE.

HEALTHY EATING IS PART OF A HEALTHY LIFESTYLE.

NUTRITION EDUCATION IS LIFESTYLE LEARNING.

LIFESTYLE LEARNING HAS MANY SOURCES.

GOALS AND OBJECTIVES

Goal: Health and nutritional well-being
Objectives: Healthy eating, nutrition literacy

A PERSON WHO IS NUTRITION-LITERATE …

- can apply nutrition principles to his/her own situation and can make informed and critical decisions about food and eating habits;
- is able to influence others (e.g. siblings, peers and own children);
- is able to see the implications of his/her food choices and eating habits on the environment, and can protect and change the environment.

KEY TO ACTIVITIES FOR UNIT A1

ACTIVITY 10 *Knowledge and behaviour*

Nutrition education objectives aim at both behaviour and understanding. Nevertheless, these are quite different kinds of target. This difference is illustrated in the following examples.

Case A

a) If the children learn to take the pills, this would be quick and effective. If a donor offered them, we could not say "no". But it is only a temporary solution: we can't go on giving pills for ever.

b) This is a "food solution", which is good, and it may develop in the children a taste for the right sort of food. Our first nutrition objective will be partly achieved. But there is no guarantee that children will continue to eat these foods out of school, or when they leave school.

c) This too is a "food solution" and if it is successful it will create good long-term habits. It contributes directly to the first NE objective of healthy eating. Moreover, health would be in the hands of its owners, not in the gift of the donors.

d) The lessons on their own would not have much impact if it meant changing existing food practices. The lessons need to be linked with what is actually done, and what needs to be done (for example, "c"). If children know why they are changing their food habits, they will be able to teach their own children. The problem of VAD will be solved – not only for this generation, but also the next.

Case B

a) Children certainly need to know about bacteria. But they can learn lessons and pass exams with top marks and *still* forget to wash their hands! Lessons learned in school are often not applied.

b) This is an essential routine where water supplies are not safe. It won't in itself lead to understanding, but it will meet the first objective of nutrition education – healthy eating practices.

c) This will protect the children (if it works), but not educate them.

d) This only concerns swimming, but it is a step in the right direction. It tries to look at what children actually *do* and help them to make the connection between knowledge and action.

Case C

a) The children are better protected on the school premises – but not outside.

b) If they obey the rule, the children are now less at risk – however, they still do not know why.

KEY TO ACTIVITIES *contd.*

c) A lesson about this in class would set standards in children's minds, turn the school vendors into a constant reminder, and make children think twice before buying from other vendors. The school should realize that its own environment is one of the best "readers" it has, but it needs to be "read".

d) A good idea, but limited. If the children were involved in deciding what snacks to sell and in preparing and selling them, this could really lead to "nutrition literacy".

UNIT A2

A GOOD NUTRITION EDUCATION CURRICULUM (1): THE TRIPARTITE APPROACH

CONTENTS

WHAT YOU NEED

People	All interested parties.
Information	General knowledge and experience of schools and curricula.
Course documents	Single photocopies of the *Links with the Family, Links with the Community* and *Objectives for the School Environment.* As shown at the end of this unit.
Equipment	Coloured pens or highlighter pens.

ACTIVITY 1

IDEAS ABOUT NUTRITION EDUCATION

15 minutes

In the table below are twelve ideas about nutrition education which will be discussed in this unit and the next. At the end of the two units we will revisit them, to see if your opinions have changed or been clarified.

Where do you stand on each point? Come to some provisional conclusions. Do this individually, without consulting the rest of the group.

If you strongly agree, tick the box in Column B. If not, express your reservations in Column C.

A Statement	**B Strongly agree** "yes, definitely"	**C Partly agree** "yes, but …"
1. Nutrition education should lead children to a healthier lifestyle.		
2. A lot of useful learning about healthy eating can be done in the classroom.		
3. Nutrition education should involve families more than other school subjects.		
4. Nutrition education should establish links with the community – more than other school subjects.		
5. Nutrition education should be concerned with the school's physical environment and the non-teaching staff.		
6. Nutrition education is very wide ranging - e.g. it must deal with feelings, social-life, life skills, the media ...		
7. Nutrition should be taught in all years of the primary school.		
8. Nutrition education topics should be recycled and built on from year to year.		
9. Nutrition should be taught in different ways at different ages.		
10. Nutrition should be taught in all school subjects.		
11. Nutrition education deserves its own place in the timetable.		
12. Nutrition education has more local relevance than other school subjects.		

ACTIVITY 2

THE TRIPARTITE APPROACH

30 minutes

1. **Sources of nutrition education**
   Children learn about nutrition and eating from many sources. Some of them are set out in *Sources of learning about nutrition* – Reader, Unit A2, Figure 12.

a) Look at the diagram in the Reader. Think of one or two concrete examples of how each source influences children's ideas, knowledge or behaviour about nutrition and eating. For example:

- the media – the TV may show glamorous people eating certain foods
- agricultural practices – children may learn how to grow crops themselves, but may also get the idea that there are no alternatives to what is grown locally.

Don't spend long on this. The idea is only to appreciate how many influences there are on children.

b) In which of these areas can schools influence children's learning most?

2. **Activities**
   Here are some examples of school activities to do with nutrition.

Discuss which you think are the most important *for nutrition education* and why. Give them one tick (✓) if they are important and two ticks (✓✓) if you think they are very important.

Do this individually, and quite quickly. Come together and explain your decisions.

Activity	Tick ✓
a. Setting up a school garden	
b. Discussing with parents their role in nutrition education	
c. Training school staff to promote good eating habits	
d. Taking a class on a field trip	
e. Having a class discussion about how plants grow	
f. Organizing a school nutrition committee	
g. Inviting speakers and sponsors to come and speak at your school	
h. Inviting parents to come in to school to discuss meal preparation	
i. Organizing a project on how local vegetables are grown	
j. Recommending improvements to school meals	

ACTIVITY 2 *contd.*

3. **Three curriculum areas**
   It is suggested that the nutrition education curriculum should work in all three areas – the classroom, the family and community, and the school environment.

a) Look back at the activities in (2). Do they involve the classroom curriculum, the school environment or the local community? Check in the Key if necessary.

b) Which of the three areas did you prioritize with your double ticks?

c) What are your initial feelings about this extended curriculum for nutrition education? Essential? Desirable? Good but unworkable? An interesting extra? Unnecessary?

ACTIVITY 3

LINKS WITH THE FAMILY

30 minutes

It is suggested that nutrition education, more than other school subjects, needs to involve the family.

How practical is this? How necessary?

> *"Relationships with families vary so much. In one school parents come to the classes and the teachers are glad to have them there. There's another school where the parents make all the school meals. But I also heard of one school which locked the parents out!"*
>
> National PTA representative

1. Suggested objectives for links between school and family are set out below. Divide them between you and discuss these questions:

- What does each objective mean in concrete, practical terms?
- Which ones are particularly important for nutrition education – and why?

Make some notes.

2. Compare your conclusions. Also review the comments in the Reader, Unit A2, chapter B *Links with families and communities*.

3. Make a copy of the document LINKS WITH THE FAMILY, as shown at the end of this unit. Mark on it the objectives you think are particularly important and any important points that have arisen in your discussion. Keep this marked document for the final display at the end of this unit. It will be needed in the rest of the workshop.

ACTIVITY 4

LINKS WITH THE COMMUNITY

30 minutes

How important is the community for nutrition education in schools?
The proposed objectives for links between school and community are set out at the back of this unit. What could these links contribute to nutrition education in schools? How valuable would these contributions be,and why?

"Round here most people grow tomatoes. In autumn they conserve them for home use – as tomato paste, or dried in bunches. There's quite a lot involved in doing this, and all the old people know it, but not the young ones. So we have three "tomato lessons" every year: we go out to watch the old people do it, and they come to the school. We finish up with tomato soup made from last year's tomatoes."

1. Divide the objectives between you and spend five minutes discussing the possibilities.

2. Come together to pool your conclusions and compare them. Also review the comments in this unit in the Reader regarding links with the community.

3. Copy the display document LINKS WITH THE COMMUNITY: OBJECTIVES on the next page. Mark on it the objectives your group thinks particularly important and any important points that have arisen in the discussion. Keep this marked document for the final display at the end of this unit. It will be needed in the rest of the workshop.

ACTIVITY 5

OBJECTIVES FOR THE SCHOOL ENVIRONMENT

30 minutes

A healthy school environment (or even the attempt to make it healthy) sends implicit messages to children, and can be used explicitly in the classroom.

"In our island some of the schools have a '4H club'. The four H's are Head, Heart, Hands, Health. The club is mostly organized by the children themselves. They have quite a lot of activities with food."

Look at the document OBJECTIVES FOR THE SCHOOL ENVIRONMENT at the end of the unit. It is divided into:

policy	whole-school activities
the physical environment	role models
eating in the school setting	involvement

1. Divide up these groups of objectives between you and look at the objectives under each heading. What would be the practical benefits of each objective? Make some notes below.

Objective	Benefit

2. Come together to share your conclusions. Also review the comments in this unit in the Reader regarding the school environment.

3. Make a copy of the document OBJECTIVES FOR THE SCHOOL ENVIRONMENT at the back of this unit. Mark on it the objectives that your group thinks are particularly important. Keep this marked document for the final display at the end of this unit. It too will be needed in the rest of the workshop.

ACTIVITY 6

SUMMING UP

15 minutes

Displaying the curriculum planning documents

The "display documents" you have looked at in this unit will be needed throughout the curriculum planning exercise. They should be posted up permanently (or re-displayed at every session) where everyone can see them and refer to them.

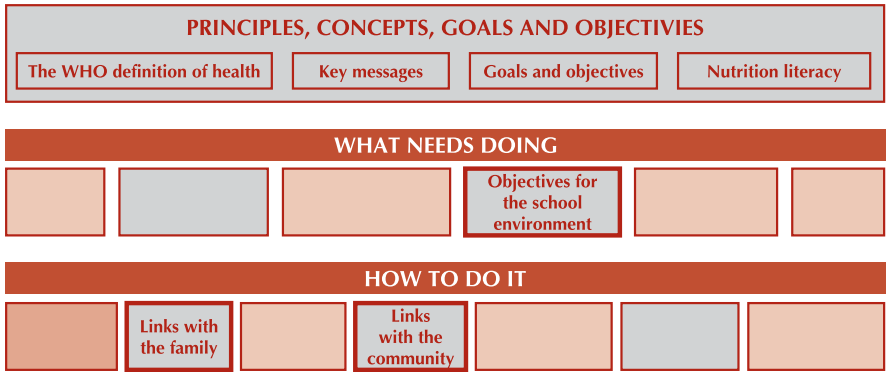
Display the three "Objectives" documents as set out below, underneath the PRINCIPLES, CONCEPTS, GOALS AND OBJECTIVES from Unit A1. These will be the core of the main display. Leave space between them and on both sides, as there will be more documents to come – see the Display Diagram on the back cover of the Activities booklet.

Presentation

Divide into three groups, one for each of the Objectives documents.

Each group prepares to explain their document briefly, saying which aspects are strongly endorsed by the group and why. Allow 5 minutes for each group. The audience should comment, correct, and so on. Aim to ensure that what is on display really represents the whole group's position.

DISPLAY DIAGRAM



DISPLAY DOCUMENT

LINKS WITH THE FAMILY: OBJECTIVES

1. Generally, to provide dynamic, positive and productive school/family links.
2. To support an active pta or similar structure.
3. To ensure that parents/families are aware of the school's nutrition education goals, policy and curriculum.
4. To raise parents'/families'/teachers' awareness of the family's role in nutrition education.
5. To encourage pupils to discuss and disseminate what they learn at school.
6. To involve parents/families directly in school nutrition education activities.
7. To ensure that parents/families' relevant knowledge, skills, practices and beliefs are explored.
8. To ensure that parents/families' relevant knowledge and skills are used.
9. To ensure that teachers and school staff are aware of the importance of parents/families in nutrition education.

DISPLAY DOCUMENT

LINKS WITH THE COMMUNITY: OBJECTIVES

1. Generally, to develop and establish dynamic, positive and productive school/community links.
2. To utilize the potential of community health services related to nutrition education (information, advice, materials, talks).
3. To make good use of government/local government services related to nutrition education (information, advice, materials and so on).
4. To involve non-governmental organizations in the school's nutrition education programme.
5. To involve traders, retail suppliers and other commercial organizations in practical nutrition education activities.
6. To use community media to promote school nutrition and health activities.
7. To ensure that teachers and school staff are aware of the importance of the community in nutrition education.
8. To enable the whole school to become well informed about local food and food practices.

DISPLAY DOCUMENT

OBJECTIVES FOR THE SCHOOL ENVIRONMENT

Policy

1. To formulate a school philosophy or concept of health and well-being.
2. To develop a school nutrition policy with aims, norms and rules, covering sanitation, personal hygiene, school meals and snacks (content, preparation, conduct, sales), school garden, litter and so on.
3. To promote in-service training in health and nutrition issues for all school staff, including non-teaching staff.
4. To ensure that the link between school philosophy, school policy and the classroom nutrition education curriculum is clear to all concerned, and that nutrition aspects of the school environment have a place in the education programme.

Physical environment

To create a pleasant and hygienic physical environment which carries healthy messages to the whole school.

Eating in the school setting

1. To ensure that food provided by the school makes a valuable contribution to the children's diet.
2. To make sure that other food on the premises is in line with the school's nutrition policy.
3. To ensure that all aspects of eating in the school setting have a place in the education programme.

Whole-school activities

To promote whole-school activities on nutrition themes (e.g. projects, campaigns, open days, exhibitions, extra-curricular activities such as clubs, sports and so on).

Role-models

To provide positive adult role-models as regards healthy eating and healthy lifestyle.

Involvement

To involve as many parties as possible, as actively as possible, in promoting the school not only as a healthy environment but also as an environment which carries healthy messages to children. parties to be considered are:

food vendors	cooks	cleaners	school administrators
secretaries	teachers	PTA	janitors/caretakers
head teachers	governors	pupils	school boards

KEY TO ACTIVITIES FOR UNIT A2

■ ACTIVITY 2/3 *The tripartite curriculum*

Activities involving the family and local community:	*b, d, f, g, h*
Activities involving the school environment:	*a, c, f, j*
Activities involving the classroom curriculum:	*e, g, i*

(We have included school staff in the school environment!)

UNIT A3

A GOOD NUTRITION EDUCATION CURRICULUM (2): THE CLASSROOM CURRICULUM

CONTENTS

WHAT YOU NEED

People	All interested parties.
Information	General knowledge and experience of schools and curricula.
Course documents	The Classroom Curriculum Chart and a photocopy of the Display Document *Objectives for the Classroom Curriculum* (see end of this unit).

ACTIVITY 1

CLASSROOM CURRICULUM OBJECTIVES

15 minutes

Now we come to the classroom curriculum itself. What do children need to learn to achieve a healthier lifestyle and nutrition literacy?

Two children are licking the same lollipop: what do they need to learn?

Here you have two documents: the Classroom Curriculum Objectives below, and the Classroom Curriculum Chart, which should help to realize some of these objectives.

You should pin up several copies of the Classroom Curriculum Chart so that everyone can refer to it easily. You will also need a spare copy of the OBJECTIVES FOR THE CLASSROOM CURRICULUM to display at the end of the unit.

Read the OBJECTIVES FOR THE CLASSROOM CURRICULUM below and discuss them briefly.

Activities 2 to 8 deal with the various aspects of the Classroom Curriculum covered in the Objectives. After doing them, you will need to look back at these Objectives to indicate if you agree and to say what you feel to be most important.

Objectives for the classroom curriculum

1. *Content* – to select curriculum content which will contribute to the objectives of nutrition education – healthy eating, and nutrition literacy.
2. *Development* – to structure learning so that it is appropriate to the age group and develops systematically through the school years.
3. *Relevance* – to ensure that learning is relevant to local concerns, practices, beliefs and attitudes, and makes direct connections with children's daily lives.
4. *Framework* – to spread nutrition education through the primary school curriculum as widely as possible, while at the same time maintaining its coherence and impact.

ACTIVITY 2

CLASSROOM CURRICULUM TOPICS

30 minutes

What topics should be covered in the classroom curriculum?

Bear in mind that the goals are health and nutritional well-being, and the objectives are:

Healthy eating and eating practices

Nutrition literacy – the ability to:
- apply nutrition principles to oneself
- influence others
- act to protect the environment

1. Below are a few items in a possible curriculum. Discuss and tick (✓) the subjects you think are appropriate to nutrition education in the classroom. Give two ticks (✓✓) if you think they are particularly appropriate.

drinking water	*washing up*	*diarrhoea*	*body image*
budgeting meals	*snacks*	*water supply*	*preserving food*
smoking fish	*fridges*	*enjoying food*	*handling knives*
HIV/AIDS	*breastfeeding*	*looking after goats*	*feeding yourself*
irrigation	*growing food*	*hunting*	*cleaning teeth*
sharing food	*favourite foods*	*most hated foods*	*advertisements*
cooking	*washing up*	*marketing*	*value of fruit*

2. Share your conclusions. How far does the group agree on what is essential? What are your reasons?

3. Now inspect the Classroom Curriculum Chart. It proposes eight main topics:

A Food and Emotional Development
B Eating Habits and Cultural and Social Influences
C Food, Nutrition and Personal Health
D Food Supply, Production, Processing and Distribution
E Consumer Aspects of Foods
F Food Preservation and Storage
G Food Preparation
H Hygiene/Sanitation

How would you classify the subjects you selected above (snacks, fridges, etc.) in these categories?

4. Provisionally, which main topics on the Chart do you feel will best contribute to the objectives of nutrition education – healthy eating and nutrition literacy – and why?

ACTIVITY 3

THE SPIRAL CURRICULUM

15 minutes

The Classroom Curriculum Chart is an example of a *spiral curriculum,* that is, it recycles the same topics from age group to age group, extending the content as children get older.

Here's an example.

Below are some learning objectives for the subtopic *Food Supply* for the three main primary school age groups:

Age 11-13	– to understand that plants are the basis of the food chain – to identify food production systems and techniques in their own country – to understand the influence of climate on food production in their own country – to understand ecological principles of food production
Age 8-10	– to identify the origin of certain plant and animal foods – to describe which foods are obtained through farming, fishing, hunting or produced in factories – to understand the importance of soil
Age 6-7	– to identify locally available foods

1. Which learning objectives depend on previous ones? Draw arrows to connect them.

2. What *kind* of development is there? What kind of differences are there between the learning objectives in each age group?

ACTIVITY 4

NUTRITION EDUCATION AND PIAGET

30 minutes

The Classroom Curriculum Chart is constructed according to Piaget's principles of child development, adapting the learning to the child's emerging cognitive abilities.

1. Read the extract regarding Piaget's stages of development related to nutrition. Underline what children are able to do at particular stages and what they are unable to do. Use two different colours or styles of marking.

At age 6–7 (the "pre-operational stage") children cannot understand that substances can be transformed. So the digestion of food would be a difficult concept. But ritual actions, like the washing of hands, and games and play that involve concrete objects and physical activity, are activities that can be done at this stage.

At ages 7–11 (the "concrete operations" stage) children can learn how to make connections between their actions and what others do to keep themselves healthy. This can be broadened to learning about other people's lifestyles and how these differ from theirs. The child is able to look beyond itself and can identify what other people like and eat, but is not yet able to apply these thought processes to an abstract notion like nutrients. They can put foods into categories according to shape, taste or other physical properties, or whether they ate the food as meals or snacks, but their capacity for description is still wider than their analytic ability. At this stage, motivation begins to play a role in the child's food choices.

From age 11 upwards (the "formal operations" stage), terms such as "nutrients" are understood. Food choices and their consequences are linked to beliefs and values, not only to taste. Children can learn more about their own eating habits, what influences their choices and how to evaluate their own eating habits. Eventually they can consciously adopt healthy eating habits as part of a lifestyle. They will be able to recognize what it is within themselves (internal pressures) and in the outside world (external pressures) that makes it difficult to follow a lifestyle. At this age they will also be able to understand the effects of their choices on their health, as well as that of their family, their community and the environment.

Source: Contento, I. 1981. Children's thinking about food and eating: a Piagetian-based study. *J. Nutr. Educ*, 13(1): 586–589

2. Take any subtopic from the Classroom Curriculum Chart and trace it through the age groups. Check that as the age rises, the content moves:

- from particular to general;
- from concrete to abstract;
- from present facts to origins and implications.

3. Spiral development of the topic, and adaptation to age – what do these underlying structural principles mean if we want to adapt the Chart to our own needs?

- Each subtopic is part of a learning chain, linked through all the age groups. What does this mean if you want to introduce one of these subtopics into your existing curriculum?
- If you would like to cover a learning objective earlier or later than the chart suggests, what precautions should you take?
- If you want to introduce a new learning objective/subtopic, what should you consider?

Check in the Key.

ACTIVITY 5

THE LOCAL DIMENSION

30 minutes

A great deal of the specific content of nutrition education must be local, if the subject is to connect with children's own experience and practices, deal with local nutritional problems and make sense of "nutritional" events and interventions in the school.

1. Here are some real situations. How should the *classroom* nutrition education programme respond?

"This is an urban community. The biggest influences here are the street vendors who sell fried pies, and the fried chicken fast food chain, which advertises itself as the trendy place for young people. Not surprisingly, we have a snacking culture and problems of obesity. We teach nutrition in primary schools – balanced meals and vitamins – but it doesn't seem to affect children's eating."

"This is an agricultural community. Every house has a mango tree, and everyone eats mangoes – they should eat them a lot more because they are an excellent food. There are quite a few recipes across the region but they need sharing around. There are also ways of conserving mangoes for when they are out of season. This is the kind of knowledge people need to improve their diet."

"There's a real problem here of protein deficiency: when you look at the children of our very few prosperous families, you realize that most of the other children are undersized. There are quite a few sources of cheap protein round and about, but they aren't eaten much. Beans grow well here but they aren't part of the normal diet. There are plenty of little fish, a good source of Vitamin A and calcium because we eat the whole fish including the liver and bones. People do eat these, but they aren't regarded as such good food as big fish or meat. There seem to be a lot of chickens but they are only eaten on special occasions – I don't know why. And there is a taboo about girls eating eggs – again, I don't know the thinking behind that."

"If you want to learn about conserving food all you have to do is walk outside and see the fish being smoked on the roof of the cooking hut, or being dried in the sun. People will tell you which process is better for what particular fish. But most of them can't tell you why it works."

ACTIVITY 5 *contd.*

2. Now start from the syllabus instead of from life. Many topics in the Chart will need a "local content specification" – that is, the content to be learned will need to be local as well as general. For example "to identify the origin of certain plant and animal foods" (Food supply, age 8–10) can only be done in relation to *local* foods.

a) Select one main topic from the Curriculum Chart and run through the subtopics. Which ones will need a local "content specification"? Do you have any ideas for the actual content?

b) Report back to the group.

Topic:		**Local content specification**
Subtopic		
Subtopic		
Subtopic		
Subtopic		

3. Conclusions
   Would you agree that nutrition education should:

- give special attention to local nutrition problems?
- help children make sense of "nutrition interventions" (e.g. dietary supplements, growth monitoring, deworming, visits by the school dentist).
- deal with local foods and food practices?

We will come back to the question of the local dimension in Units B1 and B2.

ACTIVITY 6

CROSS-CURRICULAR APPROACHES

20 minutes

How can nutrition education fit into the existing curriculum framework?

Nutrition is a subject in its own right, but it has wide application in other subjects.

1. In the table are several topics which relate to nutrition.

   In which school subjects (e.g. Science, Maths, etc.) do they fit best? Fill in the table.

   How much would be learnt *about nutrition* in each case?

Suggested answers are in the Key.

Topic	School subject
Food transportation in the 19th century.	
A folk story about a magic bean which grew into the land of giants.	
The effects of drought.	
Instructions on growing a lentil plant from seeds.	
Problem to work out: "If I had 20 bananas and five children, how many bananas would each child get?"	
Air pollution and its effect on crops.	
The economics of GM crops.	

2. Suppose there was a whole-school project on "drinking water" or "fruit". How many school subjects could deal with it, and how? Choose one of the two themes, make a few suggestions and then pool your ideas.

   .....

   .....

   .....

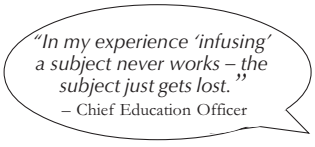
3. The above are two ways of dealing with nutrition in a number of subject areas. What benefits do you think there are in diffusing the subject like this? What are the difficulties and dangers? Discuss briefly in preparation for the next activity.

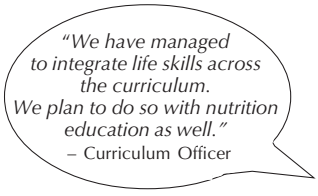
ACTIVITY 7

CURRICULUM FRAMEWORK POSSIBILITIES

20 minutes

There are several ways nutrition education can find a place in the primary school curriculum.





Assume that we want:

- coherent development of the subject;
- sufficient exposure (50–60 classroom hours per year);
- importance for NE in the eyes of the school and the families;
- direct connections with children's lives,
- actions, beliefs and feelings;
- raised awareness in the whole school.

What are the advantages and disadvantages of the approaches below?

Option	Advantages and disadvantages
Nutrition education in the timetable in its own right (e.g. an hour a week).	
Concentration in one or two existing subjects, for example, Home Economics or Health Education.	
Cross-curricular "infusion" into all school subjects where appropriate – e.g. lessons on growth curves or height-to-weight ratios in the maths syllabus.	
Collaboration – Joining up with other urgent health topics which want a place in the timetable – e.g. anti-smoking, physical fitness, HIV/AIDS, life skills.	
Themes and projects – NE issues "added on" in special lessons in all subjects for a particular purpose – e.g. a "theme of the month", or a cross-curricular project.	
A mix of solutions – e.g. a small regular NE timetable slot and a big whole-school project; a base in Home Economics with some cross-curricular infusion.	

Compare your conclusions with the comments in this same unit in the Reader, Section C.

ACTIVITY 8

PRINCIPLES OF SELECTION

30 minutes

It is usually impossible to include everything we want in the curriculum. We have to make a selection. We can start by prioritizing our nutrition education objectives.

1. Which of these objectives would you put first? Divide them into *essential, highly desirable* and *desirable* and be prepared to explain your decision.

Objective	Priority
1. Healthy eating and eating practices	
2. Nutrition literacy; i.e.:	
The ability to apply nutrition principles to oneself	
The ability to influence others	
The ability to act to protect the environment	

2. On the following pages are two "core curriculum" descriptions. In both cases the curriculum developers were under pressure to make a limited selection, and they responded differently to what they saw as their educational duty. The descriptions explain their principles of selection and list the subtopics they felt to be essential.

Read them and see if you agree with their principles of selection and how they are applied.

3. How would you begin to prioritize the topics and subtopics on the Chart? Remember that they must lead to your prioritized objectives. What principles would you apply?

Select one subtopic from the Chart that seems to you essential, one which is highly desirable, and one which is just desirable, which you would be prepared to sacrifice in negotiation. Before making your final decision, check what learning objectives are covered by these subtopics in all the age-groups.

	Topic and subtopic	Reason
Essential		
Highly desirable		
Desirable		

4. Present your selection and the reasons for your choice to the group as a whole.

ACTIVITY 8 *contd.*

1. **A sample curriculum favouring a sound knowledge base**
   Our objective is to *assist young people to be "nutrition-literate" consumers*, who:

- can apply nutrition principles to their own situation and can make informed and critical decisions about food and eating habits;
- are able to influence others such as siblings, peers, and their own future children;
- are able to see the implications of their food choices and eating habits on the environment, and can protect and change the environment.

For us, the essential foundation is knowledge and understanding. We of course understand "nutrition literacy" as *including "action competency"* – that is, the ability to manage daily nutrition in a health-providing and affordable manner. But we believe that action follows from understanding – that is, that you cannot have a healthy diet without a firm grasp of the facts.

A curriculum giving a solid foundation of "nutrition literacy" would cover these basic facts and concepts.

The nature of food:

- what food is (including water) [D1; C1; H1];
- grouping foods according to their nutritional value [C1];
- the effect of the food source, and the method of food production and processing, on nutritional quality [D3; C1];
- different societies' concepts of food (not all edible things are considered food) [B1–B4];
- social and cultural values of food [C1; B2] – recognizing these as necessary for making appropriate choices.

The provision and consumption of food:

- where food comes from [D1; D2];
- how food is produced and traded [D1; D4];
- how food is processed; the primary materials of processed foods [D3];
- how food can be obtained and at what cost [D1; E2]; home food production [D2];
- how foods are consumed [B1; B3; B5; C5];
- what processing or preparation is necessary/recommended [C1; D3; F1–F3; all of G; H1; H3];
- what influences food choices and dietary habits (physical, economic, social, cultural, emotional aspects) [A2; A3; B4; C3; C4; D4; E3].

The relationship between food, nutrition and health:

- a basic concept of health [C2] and its relationship with food and physical activity [C3 – C5]
- why and how food is important for health [C2 – C5]
- the functions of food – biological [C2], social, and cultural aspects [entire B topic] and being aware of emotional aspects [A1–A3] will be essential for changing dietary behaviour;

ACTIVITY 8 *contd.*

- the link between dietary practices and malnutrition/diet-related diseases [C5];
- the basics of growth monitoring [C5] – crucial in developing countries.

The composition and preparation of healthy diets:

- the basic principles of healthy eating (balanced, varied, appropriate diets) [C4];
- preparing healthy diets [all of G];
- the different dietary needs of different groups of people [C3];
- knowing and understanding dietary guidelines (where they exist) [C6].

Protection from food-borne diseases:

- how to safely obtain [D1; D3; E2; E4; E5], store, prepare [all F and G] and use food (including water) [all of H] and the related skills.

The links between nutrition and the environment:

- the physical, economic, cultural, and social implications of food production, trade and consumption [D5; D4; E3; E6; E7] – e.g. waste disposal [H5] and sanitary practices posing risks for food and water safety [H1–H3]; food production methods which reduce the food base (e.g. dynamiting fish) [D2]; inefficient cooking stoves which use too much firewood, etc. [G2].

2. **A sample curriculum favouring development of behaviour**
   We want to improve eating behaviour, in the short term and the long term. As we see it, this requires a good understanding of food and nutritional value, but it is not enough just to know that certain foods are good for you – many other things are needed for people to be able to establish healthier lifestyles for themselves. There will need to be some practice with necessary skills and routines (e.g. hygiene practices), especially with younger children. We also need direct engagement with what people actually think and do. This will lead to understanding of one's own attitudes and practices as well as those of others, a readiness to try new things, and (if possible) a sense of pleasure in having an appetite, eating good food and feeling healthy.

   Our choice of essential subtopics is below. We have chosen subtopics which:

- have immediate personal relevance and relevance to learners' own future families, i.e. we have excluded longer-term, more distant, not-so-daily, wider environmental objectives;
- contribute directly to improved diet, hygiene, health, household food security;
- help to improve behaviour about food practices in general – feelings, attitudes, social understanding, knowledge of local food, food practices and alternatives;
- lead to basic understanding of food and diet, e.g. fundamental concepts like bacteria, hygiene, digestion, nutritional value;
- (depending on context) build knowledge and practices essential for those who produce food/ market food/ run households;
- contribute to gender equity, since nutrition education is an area men tend to ignore.

ACTIVITY 8 *contd.*

We also added a few important subtopics (in italics) which we couldn't find on the chart.

