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Cooking... Organized Opportunities for Kids

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Cooking...
Organized
Opportunities for
Kids

A Project
Presented to
The Graduate Faculty

In Partial Fulfillment
of the Requirements of the Degree
Master of Education

by
Jennifer Quesnell

July, 1985

COOKING...ORGANIZED OPPORTUNITIES

FOR KIDS

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The utilization of cooking experiences in the elementary school can increase student involvement and participation. In addition, when carefully planned cooking experiences are presented, a wide variety of learning opportunities is possible.

This project is intended to assist teachers wishing to incorporate cooking experiences into the classroom. Cooking lessons, teaching suggestions, additional recipes, and enrichment ideas are included. A list of cooking terms and definitions and additional sources of information are also given.

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CHAPTER I

COOKING...ORGANIZED OPPORTUNITIES FOR KIDS

Statement of the Problem

It is generally supported that the most effective learning occurs when children are actively involved in the learning process. Teachers have been encouraged to incorporate activities into the classroom which increase student involvement and participation. The utilization of cooking activities in the elementary school can provide children with this type of experience.

Purpose of the Project

Children enjoy cooking activities and are motivated and eager to participate. They enjoy the smells and the appearance of food. They like doing things they have seen adults do, and enjoy the "hands-on" experiences. They can see the value of learning to cook for oneself and can relate it to real life experiences. But cooking activities can be more than fun. If care is taken to select proper recipes and materials, and a well-planned program is presented, a wide variety of learning opportunities is possible.

Through the use of cooking activities, children become exposed to a variety of sensory and cognitive experiences. For example, the children can see how food changes before their eyes. They can smell the aroma of foods, feel the different textures, and hear the sounds of food during preparation.

There is also the potential for vocabulary development. The

meanings of terms such as melt, boil, simmer, and grate can be discussed. The color, shape, size, and texture of food can be described.

Buying, preparing, and serving food requires the development of a sense of quantity and measurement. Measuring ingredients, dividing or doubling the recipe, using units of weight, and making substitutions are all important math concepts which can be reinforced through the use of cooking activities.

Fine motor skills, those which require small muscle coordination, can be developed through the utilization of kitchen tools.

During cooking activities, children learn about the importance of sharing in a group project. They also begin to realize the need for cooperation. The success in creating something good to eat can also improve one's self-confidence and self-esteem.

The area of language arts can be reinforced by reading and writing recipes and by classifying them into the proper categories. As children use recipes, they learn to follow step-by-step instructions. These steps could then be presented out of order for the students to sequence.

Foods and cooking can illustrate cultural differences among ethnic groups. Recipes can be selected to emphasize these contrasts, such as Mexican tortillas, Apache fry bread, and Chinese fried rice. Parents may have recipes of their own which they would be willing to share. Stories, songs, and skits which relate to the preparation of certain foods can also be included. Differences in climate and soil can be discussed, as can geography, transportation, and other factors involved in determining the availability of foods.

Cooking activities can be utilized to illustrate many science

concepts. Experimenting with heat and temperature is one method. Discussing the changes that occur during the cooking process is another possibility. The properties of baking soda, baking powder, and gelatin can also be discussed. Foods can even be grown in the classroom for use during cooking activities.

Instruction in the correct use of tools and proper methods of preparing food for cooking can teach principles of safety and sanitation. Good nutrition is probably one of the primary goals in any cooking program. The teacher can expose children and parents to healthy foods and can encourage good eating habits that will last.

When carefully planned cooking activities are presented, a wide variety of learning opportunities is possible. The purpose of this project is to present such activities in an organized and easy-to-use format. The final project will serve as an aid to elementary classroom teachers who wish to incorporate cooking experiences into the classroom.

CHAPTER II

REVIEW OF RELATED LITERATURE

For the most effective learning to occur, children need to be actively involved in the learning process. Creative teachers have always tried to incorporate activities into the classroom which encourage student involvement. The utilization of cooking experiences is one such activity.

As an illustration of the type of experiences involved in cooking, the teachers at Parents' Nursery School in Cambridge, Massachusetts, drew up a record of what actually took place during a cooking lesson. The motor activities included grinding, pouring, beating, and squeezing. The sensory experiences included tasting, smelling, touching, and seeing. The social aspects involved were taking turns, discussions, waiting, sharing, and singing. Finally, the conceptual activities consisted of measuring, counting, and timing. (Kids Are Natural Cooks, 1974).

It is not difficult to provide cooking experiences in school, since lessons can easily be set up almost anywhere, with a minimum of equipment. Pat McClenahan and Ida Jaqua give some useful suggestions for elementary school teachers who may wish to utilize such cooking experiences in the classroom. They suggest that foods should be cooked in school for the children to eat on the spot, to share with others, and to take home. They stress that the first cooking experiences should be simple and that cooking groups should be limited to eight to twelve children per teacher. Both the children and teacher

should begin with elementary procedures and work up to more complicated cooking experiences as progress takes place. They also feel it is best to begin with foods the children are familiar with, and then branch out later. They emphasize that children should be encouraged to discuss cooking experiences with their parents, so the whole family can share in their new interest. (Cool Cooking for Kids, 1976).

The importance of utilizing wholesome foods during cooking experiences is stressed by Mary T. Goodwin and Gerry Pollen in their book. They believe that experiences with wholesome foods are more important for children today than they were thirty or forty years ago, with modern packaged, processed food and vending machines. "Children have to be educated to make good food selections. Food habits which build good health are not acquired naturally; they must be learned." (Creative Food Experiences for Children, 1974).

Cooking experiences provide the opportunity for enrichment in many areas of the curriculum. The correct use of tools and instruction in the proper methods of preparing foods for cooking can teach many principles of safety and sanitation.

In the area of language arts, a child's vocabulary can be expanded greatly by introducing new terminology during the cooking process. The teachers at Grove Parent Nursery School in Berkeley, California, include a variety of verbs in each of the recipes they use, so that each child can have an "on-the-job vocabulary lesson" as he works. The results of one lesson were summarized as follows.

"After making vegetable soup, our volunteers could tell us what dice,

peel, grate, slice, and measure meant." (Crunchy Bananas, 1975).

Many mathematical concepts are involved in preparing and cooking food, such as recipe measurements, dividing or doubling the recipe, units of weight, substitutions, and timing. Barbara Wilmes offers some suggestions to give children a variety of counting experiences. "Sometimes instead of saying to add one tablespoon, we called for its equivalent, three teaspoons; instead of one eighth cup, we sometimes asked for two tablespoons." (Crunchy Bananas, 1975).

Foods and cooking can illustrate cultural differences and similarities among ethnic groups. "Through food, we can discover that in some ways people are alike and in some ways people are different." (Creative Food Experiences for Children, 1974). Children can discover a great deal about their own families and ethnic background. Parents can be encouraged to share traditional family recipes. Differences in climate, soil, and culture can be discussed. Geography and the transportation of food can also be topics for discussion.

Many useful ideas for integrating cooking experiences into the art curriculum can be found in the book Arts and Crafts You Can Eat. Some suggestions include using syrup as paint and recipes for bread dough which can be modeled into various shapes and then baked.

Cooking activities can be utilized to illustrate a great many science concepts. "The cooking corner could almost be called a laboratory because opportunities for on-the-spot scientific demonstrations and explorations abound when children cook." (Crunchy Bananas, 1975). Such activities could include experimenting with

heat and temperature, observing the changes that occur during the cooking process, and discussing the properties of foods such as gelatin, baking powder, and baking soda. Foods can even be grown in the classroom for use during cooking activities.

When cooking experiences are carefully planned and presented, a wide variety of learning opportunities is possible. An educational program which includes experiences with food can be fun, informative, and very valuable for children.

CHAPTER III

PROCEDURES OF THE PROJECT

The cooking experiences in this project were developed to provide teachers with a set of activities which could be used in the classroom. Existing literature was reviewed. Recipes and lessons were selected, adapted, and compiled to create the activities presented.

