

UNIT A2

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



CONTENTS

1. Ideas about nutrition education
 2. The tripartite approach
 3. Links with the family
 4. Links with the community
 5. Objectives for the school environment
 6. Summing up
- Display Documents: LINKS WITH THE FAMILY: OBJECTIVES;
LINKS WITH THE COMMUNITY: OBJECTIVES ;
OBJECTIVES FOR THE SCHOOL ENVIRONMENT.
- Key to Activities



WHAT YOU NEED

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

ACTIVITY 1



15 minutes

IDEAS ABOUT NUTRITION EDUCATION

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



30 minutes

LINKS WITH THE FAMILY

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.



LINKS WITH THE COMMUNITY

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.

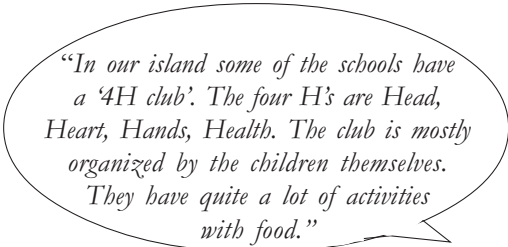
ACTIVITY 5



30 minutes

OBJECTIVES FOR THE SCHOOL ENVIRONMENT

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.



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

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



15 minutes

SUMMING UP

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.

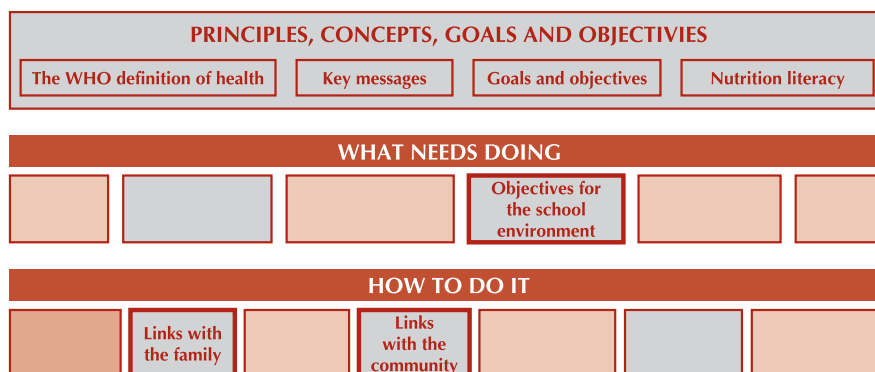
Display the three “Objectives” documents as set out below, underneath the PRINCIPLES, CONCEPTS, GOALS AND OBJECTIVES from Unit A1. These will be the core of the main display. Leave space between them and on both sides, as there will be more documents to come – see the Display Diagram on the back cover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



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.

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.

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

1. Classroom curriculum objectives
2. Classroom curriculum topics
3. The spiral curriculum
4. Nutrition education and Piaget
5. The local dimension
6. Cross-curricular approaches
7. Curriculum framework possibilities
8. Principles of selection
9. Summing up

Display Document: OBJECTIVES FOR THE CLASSROOM CURRICULUM

Key to Activities



WHAT YOU NEED

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

ACTIVITY 1



15 minutes

CLASSROOM CURRICULUM OBJECTIVES

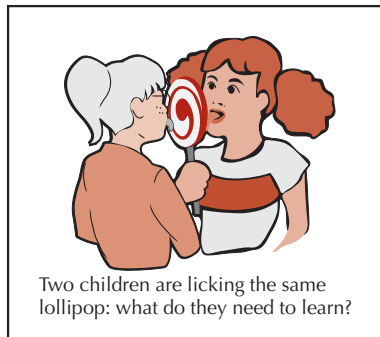
Now we come to the classroom curriculum itself. What do children need to learn to achieve a healthier lifestyle and nutrition literacy?

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.

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

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



15 minutes

THE SPIRAL CURRICULUM

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	<ul style="list-style-type: none"> – 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	<ul style="list-style-type: none"> – 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	<ul style="list-style-type: none"> – 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



30 minutes

NUTRITION EDUCATION AND PIAGET

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 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



30 minutes

THE LOCAL DIMENSION

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.