A	1	sensory perception and enjoyment
	2	describing food preferences
	2	trying new foods
B	1	own and others' eating habits
	2	social value given to food
	4	factors influencing own food choices
	3	meals and meal patterns
	5	social settings
A B	2 1	describing/evaluating own diet
C	2	food, health and growth
	2	nutrients and nutritional value
	5	malnutrition
	2	digestion process
	6	guidelines for healthy eating
	5	health risks and prevention
D	1	food production, food supply
	3	processing and manufacture
		marketing food
	4	household food security
E	1	food supply, food quality
	2	shopping, packaging
	3	influence of advertising and marketing
F	1	lifecycle of food
	1	food spoilage/contamination
	2/3	preservation and storage
G	1-4	planning, preparing, cooking, serving food (whole process)
		clearing up afterwards
		enjoying food preparation
		roles in food preparation
H	1	water sources
	2	personal hygiene, especially hands
	3	diarrhoea
	4	food hygiene
	5	waste disposal

We would also put in some topics as cross-cutting issues, to be taught in their own right but also to be added to other lessons wherever they apply – for example:

- taking responsibility for self, family, society and the environment (also gender issues);
- knowledge of particular foods and food practices in the area;
- hygiene practices.

ACTIVITY 9

SUMMING UP

30 minutes

1. **Displaying the classroom curriculum documents**

- Leave the Classroom Curriculum Chart on display. You will be using it again in B5.
- Display the CLASSROOM CURRICULUM OBJECTIVES as shown in the diagram below.

2. **Review of opinion**

Divide into four groups. Each group should look at one of the OBJECTIVES FOR THE CLASSROOM CURRICULUM and discuss their first responses to the questions of:

- choosing priority content (Activities 2 and 8);
- spreading nutrition education through the age groups (Activities 3 and 4);
- making nutrition education locally relevant (Activities 5);
- fitting nutrition education in to the curriculum framework (Activities 6 and 7).

Make a few notes about the group's opinions.

3. **Presentation**

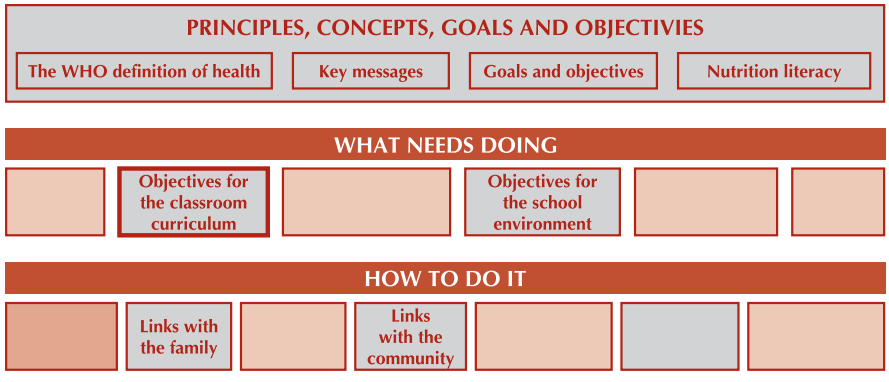
Each group presents their conclusions briefly, saying which aspects are strongly endorsed by the group and why. Allow about 3 minutes each. The audience should comment, correct etc. The final conclusions of the whole group should be recorded on the display document. Aim to ensure that what is on display really represents the whole group's position.

4. **Personal opinion review**

In Activity 1 of Unit A2 you indicated your agreement or disagreement with some ideas about a nutrition education curriculum, the ideas discussed in this unit.

Look back at your answers individually. Are you still of the same opinion?

DISPLAY DIAGRAM



DISPLAY DOCUMENT

OBJECTIVES FOR THE CLASSROOM CURRICULUM

1. *Content* – to select curriculum content which will contribute to the objectives of nutrition education – healthy eating, and nutrition literacy.

2. *Development* – to structure learning so that it is appropriate to the age group and develops systematically through the school years.

3. *Relevance* – to ensure that learning is relevant to local concerns, practices, beliefs and attitudes, and makes direct connections with children's daily lives.

4. *Framework* – to spread nutrition education through the primary school curriculum as widely as possible, while at the same time maintaining its coherence and impact.

KEY TO ACTIVITIES FOR UNIT A3

ACTIVITY 4 (3) *Nutrition education and Piaget*

- If you decide to adopt a subtopic or a learning objective for a particular age group, you must check to see how it develops through the age groups. Is there some essential knowledge which needs to be established earlier?
- If you would like to cover a learning objective earlier or later than the chart suggests, check to make sure that it is suitable for the age group.
- If you want to introduce a new learning objective or subtopic, think how it should be distributed through the age groups.

ACTIVITY 6 *Cross-curricular approaches*

Food transportation in the nineteenth century	History
The story of the magic bean	Language/Art
The effects of drought	Environmental science/ geography
Instructions on growing a lentil plant	Biology
"If I had 20 bananas..."	Maths
Air pollution	Environmental science
The economics of GM crops	Economics, Agriculture, Biology

Note that the learning objectives in each case may have nothing to do with nutrition. For example the history topic might be part of a module on colonialism and the history teacher might not make any links with the general problems of food transport – for example, the costs of today's food transport. The maths sum could be done with anything instead of bananas – since the objective is to do the sum, doing the sum with bananas would not teach children anything about nutrition. This is one of the dangers of "infusing" a subject across the curriculum, but it can be avoided.

UNIT A4

LEARNING APPROACHES TO NUTRITION EDUCATION

CONTENTS

WHAT YOU NEED

People	Teacher educators would make a valuable contribution to this session.
Information	Your own experience of learning, and of learning about nutrition.
Course documents	A copy of the display document CLASSROOM APPROACHES TO NUTRITION EDUCATION at the end of this unit.
Equipment	Coloured pens.

ACTIVITY 1

LEARNING ABOUT FOOD

30 minutes

What people learn about food involves not only knowledge, but also feelings, habits, practical skills and life skills.

1. Think of some food you eat often. Write it down. .....

2. Interview each other about your selected foods. Ask these questions:

a) **Knowledge** – *What do you know about this food?* What category of food is it? Where does it come from? How does it grow? How is it harvested? How is it made? How much does it cost? What different kinds are there? Has it changed historically? Or in your lifetime?

b) **Attitude** – *What's your feeling about this food?* Do you think it is good for you? Does it taste/look/smell good? Do you depend on it? Do you look forward to eating it? Is it boring? Is it traditional? Does it satisfy hunger? Which kinds do you like most? Do you associate it with home? Does it have social status? Do you offer it to guests? Does it have symbolic status – is it found in literature, poetry, rhymes, songs, or stories?

c) **Behaviour** – *What are your normal practices with this food?* Where do you get it? How often? How much? Does all the family eat it? What do you eat with it?

d) **Practical skills** – *What skills do you have with this food?* Do you know how to grow it, find it, catch it, preserve it? Can you prepare it and serve it?

e) **Life skills** – *Have you made any decisions/choices about this food in your life?* For example, about eating more of it, less of it, eating it in a different way, or persuading others to eat it or not to eat it?

3. Imagine that you have been told to stop eating this food immediately, starting at once. How would you feel about this? How would it affect your life and your living patterns, your family and social life? What new knowledge/skills would you need to acquire? And how much authority would you need to make you change your life in this way?

4. Reflect on your interview and your discussion. Would you agree that:

- there is a lot to learn about your chosen food?
- your learning about this food goes well beyond simple knowledge of facts?
- it may take a lot to change people's ideas and practices about food and eating?

5. Which of these types of learning – knowledge, attitudes, behaviour, practical skills, life skills – are, in your opinion, the most important in nutrition education?

Discuss this question briefly and come to a provisional decision.

ACTIVITY 2

FIVE KINDS OF LEARNING

20 minutes

"Learning nutrition" means learning several quite different kinds of thing:

- knowledge or understanding (KU);
- attitudes and feelings (AF);
- habits and routines (HR);
- practical skills (PS);
- life skills (LS).

In the table below are some of the things that children learn about food and eating. What kind of learning is involved in each case?

1. Divide up the elements of the table between you.
2. Discuss what kinds of learning are involved, then write KU, AF and so on in the B Column. You may find you want to write more than one – most objectives are a mix.
3. Report back to the group. Check in the KEY if you need to.

A Things children learn		B Type of learning
1.	Names of foods, food classes, nutritional qualities	
2.	Eating at certain times of day, drinking boiled water, making shopping lists, covering food, keeping leftover food in a cool place	
3.	Appreciating special food for a celebration	
4.	Knowing where to buy fresh food locally, and what food is in season	
5.	Making decisions about one's own eating behaviour – e.g. deciding to eat vegetable snacks instead of sweet biscuits	
6.	Recognizing spoiled or unripe food	
7.	Enjoying cooking and serving	
8.	The idea of a balanced meal, the idea of healthy growth	
9.	Making a meal look good	
10.	Realizing that not everyone likes the same food	
11.	Persuading little brothers and sisters to eat up their vegetables	
12.	Avoiding bad habits, e.g. too much alcohol, too many snacks	
13.	Knowing how to grow food plants and preserve them	
14.	Knowing about the digestive system	
16.	Having a critical approach to persuasive advertising and ideas of food status	

ACTIVITY 3

THE ROLE OF KNOWLEDGE

20 minutes

Knowledge, behaviour, attitudes, skills and life skills come together in "lifestyle learning".

Of them all, how important is *knowledge* in nutrition education?

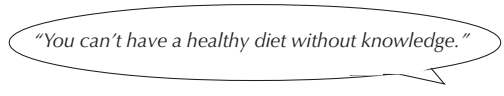
It is suggested that it is usually necessary, but not sufficient.

1. Test this idea. Which is more important in each case below? Discuss and decide.

Children clean their teeth regularly.	OR	(routine practice)
Children know they should clean their teeth regularly.		(knowledge)
Children know why food decays.	OR	(knowledge)
Children can recognize some kinds of food decay.		(practical skill)
Children choose healthy snacks.	OR	(life skill)
Children know which snacks are healthy.		(knowledge)
Children like fruit.	OR	(attitude)
Children know that fruit is good for you.		(knowledge)
Children know that water is necessary for growing plants.	OR	(knowledge)
Children remember to water plants.		(routine practice)

Our comments are in the Key.

2. A Home Economics Adviser said:



Was she right?

What exactly is the role of knowledge in "lifestyle learning"?

Discuss.

ACTIVITY 4

THE ROLE OF ATTITUDE

20-30 minutes

Food behaviour is often strongly irrational, and "lifestyle learning" has to take this into account.

1. Below are several real cases which illustrate irrational attitudes. Discuss and answer these questions:

a) What are the attitudes at work in each case?

b) What do you think of the solutions in each case?

c) Did anyone learn anything? What?

d) Could formal education help, or have helped?

"Our island is surrounded by wonderful fish – tuna, marlin, kingfish, salmon. But the children won't eat them, because this fish is a different shape from what they get at home. The only way they'll eat fish is fried with bread. We've been giving them fried fish with bread for five years now. Next year we're going to try it with noodles instead – we think they may be ready for it."

– School Feeding Programme Office

"Oh, I know all about what's good for me, and I know I'm overweight too. But give me a packet of my favourite biscuits and I'll just sit down and eat the lot. In half an hour they're gone. My only solution is never to do the shopping myself."

– Senior WHO Health Education consultant

"Our island is surrounded by wonderful fish – tuna, marlin, kingfish, salmon. But the children won't eat them, because this fish is a different shape from what they get at home. The only way they'll eat fish is fried with bread. We've been giving them fried fish with bread for five years now. Next year we're going to try it with noodles instead – we think they may be ready for it."

– School Feeding Programme Office

"Our older boys are torn. They want to be fit but they also want to drink beer and smoke, to 'show they are men'. There was a good series of articles recently about national sports heroes and their training diets in the daily paper – I cut them out and put them on the notice board. I don't know if they had any effect."

– Sports teacher

" I give my daughter only very nutritious food to take to school – she brings it home uneaten and says all the other kids say she must be poor. She just won't take the food to school. So now I give her plenty of "poor" food at home and "rich" food to take to school."

– Home Economics teacher

"Early in life, people give up their health to gain wealth; later in life people give up some of their wealth to regain health. If I had known this I would now be 30 kilos lighter and a good deal richer as well!"

– School administrator

Our comments are in the Key.

ACTIVITY 4 *contd.*

2. Green teeth (optional) – What does it take to change behaviour?

Imagine that you have heard of a new approach to dental care. It involves buying a special expensive toothbrush every month and brushing your teeth six times a day with a new toothpaste which turns your teeth green. That is to say, it's expensive, it takes a lot of trouble, it means changing your habits and routines – and you're going to look awful as well!

But it really does prevent decay. The researchers promise that you will never have trouble with your teeth again.

What would it take to convince you to change to this new approach to dental care?

Your dentist advises you to change. – *Would you change?*

You read an article in a health magazine. – *Would you change?*

There is a government health campaign in all the media. – *Would you change?*

Top models adopt the method. – *Would you change?*

All your friends start doing it – you are the only one who doesn't have green teeth. – *Would you change NOW?*

At what point would you change? Or would you never change?

What does it take to change behaviour?

ACTIVITY 5

LIFESTYLE LEARNING

30 minutes

How is healthy eating learnt?

On the next page is a table showing some of the ways people learn, in the classroom and outside it.

Here are five learning objectives, representing different sorts of nutritional learning:

- to respect the eating habits of others
- to recognize the influence of advertising
- to prepare simple meals
- to wash fruit and vegetables before eating
- to understand why food should be covered/wrapped.

1. Divide them between you, one for each group.

2. Look through the *Ways of learning* table. Mark with a tick (✓) the ways you think are most effective for the particular learning objective you have chosen.

3. Come together to discuss your conclusions. Are most of the ticks in the upper half of the table or the lower half ?

4. Check the comment in the Key.

I try to eat five different fruits and vegetables every day. I heard a lot of people talk about this idea – I think there's some commercial Web site that's promoting it.

I saw an animated film once about tooth decay – it was a good film. I'm not sure it had any effect on me, but I really enjoyed it.

I learnt to clean my teeth because my big sister made me do it.

ACTIVITY 5 *contd.*

Ways of learning

These are some of the ways people learn. They are not mutually exclusive: there is a lot of overlap. The three columns represent learning through action, through experience, and through participation and interaction. At the top of each column the learning is fairly passive; at the bottom it is very active and hands-on.

ACTION	EXPERIENCE	PARTICIPATION
Through recording and reproducing, e.g. copying, taking notes, telling others, reformulating.	*Through being told* by parents, teachers and peers, books, formal study, media broadcasts, news, etc.	*By memorizing*, e.g. repeating, chanting, repeated question and answer.
Through thinking, e.g. seeing connections, comparing, problem-solving, applying knowledge, classifying information, making decisions, analysing cases/ads, reflecting on experience.	*Through being shown*, including demonstrations, films, plays, models, diagrams, pictures.	*By seeing examples*, including pictures, stories, personal examples.
Through doing, including simple actions, acting, imagined behaviour, trying things out, imitating, following instructions.	*Through aesthetic, emotional, sensory and imaginative stimulus*, including art, drama, poetry, music, humour.	*By hearing and seeing others' attitudes,* e.g. in discussion, narrative, dialogue, role plays, drama, interviews, imagined feelings, comparing self.
By practice, including games, competitions, and repeated actions, with feedback on performance.	*Through self-expression*, including speaking, acting, explaining, singing, discussing, role play, dancing, drawing, painting, writing accounts/diaries, describing experience.	*Through telling and 'playing teacher',* e.g. passing on one's knowledge in talks, letters, messages, demonstrations, pictures.
By finding out for yourself – asking, discussing, reading and listening, experimenting, observing, reflecting, and just "finding out the hard way".	*By direct experience*, including trips and visits, observation, hands-on experience, tasks, tasting, feeling, smelling,	*Through dialogue and collaboration,* e.g. exchanging views, feelings, perceptions, experience in discussion, conversation, role play, interviews, reading. reacting, taking part in things.

ACTIVITY 6

ACTION, EXPERIENCE, PARTICIPATION

30 minutes

For nutrition education to be successful, an *active, experiential, participatory* approach is needed.

Active learning means:
Direct action whenever possible.
Plenty of physical action.
As much practice as is necessary to learn.
Opportunities to express individual knowledge, attitudes, and ideas.
As much choice and initiative as possible.
Students acting as informants as well as learners.

Experiential learning means:
Direct experience whenever possible.
Personal experience aired and interpreted in class.
Individual experience treated with respect.
Teachers' own experience shared with learners.
Time given for reflection and evaluation of experience, action and interaction.

Interactive/participatory learning means:
Exchanging information and ideas in pairs and groups in class.
Tapping the information and ideas of the family and community.
Teachers finding out what children think, do, feel, and know.
Real and simulated interactions with peers and community.
Collaborating on class work and projects.

1. Tick **(✓)** the items which you think are particularly valuable to nutrition education and give an example if possible. Double tick **(✓✓)** those you particularly approve of.

2. Share your conclusions.

3. The lesson below is an example of an approach which is *not* active, experiential, interactive and participatory. How could it be made more so?

A lesson on washing hands

- The teacher tells the children that they should wash their hands before eating.
- The teacher describes how they should wash their hands.
- The teacher explains why they should wash their hands.
- The teacher "checks learning" by asking children to explain how and why they should wash their hands (the children answer correctly).

ACTIVITY 6 *contd.*

Brainstorm ideas for improving this lesson, then share them. You may like to apply the observations in *What we remember* below.

Are your ideas feasible for most teachers in most schools?

What we remember is:

- 10% of what we read
- 20% of what we hear
- 30% of what we see
- 50% of what we see and hear
- 80% of what we say ourselves
- 90% of what we say and do

Source: UNICEF. 1993. Visualisation in participatory programmes. Dhaka, Bangladesh.

Ideas for improving this lesson:

.....

.....

.....

.....

.....

.....

ACTIVITY 7

APPROPRIATE ACTIVITIES

20 minutes

(Optional)

Of course, each kind of learning – knowledge, attitude, behaviour, practical skills, life skills – requires a different approach. Most objectives contain a mix, as we can see in the table, but most are mainly one kind of learning.

Here are the five objectives from Activity 5.

Divide them between you. Check through the *Ways of learning* in Activity 5. What are *appropriate* active, experiential, participatory activities for each one?

Objective	Type of learning	Appropriate ways of learning
Understand why food should be covered/wrapped	mainly *knowledge* (with some behaviour)	
Respect eating habits of others	mainly *attitude* (with some knowledge and life skills)	
Wash vegetables and fruit before eating	mainly *routine behaviour/habit* (with some knowledge)	
Prepare simple meals	mainly *practical skills* (with some knowledge)	
Recognize the influence of advertising	mainly *life skills* (with some knowledge and attitude)	

ACTIVITY 8

SEVEN INTELLIGENCES (AND A BIT OF IMAGINATION)

20 minutes

(Optional)

Lifestyle learning has to reach everybody, but every individual learns differently.

Can you establish some of the individual differences in your group?

1. Of all the ways of learning shown below, which appeal to you most? Decide which is your particular *individual learning style*.

   Go through them in pairs and see if there are individual differences among you. Then report back to the group.

- *Visual/spatial intelligence* remembers pictures; recognizes shapes easily; has a good sense of direction; responds to all visual aesthetic stimuli.
- *Linguistic intelligence* remembers words and is good at verbal expression; appreciates literature and conversation; likes to write things down.
- *Musical intelligence* has a good memory for and understanding of melody, harmony and rhythm; responds to all aesthetic forms of sound.
- *Physical intelligence* learns through physical feeling, action, movement and gesture; good at sport and fixing things; understands machines and how they work; remembers through doing things.
- *Logical/mathematical intelligence* is interested in reasoning, puzzles, analyzing and classifying; looks for patterns and relationships; arranges things in logical order.
- *Intrapersonal intelligence* understands the self, handles feelings capably; can apply new ideas (or "emotional intelligence") to the self; takes pleasure in fantasy and independent action.
- *Interpersonal intelligence* understands own and others' feelings and intentions, responds to them (or "social intelligence") sensitively; learns well through dialogue; works well in teams; remembers conversations, reactions, drama.
- *Imagination* sees resemblances between unlike things; extrapolates easily to other contexts; is inventive and creative; enjoys metaphor and simile; appreciates the absurd.

2. Would you agree that people learn in different ways, and have different strengths and weaknesses?

   Have you noticed the differences in schoolchildren?

   Do you think that your group is typical of the wider population?

ACTIVITY 9

HARNESSING THE INTELLIGENCES

20 minutes

(Optional)

To reach all the pupils we need a variety of approaches.

Suppose the learning objective is to answer the question *What is fruit?* Specifically:

- recognizing and naming the main local fruits;
- distinguishing fruit from vegetables;
- understanding what a fruit is;
- recognizing the role of fruit in people's lives.

Below are a number of activities on this theme, roughly sequenced with the simpler ones first.

1. Decide which faculties each activity calls upon most – visual, linguistic, musical, physical, logical, intrapersonal, interpersonal – and whether it appeals to the imagination. Some activities will appeal to more than one faculty.

Activity	Faculties
1. Memory game – trying to remember all the fruits and vegetables on a covered tray.	
2. Playing "I went shopping…" with names of fruit only.	
3. Saying what role fruit has in your life.	
4. Learning a song about fruit.	
5. Identifying fruits after feeling them in a thick black bag.	
6. Describing, drawing or dressing up as a favourite fruit; classmates have to guess the fruit.	
7. Listening to, reading, or telling a story about a fruit, which brings out the ideas of juice, peel, seeds, sweetness, moisture.	
8. Classifying fruits and vegetables according to popular perception; moving flashcards into piles.	
9. Eating a fruit and describing the taste.	
10. Visiting a fruit farm; observing, drawing and describing a fruit tree (trunk, branches, leaves, blossom). Handling well-developed and stunted fruit and saying how it feels and looks.	
11. Growing a fruit from a pip.	
12. Describing what people in your family do and think about fruit.	
13. Cutting up a fruit in class to observe the parts, colour, texture.	
14. Building up vocabulary for describing fruit (colour, texture, parts).	
15. Interviewing an agricultural extension worker about the best fruits for the area.	
16. Telling a harvest story from the point of view of a fruit fly, a maggot or a seed.	
17. Sorting fruits from vegetables after an explanation of the technical difference.	
18. Learning the nutritional value of different fruits.	
19. Recognizing the function of fruit in the plant's life cycle.	
20. Evaluating the role of fruit in the human diet.	

ACTIVITY 9 *contd.*

2. If you have time, work on two other "fruit" objectives. Use the checklist (seven intelligences + imagination) to think of a range of activities for each. You will find some ideas in the KEY.

- *Establishing that fruit is good for you* – why it's good for you, what others think.
- *Eating more fruit* – eat three pieces of fruit a day, encourage others to eat fruit.

ACTIVITY 10

AN OUTREACH APPROACH

15 minutes

The idea of lifestyle learning is that it applies to life. An outreach approach is one way of doing this.

An outreach approach takes the learning outside the classroom in some way. For example:

- children call on their outside experience in their classroom learning;
- children go outside the classroom – to their homes, their environment, the community, the media – to observe, find out, experience, experiment, find resources, talk to people;
- people come into the school from outside, to give talks and demonstrations, describe experiences, bring objects, work on the school environment.

Take the five learning objectives you worked on before. What outreach activities would be useful for each of them? Our comments are in the KEY.

Understand why food needs to be covered/wrapped	
Respect the eating habits of others	
Wash fruit and vegetables before eating	
Prepare simple meals	
Recognize the influence of advertising	

ACTIVITY 11

SUMMING UP

30 minutes

On the next page you will find the display document CLASSROOM APPROACHES TO NUTRITION EDUCATION. This document will be pinned up near to the OBJECTIVES FOR THE COMMUNITY on the main document display (see below).

a) Go through the Key Messages together. Mark those which you think are most important, and add any comments which have arisen in your discussions.

b) Make a copy of the document and pin it up as shown in the display diagram below.

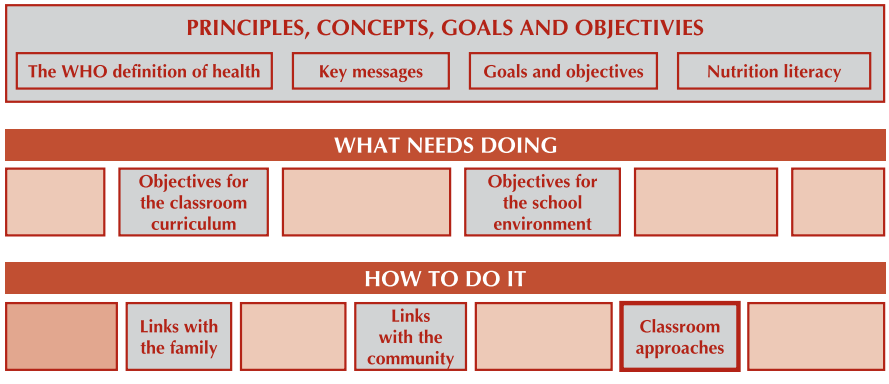
c) Divide into small groups and take one Key Message each.

d) Prepare to present the Key Message. Your presentation should:

- explain the message;
- give concrete examples;
- comment on the Message – for example, express doubts or agreement.

e) Make your presentations. Allow a maximum of five minutes each. The audience should comment and discuss.

DISPLAY DIAGRAM



DISPLAY DOCUMENT

CLASSROOM APPROACHES TO NUTRITION EDUCATION:

KEY MESSAGES

- EFFECTIVE NUTRITION EDUCATION INVOLVES MANY KINDS OF LEARNING – KNOWLEDGE, ATTITUDES, BEHAVIOUR, PRACTICAL SKILLS AND LIFE SKILLS.
- KNOWLEDGE IS ESSENTIAL – BUT NEVER ENOUGH.
- CHILDREN LEARN ABOUT HEALTHY EATING THROUGH ACTION, EXPERIENCE AND PARTICIPATION
- THE MORE WAYS THEY LEARN, THE BETTER. NUTRITION EDUCATION SHOULD STIMULATE A RANGE OF FACULTIES, INCLUDING THE IMAGINATION.
- NUTRITION EDUCATION NEEDS AN OUTREACH APPROACH TO LINK WITH LIFE OUTSIDE THE CLASSROOM.

KEY TO ACTIVITIES FOR UNIT A4

ACTIVITY 2 *Five kinds of learning*

A Things children learn		B Type of learning
1.	Names of foods, food classes, nutritional qualities	K/U
2.	Eating at certain times of day, drinking boiled water, making shopping lists, covering food, keeping leftover food in a cool place	H/R
3.	Appreciating special food for a celebration	A K/U
4.	Knowing where to buy fresh food locally, and what food is in season	K/U
5.	Making decisions about one's own eating behaviour – e.g. deciding to eat vegetable snacks instead of sweet biscuits	LS
6.	Recognizing spoiled or unripe food	PS
7.	Enjoying cooking and serving	A
8.	The idea of a balanced meal, the idea of healthy growth	K/U
9.	Making a meal look good	A PS
10.	Realizing that not everyone likes the same food	A LS
11.	Persuading little brothers and sisters to eat up their vegetables	A LS
12.	Avoiding bad habits, e.g. too much alcohol, too many snacks	K/U LS
13.	Knowing how to grow food plants and preserve them	PS K/U
14.	Knowing about the digestive system	K/U
16.	Having a critical approach to persuasive advertising and ideas of food status	A LS

ACTIVITY 3 *The role of knowledge*

In all the cases, the *action, skill, behaviour or attitude* will lead to health and nutritional well-being more quickly and powerfully than *knowledge and understanding* can. But in the long term, knowledge and understanding are the only foundation for flexible and intelligent choices, for establishing healthy households and for creating a social culture of healthy eating. As a single example, choosing healthy snacks (without understanding) is fine if the choice is always the same. But if you are presented with new and unknown snacks, you will need a lot of knowledge and understanding to ask the right questions and evaluate the new choices.

ACTIVITY 4 *The role of the attitude*

The fish story illustrates the strength of habit and expectation. Children will generally refuse to eat what they're not used to. Here the School Feeding Programme is "educating" the whole school population very slowly to accept some kinds of fish – mainly for economic reasons, because these kinds of fish are cheap and nourishing. Education might be able to do something by bringing the question to the attention of both parents and children.

Boys and beer shows the huge power of adult and peer-group role models. The sports teacher is (so to speak) fighting one set of role models with another. Educators should always keep an eye open for people who are glamorous in children's eyes.

KEY TO ACTIVITIES *contd.*

The poor little rich girl has a problem with food status, as do children almost everywhere. At the moment she can't resist peer pressure, and nor can her mother. Education may not have an immediate effect, but it needs to give her the basis for a rational attitude and open up the discussion of food status.

The WHO consultant has recognized his own cravings and knows what to do about them – he has at least learnt not to go shopping!

The school administrator has put her finger on the great difference between the ages, and the fact that people often don't value their health until they have lost it. She seems to think that a better education earlier in life would have helped – but would it?

ACTIVITY 5 *Lifestyle learning*

All forms of learning are valid; there should be ticks all over the table. However, if you have several ticks in the lower half of the table, it suggests that you believe strongly in an active, experiential and participatory approach to nutrition education.

ACTIVITY 9 *Harnessing all the intelligences*

Some ideas for a range of activities:

- Establishing that fruit is good for you.
- Ask parents about how much fruit they eat, what kind they eat, and why.
- Describe your own fruit-eating habits and decide if you are a small fruit-eater or a big one.
- Hear and see a recording of famous people describing the fruit they like and how much they eat.
- Discuss and decide how much fruit one could and should eat in a day.
- Ask fruit farmers what is good about their products.
- Role-play the terrible fate of an anti-fruit person.
- Design a poster promoting fruit for a healthy life.
- Invent an advertisement promoting fruit, with a memorable jingle.
- Hear the story of scurvy and how it was defeated with limes and oranges.
- Learn when are the best times of day to eat fruit.
- Guess the nutrient values of familiar fruits, then look them up in a table.
- Compare nutrient values of fruits with daily nutrient requirements and come to conclusions.
- Encouraging children to eat more fruit.
- Talk about different forms of fruit for eating – e.g. juice, frozen, canned, cooked, puréed.
- Share ideas about what other foods are good to eat with fruit.

KEY TO ACTIVITIES *contd.*

- Talk about fruit eaten outside school.
- Have a tasting session and decide fruit preferences, individually and for the whole class.
- Decide what fruit you would like to eat three times a day.
- Mime choosing a fruit, washing it, peeling it and eating it, describing the flavour and texture.
- Find out from your family a favourite recipe with fruit, write it down and tell the class about it.
- Create a class recipe book with fruit recipes; choose a new recipe and try it out.
- Establish a "fruit break" in the day – practise savouring a piece of fruit and sharing it.
- Think of ways to persuade a friend to eat fruit.
- Talk about fruit eaten outside school.
- Create an advertisement for a particular fruit.
- After studying food processing, discuss food values of different forms of fruit (cooked, canned, raw, etc.)

ACTIVITY 10 *An outreach approach*

Some ways that learning can be taken outside the class.

Understand why food needs to be covered/wrapped	Interviews with shopkeepers and vendors; observation in markets; home experiments with covered and uncovered food; memory and experience of different sorts of packaging; finding, reading and reporting on different kinds of wrapper.
Respect the eating habits of others	Talks by and interviews with people who eat differently or who have lived abroad; trying out exotic foods and reporting in class.
Wash fruit and vegetables before eating	Discussing at home; practising at home; observing other families; instructing younger brothers and sisters.
Prepare simple meals	Practising at home; getting suggestions from parents, neighbours and friends; watching cooks in restaurants and snack bars.
Recognize the influence of advertising	Collecting and analysing advertisements; talking to shopkeepers and signwriters; interviewing consumers about purchases and ads.