Teaching suggestions and ideas were gathered and are listed in the introduction section. A sample calendar was constructed to illustrate how cooking activities could be organized and scheduled during the school year. Hints on measuring and taking field trips were also collected and are listed.

Recipe books were reviewed and additional recipes were selected. This enables the teacher to choose a recipe that best fits the ability level of the students, or the materials on hand. It was discovered that most recipes could easily be adapted for use in a cooking lesson.

Enrichment ideas were compiled and developed. They are listed under the various areas of the curriculum--math, art, health, language arts, social studies, science, and miscellaneous.

Cooking terminology and definitions were researched, and a list of the most common is presented. A sample of picture cards which may be created for use during cooking activities is given, as is the information necessary to order a set of cooking posters available from Learning Stuff. Sources of additional information and materials were compiled and are also listed.

CHAPTER IV
RESULTS OF THE PROJECT

The project, entitled Cooking...Organized Opportunities for Kids, was developed to assist teachers wishing to incorporate cooking activities into the classroom. The following descriptions refer to the materials located in the Appendix.

INTRODUCTION

The introduction portion of the project contains a title page, table of contents, an introduction, teaching suggestions, a sample calendar, measuring tips, and suggestions for taking field trips. The introduction summarizes the rationale for utilizing cooking experiences in the classroom. The teaching suggestions include recommendations for teachers planning to introduce cooking experiences to their students. The measuring tips and field trip suggestions are to assist teachers as well. The sample calendar serves to illustrate one way in which cooking activities may be organized during the school year.

THE LESSONS

Forty cooking lessons are presented. Each lesson includes a list of educational objectives, the materials necessary for the cooking lesson, and the procedure for teaching the lesson. A list of suggestions to enrich other areas of the curriculum is also presented. The cooking lessons are divided into seven different

categories--vegetables, protein foods, grains, milk or dairy, miscellaneous, and holiday ideas.

ADDITIONAL RECIPES

Other recipes are presented in this section to offer the teacher more of a choice. The teacher is able to select a recipe which best suits the ability level of the students or the materials on hand. Other recipes, which are not presented in this project, can easily be adapted for use in the cooking program.

ENRICHMENT

In this section, ideas are presented to help teachers enrich other areas of the curriculum through the use of cooking experiences. The teaching ideas are listed under the headings of math, language arts, art, social studies, health, science, and miscellaneous.

INDEX

The index includes a list of common cooking terminology and definitions. An example of cue cards is presented. These can be used with nonreaders to illustrate the steps in the cooking process. The information necessary to order a set of cooking posters is also included.

BIBLIOGRAPHY

~~A bibliography of sources used to complete the project is given.~~

Additional sources of materials and information are also presented.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The materials in this project were developed to aid teachers wishing to incorporate cooking activities into the classroom. Cooking lessons, teaching suggestions, additional recipes, enrichment ideas, definitions, and additional sources are provided.

CONCLUSIONS

The utilization of cooking experiences in the classroom has many benefits. Student involvement and participation are practically guaranteed. Children enjoy cooking activities and are motivated and eager to participate. They enjoy doing the things they have seen adults do, and can see the value of learning to cook for oneself.

Cooking experiences can be more than fun. Through the use of cooking activities, children become exposed to a variety of sensory and cognitive experiences. There is potential for vocabulary development. A sense of quantity and measurement can be developed. Fine motor skills, can be addressed. Cultural differences and similarities can be illustrated with foods. When carefully planned cooking activities are presented, the opportunities for learning are endless.

RECOMMENDATIONS

It is recommended that elementary teachers use and test the materials in this project. It is also recommended that teachers add recipes and ideas of their own to the project.

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APPENDIX

INTRODUCTION

Cooking...
Organized
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ADDITIONAL RECIPES

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Protein
Fruit
Grains
Dairy

ENRICHMENT IDEAS

A variety of ideas for enriching other areas of the curriculum through the use of cooking activities.

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Cue Cards
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INTRODUCTION

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Children enjoy cooking activities and are motivated and eager to participate. They enjoy the smells and the appearances of food. They like doing things they have seen adults do, and enjoy the "hands-on" experiences. They can see the value of learning to cook for oneself and can relate it to real life experiences. But cooking activities can be more than fun. If care is taken to select proper recipes and materials, and a well-planned program is presented, a wide variety of learning opportunities is possible.

Through the use of cooking activities, children become exposed to a variety of sensory and cognitive experiences. For example, the children can see how food changes before their eyes. They can smell the aroma of foods, feel the different textures, and hear the sounds of food during preparation.

There is also the potential for vocabulary development. The meanings of terms such as melt, boil, grate, etc. can be discussed. Colors, shapes and sizes of food can be described.

Buying, preparing, and serving foods requires the development of a sense of quantity and measurement. Recipe measurements and timing, dividing or doubling the recipe, units of weight, substitutions--all are important math concepts which can be reinforced through the use of cooking activities.

Fine motor skills can be developed through the process of chopping, grating, mixing, kneading, etc. and through the utilization of tools.

Children learn about the importance of sharing in a group project. They also begin to realize the need for cooperation. The success in creating something good to eat can also improve one's self-esteem and self-confidence.

The area of language arts can be reinforced by reading and writing recipes and by classifying them into the proper categories. Children learn to follow step-by-step instructions. These steps could then be presented out of order for the students to sequence.

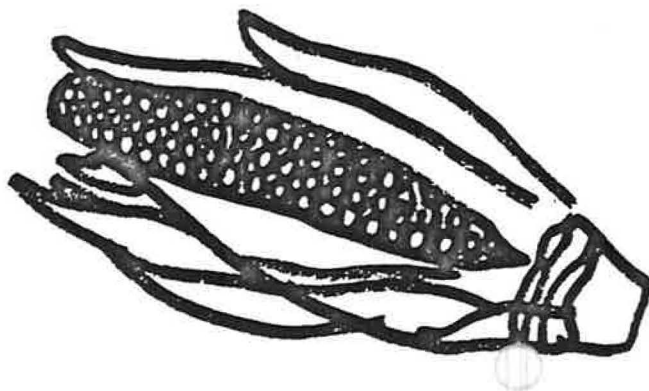
Foods and cooking can illustrate cultural differences among ethnic groups. Recipes can be selected to emphasize these contrasts, such as Mexican tortillas, Apache fry bread, and so on. Stories, songs, and skits can be tied in with the preparation of certain foods. Many parents have recipes of their own which they would be willing to share. Differences in climate and soil can be discussed, as can geography and transportation and other factors involved in determining the availability of foods.

Cooking activities can be utilized to illustrate many science concepts. Experimenting with heat and temperature is one method. Discussing the changes that occur

during the cooking process is another possibility. The properties of baking soda, baking powder, gelatin, and so on can also be discussed. Foods can even be grown in the classroom for use in cooking activities.

The correct use of tools and instruction in the proper methods of preparing foods for cooking can teach principles of safety and sanitation. Good nutrition is probably one of the major goals in any cooking program. The teacher can expose children and parents to healthy foods and can help develop good eating habits that will last.

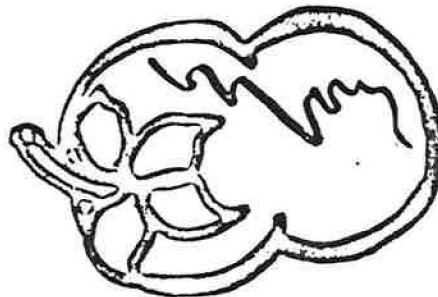
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TEACHING SUGGESTIONS

1. Choose recipes that allow children to be involved in activities such as stirring and adding ingredients. Or reduce a recipe so that the children can prepare it in individual containers.
2. Identify children with allergies and post a list in the classroom.
3. Do not force the children to eat what they have made. Do encourage them to try new foods.
4. Foods such as nuts, raw carrots and celery, and popcorn often cause choking in young children. Be cautious when serving these foods.
5. Children should always sit down to eat.
5. Children should always remain seated when eating.
6. Design the activity to avoid crowding. Use small groups if possible. Allow plenty of space. Remove materials as they are no longer needed.
7. Separate the cooking area from the preparation area.
8. Use low tables and chairs at the work area.
9. Use unbreakable equipment if possible.
10. Try to have enough utensils for all of the children.
11. Use blunt knives for cutting. Use a peeler only after the proper use has been demonstrated and only under close supervision.
12. Point out the safe use of utensils and danger areas.
13. Long hair should be tied back and loose clothing removed.
14. All should wash hands before beginning the activity and during if necessary.