20 minutes

CROSS-CURRICULAR APPROACHES

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 19 th 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



20 minutes

CURRICULUM FRAMEWORK POSSIBILITIES

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

"In my experience 'infusing' a subject never works – the subject just gets lost."
– Chief Education Officer

"We have managed to integrate life skills across the curriculum. We plan to do so with nutrition education as well."
– Curriculum Officer

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



30 minutes

PRINCIPLES OF SELECTION

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.:	
<i>The ability to apply nutrition principles to oneself</i>	
<i>The ability to influence others</i>	
<i>The ability to act to protect the environment</i>	

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;

UNIT A3

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	2	describing/evaluating own diet
B	1	
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
		<i>marketing food</i>
	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
		<i>enjoying food preparation</i>
		<i>roles in food preparation</i>
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



30 minutes

SUMMING UP

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**

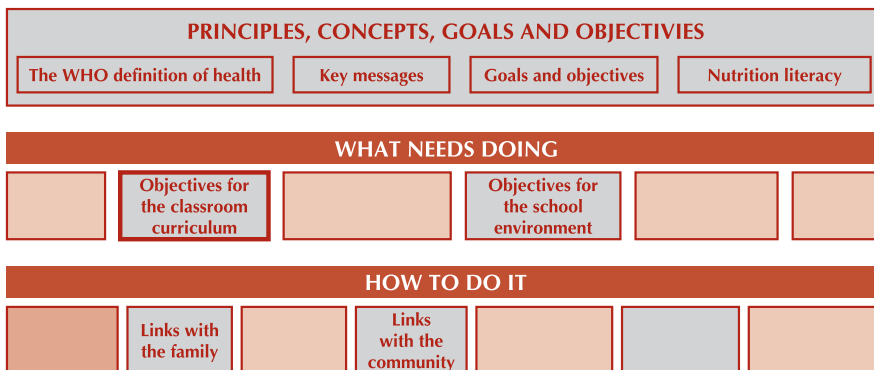
Each group presents their conclusions briefly, saying which aspects are strongly endorsed by the group and why. Allow about 3 minutes each. The audience should comment, correct etc. The final conclusions of the whole group should be recorded on the display document. Aim to ensure that what is on display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

1. Learning about food
2. Five kinds of learning
3. The role of knowledge
4. The role of attitude
5. Lifestyle learning
6. Action, experience, participation
7. Appropriate activities (optional)
8. Seven intelligences (optional)
9. Harnessing the intelligences (optional)
10. An outreach approach
11. Summing up

Display Document: CLASSROOM APPROACHES TO NUTRITION
EDUCATION

Key to Activities



WHAT YOU NEED

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

ACTIVITY 1



30 minutes

LEARNING ABOUT FOOD

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	



20 minutes

THE ROLE OF KNOWLEDGE

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:

“You can’t have a healthy diet without knowledge.”

Was she right?

What exactly is the role of knowledge in “lifestyle learning”?

Discuss.

ACTIVITY 4



20-30 minutes

THE ROLE OF ATTITUDE

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:

- What are the attitudes at work in each case?
- What do you think of the solutions in each case?
- Did anyone learn anything? What?
- 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 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

“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

“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

“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

Our comments are in the Key.

UNIT A4

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.

UNIT A4

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

ACTIVITY 6



30 minutes

ACTION, EXPERIENCE, PARTICIPATION

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).

UNIT A4

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 <i>knowledge</i> (with some behaviour)	
Respect eating habits of others	mainly <i>attitude</i> (with some knowledge and life skills)	
Wash vegetables and fruit before eating	mainly <i>routine behaviour/habit</i> (with some knowledge)	
Prepare simple meals	mainly <i>practical skills</i> (with some knowledge)	
Recognize the influence of advertising	mainly <i>life skills</i> (with some knowledge and attitude)	



20 minutes

SEVEN INTELLIGENCES (AND A BIT OF IMAGINATION)

(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



20 minutes

HARNESSING THE INTELLIGENCES

(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

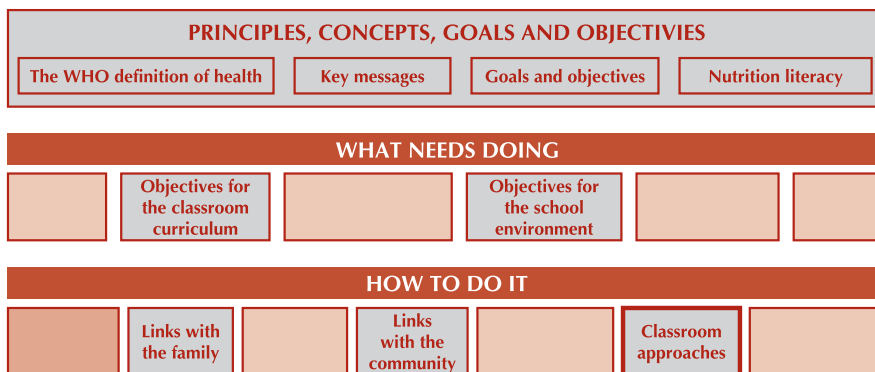


30 minutes

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



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.

UNIT A4

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.