PHASE B
SITUATION ANALYSIS

UNIT B1

LOCAL HEALTH, DIET AND FOOD

CONTENTS

WHAT YOU NEED

People Valuable inputs for this session would be short talks from health professionals and nutritionists – for example, a description of health and nutritional problems in the region or among schoolchildren, a presentation of national/regional nutritional guidelines. Note that if this workshop is to be repeated, find some means of recording these inputs and storing them.

Information Useful extra documentation would be:

- reports about health and nutrition problems in the region; information about regional food and food practices;
- tables giving nutritional values of local foods;
- reports about people's perception of nutrition and malnutrition (in case a KAPP – Knowledge, Attitude, Practice, Perception – survey has been carried out);
- national or regional dietary guidelines;
- general descriptions of the region's economy and geography.

Course documents You will need:

- the data sheets for teachers, parents, health professionals and children;
- the summary poster material from Preparatory Units 1 and 2;
- the main display started in the A Phase;
- a copy of the display document THE LOCAL DIMENSION, which is at the end of the unit.

Equipment Recording equipment if you have decided to record speakers.

ACTIVITY 1

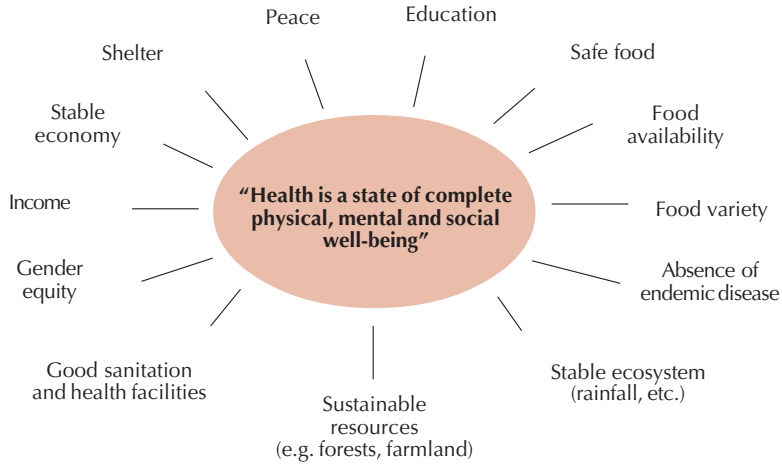
LOCAL FACTORS AFFECTING HEALTH

30 minutes

Below are the essential conditions for health already discussed in Unit A1.

In your community, which factors are missing or inadequate?

1. Discuss together and ring the critical factors.



2. Divide into groups and take one problem area for each group. Discuss the specific effects of this factor on health in your region. Consider all aspects of health and think of both the individual and the community. Use this box to focus your thinking:

THE PROBLEM...

	How does it affect individuals?	How does it affect the community?
Physical		
Mental		
Social		

ACTIVITY 1 *contd.*

3. Report your ideas briefly to the whole group. For example:

"We have civil war in one region. This endangers people's lives and property and also their very means of making a living. It also creates fear and anxiety – in other words, it threatens mental well-being. It disrupts the social infrastructure (hospitals, roads, food supplies, for example) and it undermines social relations – trust, cooperation, shared beliefs."

4. Summarize the main factors and their effects in the box below.

LOCAL FACTORS AFFECTING HEALTH

Factor	***Effects***

N.B.: In Activities of Units of B and C Phase, some tables/boxes are shaded grey. These tables/boxes contain information and decisions that are going to be re-used at the end of the unit (in Summing Up) for creating the Display Document related to this Unit.

ACTIVITY 2

THE NUTRITION SITUATION

50 minutes

What is the nutrition situation in your area, from the medical point of view?

1. Before getting expert information, review the poster material you prepared for Preparatory Unit 2.

2. Briefly discuss the following questions with reference to your own experience:

- What is the extent of malnutrition in your area? Is it a serious problem?
- What would you say are the main nutritional problems/disorders?
- What are the main causes? What factors contribute to poor nutrition?
- Which social groups are most affected?
- What are the main nutrition problems of schoolchildren in particular?
- Do you think that children's nutrition is affecting their learning?

3. Find out what the experts have to say about the same questions. You may:

- invite experts to make a presentation, or to come and answer questions;
- refer to the information you have compiled in the Health Professionals Data Sheet (points B1.1 to B1.5);
- refer to any documentation you have gathered;
- any combination of the above.

Finally, discuss and complete the points in the box below.

MALNUTRITION IN THE AREA

Malnutrition in the area is generally: high ☐ medium ☐ low ☐

The main nutrition problems in the area are:

.....

The most important factors contributing to malnutrition in the area are:

.....

The groups most affected are:

.....

Schoolchildren have these main nutrition problems:

.....

ACTIVITY 3

LOCAL FOODS AND THEIR NUTRITIONAL VALUE

40 minutes

In looking at the dietary picture it is useful to start with the local foods available.

For this activity it would be useful to have:

- a list of local foods and their nutrient content (a food composition table), OR
- the help of a nutritionist who is expert in this area, OR
- access to a government department or web site that has this information.

You may also be able to use the table of African foods and the general table of foods and nutrients on the next page.

1. What are the main local foods? Make a list in the left-hand column.

2. What are they rich in? Consult your expert sources and tick the appropriate columns.

3. Are there any foods that seem to be underused and undervalued in relation to their real nutritional value? Highlight them in the left-hand column.

4. If you are not sure of some of your facts, arrange to get an expert opinion.

LOCAL FOODS AND THEIR NUTRITIONAL VALUE

Local foods	Proteins	Fats and oils	Carbohydrates	Vitamins				Minerals			Fibre
				A	B	C	Other	Iron	Iodine	Other	

ACTIVITY 3 *contd.*

SOME AFRICAN HOME GARDEN CROPS THAT ARE RICH IN KEY NUTRIENTS

Energy	Protein	Fat	Vitamin A	Vitamin C	Iron
Avocado Bambara groundnut Banana/plantain Barley Breadfruit Cashew nut Cassava Coconut Enset Groundnut Maize Millet Oil from groundnut, maize, nug, safflower, soybean, sunflower or other oilseeds Oyster nut Rice Shea butter nut Sorghum Sweet potato Taro Teff Wheat Yam	Bambara groundnut Baobab seed Beans/peas Cowpea Eggs/milk/cheese Groundnut Kapok seed Meat/chicken, fish Melon and pumpkin seeds Oyster nut Pigeon pea Some insects and caterpillars Soybean	Avocado Bambara groundnut Butter Coconut cream Groundnut Oil from groundnut, maize, nug, safflower, sesame, soybean, sunflower or any other oilseed Shea butter nut Some insects and caterpillars Soybean	Amaranth or African spinach Bean leaves Bitter leaf Carrot Cassava leaves Cat's whiskers *(Cleome gynandra)* Chillies Jute Kale Liver Maize (yellow) Mango (ripe) Okra Papaya (ripe) Pumpkin Rape Red palm oil (unrefined) Rosella Sweet potato leaves Sweet potato (yellow- or orange-coloured)	Baobab fruit Cabbage Cashew nut Citrus Custard apple Guava Mango Papaya (ripe) Passionfruit Pineapple Sweet pepper (capsicum, if orange) Sweet potato (yellow- or orange-coloured) Tomato	Beans/peas* Kidney Liver Meat/chicken, fish Some green leafy vegetables*

* Absorption of iron in these foods is increased by combining them with foods rich in Vitamin C, for example, by eating an orange or guava at the end of a meal.

Source: FAO. 2001. *Home gardening manual for Africa*, p.33. Rome

NUTRIENTS IN DIFFERENT TYPES OF FOODS

Food	Rich source of	Moderate source of
Cereals	Starch, fibre	Protein, B vitamins, many minerals
Starchy roots and fruits	Starch, fibre	Some minerals, vitamin C if fresh, vitamin A if yellow or orange
Beans and peas	Protein, starch, some minerals, fibre	B vitamins
Oilseeds	Fat, protein, fibre	B vitamins, some minerals
Fats and oils	Fat	Vitamin A if orange or red
Dark/medium-green leaves	Vitamins A and C, folate	Protein, minerals
Orange vegetables	Vitamins A and C	Fibre
Orange fruits	Vitamins A and C	Fibre
Citrus fruits	Vitamin C	Fibre
Milk	Fat, protein, calcium, vitamins	
Eggs	Protein, vitamins	Fat, minerals (not iron)
Meat	Protein, fat, iron	
Fish	Protein, iron	
Liver	Protein, iron, vitamins	

Source: King, F.S. and Burgess, A.1993. *Nutrition for developing countries*. Oxford, UK, Oxford University Press

ACTIVITY 4

THE CHILDREN'S DIET

30 minutes

To describe the children's diet it will be useful to have input from people who have a good idea of the eating habits of the *whole* community – for example, community workers. You will also get some ideas of children's diet from the Children's Data Sheet, B1.1 and B1.2.

1. **Variety and quantity** – What is the local diet like? Is it varied? Are there enough foods of the right kinds?

   In Preparatory Unit 1 you looked at the Family Mixed Meal Guide, with the staple food at the centre and accompanying foods around it. You will find it again on the next page.

   Using the Family Mixed Meal Guide, draw a similar picture of the children's diet, more complete than your description of the local diet in Preparatory Unit 1. How many different accompanying foods can you list?

2. **Frequency and number** – How many meals are eaten in a day?

   Growing children need to eat frequently, with three meals a day and snacks between meals.

   Draw a chart of children's normal day showing what they eat and how often, as in the example.

	Snack/drink	First meal	Snack/drink	Second meal	Snack/drink	Third meal	Snack/drink
What meals		✔	✔	✔	✔	✔	
Time		*07.30*	*10.30*	*13.00*	*15.30*	*19.00*	
Food eaten		*Cereal Tea*	*Fruit Coffe*	*Sandwich*	*Tea*	*Meat and vegetables*	

Your local diet	Snack/drink	First meal	Snack/drink	Second meal	Snack/drink	Third meal	Snack/drink
What meals							
Time							
Food eaten							

3. **Seasonality** – How does the diet change over the year? Does it lose some important ingredients at particular times of year, for example, very little fresh fruit in April and May, closed season for fishing in September and October? Make notes:

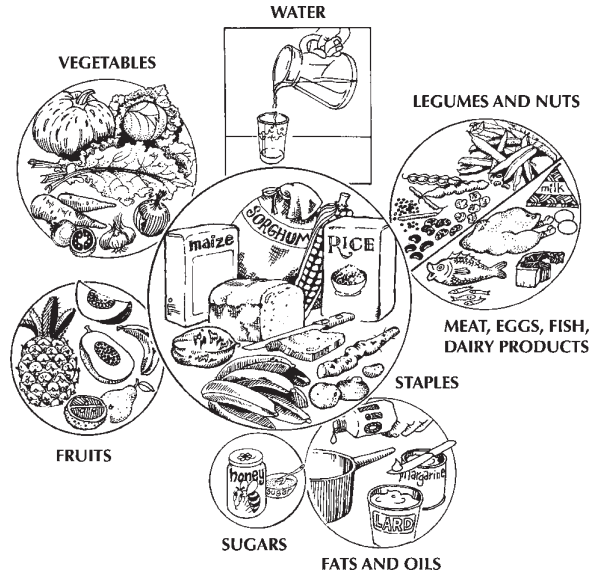
.....

.....

.....

ACTIVITY 4 *contd.*

FAMILY MIXED MEAL GUIDE



Draw a similar picture below, but give the specific local foods. For example, instead of "starchy staple" write "rice", millet", "cassava"; instead of "vegetables" write "pumpkin leaves", "tomatoes", and so on.

PICTURE OF THE LOCAL DIET

ACTIVITY 5

EVALUATING THE DIET

30 minutes

1. Look back at the diet description in Activity 4. Also, if necessary, consult the food values recorded in Activity 3.

   - Does the diet regularly include a variety of foods from different food groups at most meals?
   - Does it meet the needs of growing children – for food energy and nutrients?
   - Are any particular nutrients inadequate?
   - Are the meals frequent enough? Is there a good meal in the morning?
   - Is the diet badly affected at certain times of the year?
   - Can the food be thoroughly enjoyed and appreciated?

If not, what is missing or inadequate? Does this fully explain the nutritional problems identified in Activity 2?

To get other views, consult the Data Sheets for Teachers (B1.1 and B1.2), Parents (B1.1 and B1.2) and Health Professionals (B1.6 and B1.7) and note their combined opinions.

2. Summarize the children's dietary needs in the box below – e.g. *more healthy snacks; a good breakfast every day; fresh fruit all year round* etc. If you have any very specific recommendations – e.g. *more red palm oil, more pumpkin leaves* – include them in the appropriate place. You may also want "less" messages – e.g. *less fried food.*

3. Discuss the causes of the inadequacies in the children's diet – Lack of income? Lack of adequate food in the area? Poor health and sanitation? Lack of care? Lack of knowledge? Dislike of certain foods?

Try to find specific causes as well as general ones, e.g. *beans have low status*. Consult the Children's Data Sheet Point B1.3. Record these in the box.

Children's dietary needs

.....

.....

.....

Causes of dietary problems

.....

.....

.....

ACTIVITY 6

DIETARY GUIDELINES

20 minutes

1. Look back at the Dietary Guidelines in Preparatory Unit 1 (Factsheet 2). If you have your own national dietary guidelines, they should be on display. Identify any guidelines which very clearly apply to the schoolchildren.

2. Using your review of local foods in Activity 3, your picture of the local diet in Activity 4, and your evaluation in Activity 5, draw up similar guidelines for schoolchildren in your region – the most important messages for their diet.

Since children are often not responsible for what they eat, your guidelines will not be expressed as direct commands to children, like the Guidelines for adults, but as *Children should* …

GUIDELINES FOR CHILDREN'S DIET

Children should...

ACTIVITY 7

SUMMING UP


20 minutes

You have now looked at the broad picture of health in the region, the special nutritional problems and their causes, children's dietary needs and specific dietary messages for schoolchildren.

How will your findings affect the classroom curriculum?

You should record your conclusions on the document THE LOCAL DIMENSION on the next page. This will be pinned up on the display to represent an extra dimension of the classroom curriculum. You can copy the document on the next page and then fill it in, or fill it in and then copy it.

Recording conclusions

Look back at the boxes you completed for Activities 1, 2, 5 and 6, i.e.:

- Local factors affecting health
- Malnutrition in the area
- Children's dietary needs
- Guidelines for children's diet.

Pick out the points that you think should have priority in the curriculum because of their local importance and urgency. You may consider:

- specific nutrients, specific food groups, particular meals and meal frequency;
- specific causes of nutrition problems;
- factors affecting health (e.g. sanitation) that can also be reached by education.

Be careful not to make the same point twice.

Record these in Part 1 of the document THE LOCAL DIMENSION. Leave Part 2 blank.

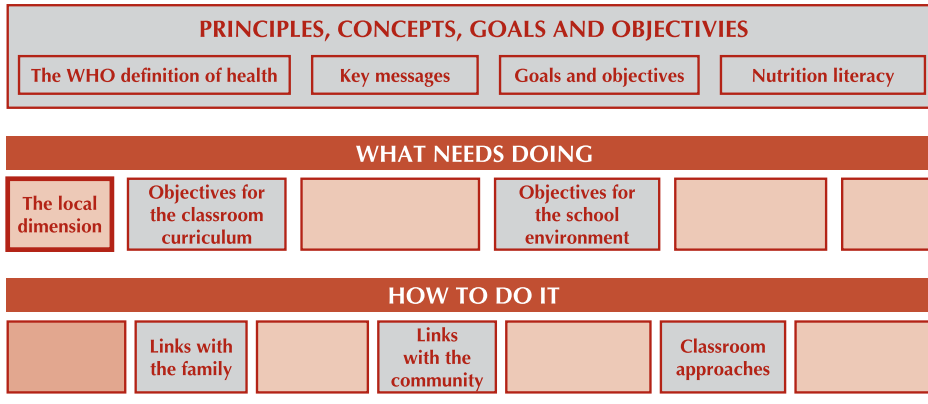
2. Pin up the document next to the OBJECTIVES FOR THE CLASSROOM CURRICULUM (see display diagram).

Presenting conclusions

Divide the points on the document between you and present them one by one, explaining why you have selected them. Make sure the whole group is in agreement that these points should be given special emphasis in the curriculum, with a view to making an impact on the local situation.

DISPLAY DOCUMENT

DISPLAY DIAGRAM



DISPLAY DOCUMENT

THE LOCAL DIMENSION

Part 1 **Special attention should be given in the school's education programme to these nutrition issues:**

Part 2 **The school should give educational support to these health/nutrition interventions:**

Part 3 **Local foods and food practices**

Local foods and food practices must be built into all classroom teaching about nutrition.

Yes ☐ No ☐

Establishing a local food information base should be an educational priority.

Yes ☐ No ☐

UNIT B2

HEALTH AND NUTRITION INTERVENTIONS AND LOCAL KNOWLEDGE

CONTENTS

WHAT YOU NEED

People If possible, representatives of the local health services and the community services, together with any NGOs, aid agencies or other bodies which are organizing direct health or nutrition interventions in the area, and teachers' resource centres. Ask representatives to speak briefly about specific interventions and how they can be supported educationally. Teachers' resource centres should be called on to talk about information resources, the possibility of a food information base, and perhaps about the possibility of in-service training and materials development. Note that if this workshop is to be repeated, find some means of recording these inputs and storing them.

Information Your own information about the child health monitoring and referral systems, past and present; information about local food and food practices; knowledge of in-service training possibilities.

Course documents You will need:

- the School Questionnaire/Data Sheet
- the main display
- the LOCAL DIMENSION document from B1 (already on display)
- a copy of the OTHER NEEDS display document at the end of this unit.

Equipment Recording equipment if you want to record experts' talks.

ACTIVITY 1

HEALTH AND NUTRITION INTERVENTIONS

20 minutes

What direct health and nutrition interventions are there in your area?

1. Below is a list of possible interventions and programmes. Identify those which are active in your area and give details – e.g. how often, what kind, where, when. Say who is running them, give names of any contact persons if known and indicate if they could (or do) provide educational support for their interventions (e.g. leaflets, briefing material, posters etc.)

Intervention	Details	Provider, contact person
Deworming		
Dietary supplements (e.g. iodized salt, Vitamin A tablets)		
Medical screening for diseases or nutritional deficiencies/regular growth		
Immunisation/vaccination (against what?)		
Visits from the school dentist		
School meals service		
School health and safety inspections		
Water treatment/malaria control		
First aid kits/training		
Teacher training in health and nutrition issues		
Other (specify)		

2. What particular health and nutrition interventions seem to be urgently demanded by the local situation you described in Unit B1?

HEALTH AND NUTRITION INTERVENTIONS URGENTLY NEEDED

ACTIVITY 2

EDUCATIONAL SUPPORT FOR HEALTH AND NUTRITION INTERVENTIONS

30 minutes

Here are some examples of how schools have supported (or not supported) local health and nutrition interventions.

I remember there was a programme to give all the children Vitamin A capsules. The teachers gave them out in class. Some parents were worried about this, so they told the kids, "Take the capsule and put it in your mouth, but don't swallow it. Then when you get outside, spit it out in a bush." We only found out about this long afterwards.

We're lucky – we have an excellent school meals service. Although they're very busy they let us take our senior classes to the kitchens so that they can see the scrupulous hygiene precautions that are taken. Their officers also come and tell students how they plan the meals, and about the difficulties of providing meals that everyone will eat. It's an eye-opener for most of the children. If I have a nutrition lesson in the afternoon I always ask what the class had for lunch and we analyse it to see if it's "balanced". They can never see a meal again in quite the same way!

We don't have a school dentist but the Sister comes from the clinic once a year to demonstrate brushing teeth to the new pupils. The trouble is that at any one time a lot of the children are away. So some of the older pupils volunteer to watch the demonstration. Then they give their own practice talk while the Sister watches. They then do the demonstration themselves when she's gone. Some of them made a huge demonstration mouth and teeth and toothbrush out of bits of rubbish – the mouth is orange plastic, very realistic. They stick little bits of sweet potato between the "teeth" to show children what they're brushing away, and they also have a bad black "tooth" which falls out with a clang.

There is a big programme of food supplementation and de-worming in the next province. They've produced training courses for teachers and educational material to explain what they're doing – lessons and posters for parents. I picked some up at a meeting, but we can't use them because the programme hasn't reached us yet.

There is an agricultural project here which aims to provide a palm oil tree for every household. We met with them and worked out two lessons to give when they reach our area, so that people will understand how red palm oil will improve their health and also know how to process it. They will also bring along a seedling and plant it in the school, so eventually we'll be able to collect and process our own oil – if it survives.

ACTIVITY 2 *contd.*

1. Read the examples on the previous page – take one per group, read it and comment to the group as a whole.

2. Go back to the existing interventions you identified in Activity 1.

3. Divide into groups and take one intervention each. Spend a few minutes brainstorming how schools could *support* this intervention educationally and enter your ideas in the table below. You may also want to think of involving families and other members of the community.

4. Report back to the whole group.

HEALTH/NUTRITION INTERVENTION	IDEAS FOR EDUCATIONAL SUPPORT

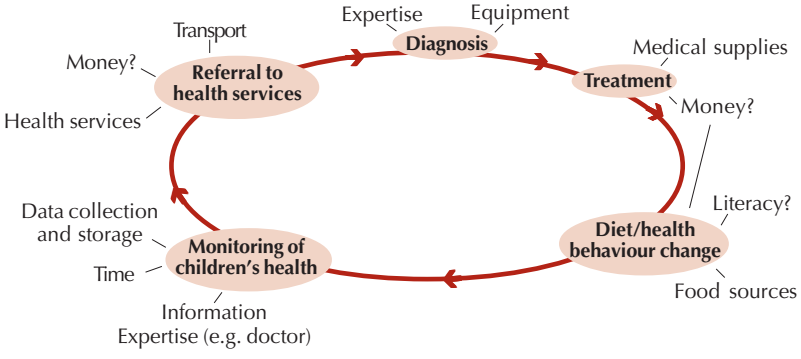
ACTIVITY3

MONITORING AND REFERRAL

15 minutes

Look at the diagram *Health monitoring and referral* below (from Reader Unit B2). It illustrates a health monitoring system. Some of the important inputs and conditions are shown around the outside in italics.

Get a volunteer to talk through the diagram, or explain it to each other in pairs. This is in preparation for the next two Activities.



ACTIVITY 4

EPILOGUE TO E'S CASE

40 minutes

(Optional)

Note: 'E' is a girl. Choose a suitable name for her.

To illuminate the referral process, look at how it worked in a particular case.

The speakers below illustrate what happened about E's case (report in Preparatory Unit 2). They are the girl herself ('E'), her guardian uncle, her teacher, a local nutritionist, a school doctor, a hospital clinician, an NGO representative, a local nurse and the school head teacher.

Take one speaker each. Read the speaker's description of how events unfolded.

1. Identify who is speaking – write the name next to the speaker.

2. Underline the "health interventions" referred to.

3. Identify the weaknesses in the system and locate them on the diagram of the health monitoring system in Activity 3.

4. Exchange your insights. You will find our comments in the KEY.

5. Compare your situation with that in the case study. Discuss what needs improving and what are the main general constraints on safeguarding children's health.

Speaker: .....

"I saw 40 children in E's school. I have a population of 10 000 on my lists and more than half of them are kids! This was my first visit to the school so I couldn't tell if the kids had improved over the last year. The school should keep records but the head teacher told me they were lost in a flood last year. However, I know most of the children here have been vaccinated against polio. Some of them are abnormal on the height/weight charts. 'E' was one. I couldn't do any reliable screening because I don't have funds or time at the moment. I had to move on to the next village. I alerted the district health authorities though, about possible nutritional deficiencies and worms."

Speaker: .....

"I was suspicious that health or family problems may have explained E's lack of achievement and I was worried about her absenteeism. So I sent a letter home with the child to see if we could meet and discuss her problems. After ten days I hadn't received a reply. After another few days of absence I decided to visit E's family. E was looking after the small ones when I arrived. I spoke to her aunt and uncle, who seemed concerned. They mentioned she wasn't eating fish and said they'd noticed her irritability but didn't know the cause. I suggested they take her to see the local nurse because she didn't look well and since the doctor's visit I'd noticed the swelling in her throat."

ACTIVITY 4 *contd.*

Speaker: .....

"When 'E' came into the clinic I thought she looked pale. Her aunt told me the teacher had passed by their place and suggested the girl be brought here, but she hadn't been able to make the 15 kilometre trip because they had been too busy. Seeing that her niece was getting worse – she was feeling weak and had diarrhoea – she took time off from work and got a lift with a market farmer. I didn't like E's swollen throat and all these infections she'd had recently, but I didn't feel I could do much in E's case. I've had no supplies for over a month now. She needed to see a doctor and have some tests. I gave them some leaflets which the nutrition officer had left explaining the need for a variety of foods to have a healthy diet. I'm not sure the aunt can read very well, however. E's aunt wanted to get medicine from a local vendor but I told her this was risky. I referred her to the hospital in town even though it was a long way. Fortunately I know the driver of an NGO jeep which goes there once a week so I arranged a lift. Her aunt was worried about getting back but thanked me for my trouble and took the ride to town."

Speaker: .....

" 'This won't hurt at all. We're just going to get a little blood to see how you are.' 'Ouch!' The blood test showed Judith had an iodine deficiency. We prescribed salt with iodine. We alerted the district medical authority and the school – these cases aren't usually isolated. Some kind of screening would be useful if they can get the funds. She needed de-worming too. We sent a letter to the subdistrict nutrition officer working in E's area, who has links with the school nutrition education programme. The relief organizations in the province may also help. I doubt it though! Still, we'll contact them anyway."

Speaker: .....

"The district health office contacted me about the diet-related health problems in the local school. I've distributed a thousand nutrition education leaflets this last month – in clinics, offices, schools, markets. We have recently begun a nutrition education programme and we planned a food week presentation for the parents and community – it seemed a good idea to involve the local health workers and coordinate their screening programme with the event. An NGO I contacted might be able to supply some extra dietary supplements on this occasion. Our stocks are down. I'll keep my fingers crossed! I have informed the school – the head teacher is sensitive to these issues, which makes it easier for me."

Speaker: .....

"The nutritionist called and asked if we could supply some more iodine-fortified salt for a school and community food programme. We said we had some reserves and would discuss whether we could supply some for one or two months. However, we don't usually do this. We might also contact the WHO project in the area to find out what other supplies can be tapped. The school contacted us to see if we would like to talk about our irrigation and agriculture project at a food fair the classes are organizing. I said we could take the kids out to the field instead. Transport could be a problem."

ACTIVITY 4 *contd.*

Speaker: .....

"We got a letter today asking if we can go to E's school for a school food programme – they want to talk about the children's diet and what we can do to make them grow healthy. We are giving her the salt they gave us in town with her soya and vegetables and she even eats a bit more fish nowadays. She's read the leaflets the nurse gave us. The teacher has helped too. My wife is happy about the change. Another thing is that E hasn't had diarrhoea since her de-worming. E's teacher also asked me if she could bring her class out here one day to see our fishing cooperative and how we bring in and clean the catch! It sounds crazy to me – but I'll tell her OK because she's been good to us and E."

Speaker: .....

"I just wanted to tell you all that we have received a message from the district health authority that they want to do some screening tests for our children. They suspect we may have a few cases of iodine deficiency. They would like to give some practical demonstrations on how to cook and store food safely. We suggested they come during our food week next month. Can someone organize a space for them on the programme, and inform the parents? Oh, I nearly forgot, the NGO might also come to distribute salt to families. There's a field trip too we need to talk about, and the nutritionist will be giving some talks on healthy diet."

Speaker: .....

"We've started our nutrition education programme and today we made some posters for the food fair. Everyone is going to come and see our work. I saw the nurse at school again yesterday and she said I looked much better than when she saw me two months ago. I've put on weight too. She gave a talk to our class about how important it is to wash hands before eating, and measured the arms of the younger kids and wrote their measurements in a register. She's really friendly and I hope she comes back soon. She's going to come to the fair too because we invited her."

ACTIVITY 5

MONITORING AND REFERRAL: THE SCHOOL'S ROLE


30 minutes

1. What role does your school play in the health monitoring system? Discuss and produce a short description of the school's role. Consult Point B2.1 in the School Data Sheet.

THE SCHOOLS' PRESENT ROLE IN THE CHILD HEALTH MONITORING SYSTEM

2. Are there any ways in which schools could act to improve the child health monitoring system? This may be no more than starting a dialogue with the health services, or resurrecting the "sick book" for recording absences. Make a few notes below.

WAYS TO IMPROVE CHILD HEALTH MONITORING

3. Can you see any need for teacher education here? For example, in:

- growth monitoring?
- detecting signs of malnutrition?
- sounding children out about their diet?
- knowing what action to take and who to talk to?
- handling parents tactfully?

Make a few notes in the box below.

TEACHER EDUCATION NEEDS FOR HEALTH MONITORING AND REFERRAL

ACTIVITY 6

LOCAL FOODS AND FOOD PRACTICES

20 minutes

Everyone in nutrition education needs knowledge of local foods and food practices. The table below is a means of collecting information about any particular food consumed locally. An explanation and example are given on the following page.

Food (e.g. banana, chicken):.....

Nutritional value (what is it rich in?).....

Social value (*is it valued? what is its social role ?*).....

	Acquiring	Storing and preserving	Marketing	Preparing and serving	Consuming	Waste disposal
Who does it?						
When?						
Where?						
How?						
How often?						
How much?						
Cost?						
Problems?						

Notes:1. "Food" includes food hunted, grown, raised (animals), gathered, bought, and water supply.
2. "Acquiring" means hunting, growing, raising, gathering, collecting or purchasing.
3. "How" includes processes and also precautions, in particular hygiene precautions (e.g. handwashing, covering food).
4. "Cost" means cost in terms of time or money.

1. What should we know about the food we eat?

   a) Look at the explanation and example on the next page.

   b) Divide into small groups and select one local food each.

   c) Decide what teachers and children need to know about it, and fill in the table with question marks. These marks indicate which particular questions need answering.

   d) Discuss where teachers and children could find out the information. Also consult any available documentation (e.g. descriptions of regional food and food practices, tables of nutritional values, surveys).

   e) Report back.

   f) Read the note on the *Local food information* base on the next page. Is this idea desirable in your area? Is it feasible? Discuss.

2. Finally, discuss and answer the questions in the box below.

ACTIVITY 6 *contd.*

LOCAL FOODS AND FOOD PRACTICES

Are schools sufficiently well-informed about local foods and food practices? .....

Is full information about local foods and food practices available to schools? .....

Do local foods and food practices get enough attention in the curriculum? .....

Is there a need for a local food information base? Is it feasible? .....

"Our food" table

The table can be completed for any food item consumed in the area. The nutritional content and social value of the food are recorded in the first row. Below this, the horizontal dimension represents the "food path" (from acquiring food to consuming it and disposing of what's left) and the vertical dimension asks questions about the social practices relating to it.

However, for any given food only some questions are relevant. As an example, take iodized salt. We need to know its nutritional value, who sells it locally and why it is needed. We are interested in the cost, in how to keep it dry and in how much we should use. We also want to know whether people recognize its value – do they perceive it as an expensive luxury? There may be problems acquiring it, as sometimes ordinary salt is fraudulently labelled as iodized.

The table has been marked with these question: the question-marks indicate what needs to be known about iodized salt in the framework of local nutrition. The table now represents the "local research programme" for this food item.

Our food (e.g. banana, chicken):.....

Nutritional value (what is it rich in?).....

Social value (is it valued? what is its social role?).....

	Acquiring	Storing and preserving	Marketing	Preparing and serving	Consuming	Waste disposal
Who does it?	?	?				
When?						
Where?	?					
How?		?				
How often?						
How much?				?	?	
Cost?	?					
Problems?	?					