15. Keep a cloth handy for clean-ups.
16. Have children help with the clean-up process.
17. Introduce simple recipes that require little preparation at first.
18. Discuss the project with the children before beginning so they are aware of what they will be expected to do and the steps involved. If possible, post a recipe chart.
19. Try not to let your food prejudices dictate the selection and presentation of foods. Be receptive to the children's suggestions.
20. Try to use food in its natural state. Avoid mixes, or if you need to use them, discuss what is in each.
21. Allow time during each step of the cooking process for discussing, observing, touching, comparing, and so on. Utilize every learning opportunity.
22. If possible, label each child's project.
23. Fund raising activities can help with the cost of food. Children can also be asked to bring things from home.
24. Send home copies of the day's cooking activity.
25. Encourage parents to visit the classroom and assist during cooking activities. Some parents may have recipes of their own to offer.



SAMPLE CALENDAR

SEPTEMBER

- 1 - Good Nutrition
- 2 - Our Bodies
- 3 - Vegetable Seeds
- 4 - Underground Vegetables

OCTOBER

- 1 - Some Vegetable Stems to Eat
- 2 - Mini-Pizza Party (Columbus Day)
- 3 - Green Leaves to Eat
- 4 - Seeds We Plant and Eat (Halloween)

NOVEMBER

- 1 - Vegetable Flowers You Can Eat
- 2 - All About Corn (American Indian Day)
- 3 - Making Vegetable Soup
- 4 - Popcorn (Holiday Ideas)

DECEMBER

- 1 - All About Eggs
- 2 - Gingerbread Houses (Holiday Ideas)
- 3 - Sugar

JANUARY

- 1 - The History of Bread
- 2 - Sweet Potato Pie (Holiday Ideas)
Martin Luther King's Birthday
- 3 - Making Flour
- 4 - All About Cereals
- 5 - Making Bread

FEBRUARY

- 1 - Where We Get Our Fruit
- 2 - The Citrus Family
- 3 - Heat Changes Things
- 4 - All About Apples

MARCH

- 1 - What Milk Is All About
- 2 - Where We Get Milk
- 3 - Irish Soda Bread (Holiday Ideas)
- 4 - Making Yogurt
- 5 - Making Ice Cream

APRIL

- 1 - Inside An Egg
- 2 - Spices and Herbs
- 3 - Protein Foods
- 4 - Cheese

MAY

- 1 - All About Beans
- 2 - Treat for Mom (Holiday Ideas)
- 3 - Gone Nutty
- 4 - Making Peanut Butter
- 5 - What's The Message?

JUNE

- 1 - The Shopping Trip
- 2 - The Food We Choose

MEASURING

1. Brown sugar can be packed into measuring cups by pressing down with the back of a spoon. It should hold its shape when dumped into the bowl.
2. Shortening, butter, or margarine should be packed into a measuring cup.
3. Use a spatula or a table knife to level off the butter or margarine.
4. All teaspoon and tablespoon measurements should be leveled.
5. Remind the children not to pour over the mixing bowl in case they should pour too much.
6. If you are doing the measuring for the children, explain what you are doing and why.
7. If the children are measuring, remind them to measure carefully.
8. Demonstrate the process of sifting flour. Discuss what happens and why there seems to be more flour after it has been sifted.
9. Introduce the children to a variety of measuring utensils.



TAKING TRIPS WITH A SCHOOL CLASS *

1. Planning a trip

- a. Think seriously about whether or not the trip you are planning is valuable and enriching enough to the children and to the program to be worth the time, effort and risk involved.
- b. If possible, visit the place to which you are planning to take the children and speak directly to the person who will be in charge of your visit:
Make sure your goals are clear and will be met.
Make sure this person understands how old the children are and is prepared to present the material in a manner relevant to the age of the children.
- c. Depending on the age of the children, use good judgment as to the travel time involved.
No trip is worth keeping three year old children in cars 45 minutes to an hour one way.
The use of a bus may make longer trips possible.
- d. If cars are used, make sure the drivers are dependable and there is another adult in the car.

2. Preparing for the trip

- a. Prepare the children for the trip by telling them about it in advance and then having a discussion about the subject, reading a book, seeing a film, etc.
- b. Have the children help by decorating their own name and address tags and explain to them how important it is that they wear them.
- c. Make sure that the children all have permission slips for the trip from parents or guardians.
- d. Find out what the parent's wishes are regarding car seating and use of seat belts.

3. During the trip

- a. Assign an adult to each child; color coding of identification tags might help in setting up groups.
It should be perfectly clear to each adult and to each child which group they belong in and will remain with until they return to the classroom.
- b. Groups should be kept small; the ratio of adults to children should be reasonable enough to ensure that the adult has complete control.
- c. Use good judgment as to the length of the stay; the children should leave still enthusiastic and interested.
- d. Help the children focus and verbalize the experience while it is happening.

4. Follow up

- a. Present activities which help the children remember and sum up their experience.
- b. Do not follow up immediately after returning from the trip; allow the children to digest the experience first.
- c. Experience charts, dramatic plays, songs, flannel board activities, games and records are just some of the possibilities for follow up activities.

The following are trip suggestions:

A supermarket - try to see the freezer, the conveyor belt and, if possible, some trucks unloading food.

A local produce stand

A fruit juice bottling plant

A dairy plant

An ice cream store

A flour company

TEACHER'S NOTE: Check your area for other farms (dairy or produce), bakeries, orchards or dairies available for school trips.

Invite to school for a visit or arrange to have the class visit:

Parents and Grandparents

A Dental Hygienist

A Dentist

A Botanist

A Nutritionist

A Doctor

A Nurse

A Horticulturist

*From Creative Food Experiences for Children
See bibliography

THE LESSONS

vegetables *

*From Crunchy Bananas
See Bibliography

Please note: Content on this page was redacted due to copyright concerns.

MAKING VEGETABLE SOUP

OBJECTIVES: The children will classify the vegetables as to stem, leaf, etc.
 The children will observe the changes that occur when the vegetables are cooked.
 The children will bring vegetables to contribute to the cooking project.
 The children will participate in the preparation of vegetable soup.

MATERIALS: The following vegetables to illustrate the parts of a plant...

Root - onions and carrots

Stem - celery

Leaves - parsley

Flower - cauliflower

Fruit - tomato

Seed - peas

Salt, pepper

Vegetable peeler

Colander

Beef bouillon

Dull knives

Soup kettle

Have the children bring in vegetables from home.

Ask the children to classify the vegetables as to which part of the plant they came from.

Read the story Stone Soup to the children. (by Marcia Brown)

Have the children compare the various vegetables in size, color, texture, etc.

Have the children wash the vegetables well and help them prepare them for the soup.

The vegetables should all be cut about the same size so that they will cook in about the same amount of time.

Heat about 2 quarts of water in the kettle until it is quite hot.

Dissolve the bouillon cube in the hot water. (About 3 cubes for each quart of water.)

Remove the pan from the heat and set on a low table.

Allow each child to very carefully drop his or her vegetables into the pot. The children should do this one at a time to avoid accidents. Sliding the vegetables into the water from a small plate may help avoid splashing.

This may be a good time to review how to take care of burns.

Return the soup kettle to the stove and cook the vegetables until tender.

The children may observe the changes that take place during cooking.

Season the soup with some salt and pepper.

Serve the soup for a snack or for lunch. Invite another class to join you.

Discuss the effect of the heat on the vegetables and the changes in texture, flavor, color, and aroma of each.

ENRICHMENT: Go on a field trip to a supermarket to select vegetables for the soup.
 Discuss other kinds of soups we have eaten.

UNDERGROUND VEGETABLES*

OBJECTIVES: The children will investigate some vegetables which grow underground.
The children will discuss how these plants are harvested.
The children will be introduced to the words tuberous and fleshy.
The children will discuss the role roots play in the growth of a plant.

MATERIALS: Radishes Carrots
Beets Scraper
Turnips Paring knife
Potatoes Brown sugar
Onions Flour mixture (1 C. flour, $1\frac{1}{2}$ t. baking soda,
Eggs (beaten) 1 t. salt, 1 t. cinnamon, and
Oil 1 t. baking powder)
Individual cups to mix in
Muffin tin
Teaching pictures of these plants being grown or harvested

PROCEDURE: Explain to the children that vegetables are plants. We eat many parts of the plant. One part of the plant grows underground. See if the children can name this part. The part of the plant that grows underground is the root. Underground vegetables are called root vegetables.
Explain to the children that there are two kinds of root vegetables, tuberous (potato) and fleshy (carrot).
Ask the children to name other plants that have roots.
See if they can tell what roots do for a plant. (Through the roots, the plant is furnished with food and water from the soil.)
Discuss how root vegetables are planted and harvested. These vegetables are planted in the soil. The plants grow until they are ready to harvest. A big machine digs up the plants. The plants are then bagged or put into crates or boxes and are trucked off to a plant where they are sorted, and then shipped to market.
Ask the children where they get their vegetables.
Ask the children to describe ways that we buy vegetables. (frozen, canned, etc.)
Point out that most root vegetables have a skin. This skin protects them. The skins of carrots may be eaten, but onions should be peeled because the skin has a bitter taste.
Pass the vegetables around and discuss the color and texture of each. Discuss which are usually eaten raw and which are usually eaten cooked.
Wash and grate carrots for carrot cupcakes. Have each child place into his container the following...1T. brown sugar, 1T. flour mixture, 1T. egg, and 1t. oil. Stir to moisten. Add 1T. grated carrot. Mix and place in muffin tin. Bake 12-15 minutes at 375 degrees. Frost with lemon or cream cheese frosting if you wish.

ENRICHMENT: Play a guessing game with the vegetables. Put them in a bag and have the children feel. Discuss why these vegetables are good for us. (vitamin A-healthy eyes, fiber, minerals)

*Adapted from a lesson in Creative Food Experiences for Children
See bibliography

SOME VEGETABLE STEMS TO EAT *

OBJECTIVES: The children will investigate which vegetables have stems that are good to eat. The children will participate in the preparation of a raw vegetable platter. The children will be introduced to some facts about vegetable stems.

MATERIALS: Mushrooms Celery
Asparagus Rhubarb
Carrots Cheese
Peanut butter Raisins and nuts (optional)
Other vegetables if desired for vegetable platter

PROCEDURE: Discuss stems with the children.
Ask them what a stem is.
Ask the children to name some of the stems they know. (flower, glass...)
Ask the children where the stem on a vegetable is. (between the roots and leaves)
Ask the children if they know what stems do for the plant. (The stem carries the food from the root to all parts of the plant. It also supports the plant as the trunk supports a tree.)
Try an experiment to show how water rises to the top of plants.
Put the freshly cut celery stalk into a glass filled with colored water.
After a few hours, observe what has happened to the plant. (The leaves are colored by the water that has risen through the stalk by capillary action.)
Cut the stem crosswise in several places in order to see the tubes that carried the water to the leaves.)
Discuss the stems we eat. (celery, asparagus, mushrooms)
Have the children help prepare the stems for eating. Wash well and cut into about 2" slices.
Add other vegetables to the platter as you wish.
Prepare some ranch dressing for the children to dip their vegetables into.
Cheese and peanut butter are also good on some of these vegetables.

ENRICHMENT: Use some of these vegetables for printing in art.
Carve shapes from the carrots.
Try other recipes using these vegetables.
Discuss how some mushrooms are poisonous.
Try frying mushrooms in a little butter. Observe the changes that occur.

*Adapted from a lesson in Creative Food Experiences for Children
See bibliography

GREEN LEAVES TO EAT *

OBJECTIVES: The children will examine plant leaves that are good to eat.
 The children will taste plant leaves that are good to eat.
 The children will discuss why vegetables are good for us.
 The children will help prepare a salad.

MATERIALS:	Lettuce	Salad dressing
	Spinach	Colander
	Cabbage	Large bowl
	Kale	Small covered saucepan
	Parsley	Paring knife
	Collard	

PROCEDURE: Ask the children what animals they can name that eat leaves. (deer, giraffe) Ask the children why the giraffe has a long neck. (With his long neck he can reach the leaves at the top of the trees.)
 Discuss with the children where we find leaves on plants.
 Ask the children about the kind of stems plants with leaves have.
 Mention that some plants with leaves have roots we can eat. Ask if they know which ones these are.
 Ask the children if people eat leaves and what kind.
 Pass around the leafy vegetables. Encourage each child to taste.
 Discuss the color, texture, size and taste of each leaf.
 Discuss which greens are usually eaten raw, cooked, or either way. Discuss which way the children like them best.
 Have the children wash and tear the lettuce, spinach, and parsley into small pieces, being sure to save some for cooking. Toss with salad dressing.
 Discuss why the dark green leafy vegetables are good for us. (They are rich in iron for healthy blood, rich in vitamin A for healthy eyes, hair, and skin, and are rich in vitamin C to protect against colds and infection. The darker the vegetables, the higher they are in food value. These vegetables also contain fiber and other minerals. Vegetables that are not dark green, such as lettuce, are not rich in vitamin A, but do provide a source of fiber and bulk to the diet.)
 Try cooking the vegetables you have saved.
 Compare the appearance, texture, and taste of the cooked vegetables to the raw.

ENRICHMENT: Discuss why vegetables become softer during cooking.
 Try growing your own vegetables.

*Adapted from a lesson in Creative Food Experiences for Children
 See bibliography

ALL ABOUT CORN

OBJECTIVES: The children will be introduced to how corn grows.
The children will help prepare a recipe using corn.

MATERIALS: A fresh ear of corn 2 eggs beaten
2 cups cream-style corn $\frac{1}{4}$ cup chopped celery
 $\frac{3}{4}$ cup milk $\frac{1}{2}$ teaspoon salt
 $\frac{1}{4}$ cup enriched corn meal dash of pepper
 $\frac{1}{4}$ cup finely chopped onion 2 T. margarine
Mixing bowl 8" baking dish
Spoon for mixing Knife

PROCEDURE: Show the children the ear of corn. Let them examine it.
Point out the parts of the ear of corn.
Explain to the children that pollen from the flowers at the top of the stalk drops down to the stringy silks peeking out. (Show a picture of corn growing in the field if possible.) The female flowers are hiding inside the ear at the other end of the silks. The pollen travels down the silk tube and fertilizes the female flowers. These turn into a kernel of corn which is the seed of the corn plant.
Explain that we are going to use corn in the recipe we are going to prepare, but it is not fresh corn. Ask the children to name other ways that we can buy corn. (frozen, canned, dried)
Show the children the can of creamed corn and discuss the ingredients.
Explain the steps of the recipe. Have the children help with each step...

CORN PUDDING
Combine eggs, corn, milk, corn meal, onion, celery, salt, and pepper.
Pour into buttered 8" square baking dish.
Dot with margarine.
Bake in preheated oven at 350 degrees for 35 to 40 minutes or until a knife inserted 1" from edge comes out clean.
Serve hot. Makes about 6 large servings.

ENRICHMENT: This is an Indian recipe. Discuss the American Indian.
Bake this recipe on American Indian Day, the fourth Friday in September.
Try other recipes using corn.
Visit a farm and pick some corn.
Compare sweet corn to Indian corn, popcorn.

FLOWERS YOU CAN EAT *

Cauliflower
Broccoli

OBJECTIVES: The children will examine flowers that are vegetables.
The children will discuss flowers that are good to eat.
The children will be introduced to flowers that are poisonous.