Notes:1. "Food" includes food hunted, grown, raised (animals), gathered, bought, and water supply.
2. "Acquiring" means hunting, growing, raising, gathering, collecting or purchasing.
3. "How" includes processes and also precautions, in particular hygiene precautions (e.g. handwashing, covering food).
4. "Cost" means cost in terms of time or money.

ACTIVITY 6 *contd.*

A local food information base

This kind of information can be the foundation for a "Local food information base", which can include factsheets, drawings, maps, posters, interviews, pictures and so on. Such information can be collected, on a small scale or a large scale, by inspectors, resource centres, teachers and children. Actually finding out is the educational part – for both teachers and children.

ACTIVITY 7

SUMMING UP

30 minutes

You have now looked at three further elements of the local situation:

- what health and nutrition interventions there are and how to support them educationally;
- how the local health monitoring system works and what role the school can play in it;
- the importance of local foods and food practices in the curriculum.

The needs identified here can now be added to the display you are building up.

Some of these needs are directly concerned with the content of the curriculum and these will be entered in Parts 2 and 3 of the document THE LOCAL DIMENSION. This should already be on display next to the OBJECTIVES FOR THE CLASSROOM CURRICULUM.

Other needs are less directly involved with classroom content, for example, improving the health monitoring system, training teachers. These will go into a new document called OTHER NEEDS. A copy of this document is attached to this unit. Photocopy it or hand copy it so that it too can go on display.

Recording conclusions

1. Look back at the second page of Activity 2, *Educational support for nutrition interventions*. Enter your conclusions in THE LOCAL DIMENSION document, Part 2.

2. Look back at the box you completed for Activity 6, *Local foods and food practices*, then accept or reject the statements in THE LOCAL DIMENSION, Part 3 – select "Yes" or "No". This decision should not be taken lightly! If you accept the statements it will mean that these will become part of your action programme. Leave THE LOCAL DIMENSION on display next to the OBJECTIVES FOR THE CLASSROOM CURRICULUM.

3. Look back through the whole unit. Can you identify:

   a) any special needs for teacher education?
   b) any other needs which are not within the school's control, for example, particular health interventions or improvements in the health monitoring system?

   Enter these on the new sheet OTHER NEEDS at the end of this unit, or on a copy of it.

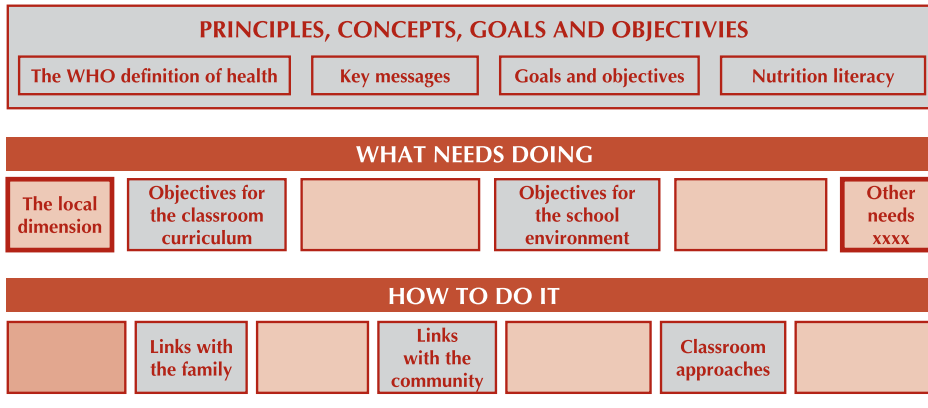
4. Pin up the OTHER NEEDS document to the right of the document display, near to OBJECTIVES FOR THE SCHOOL ENVIRONMENT (see display diagram).

ACTIVITY 7 *contd.*

Presenting conclusions

Divide up your new recommendations between you and present them to the group. Fix a time limit for each presentation. Make sure that the group is in agreement.

DISPLAY DIAGRAM



DISPLAY DOCUMENT

OTHER NEEDS

The needs recorded here are not solely within the control of the school. The purpose of this list is to provide an agenda for discussion with relevant authorities for improving the health and nutrition situation in schools. They include specific needs for teacher training.

1. .....
2. .....
3. .....
4. .....
5. .....
6. .....
7. .....
8. .....
9. .....
10. .....
11. .....
12. .....

KEY TO ACTIVITIES FOR UNIT B2

ACTIVITY 4 *Epilogue to E's case*

Although E's case was resolved happily, it reveals some limitations in local health resources. Some are simply scarce (e.g. school doctors and general medical supplies) and there are difficulties of access (getting transport, having no telephone, finding time to take a child to the clinic). Some services (e.g. screening) seem to have been suspended, and something has gone wrong with the records. Sometimes supplies are erratic or the interventions are of limited duration.

On the other hand, the necessary services are in place, and the case reveals a high level of coordination and communication between school and local health providers, a fairly dynamic can-do atmosphere, and a lot of goodwill. The culture of cooperation and endeavour sometimes goes well beyond normal institutional cooperation (lifts in the NGO jeep and gifts of iodized salt, for example!).

UNIT B3

LINKS WITH FAMILY AND COMMUNITY

CONTENTS

WHAT YOU NEED

People	Very welcome in this session will be representatives of families, health services, community services and any NGOs or organizations active locally in the areas of health and nutrition. Inputs from any of them (to a maximum of 10 minutes) would be desirable. If this workshop is to be repeated, find some means of recording these inputs and storing them.
Information	Your own knowledge of relations between schools and the family and community.
Course documents	The Parents, Teachers and School Data Sheets. Copies of the documents at the end of this unit LINKS WITH THE FAMILY: *Approaches*, LINKS WITH THE COMMUNITY: *Resources and approaches*
Equipment	If possible, equipment to record speakers.

ACTIVITY 1

INVOLVING THE FAMILY IN NUTRITION EDUCATION

30 minutes

The next page shows some examples of collaboration between school and family in the area of nutrition. Some have to do with parents taking an interest in what happens at school, and some with the school taking an interest in what happens in the home.

1. What nutrition "events" do these texts refer to? Discuss this in small groups and write your answers in the box below. How might families be involved in these events?

2. Think of any other nutritional events or initiatives which schools and families could undertake together. Remember it is a two-way process – schools can learn from families as much as families can learn from schools. Write some more suggestions in the box.

3. When you have finished, pool your suggestions. Then compare them with the checklist of activities in the KEY.

NUTRITION ACTIVITIES INVOLVING FAMILIES

ACTIVITY 1 *contd.*

Appeal for recipes

Class Four is making a collection of "Best Recipes" to put in a little book.

"Best" for us means:
- Delicious
- Nutritious
- Not too expensive

Can you contribute a good recipe?

Next week's school menu

Monday .....

Tuesday .....

Wednesday .....

Prato Primary Food Fair
18 March

Bring and buy your favourite food!

Win a prize for best vegetable, best snack!

Watch demonstrations of delicious low-cost meals!

DRAMATIC SKETCHES
SONGS
PARADE
COMPETITIONS
DISPLAY OF WORK

Can you contribute? We need help with costumes, cooking, organization…

Contact the Head Teacher.

Homework

Ask three members of your family what fruit they eat, how much and when. Put their answers in the table.

Family member	What kind of fruit?	How many last week?
e.g.: *brother*	*bananas*	*four*
.....	.....	.....
.....	.....	.....
.....	.....	.....

Prato Primary School,
Field Estate, Prato

Dear Mrs Kai
Very many thanks for your help with raising funds for the school breakfast programme.

You will be glad to learn that we now have enough sponsors to provide a free breakfast for nearly half the children. In addition, three local firms are prepared to donate regular quantities of milk and cereals…

(Poster) ***Parents!!!***

Have you any experience of:

- *agriculture/hunting/fishing?*
- *selling food?*
- *preserving or canning food?*
- *professional cooking?*
- *living abroad?*

We may need you! Please contact a class teacher before you leave the school.

ACTIVITY 2

GENERAL LINKS WITH FAMILIES/PARENTS[1]

30 minutes

In the following two activities we look at the objectives for LINKS WITH THE FAMILY which you first met in Phase A. This document should be on display, with particularly important objectives marked.
The questions here are:

- What can schools do towards these objectives?
- What are the difficulties?

> *"I think of the school's relationship with parents as curved like a hammock. At the beginning, parents are very interested and supportive, then interest slackens off, and then when exams come round at the end they get anxious and start visiting again. So I try to keep them interested all the way through – to straighten out the hammock, so to speak."*
>
> – Primary head teacher

The first two objectives concern *general* relationships. How satisfactory are these in your schools?

1. Discuss the questions below for Objectives 1 and 2 and describe your present situation in the second column of the table. Consult the Data Sheets for Parents (Points B3.1 and B3.2), for Teachers (Points B3.1 and B3.2) and for the School (Point B3.1) to reinforce your views.

Objective 1: Generally, to provide dynamic, positive and productive school/family links

Do parents generally participate in the life of the school? Do teachers and parents expect to collaborate with each other? Are there frequent contacts between school and parents? Are parents often involved with children's learning through homework? What are the difficulties in maintaining good relations with parents?

Objective 2: To support an active parent-teacher association or similar structure.

Is there a PTA? Is it active? Is it representative? Does it maintain good contacts with the rest of the parents? Is it interested in what children learn? Does it have good contacts with the community? Are there difficulties?

2. Think of specific actions the school can take, or approaches it can adopt, which will help towards the objective. Enter them in the third column.

[1] "Parents" here is used to mean "caregivers", i.e. whoever in the home is responsible for the child's welfare.

ACTIVITY 2 *contd.*

Objective	Present situation and difficulties	*What can the school realistically do towards this objective? What approaches can it adopt?*
1. Generally, to provide dynamic, positive and productive school/ family links		
2. To support an active parent-teacher association or similar structure		

3. Problems – Problems often seem impossible to overcome. It is worth spending a little time practising the technique of "pushing the purpose through the problems". Sometimes it produces interesting solutions.

   What problems have you identified? Any of the following?

   - Parents are not interested.
   - There is no tradition of parent-school cooperation.
   - Parents can't teach, so it is no use inviting them to the school to give talks.
   - It is difficult to communicate with parents: some are semi-literate and don't reply to letters.
   - Many parents live far away or work very long hours and cannot come to the school.

a) Choose one problem which matches your situation.

b) Brainstorm some solutions – think of every solution you can, however unusual. Then pick the best solutions.

c) Compare your solutions with the KEY.

d) Formulate any other obvious problems that have come up. Put them in the table below, and then brainstorm solutions in the same way.

e) Go on using this technique with the following Activity.

Problem	Solution

ACTIVITY 3

LINKS WITH FAMILIES FOR NUTRITION EDUCATION

30 minutes

The remaining "family objectives" (set out on the next page) are about nutrition education in particular. If your school does not have a nutrition education programme, they will not apply at the moment. In your discussion you are mainly assessing potential. The questions are: *How can the school meet these objectives? What approaches can it adopt?*

Divide into groups, taking one objective for each group. Discuss each objective and the questions it raises. Then complete the table on the next page. To inform your discussion, consult the Data Sheets for the School (Point B3.2), the Parents (B3.3, B3.4 and B3.5) and the Teachers (B3.3a).

Objective 3: To ensure that parents and families are aware of the school's nutrition education goals, policy and curriculum.

Can parents be involved in formulating school health and nutrition goals and policy? Can they disseminate it to other parents and discuss it with them? Do parents and families know what their children learn at school about health and nutrition? Would they be interested in sitting in on lessons? Would the school approve of this? Can the school explain to parents what their children will be learning so that parents can match it with their own ideas and practices, understand the purpose of the teaching, and discuss how to support it?

Objective 4: To raise parents'/families' awareness of the family's role in nutrition education.

Do parents/families recognize their central role in nutrition education? Can schools promote the idea of partnership and make connections between learning at home and at school? If so, how?

Objective 5: To encourage pupils to discuss and disseminate at home what they learn about nutrition at school.

As well as "disseminating", pupils should be finding out at home about local food and food practices. Is this kind of homework possible? Are parents ready to enter into dialogue with their children about what is eaten and why? Will families tolerate this kind of intrusion into their privacy?

Objective 6: To involve parents/families directly in school nutrition education activities.

Are parents already involved in food preparation and demonstrations, in school trips, in Open Day exhibitions? Will there be any problems here? How can their interest be stimulated?

ACTIVITY 3 *contd.*

Objective 7: To ensure that parents'/families' skills, knowledge, practices and beliefs are explored.

Is the school and its teachers prepared to engage in the long-term process of finding out what parents and families think, believe, know and do? How can they do this?

Objective 8: To ensure that parents'/families skills, knowledge, practices and beliefs are used by the school.

Does the school know what parents and families have to offer in terms of nutritional skills, experience and specialist knowledge? How can it find out? Is it able to use this expertise? If so, how?

Objective 9: To ensure that teachers and school staff are aware of the importance of parents/families in nutrition education.

The teachers are in the front line for contact with parents. Do they recognize the family's importance in nutrition education? How can awareness be raised? Can they handle families tactfully so that parents will be keen to collaborate?

Objective	***Difficulties?***	***What can the school realistically do towards this objective? What approaches can it adopt?***
3 . To ensure that parents/ families are aware of the school's nutrition education goals, policy and curriculum.		
4. To raise parents'/families' awareness of the family's role in nutrition education.		
5. To encourage pupils to discuss and disseminate at home what they learn about nutrition at school.		
6. To involve parents/families directly in school nutrition education activities.		
7. To ensure that parents'/ families' skills, knowledge, practices and beliefs areexplored.		
8. To ensure that parents'/families' skills, knowledge,practices and beliefs are used by the school.		
9. To ensure that teachers and school staff are aware of the importance of parents/familie in nutrition education.		

ACTIVITY 4

NUTRITION EVENTS AND ACTIVITIES INVOLVING THE COMMUNITY

20 minutes

By "community" we mean everything *except* the immediate family and household – e.g. the local shop, farmers, food factories, the district council, community and health services, and so on.

Here are some examples of school-community collaboration for nutrition education:

- A head teacher asks a canning company to donate prizes at a school food fair.
- A visit is organized to a local smallholding to see the foods grown there.
- A shop gives the school old advertising posters for discussion.
- A community worker brings leaflets about preserving mangoes and arranges a demonstration.
- Children tour a fruit farm.
- The local paper publishes the children's book of recipes.
- A local shopkeeper comes to the school to explain "sell-by" dates on products and regulations about food hygiene.

Think of other nutritional events and initiatives involving both school and community. Consult your own experience. Fill in the box below with some suggestions. Pool your ideas, then compare them with the checklist in the KEY.

NUTRITION EDUCATION EVENTS INVOLVING THE COMMUNITY

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ACTIVITY 5

GENERAL LINKS WITH THE COMMUNITY

20 minutes

In the next four activities we return to the objectives presented in Phase A for LINKS WITH THE COMMUNITY. These should already be on display. What can realistically be done to achieve these objectives, and in particular those which you have prioritized?

The first objective concerns the *general* relationship with the community.

1. What current links are there with the community? Use the table below as a checklist. Say what links there are (in the second column) and what they are for (in the third column). If you have a completed School Data Sheet, call on Column B in Point B3.3 to reinforce your conclusions. Teacher Data Sheet Point B3.4 is also an indicator.

	Link with – ?	***For what purpose?***
Local events		
Local media (radio/newspapers/TV)		
Local government services		
NGOs, aid agencies and voluntary organizations		
Youth organizations		
Community health and sanitation services		
Producers (e.g. farms, mines)		
Manufacturers (factories, processing plants)		
Shops, distributors, retailers		
Professional agencies, lawyers, accountants, etc.		
Religious organizations		
Other (specify)		

2. Does this picture represent very extensive, fairly extensive, or not very extensive links with the community? What are the problems? What can be done to improve this general relationship? Discuss, and complete the box below.

Objective	**Community resources**	***How can the school promote this objective?***
1. Generally, to develop and establish dynamic, positive and productive school-community links		
Problems		

ACTIVITY 6

HEALTH RESOURCES[2]

30 minutes

Objective 2 for community links concerns health resources. Apart from direct health interventions, what other resources are there?

1. What are the health resources in your area? What links already exist? What other links could be established in order to promote nutrition education? Discuss and complete the table below. You may find some answers in the School Data Sheet, Point B3.4.

***What is there?* For example:**	***What can/do they provide?* For example:**
Hospitals, clinics Doctors, nurses, chemists A community nutritionist A community counsellor Dental service School Health Service Water Board, Public Sanitation Office Health and Safety Inspectorate	Advice and information Talks and demonstrations Leaflets and posters Training Membership of school committee Other

2. Summarize the potential for nutrition education in the box below, and also discuss the problems.

Objective	**Community resources**	***How can the school promote this objective?***
2. To utilize the potential of community health services related to nutrition education – information, materials, advice, talks.		
Problems		

[2] If you are short of time, divide this survey of the situation into two - one group does Activities 6 and 8, the other does Activitiey 7.

ACTIVITY 7

COMMUNITY LINKS FOR NUTRITION EDUCATION

30 minutes

What else do your communities have to offer for nutrition education?

Objectives 3 to 6 have to do with the other people and organizations in the community that can be seen as resources for nutrition education. These are described in detail in the table Local community resources in the Reader, Unit B3, Table 14.

1. Form groups and share out the types of resource among the groups.

2. Read, one by one, the relevant descriptions in the table *Local community resources*.

3. For each, discuss what resources exist in your area, what potential they have for nutrition education, and what problems arise. Give concrete ideas if possible. Make notes in the table below. You may find the necessary information in Point B3.3 of the School Data Sheet.

4. Come together to share your findings. Highlight the best ideas.

Types of resource (numbers refer to objectives)	**Community resources**	***How to promote links for nutrition education?***
3. **Local government** Name local government projects, local representatives of ministries and departments.		
4. **NGOs, aid agencies, charities** Give names of relevant projects and organizations.		
4. **Religious organisations** Name churches, religious organizations, religious festivals.		
4. **Youth organizations** Name any relevant local organizations.		
5. **Food producers** Name big and small producers, especially of products typical of the area.		
5. **Food processors** Name both big and small enterprises.		
5. **Food distributors and sellers** Name retail outlets close to the school.		
6. **Local media** Give names of local radio and TV stations, newspapers and magazines.		
6. **Local events** Name the most important events and say when they take place.		
Other human resources Name specific people with relevant knowledge and skills.		
Problems		

ACTIVITY 8

INFORMED, AWARE SCHOOLS

20 minutes

Objectives 7 and 8 concern the schools themselves. Discuss the questions below and then complete the box at the bottom of the page.

Objective 7: To ensure that teachers and school staff are aware of the importance of the community in nutrition education.

a) How aware are teachers and school staff ? Consult Teacher Data Sheet B3.3(b).

b) What are the best ways to convince them? For example:

- Demonstration – for example, model lesson demonstrations, visits and talks?
- Lesson materials with built-in outreach activities?
- Encouraging outreach initiatives by individual teachers?
- Group workshops on incorporating outreach elements into existing materials?
- Discussion of the school's nutrition education programme with community members?
- Other ideas?
- What are the problems?

Objective 8: To enable the whole school to become well informed about local food and food practices.

a) How well-informed are school staff about local food and food practices?

b) What are the best ways to improve their knowledge? For example:

- Homework in which children explore what people think and do?
- Group workshops for teachers to pool knowledge on existing curriculum topics?
- Projects to investigate particular foods and food practices?
- Training for school staff?
- Briefing materials?
- Other?
- What are the problems?

Objective	Community resources	*How can the school promote this objective?*
7. To ensure that teachers and school staff are aware of the importance of the community in nutrition education.		
8. To enable the whole school to become well informed about local food and food practices.		
Problems		

ACTIVITY 9

PROBLEMS


20 minutes

What problems did you come up against in exploring the use of community resources? Any of the following?

- There is very little information available from health resources.
- Local health professionals are not interested, or overworked, or far away.
- Local health professionals are willing to come and speak, but they are poor speakers.
- Local radio and newspapers are not interested.
- Private companies are too busy and will not respond.
- Teachers are not accustomed to liaising with the community.
- We haven't got time to organize all these things.

Try "pushing the purpose through the problems" again.

1. Choose one problem from the list above that is close to your own. Describe it.

2. Brainstorm some solutions – think of every solution you can, however unusual. Then pick the best solutions.

3. Compare your solutions with the KEY.

4. Record your other problems in the table below.

5. Brainstorm solutions in the same way.

6. If you find good strategies, add them to the tables in Activities 5, 6, 7 and 8 – the right-hand column, of course!

Problem	Solution

ACTIVITY 10

A SCHOOL HEALTH AND NUTRITION COMMITTEE

20 minutes

To discuss school policy, and coordinate health and nutrition activities, a Health and Nutrition Committee is recommended, which will engage the interest and support of the community in the school's health and nutrition activities. Members might be representatives of school staff, pupils, parents and teachers; health services, community services and agricultural extension services; school inspectors; interested churches and community groups; food vendors and so on.

Is such a committee feasible in your school?

- What would the membership be?
- Is transport a problem?
- Do people have enough time?
- Do they normally turn up to meetings?
- Is there a tradition of intersectoral cooperation?
- Are there other problems?
- What size of group would be best?
- What might be the first items on the agenda?

Discuss these questions briefly and write a general recommendation in ONE of the boxes below.

SCHOOL HEALTH AND NUTRITION COMMITTEE

It is not feasible to establish a School Health and Nutrition Committee at this time because:	It would be desirable to establish a School Health and Nutrition Committee soon because:
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

ACTIVITY 11

SUMMING UP

30 minutes

You have now reviewed the objectives for links with both family and community and have identified actions and strategies for moving towards these objectives.

Your conclusions are to be recorded on the two display documents at the end of this unit: LINKS WITH THE FAMILY: *Approaches* and LINKS WITH THE COMMUNITY: *Resources and Approaches*. These will be added to the display, so you will need "pin-up" versions. Either fill in the documents and then copy them, or make copies of the blank documents and then fill them in.

Recording conclusions

1. **School-family links**

a) Look back at your ideas for what schools can realistically do to achieve the objectives for school-family links (Activity 2, first page; Activity 3, second page). Review them together and make a selection. Choose those that (i) contribute to the objectives you decided were high priority, and (ii) seem most realistic and feasible. Don't be too radical, but on the other hand don't be too conservative – any interesting initiative can be adopted on a small scale.

b) Enter your conclusions in LINKS WITH THE FAMILY: *Approaches*.

c) Pin up this document next to the document LINKS WITH THE FAMILY: *Objectives* (see the display diagram on the next page).

2. **School-community links**

a) Review your ideas for making use of community resources in Activities 5, 6 and 7 and make a selection. Choose those that (i) contribute to the objectives you decided were high priority, and (ii) seem most realistic and feasible. As before, don't be too radical, but don't be too conservative. If you have some good resources but no idea how to use them, include them in the *Resources* column.

b) Enter your conclusions on the document LINKS WITH THE COMMUNITY, Part 1.

c) Review Activity 8 and pick out the best strategies from the third column. These should go into LINKS WITH THE COMMUNITY, Part 2.

d) Finally, enter your decision about establishing a School Health and Nutrition Committee in Part 3 of the document.

e) Pin up the document next to LINKS WITH THE COMMUNITY: *Objectives* (see the display diagram on the next page).

3. **Other needs**

Look through the ideas you have displayed in these two documents. Do you see any other need coming out of your recommendations? For example is there a need

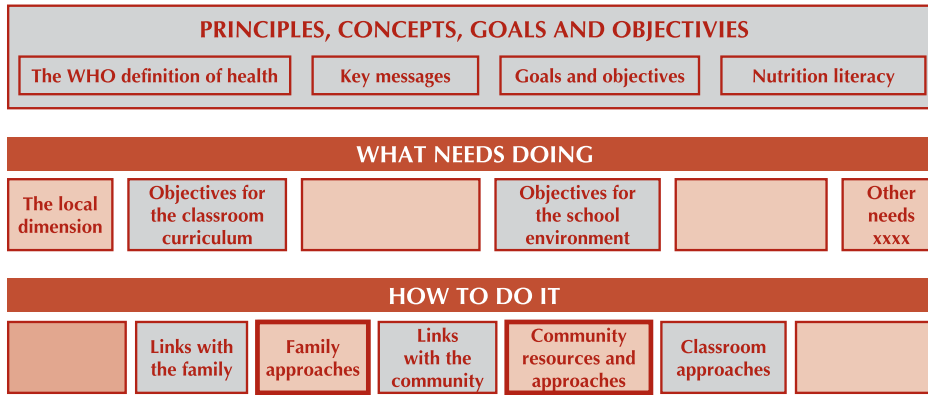
ACTIVITY 11 *contd.*

for teacher training in any areas? Is there a need for specific materials? Add them to the list in the display document OTHER NEEDS.

Presenting conclusions

Get volunteers to present the selected approaches for both family and community, explaining the reasons for the group's choices and referring to the documents on display. Allow a maximum of five minutes each.

DISPLAY DIAGRAM



DISPLAY DOCUMENT

LINKS WITH THE FAMILY

APPROACHES

Objective number	Approaches

DISPLAY DOCUMENT

LINKS WITH THE COMMUNITY

Resources and Approaches

PART 1

Objective 1-6	**Community resources**	***How can the school promote this objective?*** (links, approaches, activities)

PART 2

Objectives *7–8*		
	How can the school become more aware of the value of the community in nutrition education and the need for information about local food and food practices?	

PART 3

Objective 9		
	Should a School Health and Nutrition Committee be established?	

KEY TO ACTIVITIES FOR UNIT B3

ACTIVITY 1 *Schools, families and nutrition education*

Checklist of school nutrition activities with potential family and parent involvement

Families can:

- give talks/demonstrations in class*
- advise on the school garden*
- provide healthy food for children at school*
- provide samples of food, containers, labels and so on for children to take to class
- discuss their own attitudes to children's nutrition and nutrition education
- attend demonstrations and talks about nutritious meals
- come in to school to cook or help, e.g. in the tuckshop or school garden*
- help with school trips
- plan, help with, participate in school nutrition fairs and festivals*
- help with nutritional projects or homework*
- give children information about foods, food preparation, etc.
- liaise with community contacts on school nutritional matters and school projects*
- plan school menus and feeding schemes*
- raise funds for nutritional purposes
- act as class representatives (discussing school nutrition issues with the class and head teacher)
- act as parent representative on the School Health and Nutrition Committee or PTA*
- discuss school nutrition and health policy in open meetings.

(*events which may call on families' nutritional knowledge or expertise)

KEY TO ACTIVITIES *contd.*

■ ACTIVITY 2 *General links with parents and families*

3. Problems

Problem	Solutions
Parents are not interested	Really? How do you know? Find out by sending out feelers of different kinds. Ask for small tokens of interest, e.g. a food label, a list of vegetables that are eaten at home, or a comment on their own diet when young. Demonstrate respectful interest in what parents know, think and feel. Get children to do homework which involves asking about, drawing and writing about home practices.
There's no tradition of parent-school cooperation	Start small. Open up a channel of communication that is enjoyable to both sides and involves no commitment, e.g. invite both teachers and parents to a talk by an outside speaker, with discussion in groups after the talk and a report-back session afterwards. Appeal for parents with special knowledge of food and eating (farming, cooking, preserving, processing) to come forward. Invite some to the school to talk to teachers and/or children.
Parents can't teach, so it's no use inviting them to the school to give talks.	Some can. Some can give good demonstrations (e.g. how to plant seeds or prepare cereals). Some have photos to show and some can answer questions, if the children know what to ask. Try them out on a small group of children first, or invite them to a discussion session with several speakers in a panel.
It's difficult to communicate with parents: some are semi-literate and don't reply to letters.	Make sure all communications are in pictures as well as words. Explain the pictures to the children so children can explain it to parents. Get children to memorize important messages.
Many parents live far away or work very long hours and can't come to the school.	Start a parent grapevine, so parents keep in touch with other parents: this keeps parents involved and also saves the school a lot of effort. Always thank parents warmly for any contribution they make. Make displays of children's work to attract parents to the school.

■ ACTIVITY 4 *Links with the community for nutrition education*

Checklist of nutritional events and initiatives involving communities

- sponsorship, donations, prizes, funding for nutritional events;
- local visits – local farms, markets, shops, firms, factories, plants;
- talks and demonstrations given in class by local experts;
- nutritional information and expert advice;
- teaching materials and leaflets;
- publicity for school nutritional events;
- provision of healthy food;
- provision of training, jobs, work experience;
- planning and organizing nutritional events in the community – concerts, festivals, exhibitions;
- opportunities for children to observe – e.g. market stalls, vendors, cafés, fields, hunters etc.

KEY TO ACTIVITIES ***contd.***

ACTIVITY 9 *Problems*

Problem	Solutions and strategies
There is very little information available from health resources.	For educational purposes, a good web site may be worth several clinics – try the WHO web site. Get access to a computer – computer-addicted children will gladly find anything you want in their own time). Contact international organizations for educational material.
Local health professionals are not interested, or overworked, or far away.	Try flattery. If they can't come to you, tape-record children's questions and tape-record the health worker's answers. When health professionals are due to make an official visit, exploit it by preparing in class and ask for five minutes of the professional's time to answer children's questions.
Local health professionals are willing to come, but they are terrible speakers.	Set up the event to avoid disaster. For example tell them to bring something visible to illustrate their points (pictures, models, objects, posters). If it doesn't offend their dignity, ask them to sit down with the children around them so as not to be intimidating. Ask them to speak for not more than five minutes, then answer questions. Prepare the children to ask the questions. Alternatively, get the visitors to come and talk to teachers first – this will reveal if they are good enough to talk to children!
Local radio and news-papers are not interested.	They will be interested if you give them an event which makes a good photograph or sound-bite. Using the media means playing by their rules. A good "media event", for example, would be a competition for the best-dressed vegetable in which children parade with posters about vegetables and sing a vegetable song. You should have something short and interesting already written, ready to print, and a few quotable answers to interview questions.
Private companies are too busy and won't respond.	Use the favour system – get contacts through parents, get a V.I.P. to make the approach for you, ring up Head Office, and impress on them that you are speaking on behalf of tomorrow's consumers. Ask if the children can come and interview someone – promise a mention in the local press. If you can't speak to the managers, try the employees. If you can't get special access, get children to observe in legitimate ways – for example, by comparing prices of meats in a shop, observing irrigation systems, or watching the baker at work.
Teachers are not accustomed to liaisons with the community.	Break them in gently. Organize a project based on a local event and invite contributions and suggestions from teachers. Listen to doubts and objections. Get feedback afterwards and ask for ideas on improving the project.
We haven't got time to organize all these things.	Trips, projects, events and so on should be treated as teaching time. Make a case to the education authorities for extra paid time for coordination. Set up working groups and use the energies of helpers, parents, and children.

UNIT B4

THE SCHOOL ENVIRONMENT

CONTENTS

WHAT YOU NEED

People	Representatives of any bodies who take responsibility for the school environment are welcome – e.g. local council, local education authority, church, parents, head teachers, Water Board. If there is a school feeding programme or a well-developed school garden, talks on these (to a maximum of 10 minutes each) focussing on nutrition education aspects would be very valuable. If the session is to be repeated, arrange to record the talks if possible.
Information	Your own knowledge of the school environment, policy and responsibilities, history and needs.
Course documents	OBJECTIVES FOR THE SCHOOL ENVIRONMENT (already on display). Data Sheets for the School, Parents, School Staff and Teachers. A blank copy of the final document NEEDS FOR A HEALTHY SCHOOL ENVIRONMENT.
Equipment	Recording equipment for speakers (see *People* above).

ACTIVITY 1

THE SCHOOL ENVIRONMENT: WHAT'S INVOLVED?

15 minutes

The first two activities establish *what* and *who* are involved in nutrition in your school environment.

Picture the schools you are concerned with – their physical structure, their settings, their staff. Draw a mental boundary around them. Exclude outside organizations and influences and what goes on in the classroom. You are left with what we have defined as the "school environment".

What elements of this "school environment" are involved with nutrition, food, eating practices?

1. Think of the possibilities and fill up the box below with sketches and words. Think about abstract factors (decisions, attitudes, etc.) as well as concrete ones, and also extra-curricular activities (clubs, sports, etc.). If you like, put in appropriate people.

What's involved?

2. Check the contents of your box against objectives 1 to 8 in the document OBJECTIVES FOR THE SCHOOL ENVIRONMENT (from Unit A2), which should be on display. You may want to extend the elements in the document or add to your boxes. This should give a realistic picture of what is involved in *your particular* school situation.

ACTIVITY 2

15 minutes

THE SCHOOL ENVIRONMENT: WHO'S INVOLVED AND HOW?

Discuss *all* the parties who are involved in the aspects of the school environment which you listed in Activity 1 (don't forget the children!).

1. List them in the first column below. If you have a completed School Data Sheet, draw on Point B4.1A. This will complete the picture of the resources in your school environment.

Who's involved? (e.g. teachers, cooks)	***How are they involved?***

2. In case you have forgotten someone, check your list against Objective 11 in OBJECTIVES FOR THE SCHOOL ENVIRONMENT. Finalize your list.

3. How exactly are these people's roles linked to nutrition issues? Consult the list below and complete the second column in the table. Add any missing roles and activities.

- Promoting school nutrition policy
- Receiving or giving training in nutrition questions
- Creating and maintaining a pleasant and hygienic environment
- Providing healthy food in hygienic conditions; supervising meals
- Checking the quality of food children bring to school
- Promoting and organizing whole-school activities of all kinds
- Exploring, observing and discussing the school environment with the children
- Maintaining a school garden
- Collecting payments
- Acting as role models
- Ensuring adequate water supply
- Making rules

ACTIVITY 3

POINTS OF VIEW


30 minutes

(Optional)

1. Below are six people talking about eating in the school setting. Who is speaking? How are they involved? Is it directly or indirectly? Is it practically, socially, psychologically? Are they involved as producers or as consumers? How do they feel? Who else is involved? Make a group and take it in turns to read each one aloud. Complete the column on the right. Afterwards, consult the KEY if necessary.

Speakers – *how are they involved?*	
a *"Helping children with their breakfast is hard. Some of them don't bring any food at all and are hungry so we have to find them something even if it's just a bit of rice or bread. The ones who eat school breakfast often forget their money. Some of them aren't used to sitting down and eating together so they start to fight. And they spend so much time talking they sometimes forget to eat and we have to hurry them along."*	Speaker:..... How involved?.....
b *"I love it when the teacher tells us it's our turn to help with the menus for next week. She puts us into groups and tells us to do the menu for one day of the week. We always put down our favourite things but sometimes it doesn't look very healthy and she asks us to include things that are more nutritious. It's also really nice when we get to eat the menu we planned!"*	Speaker:..... How involved?.....
c *"I do the floors and tables very early in the morning before the children get to school. Those kids! There are bits of food every where and you have to sweep them up before the insects get them. And if they are left overnight they encourage mice and rats and cockroaches."*	Speaker:..... How involved?.....
d *"I think it is very important to have school rules for the canteen. You know, wash your hands, line up quietly, no throwing food around, pass the salt when asked, stack the plates at the end, that sort of thing. I tell the children about them during school assemblies and I've had them posted on the wall of the lunch room and in each classroom."*	Speaker:..... How involved?.....
e *"I used to bring my lunch from home in my lunchbox but it was always a bit smelly when I opened it and my mother often gave me the same thing every day. Also it was never as nice as the other children's food. I like school lunch because it's hot and there's a lot to eat. I used to be a bit frightened of the lady who serves the food but I'm not any more."*	Speaker:..... How involved?.....
f *"It's one of my jobs to deal with the water supply, which is a big worry. Sometimes the pump breaks down and sometimes it comes out of the tap looking a bit dirty, especially when the weather is bad. There is not much I can do about it except to warn the children and to get the technician to come by – which sometimes takes quite a time."*	Speaker:..... How involved?.....

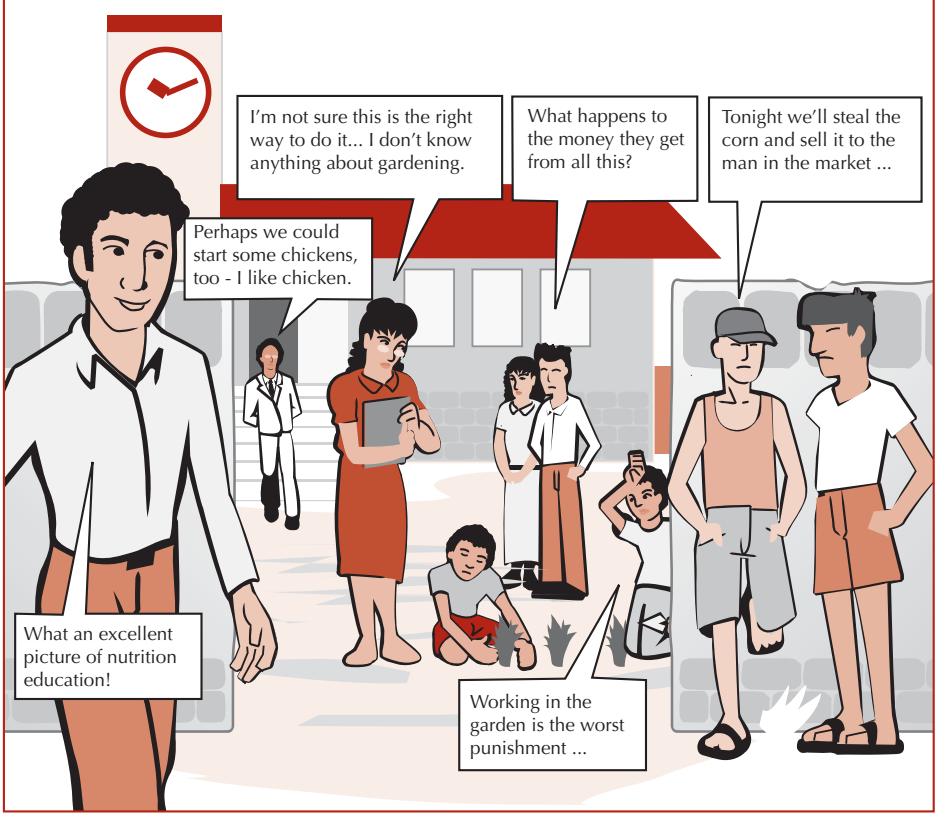
ACTIVITY 3 *contd.*

2. To practise seeing things from a different point of view, go back to the list you made in Activity 2 of people involved in your own schools.
   a) Divide into groups, each group representing one of these people – the head teacher, the school meals supervisor, the caretaker, the children, and so on.

   b) Take the issue *maintaining a pleasant and hygienic environment*. Think how "your" people see the situation, in all its details. Do they see it simply as a job? Do they see it as a frustration? Do they see it as a source of pride? Do they see it as nothing to do with them? Discuss this in your group and make notes. Think of real people and their attitudes, and the things they have said. Try to get under the skin of the people you represent.

   c) Explain "your" point of view to the whole group.

How people see things



ACTIVITY 4

ROLE MODELS

20 minutes

How can school staff use their status as role models to influence children's understanding, behaviour and attitudes?

1. Divide into groups and take one of the following subjects in each group:

- eating healthy snacks;
- drinking clean water;
- washing hands before meals;
- buying from street vendors;
- eating dark green leafy vegetables.

> *"There's a local sports club which has a karate class, so we invited them to the school to give a demonstration. They were quite good and you could see they were instant heroes for the boys. But the odd thing was that all the karate champs brought bottles of water with them as part of their sports kit. Our kids don't drink water, as a rule – it's all soft drinks. But the next day there were bottles of water everywhere: it was the new status symbol. Now we have our own karate class, too."*
>
> – Deputy head teacher

2. Discuss how school staff could use their role model status to encourage children to do these things. They may find opportunities to:

- *talk about it* – for example, give their personal ideas of food values, say what they do at home;
- *show how they feel* – for example, say what they like eating, and when, and why;
- *show the value of knowledge* – by showing how they base food decisions on what they know;
- *call in other role models* – for example, tell anecdotes about other people – preferably glamorous ones who do healthy things, and foolish ones who do unhealthy things;
- *demonstrate or act* – for example, bring good food to school themselves, share it with the children and eat it in front of them with evident enjoyment.

If possible think of concrete examples.

3. Report your ideas to the whole group. Demonstrate them if possible – try a little role play between "teachers" and "students".

ACTIVITY 5

TWO SCHOOL ENVIRONMENTS

20 minutes

Here are descriptions produced for two very different schools. The first is a rural school, relatively poor, and the second is urban and relatively well-off – although in both the teachers are seriously underpaid. They are responding to different questions: one is describing the physical environment, the other is about eating in the school setting.

Read them quickly to get the general idea. Do they resemble any schools you know? Read them again and underline what seem to be the priorities for action. Then discuss.

PRATO PRIMARY SCHOOL

Physical environment	***How well is the school environment promoting healthy eating?***
Does the school have a pleasant and hygienic environment, e.g. with respect to sanitation, rubbish, washing facilities, drinking water, eating facilities? What basic improvements are needed? Check classrooms, the building, washrooms and the playground. Is there a school garden? Give its history and how it is used.	• The school is pleasantly situated, in mountainous open country, with plenty of fresh air. • But there are outside pit latrines, which are cold in winter, smelly in summer, and a source of flies. Children frequently go into the bush instead. • There are four basins, not much used, with cold water and no soap (it disappears). • There are four taps with drinking water. Children have their own cups, and a few communal mugs, which are rather old and dirty. • There are two large rubbish bins, regularly emptied by the caretaker – even though there isn't much to throw away, as not much goes in the bin! • There are tables and chairs for eating, but no forks, plates and so on. Children sometimes bring their own food from home. • There is a big school garden, but much of it is not used. Most of the teachers know little about agriculture. Sometimes the children are made to work in the garden as a punishment. The food produced is sold to provide funds for the school.

GRAMONT GIRLS' BASIC SCHOOL

Eating in the school setting	***How well is the school environment promoting healthy eating?***
Is food provided by/at the school? What food, and when? Does it make a valuable contribution to the children's diet? Are snacks available, e.g. from vendors or vending machines? Are they healthy? Do children bring their own food to school? What do they bring? What is the nutritional	• There is no school meals service, and children go home for lunch. The school provides fruit juice and snacks at break-time. This is an initiative by two of the teachers, so children have to pay. Some teachers also sell sugar cane they keep in their desks. • Those children who have money to spend show a strong preference for sweet snacks – biscuits, cakes – and fried pies from the street vendors outside the school gates. These are more expensive than the snacks in the school, and not very hygienic. There are no vending machines in the school. • About half the children bring their own snacks. Some children don't get any snack at break. They are good about sharing but there is tremendous food snobbery. Fried chicken and cake are high on the list; you never see fruit or vegetables.

ACTIVITY 6

HOW HEALTHY IS THE SCHOOL ENVIRONMENT?

40 minutes

How far do your own school environments promote health and healthy eating?

The framework for building up this picture is supplied by the document OBJECTIVES FOR THE SCHOOL ENVIRONMENT. The objectives are given in the form of questions in the table on the next page. The questions require descriptive answers which will allow you to identify priorities for action, as you did with the descriptions in Activity 5.

1. **Description** – Describe your schools in the table in response to the questions.

   If you have completed Data Sheets for the School (Point B4.2), the Parents (Point B4.1) the School Staff (Point B4.1) and the Children (Point B4.1), use this information to reinforce or modify your conclusions.

   As regards role models (question 10), it is useful to establish if there is a strong personal interest in diet and health among teachers or among the other school staff (Teacher Data Sheet B4.1, B4.2; School Staff Data Sheet Points B4.4 and B4.5).

2. **Deciding on priorities** – Underline the points in your description which seem to require action. Also note potential growth points – e.g. something which has potential for development. Pay special attention to *educational use* – for example, a good garden or feeding programme which is not being used for education is half wasted.

GROWTH POINTS

We are lucky that we have a big school garden, with good soil, next to the river.

The school feeding programme is excellent – only, the children tend to reject some of the food, such as the fruit.

We had the Child-to-Child programme here and some of the teachers were trained to run it. There are some materials somewhere. But it has lapsed.

The boys are passionate about football – there's no need for a club, they'll play anywhere. But they want training.

Some of the school staff are very good cooks and know how to make a little go a long way.

There's a delicious local drink made from the bark of a tree. It lasts several days. The children know how to make it.

ACTIVITY 6 *contd.*

Questions	Description
Policy 1. Does the school have a *philosophy or concept of health and well-being?* What is it and what does it involve? (one sentence). Is it actively promoted? 2. Does the school have a *nutrition policy,* with aims, norms and rules? What aspects of school life does it cover? Is this policy linked to a general philosophy? Does the school actively promote this policy? 3. Do school staff receive *training* in health and nutrition issues? 4. Is there a clear link between school philosophy, school policy and classroom teaching? Do the nutrition aspects of the school environment have a place in the education programme?	
Physical environment 5. Does the school have a *pleasant and hygienic environment* (e.g. re rubbish, sanitation, washing facilities, drinking water, eating facilities, etc.)? What basic improvements are needed? Check classrooms, buildings, washrooms, the playground. Is there a *school garden*? Give its history and how it is used.	
Eating in the school setting 6. Is *food provided by or at the school*? What food and when? Does it make a valuable contribution to the children's diet? 7. Are *snacks* available, for example, from vendors or vending machines? Are they healthy? 8. Do *children bring their own food* to school? What do they bring? What is the nutritional value of this food?	
Whole-school activities 9. Is there a tradition of *whole-school activities* (e.g. trips, projects, open days, theatricals, exhibitions, clubs, sports, etc.)? Are there any *whole-school activities involving nutrition*?	
Role models 10. Do the children have *positive role models* in the school with regard to healthy eating and healthy lifestyle?	

ACTIVITY 7

COMMUNICATIONS

20 minutes

(Optional)

Look back at your list of all those who are involved with nutrition and nutrition education in the school (Activity 2).

How are people informed, consulted and involved in your schools?

1. List your school's main forms of communication in the table below in the first column.
2. In the second column note who is involved in each, for example, the head teacher, children, secretaries, caretakers, cleaners. If you have information from the School Data Sheet (Points B4.1B) or from the School Staff Data Sheet (Point B4.2), use it to complete the table.

Communication*	***Who is involved?***

* E.g. Informal chats in the corridor, staffroom, playground
School Health and Nutrition Committee
Parent Teacher Association (PTA)
Messages sent home with children
School Council, with student representatives
Regular bulletins (letters, newsletters or notices on boards)
Working groups on specific issues and projects
Regular staff meetings
School Board
School assembly
Classroom discussions
Union meetings

3. Do these systems work well? Is anyone excluded? (Also consult School Staff Data Sheet B4.3). How could communications in the school be improved? Make a few suggestions in the box:

ACTIVITY 8

SUMMING UP

20 minutes

You have looked at all the ways in which the school environment can promote healthy nutrition and have applied these to your own school environment. Your analysis should show what needs doing.

Your priorities will be recorded in the document PRIORITIES FOR THE SCHOOL ENVIRONMENT, which will be put on display together with the OBJECTIVES FOR THE SCHOOL ENVIRONMENT. To make your display copy, either record your decisions on the next page, then copy the document, or copy the blank document and then fill it in.

Prioritizing

1. Look back at Activity 6, second page, and Activity 7, part 3. Pick out the things that need doing and prioritize them. Do not concentrate only on obvious lacks – also give special thought to:

   a) *growth points* – that is, things which are good but could be better;
   b) *educational use* – that is, how existing facilities could be used for nutrition education.

Recording conclusions

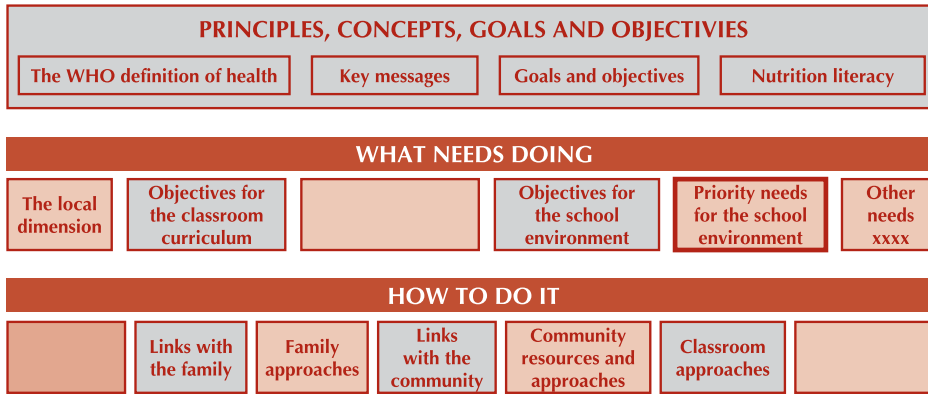
2. Enter your priorities in the document PRIORITIES FOR THE SCHOOL ENVIRONMENT.

3. Display this document next to the OBJECTIVES FOR THE SCHOOL ENVIRONMENT on the main display (see display diagram below).

Presenting conclusions

Divide the priority needs between you and present them one by one, explaining and illustrating. Set a time limit for each presentation.

DISPLAY DIAGRAM



DISPLAY DOCUMENT

PRIORITIES FOR THE SCHOOL ENVIRONMENT

Objective number	Priority needs for promoting good nutrition in the school environment

KEY TO ACTIVITIES FOR UNIT B4

ACTIVITY 3 (1) *How are they involved?*

Speakers – how are they involved?
Speaker: a. School helper or teacher The speaker is responsible for making sure children have food and for getting them to finish their meals. S/he clearly has a high level of psychological involvement and sounds committed to the children's welfare. The children clearly have very varied responses to meal times!
Speaker: b. Child The children are responsible for producing menus under the teacher's supervision. They are affected by the decisions because they eat what they plan. This child seems enthusiastic about the task and takes it seriously, but is also enjoying the game aspect. One wonders what kind of liaison there is between children, teacher and cook.
Speaker: c. Cleaner This cleaner evidently takes the job seriously and understands the responsibility ("before the insects get them"). The children have probably not thought about the cleaner's role – it might not hurt them to try it out!
Speaker: d. Head teacher The speaker is responsible for the state of the eating area, takes the responsibility seriously ("I think it's important") and takes action to support his/her views. S/he apparently hasn't consulted others – do those people see the "rules" as imposed or as self-evidently sensible?
Speaker: e. Child It is worth remembering how emotive food is. This child has strong reactions to food and the people associated with it, most of whom are probably quite unaware of the effect they are having.
Speaker: f. Janitor, caretaker The speaker is responsible for the water supply, takes the job seriously – "a big worry" – and feels helpless when things go wrong.

UNIT B5

CLASSROOM CURRICULUM CONTENT AND FRAMEWORK

CONTENTS

WHAT YOU NEED

People	Experts on curriculum content for the relevant parts of the current curriculum; experts on the curriculum development process. Ask for inputs on the curriculum development process, principles of curriculum development and where responsibility should lie for classroom curriculum development. If this workshop is to be repeated, find some means of recording these inputs and storing them.
Information	All possible information on the relevant parts of your current primary school curriculum (syllabuses, outlines, textbooks, other materials).
Course documents	The School Data Sheet, the Classroom Curriculum Chart (on display), the document CLASSROOM CURRICULUM OBJECTIVES (on display) and the document THE LOCAL DIMENSION (on display).
Equipment	Highlighter pens, or a variety of coloured pens, are essential.

ACTIVITY 1

SCOPE OF ACTION

10 minutes

Which activities you do in this unit will depend on whether you are working at national or local level, and how wide your scope is.

1. Look at Table 17, *Scope of classroom curriculum development,* in the Reader, Unit B5. What are you able to do, or planning to do, with reference to the classroom curriculum for nutrition education?

Identify your own terms of reference, or at least place yourself somewhere in the table.

2. If your classroom curriculum is "given" and you have very little room for manoeuvre (as for example in cases 5, 7, 8) you will not need to carry out the detailed review of the existing curriculum in Activities 4 to 6.

The remaining Activities are still worth doing because they will affect other activities you may plan.

We can't touch what's taught in the classroom – and of course this affects the classroom approach as well. But we can have as many extra-curricular projects as we want.

We have all the freedom we want with the local curriculum – but we have to send in an outline every year which is approved by the district council.

ACTIVITY 2

RECALLING CURRICULUM PRINCIPLES

20 minutes

Look at the documents, OBJECTIVES FOR THE CLASSROOM CURRICULUM, THE LOCAL DIMENSION, and the CLASSROOM CURRICULUM CHART. They should all be on display.

Work with a partner to refresh your memory of the principles of NE curriculum design.

1. **Content coverage** – Look again at the Classroom Curriculum Chart.
   a) Try to recall the main topics (A to H).
   b) Choose one topic and try to recall the subtopics.
   c) Select one age group and try to recall the learning objectives for one subtopic.
   d) Test each other by reading out some learning objectives, seeing if you can decide which topic to classify them in, and which age group you would assign them to.
   e) Discuss briefly which of the main topics you see as most important, and why.

2. **Topic development** –
   a) Choose one subtopic and trace its development upwards through the age groups.
   b) Identify the different capacities and interests the subtopic engages at different age levels – for example, the movement from particular to general, from concrete to abstract, from self to society.

3. **Relevance** – A nutrition education curriculum should have strong local relevance. Look back at the document THE LOCAL DIMENSION. Can you recall:
   a) the needs you identified in Unit B1?
   b) the important interventions you identified in Unit B2?
   c) if you decided there was a need for local information (Unit B2)?

These are all elements which should affect the classroom curriculum.

4. **Framework** (time and distribution) –
   a) Recall how much time is needed per year to make a difference to behaviour. How much time does this mean per class per week (approximately)?
   b) Recall the various possibilities for integrating nutrition education into the curriculum and their advantages and disadvantages (Unit A3, Activity 7). For example: as a subject in its own right; concentrated in one or two existing subjects; infused across the curriculum; amalgamated with other urgent health issues; dealt with in themes and projects; a mix of solutions.

ACTIVITY 2 *contd.*

5. **Summary** – Check through the summary below, item by item, and make sure you agree (with each other at least!).

A good classroom curriculum for nutrition education should:

- cover a carefully selected range of topics and subtopics which will lay the foundation for good food behaviour, attitudes and understanding;
- cover each topic in each age group, and build up each topic on itself from year to year;
- match the learning objectives to the child's developing interests and capacities;
- be relevant to local conditions, try to tackle local problems and relate to local events;
- provide one to two hours a week of nutrition-focused learning for each age group;
- be mainly dealt with in one or two subjects, but also …
- extend nutrition education into a range of subjects and activities.

ACTIVITY 3

FIRST IMPRESSIONS OF THE NUTRITION EDUCATION CURRICULUM

20 minutes

Activities 4 to 7 investigate and evaluate the existing nutrition education curriculum in order to identify the main curriculum needs. This activity asks for your first subjective impressions of these needs. You may like to look at others' first ideas of top-priority content in the Data Sheets for the Health Professionals (Point B5.1) and for Parents (Point B5.1).

In the first column below are the objectives for the classroom curriculum, which should already be on display. In the second column they have been turned into specific questions about the curriculum. Before doing a detailed analysis, discuss the existing nutrition education curriculum and record your first impressions briefly. Share your impressions with the group as a whole.

Objective	Questions	First impressions
Content coverage To select curriculum content which will contribute to the objectives of nutrition education – a healthy lifestyle, and nutrition literacy.	• Are there major gaps in the desired content – i.e. are some topics not covered or not covered fully enough? • Do some topics and subtopics need to be extended through the whole age range?	
Development To structure the learning so that it is appropriate to the age group and develops systematically through the school years.	• Is all the learning content appropriate for its age group? • Should some subtopics be developed more systematically from age group to age group?	
Relevance To ensure that learning is relevant to local concerns, practices, beliefs and attitudes, and makes direct connections with children's daily lives.	• Does the curriculum give enough attention to local nutritional issues? • Does it support specific health and nutrition interventions? • Are schools well-informed about local foods and food practices, and able to find out about them?	
Framework To spread nutrition education through the primary school curriculum as widely as possible, while at the same time maintaining its coherence and impact.	• Are there serious shortfalls in time – i.e. is there enough nutrition education generally and in each age group? • Is nutrition education spread over too many subjects so that it loses coherence and impact? • Is nutrition education spread through a variety of subjects and activities?	

ACTIVITY 4


30 minutes

FRAMEWORK: HOW MUCH TIME? WHICH SUBJECTS?

Although "Framework" is last in the list of objectives, it is convenient to start our analysis with it.

1. Estimate the number of hours spent on nutrition topics in each class in each subject, enter them on the table below and add up the totals. Include school activities and projects as subjects. This will show how many subjects and activities are involved, the time given to nutrition in each subject, and the time each class spends on nutrition issues. If you have a completed School Data Sheet, use Point B5.1 for information, and compare your data with those of other schools.

Do not waste time on exact calculations – you can only make a good guess.

CLASS HOURS SPENT ON NUTRITION TOPICS

Subjects/activities (e.g. Science, Home Economics, Physical Education, Geography, activities and projects)

Subjects/activities	Hours spent on nutrition topics								Total hours per school subject
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	
Total hours p.a. for each school year									*Total hours*

ACTIVITY 4 *contd.*

2. Discuss the statements below and sum up your findings. Give details for each reply.

Framework needs	Yes/No	Details
Overall time *Is the overall time spent on nutrition education adequate (minimum of 50 hours per annum)?*		
Time for particular age groups *Is the time for each age group adequate (minimum of 50 hours per annum)?*		
Coherence *Is nutrition education sufficiently concentrated to be coherent and effective?*		
Spread *Is nutrition education also spread across a good range of subjects and activities?*		

ACTIVITY 5

A SELECTION OF CONTENT

30 minutes

It is unlikely that there will be room in your timetable for everything that should be covered. Some kind of selection will probably be necessary, and it is better to do this in advance, in a principled way, rather than later, under pressure.

Look back at Unit A3, Activity 8, where you prioritized the objectives of nutrition education and established some principles for the selection of curriculum content. This activity also contains two sample selections of subtopics. Both aimed at behaviour, attitudes, skills and understanding, but with slightly different emphases.

You are now in a position to select your own "core curriculum". It will be:

- *principled* – because it will derive from the nutrition education objectives which you have agreed and prioritized, and any other principles you have established;
- *provisional* – because it may develop and change;
- *graded* – in that you will decide what is essential, highly desirable, and just desirable, and will be prepared to negotiate on this basis.

Make your selection *only* from the subtopics in the top row of the Chart. This will be oversimplified, but enough for a first selection. In the next activity you will map the *existing* curriculum onto the rest of the Chart. In this way you can compare what you are aiming at with what you have already.

Choose from here: →

CLASSROOM CURRICULUM CHART							
		Topics and subtopics					
		Learning objectives					

1. Work in small groups of two to four. Divide the Chart topics between you, or work on the whole Chart in each group.

2. Pin up an unmarked copy of the Classroom Curriculum Chart.

3. Go through the subtopics in the top row. For each subtopic, look briefly at the learning objectives in the Chart below so as to have a good idea of what the subtopic covers. Don't forget that subtopics are chains which go through the whole age range, so when you choose a subtopic you are selecting it for the whole school, at every level.

ACTIVITY 5 *contd.*

4. Mark the subtopics you think are *essential, highly desirable* and *desirable*. You may want to underline them, box them or highlight them. Mark them in different colours or in different ways, so that the level of priority you give them can be clearly seen.

5. As you work, make sure you know the principles you are applying. You may find that they are already firmly in your heads, or that you work them out as you go along. Whichever it is, you should at the end of the exercise be able to explain the basis for your choices.

6. When you have finished, come together to discuss your work. Explain the principles behind your choices, and present the resulting selection.

   You may well find that you want to include only a few objectives from one subtopic, or most of another but not all. It is up to you how you show this. For example, mark the subtopic *highly desirable* if you want most of it; bracket undesired learning objectives in pencil and so on. Remember that this is only a provisional selection.

ACTIVITY 6

30-60 minutes

MARKING UP THE CHART: COVERAGE AND DEVELOPMENT

The purpose now is to mark your existing curriculum on the Classroom Curriculum Chart to show which objectives are already being covered. In this way you can see the current topic coverage at a glance from the "marked up" chart. You will need the Chart, the School Data Sheet (Point B5.2) and any curriculum documents you have managed to gather (syllabuses, teaching materials), together with your own knowledge of the situation.

On the chart you need to show not only *what* is covered but *in what age group* it is covered. You will have to establish the age group, identify the nutrition education content, match it with the chart and then mark up the chart. Follow these steps:

Step 1 – Establish the age group: Identify the age group dealt with by the materials and syllabus. If your classes are called Year 1, Year 2 and so on, convert these into age groups – or rename the age groups on the chart Year 1, Year 2 and so on.

Step 2 – Identify learning objectives: Examine your materials and syllabus and find the nutrition objectives. For example, here is an entry from a primary school science programme for ages 6 to 7:

Children will learn that plants need light and water to grow. They will learn to recognize and name leaves, flowers, stems, roots and fruits of flowering plants. They will learn that flowers and plants grow and produce seed, which in turn produces new plants. They will learn to identify common food vegetables as parts of plants.

The last sentence is clearly a *nutrition* learning objective.

Step 3 – Match learning objectives to the Curriculum Chart: Match what you have found in your material and syllabuses to the learning objectives on the chart. For example, the objective "*They will learn to identify common food vegetables as parts of plants*" comes under Topic D "Food Supply, Production, Processing and Distribution", subtopic "Food supply", learning objective "to understand that all foods originate from plants and animals and water".

Step 4 – Mark your learning objectives on the Chart: Box or highlight on the chart the learning objectives that are covered in your existing curriculum. Do this in the body of the chart, not in the top row. In this way you can see both your desired curriculum selection and your existing one.

- If the age group is not the same, write your age group next to the box. You can also use a different colour pen or highlighter for each age group.

ACTIVITY 6 *contd.*

- If some of your learning objectives are not exactly the same, just make as close a match as you can. You have to accept some approximations just to get the job done.
- If you have some learning objectives which are not on the chart, find an appropriate place for them and write them in. If there isn't enough space on the chart, use a Post-It note and stick it on. But do make a careful search first – often a particular learning objective is covered in another category.

Step 5 – Once you have marked up your chart, look at it vertically to see the coverage and development.

a) See which columns are very thinly marked. These will indicate low coverage of certain topics. Which main topics are not very extensively covered in your curriculum? Are they "essential" or "highly desirable"?

b) Divide up the remaining topic columns between you and study the coverage and development within your topic.

- Which subtopics are not taught at all? Which are very thinly covered across the whole age range? In relation to your desired selection, which should be more extensively covered in your curriculum?
- Take three subtopics that are relatively well covered in your column. Are the present learning objectives distributed through the whole age range? Do they develop clearly from one another?
- Are these learning objectives suitable for the ages at which they are being taught?

c) Report back to the whole group.

Step 6 – Sum up your findings in the two tables below.

Coverage needs	Yes/No	Details
Major gaps *Are all important topics and subtopics adequately covered?*		
Gaps at certain ages *Are all important topics and subtopics extended through the whole age range?*		

ACTIVITY 6 *contd.*

Development needs	Yes/No	Details
Appropriateness to age *Is the existing learning content appropriate to its age group?*		
Development *Do all subtopics develop systematically from age group to age group?*		

ACTIVITY 7

LOCAL RELEVANCE

20 minutes

How relevant is your existing curriculum to the local situation? Look back at the document THE LOCAL DIMENSION, which should be on display. Discuss the questions below and finally complete the table at the bottom of the page.