MATERIALS: Cauliflower Paring knife
Broccoli Saucepan
Water Bowl
Salt Pitcher
Butter or margarine Colander
Cutting board

PROCEDURE: Talk about flowers in general. Explain that bees like flowers because some flowers have nectar. The bee uses the nectar to make honey. Ask the children if they know some of the flowers bees like. (clover, orange blossoms, apple blossoms, etc.)
See if the children can name some of the flowers people like to eat. (cauliflower, broccoli, nasturtiums, violets, rose petals)
Discuss which flowers are vegetables.
Pass around the cauliflower and broccoli.
Discuss the shape of the cauliflower and broccoli.
Discuss the smell, appearance, and texture of each.
Put the vegetables in a colander and wash well under running water.
Separate the plant into individual flowers or florets.
Ask the children to taste them and describe how they taste.
Make broccoli hearts by removing $\frac{1}{2}$ " of the outer part of the lower stem.
Cook the remainder of the vegetables in a small amount of boiling water. Drain and season cooked vegetables. Save the liquid for soup if you wish.
Taste and compare the texture, color and flavor of the raw and cooked vegetables.
(Be sure to save some of the raw for the comparison.)
Discuss what the heat has done to the vegetables. (It has softened the cellulose.)
Ask the children which way they liked the vegetables best.

ENRICHMENT: Try making dandelion tea.
Try cooking and tasting other edible flowers.
Discuss poisonous plants that are commonly found around home. Stress to the children that they never taste a plant without asking an adult.

TEACHER'S NOTE:

Meat is a rich source of nutrients, especially protein, iron and the B vitamins. Meat is probably the most costly food in the diet. The ecological as well as economic costs of producing meat are very high. To produce one pound of protein for human consumption, a steer is fed twenty-one pounds of protein. For one pound of protein from poultry, the chicken needs over five pounds of protein. Cattle, in addition to the low conversion rate, are big polluters. Large amounts of animal waste run off feed-lots and pollute the rivers and streams. Eating further down the food chain such as grains, dairy foods, nut and legumes is ecologically more efficient. The world's food supply would be increased by 35% if we used the land to grow vegetables and grain crops for direct human consumption instead of using it to grow feed for meat producing livestock.

Proteins are classified as complete or incomplete according to the amount of the eight essential amino acids they contain. Complete proteins are those that contain all the essential amino acids in sufficient quantity and ratio to supply the body's needs. These proteins are of animal origin - - meat, milk, (cheese) and eggs. Incomplete proteins are those deficient in one or more of the essential amino acids. They are of plant origin - - grains, legumes, and nuts. In a mixed diet, animal and plant proteins complement one another. Grains and legumes also complement each other. Milk, eggs or cheese combined with grains, legumes and/or nuts can provide the correct ratio and kinds of essential amino acids to significantly increase the protein value in the diet. In order to perform efficiently in the body, complementary proteins should be eaten at the same time. Milk should be consumed at the same time as whole grain cereal, rather than munching on cereal in the morning and drinking milk at night.

Peas, beans and lentils all grow in pods. This group of vegetables are called legumes. Mature, dry legumes include navy, pinto, lima, soya, kidney, aducki, chick peas, black turtle beans, great northern beans, black-eyed peas and all other beans and peas, red and green lentils and different kinds of peanuts.

*From Creative Food Experiences for Children
See bibliography

MINI-PIZZA PARTY

OBJECTIVES: The children will make mini-pizzas.
The children will be introduced to a brief history of the tomato.

MATERIALS: English muffins	Tomato sauce
Oregano, thyme, pepper	1" cheese cubes
Crushed, drained pineapple	Pitted, ripe olives
Mushrooms	Onions or tomatoes
Pepperoni slices or other meat	Cookie tin covered with foil
Cheese grater	Dull knives
Small bowls for ingredients	Spoons

PROCEDURE: Explain to the children that they are going to be making mini-pizzas.
Ask the children to name some of the kinds of pizzas they have eaten and their favorite kinds.
Have the children name the ingredients on the table. Name the spices for them and let them smell them.
Explain that one of the ingredients they will be using is tomato sauce. Read the ingredients in the tomato sauce.
Discuss the history of the tomato. Indians grew the tomato long before anyone else knew about them. Brave explorers tried them, liked them, and brought some back across the ocean. Many countrymen were afraid to eat them for years.
Explain the process to the children, as follows...
Top muffin half with tomato sauce, spices, and other ingredients.
Grate the cheese and sprinkle on top.
Place the pizza on cookie sheet and write name on foil next to your pizza with a permanent marker.
Place the baking sheet in the oven for about five minutes at 400 degrees. The pizzas should be warm throughout and the cheese should be melted.
If no oven is available, an electric frying pan with a lid will also work.
Use picture cue cards at each station to remind the children of what they are to do.

ENRICHMENT: Discuss Italy and the voyage of Christopher Columbus. This would be a good activity to help celebrate Columbus Day.
Discuss other ingredients which could be used on pizzas.
Discuss where oregano and thyme come from.

SEEDS WE PLANT AND EAT

OBJECTIVES: The children will discover that some seeds are good to eat.
The children will discuss what can be done with seeds.
The children will participate in the carving of a pumpkin.

MATERIALS: Pumpkin
Poppy seeds
Caraway seeds
Carving knife
Salt
Mixing bowl

Sunflower seeds
Sesame seeds
Anise seeds
Cookie tin
Colander

PROCEDURE: Ask the children if they think that seeds are useful to us. Explain that life comes from seeds.
Explain that seeds are very good to us. They are rich in vitamins.
Ask the children to name some of the seeds they have eaten. See if they can name some foods they like to have seeds in, such as salads.
Discuss what can be done with seeds. For instance, seeds can be eaten, planted, put on foods, sprouted, and so on.
Have the children taste the seeds. They can observe and discuss the taste, hardness of softness, size, and color.
Explain to the children that they are going to make pumpkin seeds.
Ask if anyone has ever eaten pumpkin seeds.
Have the children help to carve the pumpkin. This is a good activity to do around Halloween.
Scrape the seeds from the sides of the pumpkin. This is a messy job, and the kids may enjoy using their fingers to do this.
Place the seeds in the colander and rinse the strings from the seeds.
Place the seeds in the mixing bowl. Add water to cover the seeds and about 1 tablespoon salt.
Let the seeds soak in the salty water overnight.
Drain the seeds and spread out on the cookie sheet.
Bake on a low setting until crisp. Serve as a snack.

ENRICHMENT: Roast some sesame seeds on a cookie sheet in the oven, then crush them, sprinkle with salt, and sprinkle on a salad.
Use sesame seeds, caraway seeds, and poppy seeds sprinkled on breads or cookies.
Try making sesame seed squares. (see additional recipes).
Visit an actual pumpkin patch to get the pumpkin.
Draw pictures to illustrate the process.

ALL ABOUT EGGS (Good around Christmas time)

OBJECTIVES: The children will discover many new facts about eggs.
The children will examine the parts of an egg.
The children will help prepare egg nog.

MATERIALS:	Eggs (1 per child)	$\frac{1}{2}$ cup milk per child
	Sugar	Vanilla
	Nutmeg	Cinnamon
	Measuring cups	Measuring spoons
	Funnel	Stable bowl with narrow bottom
	Egg beater or blender	

PROCEDURE: Explain to the children that we are going to be talking about eggs. Explain that mother animals lay eggs so the babies will grow inside them. The eggs have food inside that is good not only for the baby, but for us too. Baby animals that must stay inside the egg a long time before hatching need a lot of food. Those that hatch quickly do not need much food inside the egg.

Explain that some eggs stay inside their mother's body while they grow. These eggs do not need much food because they get food from the mother.

Ask the children why they think the eggs have a hard shell. This is to protect them in case the mother hen sits down too hard while she is trying to keep the eggs warm. Some eggs, like frog eggs, have a sticky covering so that the eggs will attach themselves to rocks or other surfaces where they can hatch more safely.

Explain to the children that the eggs that we buy in the store usually do not have baby chicks inside them. This is because the eggs were held up to a strong light to check inside. Fertile eggs, those which have the beginnings of a baby chick, are given back to their mother or go into an incubator for the time remaining until they hatch.