1. **Priority issues** – In part 1 of THE LOCAL DIMENSION you recorded local nutritional issues:

   - local factors affecting health;
   - the special nutritional problems of the area;
   - children's dietary needs;
   - guidelines for children's diet.

   Does your existing nutrition education programme give special attention to these problems? If so, how? In classroom teaching? In special projects or campaigns? In action programmes?

2. **Supporting health and nutrition interventions** – You also listed local health and nutrition interventions which should be supported educationally.

   Are these already covered in your school's health education programme, or is there room for more useful action in this area?

3. **Local food and food practices** – Finally, you looked at how far the education programme took account of local food and food practices.

   - Is nutrition education in your schools related to and illustrated by local practice?
   - Are schools sufficiently well informed about local foods and food practices?
   - Is full information about local foods and food practices available to schools?
   - Are teachers and children actively engaged in exploring local knowledge, attitudes and practices relating to food, agriculture and diet?

Local relevance needs	Yes/No	Details
Local nutritional issues *Does the nutrition education programme give sufficient attention to local nutritional issues?*		
Educational support for health and nutrition interventions *Are local health and nutrition interventions adequately supported by the education programme?*		
Local food and food practices *Does the nutrition education programme take full account of local food and food practices?*		

ACTIVITY 8

SUMMING UP

30 minutes

Look back over the needs you identified in the shaded boxes in Activities 4, 6 and 7.

You are going to record these needs in the display document PRIORITY NEEDS FOR THE CLASSROOM CURRICULUM. Either write them in the document on the next page and then copy the document, or make a copy of the blank document and then fill it in.

Recording conclusions

1. Record the main needs on the document PRIORITY NEEDS FOR THE CLASSROOM CURRICULUM on the next page. Mark those which seem to be particularly important.

   Remember that although you identified the *Framework needs* first (in Activity 4), they come last in the document. The others are in the same order.

2. Display the document next to the document OBJECTIVES FOR THE CLASSROOM CURRICULUM as in the display diagram below.

Presenting conclusions

3. Divide the four areas between you and prepare to present them. Remind yourself of the details you recorded in the Activities. Allow a maximum of five minutes for each presentation. The rest of the group should comment, correct and so on.

DISPLAY DIAGRAM

DISPLAY DOCUMENT

PRIORITY NEEDS FOR THE CLASSROOM CURRICULUM

Content coverage	*Major gaps*	
	Gaps at certain ages	
Development	*Appropriateness to age*	
	Development through the age groups	
Local relevance	*Local nutritional issues*	
	Support for health and nutrition interventions	
	Local food and food practices	
Framework	*Overall time*	
	Time for each age group	
	Concentration/coherence	
	Spread	

UNIT B6

CLASSROOM APPROACHES AND CLASSROOM RESOURCES

CONTENTS

WHAT YOU NEED

People	Teacher educators, materials writers and teachers can make useful inputs to these sessions by describing classroom approaches, and the situation as regards teachers, classrooms and teaching materials. If this session is to be repeated, try to record the inputs for future use.
Information	Teaching materials which are currently in use for nutrition education should be brought to the session.
Course documents	The Teacher and Parent Data Sheets, the document CLASSROOM APPROACHES (already on display), and a blank copy of the display document CLASSROOM STRATEGIES at the end of this unit.
Equipment	Highlighter pens and recording equipment if possible.

ACTIVITY 1

TRADITIONAL AND PROGRESSIVE APPROACHES

20 minutes

Look at the summaries of the traditional and progressive approaches on the next page, as well as the figure of a traditional and modern classroom below.

1. Which do you personally prefer?

2. Pick two expressions to describe each approach and write them in the box below.

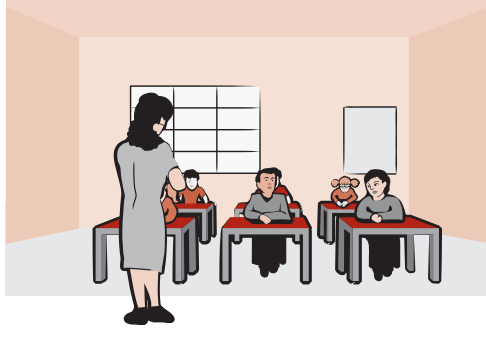
rigid	*stimulating*	*limited*	*chaotic*
reassuring	*well-ordered*	*tiring*	*fun*
clear	*uncontrollable*	*labour-saving*	*highly educational*
confusing	*respectful*	*boring for children*	*hard work*
expensive	*interesting*	*boring for teachers*	*flexible*

Traditional approach:	
Progressive approach:	

3. Explain the reasons for your choice to the whole group.

4. Compare your reactions with the comments in the KEY.

TRADITIONAL AND MODERN CLASSROOMS



ACTIVITY 1 *contd.*

TRADITIONAL AND PROGRESSIVE TEACHING APPROACHES

	Traditional	Progressive
Model of learning	Learning aims mainly at *knowledge*. The material to be learnt is more important than personal experience and reactions.	Aims to develop attitudes, behaviour, skills and life skills as well as knowledge. Calls on *learners' experience*, beliefs, feelings, as well as knowledge.
General methodological principles	Pupils are expected to be very *receptive*, and to learn through *listening* rather than by direct experience, action and discovery.	Aims to develop *active*, *experiential*, *participatory* learning, with the full involvement of the learners, and room for *reflection on learning*.
Typical activities	Written exercises, written composition, worked problems, *question-and-answer*, *listening*, *repeating*, with the emphasis on *getting the right answer*.	A range of activities involving project work, independent work and *self-expression* as well as conventional instruction, with an emphasis on *discovery* and *active involvement*.
Faculties targeted	Classroom learning depends mainly on listening, *recording*, memorizing and reproducing, with some visual input.	Tries to appeal to *all faculties* by using a *wide range of stimuli* and calling frequently on the *imagination*.
Classroom organization	*Fixed*, with pupils sitting in *rows facing the teacher* at the front of the class. Pupils may stand up or sit down, but do not move around much.	*Flexible*, with work in pairs and groups as well as with the whole class. Pupils and teacher move around and there is room for *physical activities* such as drama and presentations.
Classroom roles and discourse	The teacher is a *respected authority figure* and the main source of information and instruction. A good teacher is seen as one who *knows a lot*, and can keep good order. S/he initiates most interactions. There is *little interaction* between pupils and they are not expected to help each other.	Teachers are *facilitators and guides*, and sometimes work in teams. A good teacher is seen as one who can *organize pupils' learning well*. Pupils' *sources of information are wide*, and include a range of materials, each other and the outside world. Pupils have *choices* and take *initiatives*, *interact freely*, *help each* other in class and may also teach each other.
Outreach	The teacher makes occasional links between the classroom and the outside world, but these are not essential to the programme.	*Links with the outside world* (e.g. visitors, trips, homework surveys) are an essential part of the programme.

ACTIVITY 2

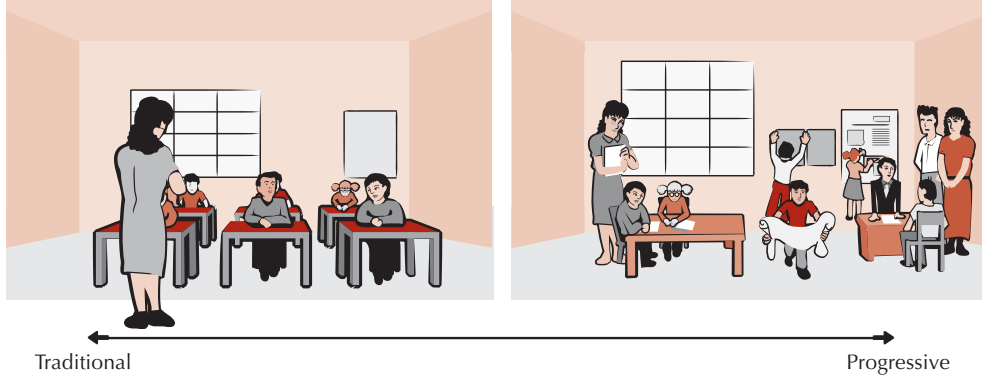
DESCRIBING THE CLASSROOM APPROACH

30 minutes

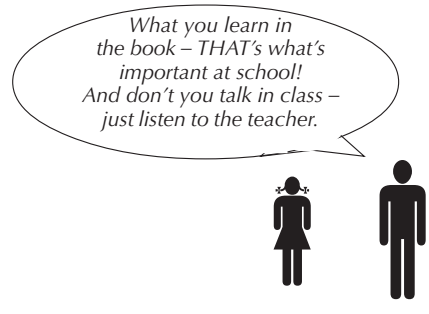
How would you describe your school's general classroom approach?

1. Mark the elements in the table in Activity 1 that are typical of your schools (for example, *aims at knowledge*, *group work*). Since there are probably quite large differences between individual teachers and also for different age groups, you may like to underline all the elements which are fairly common, and box those which are really typical.
2. Read what you have marked to the rest of the group, compare your conclusions and try to arrive at a consensus.
3. Where do your schools fit on the traditional/progressive spectrum? Decide where you would place them. If you have a completed Teacher Data Sheet, use the teachers' assessments in Point B6.1a to reinforce your answers.

WHICH APPROACH?



ONE PARENT'S IDEA OF A GOOD EDUCATION



ACTIVITY 3

STRATEGIES

30 minutes

How can the teaching approach change to favour nutrition education?

What elements would you like to see more of? Remember we want an approach that can have a real impact on children's behaviour and attitudes as well as their understanding and knowledge.

1. *Go back to the table Traditional and progressive teaching approaches* in Activity 1. In small groups, discuss and list in the box below the elements you think are most necessary for good nutrition education.

2. Come together to compare notes. Reach agreement on the best elements to promote.

   a) Which of your ideas for improving nutrition education would be most acceptable to teachers, parents and children? To see what they think, consult the Data Sheets for the Teachers (Point B6.1b), the Parents (Point B6.1), and the Children (Point B6.1).

   b) Underline or highlight the strategies in your list which are likely to be most acceptable to everyone. This does not mean that you will neglect the others – but it will indicate the path of least resistance!

3. When you have reached agreement on (a) the best approaches, and (b) the most acceptable approaches, transfer your list to the top box of the display document CLASSROOM STRATEGIES FOR GOOD NUTRITION EDUCATION, at the end of this unit.

CLASSROOM APPROACHES FOR GOOD NUTRITION EDUCATION
(the most generally acceptable are underlined/highlighted)

ACTIVITY 4

TEACHERS


20 minutes

The teachers are the crucial element in making changes. How strong are they as a resource?

Discuss the points below and make notes. Look at strengths as well as weaknesses. When you have finished, share your findings, then identify and underline the major problems. We will come back to these in Activity 8.

Teachers - strengths and weaknesses	Notes
a) **Morale** Is teachers' morale generally high, medium, or low? What generally affects teachers' morale? If you have a completed Teacher Data Sheet, refer to Point B6.2.	
b) **Interest in the subject** Are a good number of teachers generally or professionally interested in health, diet and a healthy lifestyle? Consult Teacher Data Sheet Points B4.1, B4.2, and B6.3.	
c) **Professional interest** Are teachers generally interested in trying something new? For example, are they prepared to change their classroom practice, take an active part in new programmes, or just try out new activities? Consult Teacher Data Sheet Points B6.4, B6.5 and B6.7b.	
d) **Experience, qualifications and training** Are most of the teachers well trained *as teachers*, with a good deal of experience and a range of techniques at their command? Consult the Teacher Data Sheet if you have it, Points B6.6 and B6.7a. Would you say there is a reasonably high level of experience and training – enough to be considered an asset?	
e) ***Expertise?*** Do teachers know enough about nutrition? Check Teacher Data Sheet Point B6.6. Have they done any courses? Can they learn from each other?	

ACTIVITY 5

CLASSROOMS

20 minutes

What is your classroom situation? Check teachers' opinions in the Teacher Data Sheet Point B6.8.

Make some notes on the situation. Share your findings and then identify and underline the main problems. We will come back to these in Activity 8.

What are the classrooms like?	Notes
Is there enough space? Inadequate space limits the range of classroom activities that are possible.	
What is the teacher-pupil ratio? Marking homework and checking individual progress can be a burden to teachers with very large classes.	
Is there a wide range of ability or age? "Lockstep" teaching, in which all children studying the same thing at the same time, is least effective in mixed-ability classes. A wide age range presents the same problems.	
Is there a mix of cultures or religions? This could lead to conflict and incomprehension in some circumstances.	
How regular is pupils' attendance? Irregular attendance by pupils or an irregular supply of teachers clearly limits educational achievement.	
Are there basic facilities and equipment? It is hard to teach and learn without chairs, tables, paper, textbooks, chalkboards, pens and pencils (especially colour ones). Dark, cold or hot rooms will hinder the learning environment, as will external noise.	
Are there teaching assistants, or parents acting as helpers? Many schools have no helpers, and therefore struggle to deliver with the limited staff they have.	

ACTIVITY 6

TEACHING MATERIALS

30 minutes

How far do existing teaching materials fulfil the principles of nutrition education? For this activity you will need some samples of existing teaching materials (books, posters,casette tapes, flash cards' depicting fruit and vegetables, etc.).

In Section B3 of Reader Unit B6 is a checklist of questions that should be asked about teaching materials.

1. Divide into small groups and take one lesson each to evaluate. Make sure you have the teachers' notes too (if they exist).

2. Talk through the lesson in your group and give each other your first impressions.

3. Apply the checklist to the lesson – go through the questions and answer them. Note that some of the questions may not apply to this particular lesson – use your judgement in deciding if that is the case.

4. Come together to share your conclusions. Make summary notes in the box below.

5. Identify the main problems and underline them.

TEACHING MATERIALS FOR NUTRITION EDUCATION

Strong points	**Weaknesses**

ACTIVITY 7

PROBLEMS

20 minutes

Look back at the problems you underlined in the last three activities. Did you come up with any of these?

- Teachers are reluctant to change and experiment.
- Teachers don't know enough about nutrition.
- Parents won't approve of progressive methods.
- Children find new methods disturbing and cannot cope with them.
- The classroom conditions are unsuitable.
- The teaching materials are inadequate.

1. Choose those which match your situation and brainstorm solutions in the table below.

2. Divide the solutions into "home-made solutions", which you can do something about, and "outside solutions", which will need to be discussed with other bodies. Be realistic with your solutions – it is not in anyone's power to double teachers' salaries, for example!

3. Consult the KEY for comments and possible solutions.

4. What other problems did you identify?
   Enter them in the table below and brainstorm solutions in the same way.

Problems	Home-made solutions	Outside solutions

5. Pick out the most effective "home-made solutions". Put them in the lower half of the display document CLASSROOM STRATEGIES FOR GOOD NUTRITION EDUCATION at the end of this unit.

ACTIVITY 8

SUMMING UP

30 minutes

Recording conclusions

1. This unit has two products:

   a) A set of strategies for the classroom approach, with the most acceptable marked. See Activity 3.

   b) Ideas for coping with resource problems (teachers, classrooms, teaching materials). See Activity 7 – *Home-made solutions*.

   These should be recorded in the document CLASSROOM STRATEGIES FOR GOOD NUTRITION EDUCATION and pinned up in the main display next to CLASSROOM APPROACHES (as in the diagram below).

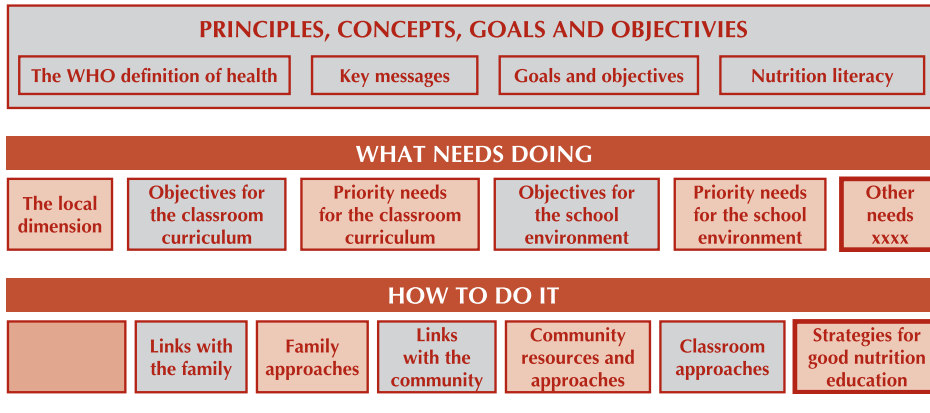
2. Look back again at your notes on Activities 4, 5 and 6, and your *Outside solutions* in Activity 7. What needs have you identified which can't be dealt with by the school alone? They may have to do with teacher education, teaching materials or classroom equipment. You may be able to discuss these needs with the local education authority, or the health services, or with donors.

   Record these in the document OTHER NEEDS, which is already on display.

Presenting conclusions

Divide into groups and prepare to present to the whole group your classroom strategies, your ideas for promoting them, your proposals for teacher education, teaching materials and classroom facilities, and the thinking behind them. Allow five minutes for each presentation. You may like to discuss what (if anything) can be done about the needs that can't be tackled by the school itself.

DISPLAY DIAGRAM



DISPLAY DOCUMENT

CLASSROOM STRATEGIES FOR GOOD NUTRITION EDUCATION

Classroom approaches for good nutrition education
(the most generally acceptable are underlined/highlighted)

Ideas for promoting good teaching strategies

KEY TO ACTIVITIES FOR UNIT B6

ACTIVITY 1 *Teaching approaches: first reactions*

Comments on the teaching approach

Some teaching approaches or methods are not acceptable in particular contexts, and some teachers are simply better teachers than others, regardless of their approach and methods. But those are different issues as compared to the question of the effectiveness of a particular approach or method, if that approach is well implemented. Here we present our comments on the two approaches.

The traditional approach

This can be *reassuring* for both teachers and children – it is *clear* to them what they are supposed to do. It reinforces social roles and is thought to promote *respect* for teachers and schools, and correct social attitudes. It is *well-ordered*, although often *rigid* and repetitive and therefore *boring for teachers* as well as *boring for children*.

It can be effective in doing what it aims at (usually, the mastery of facts), providing there is enough repetition and practice. If there is not enough of this, then many children will fail. Failure is also a potential outcome because the traditional approach is thin on stimulus and variety.

It is not *highly educational* because it has *limited* aims and doesn't (for example) get children to think, to understand personal experience, to find out for themselves. For conscientious teachers the amount of marking means *a lot of work*, although the work itself is not difficult.

It is difficult for very traditional teachers to change, since their approach does not allow for free feedback from learners. But most can handle new approaches without too much difficulty, provided they happen in a non-classroom context – for example, via projects and school trips.

The progressive approach

This can be *chaotic* and *uncontrollable* (and hence *tiring*) but only in the hands of teachers who are inexperienced or trying to innovate too fast. If handled well, it is *stimulating* and *interesting* and has good potential for effective learning, because it aims to reach all faculties in all pupils. It is also *flexible* enough to meet individual needs, to use appropriate activities and to change direction when necessary.

KEY TO ACTIVITIES *contd.*

It is often thought that a progressive classroom means *a lot of work* for the teacher, but at its best it means *a lot of work for the pupils* – it is they who should be doing the work. The art of teaching this approach lies in organizing pupils' activities and using pupils' efforts to supplement the teacher's efforts. A progressive classroom benefits from a lot of different learning materials, and in this sense is *expensive*, but many progressive approaches (e.g. drama, imagination, stories, making models) cost nothing.

A danger in the progressive classroom is that the means may sometimes unwittingly replace the ends, i.e. activities are sometimes done almost for their own sake. This is *confusing* if pupils can't see what they should be learning, but can be remedied by discussing objectives and outcomes, reflecting on learning, and testing.

Progressive teachers can often learn from traditional teachers in terms of structuring and clarifying learning, and should be able to use traditional techniques, but it is generally difficult for them to return to a completely traditional approach, which they would find limiting.

ACTIVITY 8 *Strategies*

Some solutions to some problems:

KEY TO ACTIVITIES *contd.*

Problem	Home-made solutions	Outside solutions
Teachers are reluctant to change and experiment.	Break the context. If teachers do not want to change in the classroom, let innovations take place outside the classroom – via whole-school events, trips, visits, speakers, etc. Let teachers see what can be done. Get good teachers to talk about what they do. Interested teachers can swap classes to try out something new, or make agreements to try out new techniques and compare notes.	Get community workers to demonstrate participatory approaches. Get the Ministry or the local education authority to set up an incentive scheme – e.g. a prize for the best set of three innovative lesson plans.
Teachers don't know enough about nutrition.	For specific questions, reinforce the school's contacts with the health services and health ministry. If any of the school staff have expertise, get them to share it in seminars. Arrange joint meetings with other schools to share knowledge. If possible, access health and nutrition web sites.	Persuade the health services to give briefings and short training courses. Get nutrition issues adopted as part of the in-service teacher development programme.
Parents don't approve of progressive methods.	Compromise: take things slowly and don't do anything conspicuously progressive. Many progressive activities can be disguised as traditional ones if you conceal the fun element! For example, competitions can look like tests; reflective diaries can be seen as writing exercises; giving marks always classifies an activity as "serious", even if it is highly active, experiential and participatory.	Get the PTA to open up the question at a PTA meeting. Demonstrate a lesson and explain its purpose.
The children find new methods disturbing and cannot cope with them.	Any new classroom activity is stimulating and children can get overexcited. However, children don't like chaotic classrooms any more than teachers do. Discuss new techniques with children beforehand, presenting them as experiments that require their cooperation. Make it very clear what they are to do and why, ask them if they think they can manage it, and let them decide if they want to try it. Afterwards discuss if it worked.	Ask for an in-service course on how to introduce some progressive approaches with immediate success.
The classroom conditions are unsuitable.	*If there is no space*, take lessons outside the classroom, and use the classroom for discussing, writing, and reflecting on learning. *With big classes*, use quick-check exercises and get help from parents and helpers (and children). *With a wide range of ages and abilities*, do a lot of group work, get children to help each other, rotate tasks, and use recyclable worksheets. *If there is a mix of cultures*, use the children as expert informants and as illustrations of dietary differences. *If attendance is irregular*, try to ensure that children know what homework they have to do. Get children to twin up as "buddies" responsible for each others' learning. *If equipment is lacking*, use real objects such as fruits, vegetables, models – and real people – in dialogues, discussions, drama, walkthroughs and role-plays. *Get assistance if possible* from parents and volunteers.	Ask for an in-service course on coping with difficult classroom conditions. Propose a project to produce "full self-access materials" which children can use at home with help from parents. Demand really essential items – posters, paper and coloured pens.
The teaching materials are inadequate.	Good teachers can do better than poor materials! Collaborate with other teachers in planning a few lessons in which you build up the discussion element and call on your own experience. Find some way to make the conclusions of the lesson permanently visible – for example, posters on the wall; Key Messages on old pieces of card which children can hold up and explain.	Get the health services to give you a briefing. If you think you can produce your own materials, seek funding for a pilot series on one topic. If not, discuss what is needed with the local education authority.

PHASE C
ACTION PLANS

UNIT C1

PRIORITIES AND STRATEGIES

CONTENTS

WHAT YOU NEED

People	People with experience of managing change within the education system.
Information	Knowledge of the institutional framework of the education system.
Course documents	The document display built up during Phases A and B. Blank copies of the display documents at the end of this unit – RECIPES FOR CHANGE MANAGEMENT and AGENDA FOR DISCUSSION.
Equipment	N/A

ACTIVITY 1

EXPERIENCE OF CHANGE

30 minutes

(Optional)

How can change be brought about successfully?

Recall your own experience of change and the feelings it gave you.

1. Recall an institutional change you experienced, preferably in an educational context.
   - What were the changes?
   - Who were the "changers" and the "changees"?
   - What kind of culture prevailed in the institution?
   - Was there resistance and grumbling?
   - How did the "changers" behave? Did they consult?
   - Was the change worthwhile in the end?
2. Make a few notes, then describe your experience to a partner or to a small group. What conclusions can you draw about change management?
3. Report your conclusions to the whole group.

"We now have to do achievement tests at three different ages in the primary school. They say it's just to monitor national standards, but they publish the results for each school, so everyone takes them very seriously. We were briefed on what to do, but no-one has ever asked us what we think about it."
– A teacher

"I got so used to grumbling about the lack of good materials for teaching my subject that it was a real shock when I got put in charge of preparing some new ones. It was very interesting but very hard work. Now I'm much more selective in my grumbles."
– A teacher

"My boss consults us about everything, but she gets offended if we don't agree with her – and in the end we have to do what she says anyway. So we just nod and smile in the meetings."
– A teacher

"For years I tried to get everyone to collaborate on the timetable – the beginning of every year was a nightmare, everyone squabbling. In the end I decided the only solution was to be a dictator. Now I just tell them what to do – they hate it but they do it."
– A head teacher

What is your experience of change?

ACTIVITY 2

TOP DOWN OR BOTTOM UP?


20 minutes

Where do the changes required by nutrition education come from? Can they be easily imposed from above or do they need to come from the people directly involved?

Below are some of the issues we have studied. In your opinion, which of them can be successfully addressed from above, by a "top down" intervention? Which demand a sense of ownership from the participants – a "bottom up" approach – to be successful?

1. Discuss this critically, drawing on your own experience, then mark the items T/D or B/U.

   - Providing for children's nutritional needs
   - Utilizing local health resources
   - Supporting health interventions educationally
   - Improving monitoring and referral systems
   - Involving parents
   - Involving the community
   - Involving the whole school
   - Making changes in the classroom curriculum
   - Adopting new classroom approaches

2. Compare your ideas with the KEY.

ACTIVITY 3

RECIPES FOR CHANGE MANAGEMENT


20 minutes

Change agents need to find ways of involving people willingly, "bottom up", so that the changees are motivated to help and contribute ideas.

What recipes can you think of for getting things done with people?

1. With a partner, think of three messages, write them down, and share them with the whole group.

RECIPES FOR CHANGE MANAGEMENT

2. Read the other recipes for change management in the KEY.

3. Together, make a selection of good advice that you think will help to manage change in your context. This final selection will be pinned up in the main document display. Record your messages on a blank copy of the document RECIPES FOR CHANGE MANAGEMENT at the end of this unit, or write them on the document and then copy it.

ACTIVITY 4

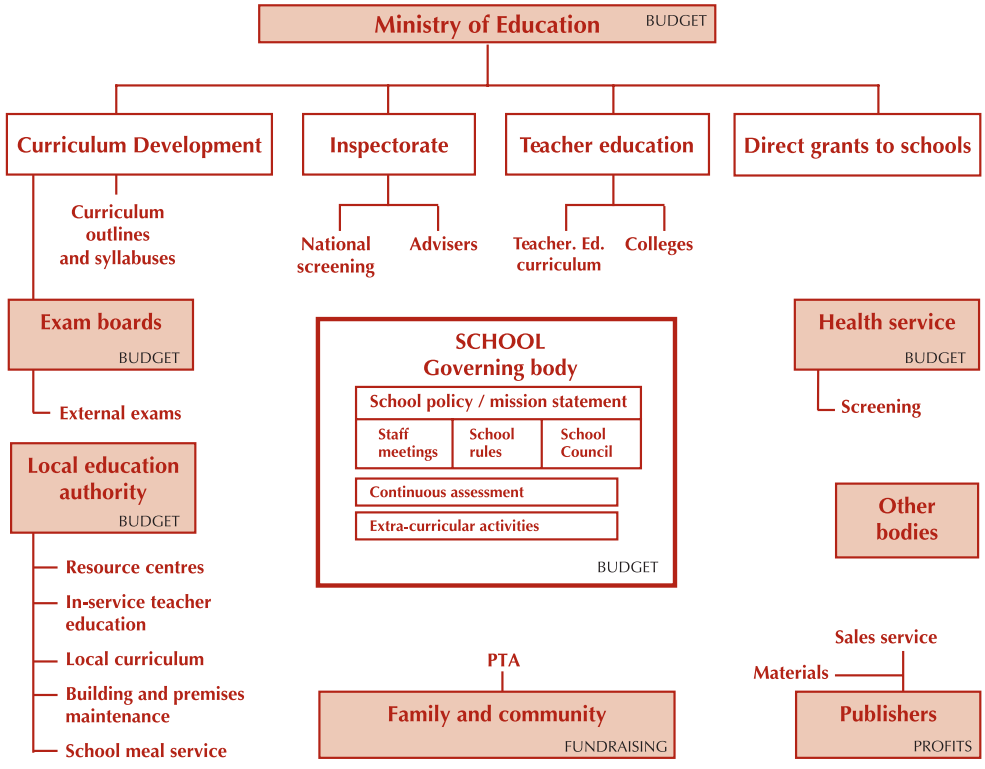
THE INSTITUTIONAL FRAMEWORK

30 minutes

(Optional)

Apart from what *needs doing* or what you *would like to do,* what are you actually empowered to do?

Here is a diagram showing the bodies involved in one country. Are they the same in yours?



ACTIVITY 4 *contd.*

1. **Your own institutional framework**
   Draw a similar diagram for your own situation.
   Explain it to other groups, especially to anyone who is not familiar with the system – for example, health workers, representatives of NGOs, families and others. Go through all the elements, showing:

   - who does what
   - how active they are, and how well-resourced
   - the school's own resources and what they are used for.

THE EDUCATION SYSTEM: INSTITUTIONAL FRAMEWORK

2. **Room for manoeuvre**

In this framework, how free are schools to act with regard to:

- Links with family and community
- Links with the health services
- Health monitoring and referral systems
- In-service teacher education and staff training
- School food
- Other food on the school premises
- School environment, sanitation, etc.
- School gardens
- School policy and rules
- Classroom curriculum, whether national or local
- Teaching materials
- Methodology
- Whole-school projects, campaigns, etc.

Mark the "room for manoeuvre" on your own chart – in green for "GO" if possible.

ACTIVITY 5

A SCHOOL HEALTH AND NUTRITION COMMITTEE

30 minutes

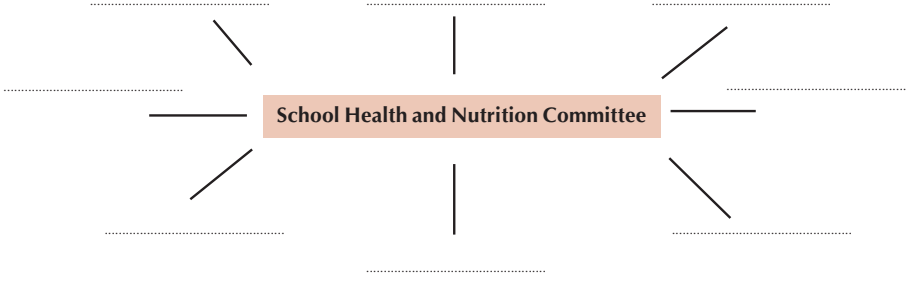
Who will help to discuss and plan changes?

Did you decide in Unit B3 that a School Health and Nutrition Committee was desirable and feasible? If so:

1. Check through the list of groups that might be represented:

- school staff
- teachers
- community services
- child welfare officers
- agricultural services
- NGOs
- the health service and other health resources
- parents and families
- the education service
- interested community groups
- representatives of vendors
- representatives of schoolchildren

2. Discuss specific people who in your own case might be willing to take part in such a committee, and who you think would be valuable members. Write their names on the diagram below. Try to keep a balance between representation and quality.



3. Open a provisional agenda for the School Health and Nutrition Committee on the display document AGENDA FOR DISCUSSION at the end of this unit. The first items should be:

   a) Terms of reference and mission statement for the School Health and Nutrition Committee.

   b) Situation analysis carried out with the Curriculum Planning Guide.

ACTIVITY 6

SELECTING PRIORITIES

30 minutes

1. **Look back at the display you have built up in Phases A and B**.
   - In grey are the principles, goals and objectives established in Phase A. The light red boxes represent the needs and approaches identified in Phase B. The dark red ones are the set of RECIPES FOR CHANGE MANAGEMENT you drew up in Activity 3, and the new AGENDA FOR DISCUSSION.
   - The NEEDS boxes in the second row are the main areas for action planning. The two main ones are the school environment and the classroom curriculum. OTHER NEEDS are important needs that may be outside the direct influence of the school, or beyond the scope of curriculum developers. They are areas for discussion and recommendation.
   - The next row represents *how* it is to be done – for example, by calling on family and community, by using a particular kind of teaching approach, by applying strategies for change management.

2. **Select the priorities for your action programme**.
   Inspect the priorities summarized in the NEEDS FOR THE SCHOOL ENVIRONMENT and NEEDS FOR THE CLASSROOM CURRICULUM. Which would you put first? Make a selection of actions that could be accomplished over the next three years.

   In making your selection, consider these questions:

   - Is it urgent and important?
   - How easy is it to do?
   - What will it cost (in time and money)?
   - Will it be valuable for raising awareness?
   - Will it be easy to involve family and community?

   All these questions will influence your choice. For example, you might choose one important and time-consuming action, and two or three smaller, easier ones.

3. **Select priorities for discussion**.
   From the OTHER NEEDS document, pick out issues which:

   - are very urgent or very important;
   - are beyond your own scope of action;
   - would be useful to discuss with a view to making recommendations.

   Enter these on the display document AGENDA FOR DISCUSSION.

ACTIVITY 7

SUMMING UP

20 minutes

Recording conclusions

Pin up the display document RECIPES FOR CHANGE MANAGEMENT, as shown in the display diagram below.

Pin up the AGENDA FOR DISCUSSION to the right below, as shown in the display diagram.

Highlight in some way your action priorities from Activity 6 on the main display – underline them, box them or use a highlighter pen.

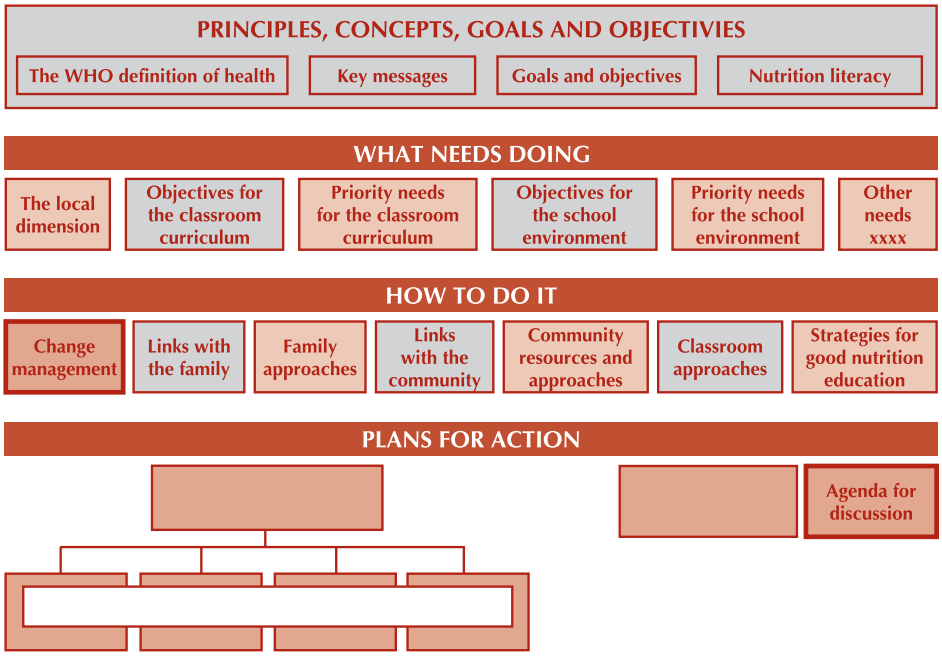
Presenting conclusions

a) Call on individuals who have contributed items to the document RECIPES FOR CHANGE MANAGEMENT and ask them to explain why they chose these strategies.

b) Talk through the items on the AGENDA FOR DISCUSSION, decide who they should be discussed with, and who recommendations might be made to.

c) Explain the reasons for the choice of the action priorities.

DISPLAY DIAGRAM



DISPLAY DOCUMENT

RECIPES FOR CHANGE MANAGEMENT

DISPLAY DOCUMENT

AGENDA FOR DISCUSSION

1. .....
2. .....
3. .....
4. .....
5. .....
6. .....
7. .....
8. .....
9. .....
10. .....
11. .....
12. .....

KEY TO ACTIVITIES FOR UNIT C1

■ ACTIVITY 2 *Top down or bottom up?*

Many of the activities in the nutrition education curriculum depend on school staff feeling involved with the programme. It would be difficult to impose this programme entirely from above.

Children's nutritional needs, once they become the responsibility of the health service, are generally addressed top down – children are not consulted (for example) about whether they want cod-liver oil. Changes in children's diet are, however, close to the heart and involve everyone.

Utilizing local health resources for educational purposes is something that will generally be undertaken by individual teachers or head teachers, but it is not part of their jobs: they will only do it if they feel involved.

Support for health interventions may arrive in the form of back-up materials but normally it is teachers who see the educational value and take the initiative – if they are motivated.

Improving monitoring and referral will be a mixture. Teachers are always concerned with individual children, but changes to the system will be a joint responsibility of school, health service and education services.

Parental involvement, community involvement and whole-school involvement are all cases where a feeling of ownership and engagement will be critical.

The *classroom curriculum* is traditionally imposed from above. Teachers may complain, but they are used to it. With good teaching materials, a lot can be accomplished. There may also be some elements of choice, and with nutrition education the local application will generally be up to the school. Moreover, you can't impose on teachers the desire to reach the children's behaviour, without which any programme will certainly fail.

As for *educational approaches*, they are notoriously difficult to change from above: the desire has to come from the teachers themselves. Examples and dialogue help a lot.

■ ACTIVITY 3 *Recipes for change management*

Engage people's interest – Constantly consult and discuss. Don't order or be overly persuasive – instead, invite contributions, give choices, ask for suggestions. Go with the flow – try to steer away from sceptics and encourage willing people. After any undertaking, get feedback and discuss how to cope in future. Tell people what others are doing. Set up small task forces and *invite* people onto them. If possible, get teacher training time for everyone in the school to do this workshop, and lead it yourself.
Be patient and listen – Remember that it takes time for people to adapt to change.

KEY TO ACTIVITIES *contd.*

Listen to what people are saying. Don't be surprised if you meet anger, antagonism or apathy, and don't overtly fight it head on. State your case but avoid argument: let results speak for themselves.

Communicate – Do this little and often, and keep it simple. Get people to pass on messages (you save yourself the effort and they remember better). Send important messages in pictures as well as in words.

Create attractions – Set up visible events that will attract people – an exhibition, a play, a special day, a fund thermometer. Make sure they are thoroughly prepared.

Use what's available – Use available energy and interest. Use children as messengers to parents, and parents as messengers to each other. Explain an idea twice, then get your audience to explain it to others. Look at the talents around you and use them. Use existing structures and programmes and don't dismantle what's working well – if it's not broken, don't fix it. Learn from failures – use them to do things better in the future.

Reduce the burden and spread the load – Start small, this way you will be much more likely to succeed. Begin with something obvious and easy. Ask for small contributions. Get people to share commitments. Delegate and use other people's energy – involve other schools, call on the inspectorate, use the children. Reduce meeting times to a minimum. Don't allow yourself to be too closely identified with the initiative – there should be many oars paddling the boat. Plan yourself out of the picture and congratulate yourself when you become unnecessary.

Reward people – Make sure that participants have fun, make friends, and are recognized for their work – ask the children to interview them and display reports and pictures of what they've achieved. Involve the media in reporting. Spend a part of every meeting on congratulations. Encourage, and give praise.

Reward yourself – Be proud! Enjoy yourself! Whatever you want, reward yourself with some! *Take it easy* – work smarter, not harder. Make sure everyone (including you) eats properly, gets enough sleep and learns how to relax. An exhausted coordinator is hardly an advertisement for a nutrition education programme!

UNIT C2

A PROGRAMME FOR THE WHOLE SCHOOL

CONTENTS

WHAT YOU NEED

People	People who have good contacts with NGOs and other sources of funds. Inputs about micro-funding opportunities would be very valuable in this session.
Information	Relevant technical information about the projects chosen.
Course documents	The course documents on display. A blank copy of the final document WHOLE-SCHOOL ACTIVITIES ON NUTRITION ISSUES.
Equipment	Recording equipment if there are any useful inputs.

Note: This unit takes you through the process of arriving at a plan of action for promoting healthy nutrition in the school environment, taking account of the principles you have developed. In fact, people are seldom so systematic, but this procedure helps to make sure that nothing important is forgotten and also helps to involve people in the decision-making process.

The whole process consists of:

- Drawing up a provisional framework for action (Activity 1);
- A four-stage process to arrive at an action plan for one priority, consisting of:
  - Brainstorming problems and solutions (Activity 2);
  - Formulating objectives (Activities 3 and 4);
  - Establishing criteria (Activities 3 and 5);
  - Drawing up an action plan (Activity 6).

The process is illustrated with reference to the case study PRATO PRIMARY'S DRINKING FOUNTAINS at the end of the unit.

ACTIVITY 1

A PROVISIONAL FRAMEWORK

20 minutes

1. Read the CASE STUDY PART A: PRATO PRIMARY'S WHOLE-SCHOOL PRIORITIES.

2. Study the priorities you selected for the whole school in Unit C1. These should be highlighted on the display document PRIORITY NEEDS FOR THE SCHOOL ENVIRONMENT.

3. Draw up a provisional three-year framework as in the case study. Consider these questions:
   - *How much time have you got?* – Decide on an approximate time allocation for whole-school activities. Consider class time, outreach time, preparation time and planning time. Also consider whether any of this time can be increased by normal staff meetings and teacher development programmes, or by contributions from helpers or parents.
   - *What can you manage?* – Estimate the time needed for the priorities you have chosen. Map out a provisional three-year plan for your whole-school priorities and record it below.

4. Decide who to discuss the framework with – PTA, School Health and Nutrition Committee, school staff, children, school inspectors, funding agencies – and enter it on the AGENDA FOR DISCUSSION on the display.

5. Decide which priority you will work on in the rest of this unit. It will be more interesting if you divide into groups each taking a separate project.

PROVISIONAL THREE-YEAR FRAMEWORK

	Year 1	Year 2	Year 3
Project			
For whom (children, parents, etc.)			
Class time + outreach activities			
Planning and preparation time			

ACTIVITY 2

PROBLEMS AND SOLUTIONS

20 minutes

What problems do you foresee?

1. **General problems** – Do you share any of these general problems?

   - The school doesn't have the resources to feed children.
   - There is no suitable in-service training for teachers or other staff.
   - Staff are not used to whole-school activities.
   - The school's physical environment needs money spent on it.
   - Meetings with the school staff don't work.
   - Children refuse to eat some foods because they are not used to them.
   - Sweets are more available than healthy snacks: vendors sell them at the school gates.

   a) Choose one problem that matches your situation.

   b) Brainstorm some solutions – think of every solution you can, however unusual. Then pick the best ones.

   c) Compare your solutions with the KEY.

Problem	Solution

2. **Prato Primary's problems** – Read through the Case Study Part B: TROUBLESHOOTING.

3. **Problems with your first project** – Now turn to the priority you have selected for your first project. What problems do you foresee?
   Go through the same process of identifying difficulties and thinking of solutions. Enter them in the box below. This will give you some ideas for action.

Priority	Problems	Solutions

ACTIVITY 3

OBJECTIVES AND CRITERIA

15 minutes

(Optional)

Wherever people organize action, it's very important to specify exactly what is wanted – a clear objective – and some of the criteria, for example, when, where, how, how well, how much, how often and who. Here's an everyday example:

1. You send your child out to buy "something for supper" for the family. He comes back with a large cake and a big bottle of lemonade – enough for everyone. He's very happy about it, and he can't see why you are upset. What went wrong?

2. You send your child out to buy something for supper but this time you tell him exactly what you want. He buys it all, but gives it to his brother to bring home on his bike. His brother doesn't get home till late, so there is nothing for supper. What went wrong?

3. You send your child out to buy some oil, some beans and some carrots, and tell him to come straight home. He does exactly what you tell him. But the carrots are old and limp, the beans are damp and fermenting and the oil is rancid. What went wrong?

So, what went wrong? Choose from these possibilities. Some of them are crucial, some don't matter:

- You didn't specify what you wanted.
- You didn't indicate the time frame.
- You didn't say where to do the shopping.
- You didn't say anything about the quality required.
- You didn't specify the quantity required.
- You didn't say how much to spend.
- You didn't say who was to be involved.
- You didn't indicate how the shopping was to be transported.

If you don't agree with each other, see our comments in the KEY.

ACTIVITY 4

FORMULATING OBJECTIVES

30 minutes

Read the CASE STUDY PART C: FORMULATING OBJECTIVES FOR PRATO PRIMARY.

Take your chosen priority for the school environment. Briefly recap the situation and the reason why you have chosen this as a priority.

Decide exactly what the objectives are, both long-term and immediate. Consider *both the material and the educational aims*. Formulate the objectives as statements, with a subject and a verb.

Write the priority and the objectives below.

Explain your objectives to the whole group.

Priority
Objectives (material and educational)

ACTIVITY 5

ESTABLISHING CRITERIA

30 minutes

Your criteria should say *how* you want this project realized and *who* should be involved.

1. Read the CASE STUDY PART D: ESTABLISHING CRITERIA.

To establish your criteria, consult the main document display and:

2. Check through the general objectives for the school environment, the classroom curriculum and the other priority needs you selected. Are there any special dimensions you want to promote?

3. Think of what could go wrong with your objectives. Then express these risks as positive criteria.

4. Check through the *who* and *how* approaches you developed in the third row of your display – approaches and objectives for the family and community, classroom approaches, and change management strategies.

5. List your criteria in the box below. Keep the number down – just put in what you think is essential to realizing a project that will *really work to promote good nutrition*.

Make a note of any *ideas for action* that come up.

CRITERIA

IDEAS FOR ACTION

ACTIVITY 6

DEVELOPING ACTION PLANS

20 minutes

1. Read the CASE STUDY PART E: ACTION PLAN FOR THE DRINKING FOUNTAIN PROJECT.

2. Look back at the problems you anticipated (Activity 2), the objectives you formulated (Activity 4), the criteria you established (Activity 5) and the ideas for action that emerged (Activity 5). You should now have a good idea of how to start the project.

3. Decide on the first three steps of your action plan, who will be responsible for carrying them out, and when they should be completed.

Action plan – first three steps	Responsibility	Completion date

ACTIVITY 7

SUMMING UP


40 minutes

You have now been through the four steps of action planning. Here is a summary of the process:

a) Anticipate the problems – Look at all the obstacles and assets and find a few solutions.

b) Clarify the objectives – Spell out what they mean and write them out clearly as statements, with subjects and verbs. Think of both material and educational objectives.

c) Specify the criteria – that is, how you want it done and who is to be involved.
- Check through your main objectives for the school environment and the classroom.
- Think of the things that could go wrong, then turn them from negative risks into positive criteria.
- Check the *who* and *how,* looking at how you plan to involve family and community, the educational approaches you want to adopt and the change management strategies you think will help.
- Gather ideas for your action plan.
- Write out your criteria as statements.

d) Create an action plan – Draw up the first three steps of an action plan in line with your strategies.

Recording conclusions

Summarize your conclusions from Activities 1, 2, 4, 5 and 6 on the display document on the following page: WHOLE-SCHOOL ACTIVITIES ON NUTRITION ISSUES. Make a blank copy of the document and fill it in, or fill it in on the next page and then copy it.

Pin up the document under the main display.

Presenting conclusions

Divide up these points between you and prepare to present them to the group as a whole:

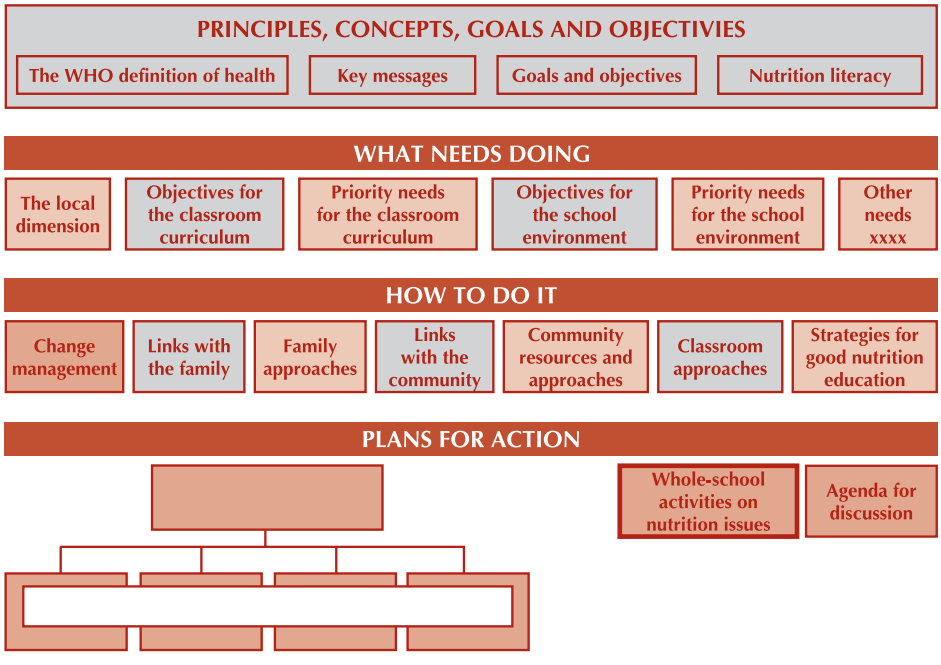
- your material and educational objectives and how you have formulated them;
- how you arrived at your criteria and why they are important;
- what specific ideas for action came up;
- how you will start your project and why you have put these actions first.

Put a time limit on each presentation (to a maximum of 5 minutes).

The audience should comment and contribute.

ACTIVITY 7 *contd.*

DISPLAY DIAGRAM



DISPLAY DOCUMENT

WHOLE-SCHOOL ACTIVITIES ON NUTRITION ISSUES

PROVISIONAL THREE-YEAR FRAMEWORK

	Year 1	Year 2	Year 3
Project			
For whom (children, parents, etc.)			
Class time + outreach activities			
Planning and preparation time			

PROJECT 1

Priority	**Ideas for action**
Objectives (material and educational)	
Criteria	

Action plan – first three steps	**Responsibility**	**Completion date**

CASE STUDY: PRATO PRIMARY'S DRINKING FOUNTAINS

Part A: Prato primary's whole-school priorities – a provisional three-year plan

Prato Primary School has three immediate action priorities for the whole school:

- Drinking fountains instead of taps in the playground
- A nutrition policy
- Some kind of whole-school activity

How can these projects fit into a long-term plan? Installing drinking fountains and creating an interest in them will be a small project, good to experiment with. Developing a school nutrition policy is a bigger undertaking. Thinking through the school nutrition policy may also generate ideas for the vague third priority, "some kind of whole-school activity". One possibility is a project on clean water, a real problem locally. Another is a programme for a school breakfast with a high protein content.

How much of this can the school do, and how fast?

Prato Primary decides that in general, whole-school projects should take up, per grade, no more than:

- 3 hours of class time;
- 3 hours of outreach activities such as trips;
- 10 hours of preparation and planning.

This doesn't include staff meetings, which are held regularly, or teacher development events, which come out of the in-service teacher education time allocation. It also doesn't include time given by others, such as parents and health workers. All these will give the school a little more time to spend, but not much.

Knowing these limitations, the school decides that it hasn't the time in the coming year for both nutrition policy development and the drinking fountains. Many think it is more logical to start with the nutrition policy, but others are in favour of a more immediate hands-on approach, i.e. the fountains. Rightly or wrongly, the fountains are approved, and the policy development is put off till next year.

The provisional plan is therefore clear for the first and second years, though still vague for the third:

PROVISIONAL THREE-YEAR PLAN FOR WHOLE-SCHOOL ACTION ON NUTRITION ISSUES

	Year 1	Year 2	Year 3
Project	Drinking fountains	Nutrition policy	To be determined by the school
For whom (children, parents, etc.)	Whole school	Whole school, parents, community, school staff	?
Class time + outreach activities	2 half-hour lessons + tours of school yard	3 half-hour lessons + 3 hours outreach	Maximum: 3 hours
Planning and preparation time	5 hours	6 hours + meetings	Maximum: 10 hours

Part B: Troubleshooting

Prato Primary has already noted a few problems with its plans for the school environment. One problem is that not everyone is convinced that drinking fountains should be a top priority. Another is that at least half of the staff don't appear to be interested – they are underpaid, and tired because they have other jobs. A third problem is that there aren't any teaching materials.

The interested few attend a short session to identify and confront these problems.

Problem	Solution
Not everyone is convinced that drinking fountains are a top priority.	Keep everyone informed at all stages. Keep discussing next year's project as well. Set up a persuasion chain – teachers convince each other, teachers convince children, children convince families.
A lot of the staff aren't interested.	Set up a small working group, but make sure it isn't seen as exclusive – it should consult frequently with other staff. Ask for very small contributions from the less-interested staff, and receive them with enthusiasm.
There aren't any teaching materials.	The fountains themselves are "teaching materials" – arrange demos and talks around them. Get clever pupils to make pictures, diagrams or models of the fountains. Ask the fountain supplier for several copies of their catalogue, with illustrations. Ask the supplier if they can send a speaker.

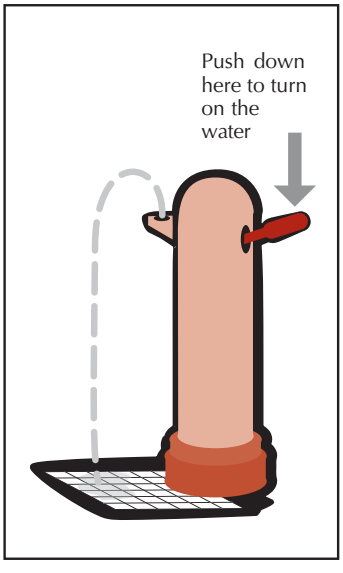
This produces a number of ideas that may or may not work. But the ideas are all worth trying and definitely worth writing down, so that the working group will remember them later. Some are just ongoing strategies, such as keeping everyone informed. But others can go straight into the action plan, for example, asking the supplier for the catalogue.

Part C: *Formulating objectives for Prato Primary – From taps to drinking fountains*

What's the situation? – At the moment the school has two taps in the school yard which children use for drinking water. These have several disadvantages. Some children drink straight from the taps, which is unhygienic. They sometimes leave the taps running. There are no drains under the taps, so they are surrounded by small lakes of mud. Some of the mugs are dirty. Drinking fountains would solve these problems.

What's the idea? – The "drinking fountain" they have in mind is a standpipe with a lever. When you press the lever the water shoots up in a curve so you can drink it without using your hand or a mug. When you take your hand off the lever the water turns off, so it is not wasted. Installing these fountains will also mean putting in underground drainage, and a drainage grid on the ground under the fountain, so there will be no more lakes of mud.

What exactly are the objectives? – There are two kinds of objective – material and educational. The long-term material objective is that *children drink safe, clean water*. The immediate material objective is *to install a working set of drinking fountains*. One educational objective has to do with simple behaviour – it is important that the children *use the fountains properly*, since this will benefit their health and the general hygiene of the environment. The other educational objective is broader – children should *understand why this change is happening* and what advantages it brings. To summarize the objectives:



- First, children drink safe, clean water.
- Second, four new functioning drinking fountains are installed in the school yard.
- Third, children use the drinking fountains properly.
- Fourth, children understand the value and purpose of the drinking fountains.

Writing them as sentences helps us to see *who is to do what*. Objectives with "to" often leave this unclear.

Part D: *Establishing criteria – How do we want this done?*

"Criteria" are the "quality standards" that we look for when an action is taken. Agreeing on criteria makes sure that the job is done properly, especially if several people and groups are contributing to it. They also make sure that we don't forget the principles we have decided are important.
To establish the criteria the school does three things.

1. It checks through the general objectives for the school environment and the classroom curriculum. Are there any special dimensions it wants to promote? For example, it may decide that:

   - All school staff should be involved in the project if possible.
   - Learning should be multidisciplinary.

2. The school then thinks of what could go wrong. For example, the fountains might not work properly or it might break down. The children might not know how to use them, or not use them properly. The children might not appreciate why they are an improvement. Any of these factors will mean that the objectives have not been achieved.

   To formulate the criteria, the school expresses these risks positively. Thus the general criteria for the drinking fountains (again written as statements) are:

   - The fountains work properly – they are the right height, and don't get blocked or break down.
   - Children use them correctly – they don't waste water or spray each other.
   - Children are able to explain the value of the fountains.

3. It looks through the *who* and *how* approaches – decisions about involving the family and the community, the educational approaches it wants to adopt, and the change management strategies it favours. Checking through these generates other criteria, for example:

   - Families are kept informed and asked for reactions.
   - Learning is hands-on and participatory.

While thinking through these "criteria" it also comes up with action ideas to add to those it thought of when discussing the problems. For example:

- Make sure several people are trained to maintain the fountains (including the children?).
- Check if spare parts will be needed and where to get them.
- Train children to give parents a guided tour of the new fountains?
- If the Council won't pay for the fountains, will parents help?
- Ask the supplier for catalogues, pictures and speakers.
- Older children could explain to younger children how the fountains work.
- Children make poster, diagrams and models of the new fountains.
- There could be lessons in physics, biology and environmental science.
- Children observe the work as it is carried out and discuss it in class – trying to explain it.
- Use a small volunteer task force to oversee the project. It will consult frequently with everyone concerned and ask for very small contributions from reluctant staff.
- Start an information and persuasion chain. Children take pictures home and show them to their families.

Prato Primary assembles the objectives, the criteria and the various action ideas developed so far:

Priority	Ideas for action
Replace taps with drinking fountains	• Train people to maintain the fountains (including children?). • Check if spare parts will be needed and where to get them. • Train children to give parents a guided tour of the new fountains? • If the Council won't pay for the fountains, will parents help? • Ask the suppliers for catalogues, pictures and speakers. • Older children could explain to younger children how the fountains work. • Children make posters, diagrams, models of the new fountains. • Lessons in physics, biology and environmental science. • Children observe the work as it is carried out and discuss it in class – trying to explain it. • Use a small volunteer task force to oversee the project. It will consult frequently with everyone concerned and ask for very small contributions from reluctant staff. • Start an information and persuasion chain. Children take pictures home and show them to their families.
Objectives (material and educational)	
• Children drink safe, clean water. • Four new drinking fountains are installed in the school yard. • Children use the drinking fountains properly. • Children understand the value and purpose of the drinking fountains.	
Criteria	
• The fountains work properly – they are the right height and they don't get blocked. • Children use them correctly – they don't waste water or spray each other. • Children are able to explain the value of the fountains. • The object lesson is reinforced by school staff and subject teachers. • Families are informed about the project and asked for reactions. • Learning is hands-on, participatory and multidisciplinary.	

Part E: ***Action plan for the drinking fountain project***

Finally, the school draws up an action plan. Below are the first three steps and who is to take them.

Action plan for the drinking fountains project

Action plan – first three steps	Responsibility	Completion date
Research the possibility Contact the School Board and the local Council about authorisation and funding. Ask the Water Board to advise on products, standards and costs. Discuss the project with the School Health and Nutrition Committee. Contact manufacturers and ask for brochures and leaflets. If necessary, mobilize the PTA as a pressure group and fundraiser. Ask manufacturers and the Water Board about speakers and advisers.	Head teacher Caretaker PTA School Health and Nutrition Committee	June, Year 1
Establish contact with whoever is to do the work Ask to be informed about dates, procedures and technical details well in advance. See if the firm will send a speaker. Immediately inform parents and children about the project.	Head teacher *or* responsible teacher	June, Year 1 July, Year 1
Set up a small working group of interested teachers and school staff The group will decide on ways of exploiting the educational potential of the event and dealing with it across the curriculum. Empha size that it shouldn't take a lot of their time.	Head teacher Teachers School staff	July, Year 1

KEY TO ACTIVITIES FOR UNIT C2

ACTIVITY 2 *Problems and solutions*

Problem	Solutions and strategies
The school doesn't have the resources to feed children.	Appeal to NGOs, local companies and local charitable organizations. Aim for all children to have a snack if you can't manage to give them a meal. Discuss the problem with parents. Start a chicken production unit on school premises.
There is no suitable in-service training.	Get permission to run this workshop for all school staff, and run it yourself.
Staff are not used to whole-school activities.	Involve staff in small ways in a whole-school project (e.g. Healthy Food Week). Get children to interview them about what they eat. Ask for small class contributions from teachers. If this is a success, ask staff for ideas for the future.
The school's physical environment needs money spent on it.	Maybe the school building is a disaster – but disasters are very educational! Are teachers exploiting this opportunity? Can the parents form a pressure group or help with fundraising? Is there a chance of a sponsor?
Meetings with the school staff don't work.	Lots of extra meetings don't work! Don't try to change existing structures (e.g. school assembly, PTA, staff meetings). Use them to discuss and ratify proposals worked out by smaller working groups. Set up other small voluntary task forces with limited aims, which can dissolve when their work is done.
Children refuse to eat some foods because they're not used to them.	This is a real problem, which doesn't depend on hunger, and often can't be solved rationally just by explaining how good the food is. In general, encourage children to experiment and extend their range of tastes. Try mixing old foods and new (a little bit of meat to flavour the beans, for example). Cook the new food in the old way. Get teachers to eat the new food themselves, with visible relish!
Sweets are more available than healthy snacks: vendors sell them at the school gates.	Discuss with vendors – can they add fruit to their stock? Start a pro-fruit campaign – give fruit as prizes, have a fruit break in the morning, get children to practise "selling" fruit in class using advertising techniques. Persuade children to bring fruit to school. Get school staff to tell children about their favourite fruits and why they like them. Plant fruit trees in the school garden and involve children in the choice. Make the link between sweets and rotten teeth once a week, in a variety of ways. Get a local producer to donate fruit.

ACTIVITY 3 *Objectives and criteria*

- The first problem was that *you didn't specify what you wanted* – that is, the objective itself was not clear.
- The second problem was possibly that *you didn't indicate the time frame*, or that the child or his brother wasn't aware of it. So one of your criteria wasn't clear.
- The third problem was that *you didn't say anything about the quality of the food* – or perhaps that you assumed your child was able to recognize quality. So again, the criteria weren't clear.

The other criteria were irrelevant or not so important.

UNIT C3

THE CLASSROOM PROGRAMME

CONTENTS

WHAT YOU NEED

People	All those responsible for, and informed about, the classroom curriculum.
Information	The results of the situation analysis in Phase B.
Course documents	*On display*: The Classroom Curriculum Chart, marked up to show the desired subtopics and the existing coverage. The document PRIORITY NEEDS FOR THE CLASSROOM CURRICULUM. *Spare copies* of: The Classroom Curriculum Chart; the table CLASSROOM PROGRAMME: OBJECTIVES AND ACTION PLANS (Activity 8); the document CLASSROOM PROGRAMME FOR NUTRITION EDUCATION at the end of this unit.
Equipment	Coloured pens and/or highlighter pens.