Explain to the children that they are going to make egg nog. Ask if any have ever tried egg nog before.

Explain the steps...

Crack one egg into the bowl and beat until bubbly with egg beater.

Add $\frac{1}{2}$ cup milk, 1T. and 1t. sugar, and $\frac{1}{2}$ t. vanilla.

Sprinkle a little cinnamon in and a little nutmeg.

Beat with the egg beater again and pour into cup using funnel. (Blender can be used)

ENRICHMENT: Talk about the bubbles - where they came from.
Discuss where cinnamon, nutmeg, and vanilla come from.
Discuss other ways to eat ways.
Name the parts of an egg for the children.

INSIDE AN EGG (A good recipe for around Easter)

OBJECTIVES: The children will examine a raw egg.
The children will be introduced to the names for the parts of an egg.
The children will observe the changes when a raw egg is boiled.
The children will help prepare deviled eggs.

MATERIALS:

Saucepan	Eggs
Mayonnaise	Prepared mustard
Measuring spoons	Celery salt
Dull knives	Spoons
Cups	Bowl

PROCEDURE: Explain to the children that we will be using eggs in our recipe today.
Crack open an egg and let the children examine the parts.
Identify the parts of the egg for the children.
Yellow part - yolk, the baby chick
Clear part - albumen, food for the chick
White strings - hold the yolk safely in place
Explain to the children that they will be making deviled eggs. See if any of the children have eaten deviled eggs before.
Discuss other food which are made from eggs.
Discuss why eggs are good for us. Eggs are a good source of protein.
Bring water to a boil in a large saucepan.
Carefully add the eggs.
Allow to boil about ten minutes.
Remove from the water when cool.
Crack one egg open. Slice it in half and let the children compare it to the raw egg in the bowl.
Prepare deviled eggs...
Peel and cut eggs in half lengthwise.
Have the children remove the yolks and place them in their cups.
Add about 1½ t. mayonnaise, bit of celery salt and a little bit of the mustard.
Mash and stir the ingredients.
Spoon the filling back into the whites. Paprika can be sprinkled over the top.

ENRICHMENT: Create eggshell theatres.
Decorate eggs at Easter and have an Easter Egg hunt before the cooking activity.
Incubate eggs in the classroom. Chart the growth of the baby chicks.
Read Humpty Dumpty to the children.
Use eggs as a base for edible paint to be used on food.

PROTEIN FOODS

OBJECTIVES: The children will discuss protein foods.
The children will pair complementary protein foods.
The children will observe how dry beans absorb water.

MATERIALS: Dried beans, soybeans, dried peas - legumes
Sesame seeds, dried corn - seeds
Wheat, rye, rice - wholegrain
Some snap-together toys Pictures of milk, eggs, cheese, beef, poultry
Corn oil and pork
Bowl and cookie sheet

PROCEDURE: Discuss meat with the children. Mention that meat is an excellent source of protein and other nutrients. Ask the children how they would feel about not having meat in their diets. Mention that some people do not eat meat.
Ask the children if they have ever thought about how much land is needed to grow the food that is needed to feed the steer. The fact that it cost a lot to feed the steer is the reason why the meat costs what it does at the supermarket.
Ask the children to give their opinion as to whether they think it would be better to use the land to grow food that people could eat. Explain that there are many people who cannot afford to buy meat.
Ask the children to think about what we could do to solve this problem. One solution is to cut down on the amount of meat we eat. We could eat meals without meat and get our protein from foods which could be grown on the land which is now being used to grow food for the steers.
Ask the children if they have any idea what sort of foods could take the place of meat.
Grains and legumes
Grains and milk products
Legumes and seeds
Explain that it is best to include some animal protein sources in the diets of children to ensure adequate quality of protein. This would be such foods as milk, eggs, and so on.
Put together a game for the classroom that requires the children to match the complementary proteins. Use the snap-together toys.
Explain that we are going to make snacks from soybeans. Put a cup of soybeans into a bowl. Wash thoroughly, remove the imperfect beans, cover with water and soak overnight. The next day, compare the dry beans with the soaked ones. Explain that the dry beans have had the water removed by heat or sun-drying. The beans that have soaked have absorbed water.
Drain the beans. Spread on a cookie sheet. Bake $2\frac{1}{2}$ hours at 200 degrees. Remove from the oven and cool. Drizzle a teaspoon of corn oil over the beans and stir until all look oiled. Cook another half-hour. Remove and sprinkle with salt. Cool and eat.

CHEESE

- OBJECTIVES:** The children will discuss where cheese comes from.
The children will use heat to change cheese from a solid form to a thick liquid.
The children will participate in the preparation of nachos.
- MATERIALS:** Several kinds of cheese Tortilla chips
Cheddar cheese Aluminum foil
Cheese grater knife
- PROCEDURE:** Explain to the children that we are going to talk about cheese. Ask if anyone knows where cheese comes from. Cheese is made with milk or skim milk.
Ask the children to name some of the kinds of cheese that they like.
Discuss where the cheeses were made.
Compare the various kinds of cheese.
Explain to the children that we are going to make nachos. Ask if anyone has ever made nachos before. If so, ask them to explain how they made them.
Explain that nachos are a Mexican food. See if the children can name other Mexican foods they have eaten.
Go over the procedure with the children. Have the cheese cut into about 1 inch cubes for grating. Show the children the proper way to grate cheese, and supervise during the process.
The children should get a piece of foil first. They should then place their tortilla chips on the foil. Then they should place their tortilla chips on the foil. Then they
Next, they should each get a cube of cheese and grate it. The grated cheese should then be sprinkled on the tortilla chips.
The children can write their names on the foil with a permanent marker.
Place the chips on a cookie tin and place in the oven for a few minutes.
Allow the children to watch the cheese as it melts.
Discuss the effects of the heat on the cheese.
Remove the chips from the oven.
Serve the nachos with guacamole or salsa.
- ENRICHMENT:** Discuss how cheese is made.
Experiment with other Mexican dishes.
Discuss Mexican culture. Have the children locate Mexico on the map.

MAKING PEANUT BUTTER

OBJECTIVES: The children will talk about and taste peanuts.
The children will discuss where and how peanuts grow.
The children will discuss what can be done with peanuts.
The children will discover why peanuts are a healthy food.
The children will observe the changes that occur when peanuts are ground into peanut butter.

MATERIALS: Peanuts (the roasted kind in shells) Blender (or food grinder)
Corn oil Salt
Bowl Spoon
Knife Plates
Bread, celery or crackers Other kinds of peanuts (raw, etc.)

PROCEDURE: Pass the peanuts around. Have the children compare appearances and tastes.
Discuss where peanuts are grown. Use a globe to show the children. They are grown in America, China, and Africa. Explain that in Africa peanuts are called ground-nuts. Also explain the history of the peanut. It was first grown in South America and was carried to the other continents by man.
Ask the children if they know where peanuts are grown in the United States. They are grown in Georgia, Texas, Florida, Virginia, and the areas of Alabama, Oklahoma, and the Carolinas.
Discuss what can be done with peanuts. In the United States, more than half of the peanuts are used for peanut butter. There are salted peanuts, peanut oil is used for frying in, peanut meal, a by-product from the oil, is used for livestock feed, the shells (hulls) are used to make logs for fuel, fertilizer conditioner, poultry litter and livestock feed. No part of the peanut is wasted.
Explain to the children why peanuts are good for us. They are high in protein, are a good source of thiamin to promote a good appetite and a healthy nervous system, are high in niacin for healthy skin, and both niacin and thiamine are involved in the release of energy from your food.
Have the children help remove the shells and observe the inside. See if the children can tell you what part of the plant the peanut is.
Put about $1\frac{1}{2}$ T. oil into the blender and gradually add about 1 c. peanuts. Sprinkle in some salt. Have the children observe the change as the peanuts are blended smooth.
Serve the peanut butter on bread, celery, or crackers. Discuss favorite ways to eat peanut butter.