ACTIVITY 1

HOW MUCH?

20 minutes

What scale of action are you thinking of for the classroom programme?

1. Read the descriptions of *major*, *moderate* and *minor* changes below. Underline the points which seem to be feasible in your situation. Note that they may not all be in the same part. *Broadly,* which of these pictures do you have in mind?

   a) *A major change* would involve adopting most of the Curriculum Chart. It would aim to provide about 60 hours of teaching per class per year on nutrition-related issues. It would also run some special educational projects or campaigns to tackle high-priority dietary needs in the area. The family, the community and the school environment would be involved as much as possible, and there would be some whole-school projects. There would be a commitment to establish a local information-base on food and food practices, and educational support, where needed, for health and nutrition interventions. In-service teacher training would emphasize awareness of nutrition issues, some experimentation with methodology, and possibly the production of new materials. A programme on this scale would mean allocating time for planning, coordination, materials production, learning assessment and monitoring and evaluation.

   b) *A moderate change* might mean extending the existing nutrition education curriculum by including some new topics and subtopics, and possibly trying to involve more subject-teachers. It would aim at about 30 hours per class per year – perhaps half an hour per week. There would be at least one project or campaign to deal with dietary needs in the area, and perhaps one or two other small projects involving the whole school. Family and community links would be explored, and some local information relating to topics taught would be collected. In-service training would include briefings on local nutritional problems and an ongoing discussion of methodology, reusing parts of this Planning Guide. A small working group would be responsible for coordinating, implementing and evaluating the programme, including assessment of learning.

   c) *A minor change* might involve several small experiments, for example:

   - one new subtopic for one age group;
   - one new teaching method;
   - some awareness-raising for children and families about high-priority dietary needs;
   - a small project involving more than one teacher or school subject;
   - a visit related to a new or old topic;
   - one or two new informal links with family and community;
   - some effort to involve the whole school.

ACTIVITY 1 *contd.*

In-service training would consist of some discussion of local nutritional problems, occasional meetings to discuss approaches and evaluate progress, and some dissemination of the ideas in this Planning Guide. The coordination might be left to one person.

2. Discuss and decide on the answers to the following questions for your own situation:

What scale of action do you have in mind (major, moderate or minor)? *How much time can you spare for it*?	
Who will coordinate the innovations – a single person or a working group?	
How much time can be allocated for coordination (hours per week)?	

ACTIVITY 2

HIGH-PRIORITY DIETARY MESSAGES

30 minutes

How will the classroom deal with the children's high-priority nutritional needs?

1. Review the urgent dietary messages that you recorded in PRIORITY NEEDS FOR THE CLASSROOM CURRICULUM and originally in THE LOCAL DIMENSION. Note them one by one in the top line of the table below.

2. Read the CASE STUDY PART A: HIGH-PRIORITY DIETARY MESSAGES.

3. Discuss the questions below and record your decisions in the table below.

   a) Who will be targeted? For example, only children, or parents and school staff also?

   b) How will you deal with the high-priority needs you have selected? Via a project? A campaign? A special series of lessons? Meetings? Local media?

   c) Which topics and subtopics will be involved? Consult the topics and subtopics at the top of the Classroom Curriculum Chart. Mark on the Chart those that will be touched on by the project. This may suggest ideas on how to integrate the project – for example, it can be reinforced by lessons on these topics, or parts of the project can be covered in these lessons.

	1.	2.	3.
High-priority dietary needs			
Who will be targeted?			
How will you deal with the high priority needs?			
Which topics and subtopics will be involved?			

ACTIVITY 3

SUPPORT FOR HEALTH AND NUTRITION INTERVENTIONS

20 minutes

1. Read the CASE STUDY PART B about how Prato Primary School planned to give educational support to the Vitamin A supplementation programme.

2. Refer to your list of PRIORITY NEEDS FOR THE CLASSROOM CURRICULUM. If you aim to give educational support to any health and nutrition interventions, discuss:

   a) Who will be targeted – children only, or also teachers, parents, and school staff?

   b) How you will deliver the interventions – outside the classroom and inside the classroom.

   c) Which topics and subtopics will be involved.

3. Record your conclusions in the table below.

	1.	2.	3.
Interventions (and dates if known)			
Who will be targeted?			
How you will deliver the interventions (e.g. via a project, a campaign, special lessons, meetings, local media)**?**			
Which topics and subtopics are involved?			

ACTIVITY 4

LOCAL FOOD AND FOOD PRACTICES

20 minutes

The third aspect of the local dimension is local food and food practices. Refer to your selected priorities in PRIORITY NEEDS FOR THE CLASSROOM CURRICULUM. Did you decide that local application and local information were a priority? If so:

1. Read the CASE STUDY PART C: LOCAL FOOD AND FOOD PRACTICES.

2. How far do you want to go with researching local food and food practices? Possibilities are:

   - an occasional classroom project;
   - a five-year programme of work for the whole school;
   - a collaborative effort with other schools;
   - a regional initiative.

3. Discuss what local foods or food practices need researching (don't exclude water) and decide on three top priorities for investigation.

4. Discuss who should be involved – children, parents, school staff, teachers, resource centre, inspectors, other schools, members of community?

5. Note your findings in the table below.

INFORMATION ON LOCAL FOOD AND FOOD PRACTICES

How far do you want to go in researching food practices?	
Priority topics for investigation	1. 2. 3.
Who will be involved? (For example, children, parents, school staff, teachers, resource centre, inspectors, other schools, members of community).	

ACTIVITY 5

THE REGULAR CLASSROOM CURRICULUM


40 minutes

In Unit B5, you identified what your schools are already teaching on the Classroom Curriculum Chart, and made some broad decisions about what topics and subtopics needed more coverage and development.

It is now time to be more specific about your overall plan for the regular classroom curriculum. Look back at the Chart you marked up in Unit B5, Activities 5 and 6. It should show (at the top) the subtopics you decided were *essential, highly desirable* and *desirable*, and (in the body of the Chart) the learning objectives and subtopics already covered in your existing curriculum.

1. Read the CASE STUDY PART D about the topics Prato Primary selected for its regular classroom programme, and its reasons for selecting these.

2. If you are adopting most of the proposed curriculum (a *major* change), mark up your existing copy of the Curriculum Chart, deleting the areas you don't want to cover, and adding what you feel is missing. If your existing chart is already unclear, use a fresh copy.

If you are going for a *moderate* or *minor change*, use the mini-chart on the following page to note down what subtopics you plan to cover in each age group, highlighting those which are already dealt with in some way.

ACTIVITY 5 *contd.*

SUBTOPICS FOR THE CLASSROOM CURRICULUM

Age	A	B	C	D	E	F	G	H
6 to 7								
8 to 10								
11 to 13								
14 to 16								
Reasons								

ACTIVITY 6

PROVISIONAL FRAMEWORK

60 minutes

You have looked at four programme elements: high-priority dietary messages, support for health and nutrition interventions, local foods and food practices, and the regular classroom curriculum.

You are planning a three-year programme of innovation. Draw up an outline framework to include all the programme elements. Work in pencil so you can change it as you go along.

1. Read the CASE STUDY PART E.

2. Make a selection, if necessary, from your programme elements – for example, it may not be possible to cover all the urgent local needs in the first three years.

3. Make decisions for each of your chosen programme elements:

   - *How long will it last*, how many years will it run and when will it start (for example, projects)?
   - How much *class time* is to be spent on it?
   - What *other activities* will be involved (e.g. field trips, open days)?
   - How much time will be required for *planning and coordination*?
   - *Which classes* and age groups will be involved?
   - *Which school subjects* will be involved? How cross-curricular will it be?
   - *Who will help?*

4. Complete the table below.

	High-priority dietary messages	Support for health and nutrition interventions	Local foods and food practices	Regular classroom curriculum
Curriculum element				
Details				
Duration and timing				
Class time				
Other activities				
Coordination time				
Age groups				
School subjects				
Who will help?				

ACTIVITY 7

TROUBLESHOOTING


20 minutes

(Optional)

Do you share any of these general problems?

The local dimension

- Families are simply too poor to afford good food.
- There are times of the year when fruit is lacking.
- Information about health and nutrition interventions isn't available.
- The school doesn't have the resources to establish a food information base.

The regular classroom programme

- You haven't got enough time in the timetable for more work.
- You haven't got time to organize and coordinate these changes.
- Teachers are reluctant to do more work or to innovate.
- There aren't any good teaching materials.

1. Choose one problem that matches your situation.
2. Brainstorm some solutions – think of every solution you can, then pick the best ones.
3. Compare your solutions with the KEY.
4. Add any problems of your own and think of solutions in the same way. This should give you ideas for your action plan.

Problem	Solutions

ACTIVITY 8

OBJECTIVES, CRITERIA AND ACTION PLANS

60 minutes

Read the CASE STUDY PART F and recall how you refined your objectives in Unit C2. You should now do the same for the programme elements you have selected, so that you have clear objectives and criteria, and an idea of how your action plan will begin.

Divide the programme elements between you, one for each group. Follow the same procedure as for the objectives in Unit C2, and record your work on the next page.

Procedure

1. **Anticipate the problems** – Look at the obstacles and find some solutions (as in Activity 7). This will give you ideas for action and possibly for criteria.

2. **Clarify the objectives** – Spell out your objectives and write them out clearly as statements, with subjects and verbs.

3. **Specify the criteria** – that is, how you want it done and who is to be involved.

   - Check through your main objectives for the school environment and the classroom.
   - Think of the things that could go wrong, then turn them from negative risks into positive criteria.
   - Check the *who* and *how,* looking at how you plan to involve family and community, the educational approaches you want to adopt, and the change management strategies you think will help.
   - Gather ideas for your action plan.
   - Write out your criteria as statements.

4. **Create an action plan** – Draw up the first three steps of an action plan in line with your strategies.

ACTIVITY 8 *contd.*

THE CLASSROOM PROGRAMME:OBJECTIVES AND ACTION PLANS

Priority	**Ideas for action**
Objectives (material and educational)	
Criteria	
Action plan – first three steps	**Responsibility**

ACTIVITY 9

SUMMING UP

40 minutes

Recording conclusions

1. Using the decisions in Activity 7, draw up a provisional three-year plan for extending nutrition education in your schools (as in CASE STUDY PART E). This will be for display. Either complete the Dispay Document THE CLASSROOM PROGRAMME FOR NUTRITION EDUCATION on page 259, and then copy it, or make a blank copy and then fill it in. Pin it up as indicated in the Display Diagram at the end of this Activity.

2. Underneath this, pin up copies of all the objectives and action plans developed in Activity 8 (see the Display Diagram again).

Presenting conclusions

Nominate one person to talk through the three-year plan, and others to present each element of the classroom programme, explaining the objectives and the criteria. Allow five minutes for each presentation. The audience should check that the programme is workable, that the objectives and criteria are clear, and that the programme makes good use of the family and community, and the school environment. They should also applaud each presentation – this is, after all, the final product!

CASE STUDY PART G – The final part of the case study reminds us that none of these decisions is written in stone. Get someone to read it out to the whole group.

Dissemination plans

After the programme planning exercise you have just gone through, who will you tell, inform, and consult – and how? Discussing, informing and consulting are helpful to decision-makers. They also build good relations and make people feel involved. However, they take a lot of time, and coordinators should think about what communications are most productive in terms both of information and of human relations.

As a final plenary activity:

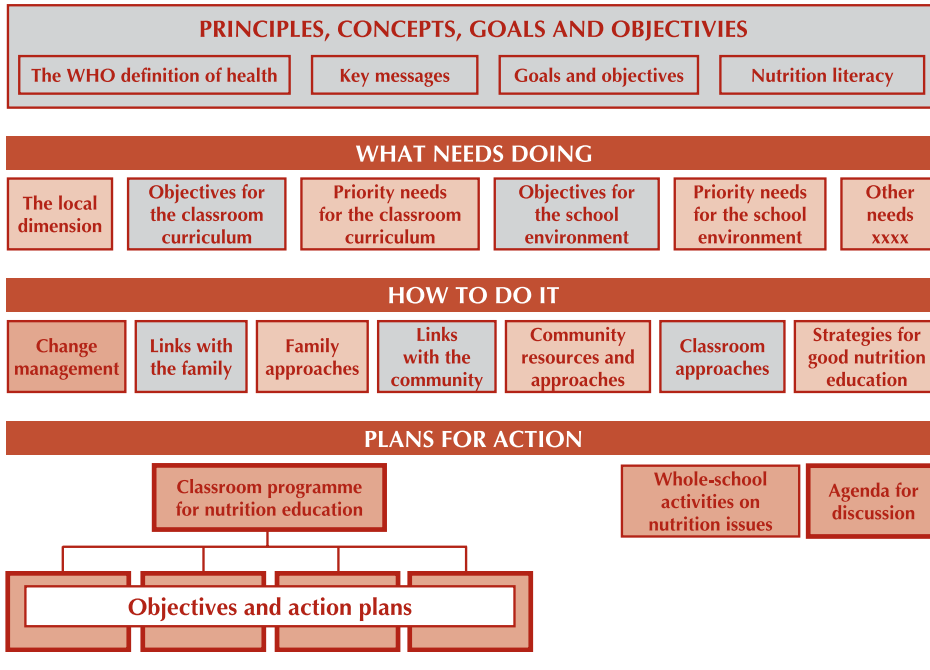
a) Discuss the possibilities in the table below, decide on three communications priorities and record them in the AGENDA FOR DISCUSSION in the main display.

ACTIVITY 9 *contd.*

	Who	About	How
Tell?	The children	• the planned programme for nutrition education, including the outline framework and objectives	Meetings
Discuss with?	The families		Letters
	The PTA		Discussions, chats
Consult?	The School Health and Nutrition Committee	• the campaign/project on urgent dietary needs	Posters
	The School Board	• plans for supporting health and nutrition interventions	Pictures
	The Health Service	• ideas for exploring local foods and food practices	Telephone calls
	The teachers	• the decisions for the regular classroom curriculum programme	Other?
	The school staff		
	Community services		
	The inspectorate		
	Others?		

b) Discuss possible further uses of the Planning Guide – either the whole of it or parts of it.

COMPLETE DISPLAY DIAGRAM



DISPLAY DOCUMENT

THE CLASSROOM PROGRAMME FOR NUTRITION EDUCATION

First year	Class hours	Second year	Class hours	Third year	Class hours
Total hours		Total hours		Total hours	

THE CLASSROOM PROGRAMME: OBJECTIVES AND ACTION PLANS

Note to users: Here display the tables "*Objectives and Action Plans*" for each programme element as developed in Activiy 8.

For guidance, please se the Display Diagram on the previous page, or also the backcover of Vol. 2 The Activities.

CASE STUDY: PRATO PRIMARY'S CLASSROOM PROGRAMME

Part A: High-priority dietary messages

Our fictitious school, Prato Primary, has opted for a "moderate" classroom programme. It will aim at half an hour of nutrition education per class per week, to be introduced over a period of three years. Some of this time will be absorbed with whole-school activities and projects. There will be one coordinator, a specialist teacher. Small working groups or task forces will be set up as necessary.

Prato Primary has identified three high-priority nutrition messages for the children in the area. They are that the children:

- need more protein;
- should eat fruit snacks instead of sweets;
- need a good breakfast before going to school.

Education can help with all of these, of course. Prato Primary feels that there is a need to give these problems a lot of attention so as to have some direct impact on food behaviour.

As a first high-focus project the school decides to concentrate on the protein issue. It will mount a special intensive "alternative protein project" aimed at both children and their parents, with the help of the local community and the health services. This will be run each year for two years. The messages of this special project will also be covered in normal classroom lessons.

The school is aware that this problem-solving focus will call on a spread of topics and subtopics in the Classroom Curriculum Chart, rather than dealing with them systematically through the scholastic programme. For example, the alternative protein project will need to discuss:

- how children and families feel about beans and pulses;
- what they taste like;
- how much they cost and where to get them;
- what their nutritional value is;
- how to preserve them;
- how to prepare them so that they taste good.

CASE STUDY *contd.*

This covers several major topics (and subtopics) from the Classroom Curriculum Chart:

Topic A: Food preferences (trying new foods).

Topic B: Factors influencing own food choice; Meals and meal patterns (traditional foods).

Topic C: Functions of food for health (nutrients); Food classifications (food composition, nutritional value); Principles of healthy eating and diets (variety, balanced, meeting nutritional needs).

Topic D: Food supply (food production).

Topic F: Food preservation; Food storage.

Topic G: Preparation techniques and skills; Cooking techniques and skills.

The project can reinforce these topics but will deal with them only partially: it can't replace them in the regular curriculum. It is an add-on, not a substitute for the normal teaching programme.

Part B: *EDUCATIONAL SUPPORT FOR NUTRITION INTERVENTIONS*

At Prato Primary teachers have been asked to hand out Vitamin A capsules to children under ten, starting next year, under a large project funded by a major donor. There is a joint circular from the Ministries of Education and Health explaining the plan.

How can this intervention be reinforced educationally by the school?

Outside the classroom, the school will collaborate with community and health services to raise awareness among parents. A mini-campaign will emphasize the diseases prevented by Vitamin A, its local importance, the local food sources of the vitamin and how to prepare them. The campaign will also serve to educate teachers and school staff, who will be briefed by a nutritionist. Teachers, health services, community workers and parents will collaborate to turn the Ministries' circular into a simple poster with a message reinforced by pictures.

In the classroom, the school plans two special lessons on Vitamin A when the capsules are handed out for the first time, and some homework to be discussed with parents. Children will learn which local foods are rich in Vitamin A so that they see food solutions as well as medical ones. They will discuss which foods they like to eat. When vitamins are dealt with in Topic C of the regular classroom curriculum (Food, Nutrition and Personal Health), these special lessons will be recalled. The Vitamin A lessons will be delivered to the whole school this year and next, but after that, only to the first two school years. In this way, every child will hear the message twice. Children will study the poster, copy it into their exercise books and explain it to their families at home.

CASE STUDY *contd.*

Part C: *Local food and food practices*

Prato Primary recognizes that most of the subtopics it has selected (e.g. snacks, food supply, food storage) will have far more impact if they are expressed in local terms. However, some of the teachers are not native to the area and don't know a great deal about its nutritional practices and attitudes. Others are local but are not well-informed about the nutritional value of local foods, or even how they are grown. They need to learn more in order both to educate themselves and to make their teaching relevant.

The school aims to build up information gradually regarding the most important local food items, using the grid in Unit B2, Activity 6 ("Our Food"). Its first choice is the local staple, cassava. The "cassava file" or box will contain data on cassava's nutritional value, how it is cultivated, why, by whom, when, where it grows best, how it is harvested, stored, sold, cooked, eaten . . . and so on. Experts in these areas – such as farmers, housewives, agricultural extension workers, cooks, nutritionists – will be mentioned by name, and there will be interviews (taped or written). There will be a map of the area showing where cassava is grown and sold and how it is taken to town. There will be photos and drawings, the names of other countries which eat cassava, recipes, stories and so on.

Finding the information should not be difficult, but the school will have to decide how much information it needs, how much time it can spend, who will be involved, who it can turn to for help, and who will look after the cassava "archive" – and make sure it is used. The school would like to persuade the PTA to do some of the work, plus give the project a few hours of class time and perhaps organize a field trip. There is also a possibility several schools will participate, and that the district might adopt this information as an aspect of a local syllabus.

PART D: The regular classroom curriculum

Prato Primary's "moderate" programme involves introducing one new subtopic in each of the eight topic areas. They will be introduced over three years, but the order has still to be decided.

The school has selected the subtopics below for the first phase. In most cases they have adopted the *whole* subtopic, making sure that it follows on from age group to age group.

CASE STUDY *contd.*

CHOICE OF SUBTOPICS FOR THE REGULAR CURRICULUM

Age	A	B	C	D	E	F	G	H
6 to 7	Food preferences	Meals and meal patterns	Functions food for health	Food supply	Food shopping	Food spoilage	Preparation of food	Water
8 to 10	Food preferences	Meals and meal patterns	Functions food for health	Food supply	Food shopping	Food storge in the home	Preparation of food	Water
11 to 13	Food preferences	Meals and meal patterns	Functions food for health	Food supply	Food shopping	Food storge in the home	Preparation of food	Water

The choice is a mixture of principle and pragmatism. Some subtopics (shown in *italics*) are already taught in Home Economics lessons, but mostly to older children. The school wants to keep these topics but spread them through the whole age range. Other subtopics have been chosen because they are in line with nutritional priorities identified for the children – such as the "meals and meal patterns" in Topic B. The "functions of food for health" subtopic supports the vitamin supplementation programme and the focus on good cheap protein-rich foods. Topic G will reinforce this by suggesting how to make such food appetizing. The water subtopic in H reflects the need for clean water locally and is suitable for cross-curricular treatment. The subtopic in A (Food preferences) is a good all-round opener, suitable (like Water, in H) for multidisciplinary treatment. The D and E subtopics are both basic to their main topics. With the subtopics in B, C and G they would also be relevant to a school breakfast project, if this goes ahead in the following years.

Part E: *Provisional framework*

Prato Primary now has four main curriculum innovations in mind, one in each priority area:

- an "alternative protein project";
- some educational support for vitamin A supplementation intervention;
- the "Our Food" project;
- the introduction of eight subtopics in the classroom teaching programme.

It builds these elements into a provisional framework, considering:

- when to introduce them;
- how much time to spend on each and over what period;
- how much time to set aside for planning;
- what other activities will be involved;
- which classes and age groups will be affected;
- which school subjects will be involved.

CASE STUDY *contd.*

This is the school's preliminary thinking:

PROVISIONAL FRAMEWORK FOR NUTRITION EDUCATION PROGRAMME

	1. High-priority dietary messages	2. Support for health and nutrition interventions	3. Local foods and food practices	4. Regular classroom curriculum
Curriculum element	Protein project	Support for Vitamin A supplementation	"Our food" – cassava	Various subtopics
Details	Raise awareness of alternative protein sources	Explain the value of Vitamin A and show its food sources	Create a information base on cassava	Various
Duration and timing	6 weeks per year May–June Repeat next year	2 weeks February, when treatment begins	4 weeks, at planting time (at the beginning of the rainy season)	1st year-1st term2nd year - both terms. From the start of the school year
Class time	Half an hour per week for 6 weeks	Half an hour per week for 2 weeks	Half an hour per week for 4 weeks	Half an hour per week throughout the school year
Other activities	2 meetings for parents and teachers	Meeting with parents and build into homework	Field trip to study planting; interviews; observation	Various
Coordination time	10 hours	6 hours	12 hours	1 hour per week for 2 years
Age groups	All classes	All classes for 2 years, then in only the first 2 years	11 to 13 only	All classes
School subjects	Home Economics and others if possible	Home Economics	Environmental Science	Various
Who is targeted?	Children and parents	Children and parents	Children, teachers	Children
Who will help?	Agricultural station, FAO project, district nutritionist, health services … etc.	Health services, PTA	Agricultural station, parents, farmers	Education service

This helps the school to draw up a tentative three-year plan:

A PROVISIONAL THREE-YEAR PLAN FOR NUTRITION EDUCATION IN THE CLASSROOM PROGRAMME

First year	Class hours	Second year	Class hours	Third year	Class hours
1. Protein project	3	Protein project	3	?	?
2. Vitamin A support	1	Vitamin A support	1	Vitamin A support (only for the first 2 years)	
3. Local food	2	Local food	2	Local food	4
4. Regular programme	8	Regular programme	15	Regular programme	15
Total hours	**14**	**Total hours**	**21**	**Total hours**	?

Comment

a) The programme is smaller than it looks. The time to be spent on elements 1, 2 and 3 will have to come out of the classroom teaching allocation of half an hour per

CASE STUDY *contd.*

week. Together, they add up to nearly half the classroom teaching on nutrition for the year. The school will have to decide which parts of the regular nutrition education curriculum will have been covered by these other programme elements.

b) In this school most of the nutrition education teaching is likely to be done in Home Economics and Environmental Science. However, there are some topics that the school would like to distribute more widely, and some which might be covered entirely by other subjects. This will require a lot of negotiation and discussion.

c) A lot of teacher time is required. Interdisciplinary innovation needs planning and coordination, and a local information base will also demand time for research. Introducing new subtopics at all levels will mean coordinating between the years, so that teachers can check what children are supposed to know already and plug any essential gaps. It is also desirable for teachers to attend talks and demonstrations by experts as part of their in-service training.

PART F: *OBJECTIVES, CRITERIA AND ACTION PLANS*

Prato Primary spells out its plans in greater detail:

Priority	Programme Element
High-priority local nutrition messages	*The school runs a special project on protein foods*, emphasizing the nutritional value of cheap locally-available vegetable proteins, and demonstrating how to prepare them.
Educational support for nutrition interventions	*The school provides educational support for the national programme of Vitamin A dietary supplementation*, emphasizing the diseases prevented by Vitamin A, its local importance, its local food sources and how to prepare them.
The regular classroom curriculum	*The school introduces selected nutrition subtopics at all levels*, namely food preferences, meals and meal patterns, functions of food for health, food supply, food and shopping, food spoilage/ food storage in the home, preparation of food, water.
Local food and food practices	*The school sets up a local nutrition information base*, starting with the local staple food, cassava.

Problems

The main problems Prato Primary foresees are the time required for coordinating and planning, and the need for good teaching materials. The school decides to ask that both these activities be regarded as in-service training. It also recognizes that teachers should not be pressured to take part, and that this may mean sacrificing a cross-curricular approach to some extent.

Objectives

The school develops objectives for each programme element, worded as statements of the desired results, with a subject and a verb. For example, for the "protein project", the main objective is that children, parents and school staff:

CASE STUDY *contd.*

- recognize the range of protein foods available in the area;
- know how to prepare them;
- are prepared to try them in their diet.

There is also an institutional objective:

- Teachers develop skills in preparing lessons and materials.

Criteria

To develop criteria or "standards", Prato Primary checks through its main objectives for the school environment and the classroom. The school wants to use the school garden, where it will be possible to grow several kinds of nuts and beans experimentally, with advice from the agricultural station. So the criterion is:

- the school garden is used.

Prato Primary also imagines the worst. Suppose that: information is wrong and out of date; there are no teaching materials; no one turns up to the parents' meeting; other subject teachers are not interested; influential local parents are scornful about nuts and beans, saying they are poor people's food. The school reverses this doom scenario and decides that the project will be successful if:

- there is adequate, correct information;
- there are appropriate teaching materials;
- interest and motivation are stimulated;
- teachers are properly briefed;
- local attitudes are heard and taken into account.

The school then runs through the other priorities and objectives it has established and picks out a few extra points. It is important, for example, to make sure that parents are not just lectured at, but are involved in a real exchange of information and opinion. The school would also like a cross-curricular element. The educational activities should be stimulating and interactive, and there should be some teacher briefing. These further criteria are added:

- Parents' views are expressed and heard.
- The project involves several subjects and teachers.
- The educational activities are stimulating and interactive.
- There is an element of teacher development.

CASE STUDY *contd.*

The objective now looks like this:

Priority
Give special attention to high-priority nutritional messages The school runs a special project on high-protein foods, emphasizing the nutritional value of cheap locally available protein-rich beans and pulses, and demonstrating how to prepare them.
Objectives
1. Children, parents, teachers and school staff: • recognize the range of protein foods available in the area; • know how to prepare them; • are prepared to try them in their diet. 2. Teachers develop skills in preparing lessons and materials.
Criteria
The school garden is used experimentally. There is adequate correct information. There are appropriate teaching materials. Interest and motivation are stimulated. Teachers are properly briefed. Local attitudes are heard and taken into account. Parents' views are expressed and heard. The project involves several subjects and teachers. The project activities are stimulating and interactive. There is an element of teacher development.

They go straight on to developing the immediate action plan. The first steps of the project are:

Action plan – first three steps	**Responsibility**
a) The project is discussed with the School Health and Nutrition Committee and the local health services. A nutritionist is identified who can brief teachers and lead the discussion at a prospective parents' meeting. The head teacher applies to the local education committee to treat the project as in-service training.	Head teacher School Health and Nutrition Committee
b) The project is discussed at a teachers' meeting and interested teachers are invited to participate. A small working group is established.	Responsible teacher
c) The nutritionist briefs the working group on the nutritional objectives (the reasons for the project, the foods to be promoted, the recommended methods of food preparation) and supplies appropriate literature. Local attitudes are discussed and the working group decides to talk to representative parents. It also decides to consult children about their food preferences.	Working group Nutritionist

CASE STUDY *contd.*

PART G: *REVISED THREE-YEAR PLAN*

After working through its four current priorities, Prato Primary has a clearer idea of what each will involve, as well as the risks associated with each priority. Although the school is aiming only at moderate innovation, a lot of things are expected to change and the staff aren't yet very enthusiastic. At a staff meeting, one of the teachers makes a suggestion. Instead of investigating cassava, he says, why not start the information base with the beans, legumes and nuts dealt with in the protein project? This would accomplish all the objectives and reduce the workload. The other teachers decide that the suggestion is practical, and also fulfils their main message for change management – *start small.*

As a result the school modifies its three-year plan and adds on some detail. It also adds a summary of the plan for the school environment so that the whole programme can be seen at a glance. The result looks like this:

REVISED THREE-YEAR PLAN

First year	Second year	Third year
CLASSROOM PROGRAMME		
Run the protein project on cheap sources of local protein.	Repeat the protein project.	?
Support Vitamin A intervention for all children under the age of ten.	Support Vitamin A intervention for all children under the age of ten.	Support Vitamin A intervention for the first and second year only.
Set up a local nutrition information base concentrating on local nuts and beans.	Extend the local nutrition information base to cassava.	The local information base: add water sources?
Introduce the first three subtopics at all levels.	Introduce three more subtopics at all levels.	Introduce the final two subtopics at all levels.
WHOLE-SCHOOL ACTION		
Run the drinking fountains project.	Develop a nutrition policy for the school.	A water project? A breakfast project?

Finally, the school thinks about who to consult with over its outline plans. The sooner it involves others and gets their help, the better.

KEY TO ACTIVITIES FOR UNIT C3

ACTIVITY 7 *Troubleshooting*

The local dimension.

Problem	Solutions and strategies
Families are simply too poor to afford good food.	Make sure families know about cheap nutritious foods. Grow samples in the school garden and arrange cooking demonstrations and tasting sessions.
There are times of the year when fruit is lacking.	Ask local community workers and health workers if they have suggestions about preserving fruit that they could demonstrate to families.
Information about health and nutrition interventions isn't available.	Often, the information is there for the taking. Make health authorities aware that the school wants information about interventions in good time. Request educational back-up material and a briefing for teachers if possible.
The school doesn't have the resources to establish a food information base.	Start small: begin the information base with one food only. Make a deal with other schools to share and exchange the knowledge gained. Discuss this with the local education inspector.

The regular classroom programme.

Problem	Solutions and strategies
We haven't got enough time in the timetable for more work.	Do what you have time for. Run a single project across the whole curriculum. Use some of your resources to improve the impact of the lessons you already teach. Push for a bit of nutrition education in extra-curricular activities (e.g. sports and clubs). Ask parents to help with one learning objective.
We haven't got time to organize and coordinate these changes.	Ask for extra coordination to be recognized as paid time. Meanwhile, divide up the responsibility between the age groups and do as much as possible through existing teachers' meetings. Spread the load as far as possible.
Teachers are reluctant.	Don't try to convince sceptics. Work with those who are willing, and start small. Ask teachers if they can incorporate one suitable learning objective in their teaching and get them to choose it. Ask good teachers if they would be willing to outline to other teachers how they plan to teach it.
There aren't any good materials.	Make good use of the materials that are already available. Set up a working party with other schools to develop or improve teaching materials. Plan activities which don't need teaching materials – there are plenty.