ENRICHMENT: Make spreads from other kinds of nuts or sesame seeds, or make peanut butter cookies. Roast raw, shelled peanuts on a cookie sheet in the oven.
Discuss the three types of peanuts: runner type, Virginia type, and Valencia type.
Try peanut butter on other fruits and vegetables.
Make the peanut butter fondue recipe (see additional recipes).

fruits *

*From Crunchy Bananas
See bibliography

Please note: Content on this page was redacted due to copyright concerns.

HEAT CHANGES THINGS

OBJECTIVES: The children will observe how heat changes apples by making applesauce. The children will be able to explain why apples become soft when heat is applied. The children will participate in the preparation of applesauce.

MATERIALS:

Paring knife	Bowl
Pitcher	Cutting board
Sieve, strainer or food mill	Apples
Brown sugar or honey	Saucepan
Wooden spoon	Cups and spoons
Cinnamon	Raisins

PROCEDURE: Have the children help wash the apples well. Review why it is important to wash food carefully before eating. With dull knives, have the children help cut the apples into 6 or 8 slices. Place the slices in a saucepan. Add just a little water. Cook slowly until tender. Have the children observe and discuss the changes. The heat softened the fiber or cellulose. The cell walls collapse. The apples became soft and mushy. Strain or force through sieve or food mill. Place some of the "applesauce" in each child's container. Allow the children to sweeten to taste. They may add cinnamon, cloves, nutmeg, raisins, etc.

ENRICHMENT: Discuss spices and where we get them. Discuss which food group apples belong to and how many servings we should have each day. Use apple slices for printing in art. Discuss why apple slices turn brown when exposed to air. (Oxygen in the air reacts chemically with enzymes in fruits and vegetables by a process called oxidation. This process changes the color and flavor and reduces the content of certain vitamins.) Plant apple seeds and watch them grow. Practice fractions by dividing apples into parts. Try other recipes using apples. (See caramel apples.) Take a field trip to an orchard or roadside stand. Read the story of Johnny Appleseed.

- OBJECTIVES:** The children will discover many interesting characteristics about apples.
The children will recognize the importance of washing food before preparation.
The children will be able to explain why apple slices turn brown when exposed to air and how this can be prevented. (older children)
- MATERIALS:**
- | | |
|-------------------|-----------------------------------|
| Basket for apples | Various sizes and types of apples |
| Paring knife | Water |
| Bowl | Cutting surface |
| Popsicle sticks | Saucepan |
| Caramels | Waxed paper |
- PROCEDURE:** Have the children help wash the apples well. Discuss the importance of this. (It removes the dirt, bacteria, germs, and pesticides.) Put the apples in the basket. Pass the basket around. Have each child select an apple. Discuss the color, shape, feel of the apples. Have some apple slices for the children to taste. Discuss the sound of the apples as they are eaten. Ask the children what covers the apple. (A skin called a peel.) Ask if the peel tastes differently from the pulp inside. Ask why apples have a peel. Identify the parts of the apple for the children. (stem, core, seeds, blossoms, peel) Ask the children to think up all the ways an apple can be cut. (sliced, grated, etc.) Ask what happens when a slice of apple is exposed to the air. (It turns brown.) Ask if anyone knows why this happens. (Oxygen in the air reacts chemically with enzymes in fruits and vegetables by a process called oxidation. This process changes the color and flavor and reduces the content of certain vitamins.) See if anyone knows how this can be prevented. (By dipping in vinegar or salted water or in ascorbic acid found in orange or lemon juice.) Have the children help think up all the foods they can that are made with apples. List the ideas. Have the children tell which they like. Explain to the children where apples come from. In springtime bring in apple blossoms and discuss how fruit is formed from the blossom. See how many kinds of apples the children can name. Have the children help prepare Caramel Apples as described on the package of caramels.
- ENRICHMENT:** Read The Legend of Johnny Appleseed to the children. Plant some apple seeds. Take field trips to... an orchard, roadside stand, fruit section at supermarket. Art-use apple sections to print with, carve appleheads for applehead dolls. Try other recipes with apples.

WHERE WE GET OUR FRUIT *

OBJECTIVES: The class will discuss where we get our fruit.
The students will discover how fruit gets to us.
The children will discuss how fruit grows.

MATERIALS: Peaches Colander or strainer
Pineapple Cutting board
Banana Paring knife
Strawberries Toothpicks
Blueberries Globe or map
Pictures of fruit growing on trees, bushes, vines, and plants.
Ingredients for fruit salad

PROCEDURE: Discuss how fruit grows on trees (apples, peaches), bushes (blueberries, gooseberries), vines (strawberries), and plants (bananas grown in bunches).
Discuss how fruit comes to us...Farmers grow the fruit. Workers or machines pick the fruit from the trees, plants, bushes or vines. The fruit is packed into boxes, baskets, or crates. Trucks take the fruit to the grocery store. Some fruit comes to us from other countries by ship, train, truck, or plane.
Discuss where fruit grows. Name the fruits that grow in your state. Ask the children if they grow fruit at home. Ask if they pick wild berries anywhere. Discuss whether fruit is available all year, and which fruits we are able to buy during certain months of the year. Ask whether they think the prices would be the same all year long. Explain why the prices fluctuate.
Use the globe to discuss the countries from which we import fruit, like bananas from South America where it is very warm all year.
Discuss which seasons and climates fruit grows best in.
Discuss other ways to buy fruit besides fresh. (Canned, frozen, dried)
Have the children describe the size, shape, color, texture and ripeness of the fruit.
Wash and prepare the fruit for fruit salad.

Fruit Salad (Perhaps have the children bring in some fruit.)

Have the children help peel and slice the fruit. Put the fruit into a large bowl and add plain or flavored yogurt and honey to sweeten.

ENRICHMENT: Take a trip to an orchard, cider factory, outdoor market, garden, wooded area to look for berries, botanical gardens, etc.
Play the game where a child is blindfolded, feel the fruit, and tries to guess what it is.
Read stories to the children about fruit.
Try planting seeds and growing your own fruit trees, plants, bushes, or vines.

THE CITRUS FAMILY *

OBJECTIVES: The children will be introduced to similarities and differences in the citrus family.
The children will be introduced to the disease scurvy, the causes and treatments.
The children will participate in the preparation of an orange julius.

MATERIALS:	Orange	Kumquat
	Tangerine	Quince
	Lime	Grapefruit
	Lemon	Tangelos
	Orange juice	Powdered milk
	Water	Ice cubes
	Blender	

PROCEDURE: Pass around the members of the citrus family. Ask the children which they are able to name. Tell the names of those they didn't know. Ask how the fruits are similar and how they are different.
Wash the fruit well, cut open and compare.
Taste the different fruits and compare.
Discuss why citrus fruits are important to our diet. (Citrus fruits contain vitamin C which helps protect us against infections. Vitamin C is necessary to make the cementing material which holds our body cells together. It also helps heal wounds and broken bones.)
Discuss oranges and orange juice. (Oranges are high in vitamins, especially vitamin C and some B vitamins. Orange juice, frozen or fresh, is also very nutritious. Tang, Hi 'C', Kool-Aid are all synthetic. Natural fruit juices come from fruit grown in an orchard. Synthetic drinks are basically chemical products made in a factory. Synthetic drinks are artificial. Most contain excessive amounts of sugar, artificial coloring and flavoring, thickeners and preservatives which may be harmful to children. Natural fruit juice is good and wholesome.)
Explain to the children that we are going to use orange juice to make a drink called an orange julius.
Dissolve $1\frac{1}{2}$ cups milk (powdered) in water (3 cups).
Add 1 cup orange juice and mix well.
Add ice cubes and serve, or the mixture can be blended until smooth.
Popsicles can be made by pouring the shake into popsicle containers and freezing.
Discuss Jaques Cartier, his crew, and scurvy. (Cartier's expedition was forced to spend a winter near Montreal in 1535. He wrote in his log that he cured his dying men "almost overnight", simply by giving them a brew made from the needles of the pine tree. This was an Indian cure.)

(continued)

grains *

*From Crunchy Bananas
See bibliography

Please note: Content on this page was redacted due to copyright concerns.

OBJECTIVES: The children will see and discuss how important bread is to man.
The children will be introduced to breads found all over the world.
The children will be introduced to a brief history of bread-making.

MATERIALS: Breads or pictures of breads from many lands
One loaf of bread Muffin tin
Milk Paper liners
Sugar Individual containers for mixing
Eggs (beaten) Spoons
Nutmeg and cinnamon Dull knives
Raisins Measuring spoons

PROCEDURE: Discuss: What is bread? Bread may be as simple as a combination of flour, water and salt, baked in an oven or over an open fire. Today, bread is made this way or in parts of India and Africa. In the southwestern part of the United States, certain Indian tribes still make their bread this way.

Discuss the history of bread...

The first bread was made in China or Egypt.

The Chinese fermented and steamed their bread.

The Egyptians were the first to discover that if they let the dough sour or ferment before baking, it became raised bread which is the forerunner of our "sour dough".

Columbus carried "sour dough" starter in the hold of his ship when he came to America.

The first public bakeries were in Greece.

The French Revolution was ignited by a bread riot.

"Buckwheat Cakes" were made famous in London by James Whistler.

In frontier America, women baked bread in skillets in front of their kitchen fires.

Bread made from meal and water and baked in a pan was called "corn pone". When this same dough was covered with ashes and baked in an open fire, it was "ash cake".

When the dough was baked on a hoe over a fire, it was called "hoe cake".

"Johnny Cake" was an American Indian bread, sometimes called "Journey Cake", because it was often carried by travelers.

Pancakes or griddle cakes were called "flannel cakes" in American lumber camps.

This name was developed in honor of the flannel shirts worn by lumbermen.

Bread is important to people all over the world. See how many breads from other lands the children know.

(continued...)

India - Chapatti
Pakistan - Nan
Russia - Koulitchey
Scotland - Scones
England - Biscuits
Africa - Cassava
Mexico - Tortillas

France - Pain Ordinaire
Ireland - Irish Soda Bread
Italy - Grissini
Israel - Challah, Pita
Japan - Pan
China - Men Pau
Indonesia - Riisttrafel

Discuss the importance of bread as a ceremonial food.

During the dark ages, the art of bread baking was kept alive in the monasteries.

For some Christians, special bread is used for communion. Catholics call this bread "hosts".

The Romans and Greeks held bread sacred and sacrificed bread as images of their gods.

In ancient times, Egyptian bread was a symbol of truth. Persons took a sacred oath with their right hand touching the top of the loaf.

Jews use special flat bread for Passover called matzos. Orthodox Russians have special bread for Easter called Koulitchey.

In Latin America on All Soul's Day, the dead are remembered by bread offerings which are taken to the cemeteries. Similar gifts are made by the living and given to each other.

In Germany, St. Nicholas Day is celebrated with a sweet dough made into the shape of his helper, Peter, carrying a bundle of twigs.

In Scotland, a relative of the bride is expected to break a bun over the head of the new wife before she sets foot over the threshold of the new home.

In Sweden, the bride and groom eat a whole wedding bread to symbolize a faithful and happy marriage.

In ancient Syria, the people raised bread in plates or jars in their homes. At the start of the new year, the young shoots were taken to a river or lake and cast into the water. This custom is "casting bread on the water" to return as answers to prayers.

Would you like to create your own ceremony based on what bread means to you?

(Continued on next page)

Discuss the advertising of bread.

Today, bread companies may be brought to court for misleading nutritional claims about their products.

Continental Baking Company, a subsidiary of the International Telephone and Telegraph (I.T.T.) was issued a consent order by the Federal Trade Commission for claiming Wonder Bread builds bodies twelve ways. The judge threw the case out of court indicating that children did not believe what they saw and heard on television. The Federal Trade Commission issued a second consent order against I.T.T. for advertising Profile Bread as a diet bread, containing fewer calories per slice than other breads. The company was required to run corrective advertisements disclosing that Profile Bread had fewer calories per slice because it was sliced thinner than the other breads.

Some baking companies have added yellow coloring to bread to make it look like eggs or cheeses have been added. This practice is misleading to the consumer.

Wheat and bread supplies are a major international issue. Those who control the production and distribution of wheat and other basic food crops control, to a large extent, who lives and dies on this planet. In 1969, the cost of stopping crop production, administration costs and the higher prices passed on to the consumer amounted to about \$10 billion in the United States of America. At the same time about twenty-five million (25,000,000) persons were living at or below the poverty level.

These are good topics of discussion for older children.

Have the children examine the ingredients in the loaf of bread. Explain the ingredients they are uncertain about.

Prepare Bread Pudding with the children.

Each child should have $\frac{1}{2}$ slice of bread. They are to cube the bread.

Put the cubes of bread into small containers.

Add 3 T. milk, 1 T. sugar, 2 t. egg, pinch of nutmeg and cinnamon, and 4 raisins.

Mix together.

Pour into a lined muffin tin.

Bake at 350 degrees for 30 minutes.

ENRICHMENT: Visit international food shops and see how many different kinds of bread you can find. Discuss what they contain and how they are made and used. Compare likenesses and differences. Visit a bakery.

MAKING FLOUR *

OBJECTIVES: The children will discuss how and where wheat is grown.
 The children will examine wheat and will name the parts of the plant.
 The children will participate in the process of grinding wheat.

MATERIALS:	Wheat on sheaf	Grinder
	(available at florist shop)	Sieve or sifter
	Kernels of wheat	Bowl
	Cracked wheat	Magnifying glass or Microscope
	Flour	Globe or map
	Bran	Wheat germ
		(Also, ingredients for whole wheat muffins if wish-see recipe)

PROCEDURE: Examine with the children wheat on the sheaf. If a magnifying glass or microscope is available, use it to look at a grain.

Use a map or a globe to discuss where wheat is grown. Older children may make a map highlighting the Red River Valley, Iowa, Nebraska, Kansas, Illinois, Texas, and eastern Washington.

Discuss how the wheat is thrashed to separate seeds or grains from the straw (husks.)
 Discuss how it is winnowed to separate the chaff from the grain.

Put the kernels of wheat in the grinder. Have each child take a turn putting in wheat and turning the handle. (A food processor may be used.)

Sift the ground wheat. Use the coarse part for cereal (cracked wheat) and the flour for the muffins.

Discuss the color and texture of the ground wheat.

Show the children the different parts of the wheat...

Wheat berry-is the entire grain of the wheat

Germ-is the embryo or seedling plant within the grain (most of the nutrients are in the germ and bran layer)

Bran-coat of the grains and associated tissue

Endosperm-the starchy interior of the grain

Discuss the food value of the different parts of wheat. The germ has the most food value. The bran has the second largest amount. In whole grain cereal, all of the wheat is included. In refined cereal, the bran and wheat germ are removed. In enriched bread and cereal, some of the vitamins and minerals are put back in.

Explore with the children how early man ground his wheat, barley, millet and oats with rocks. Perhaps they would like to try this.

(cont.)

Prepare whole wheat muffins with the children.

WHOLE WHEAT MUFFINS

2 cups whole wheat flour	1 egg, beaten
2 teaspoons baking powder	$\frac{1}{4}$ cup oil
1 teaspoon salt	$1\frac{1}{2}$ cups apple juice
1 teaspoon cinnamon	$\frac{3}{4}$ cup raisins

Mix the dry ingredients together. Let the children take turns measuring, adding, and stirring the ingredients.

Add the liquid ingredients and the raisins to the mixture. Stir only until blended. Pour into muffin tin. (Each child could scoop out part and fill his or her own muffin tin.)

Bake for 20 minutes at 375 degrees. Makes one dozen.

ENRICHMENT: Discuss that the ancient Egyptians were the first to cultivate wheat and how this put an end to their nomadic way of life. The Spanish brought wheat seeds to America.

Bring in other types of flour and compare them.

Discuss how some wheat is planted before winter. It grows a bit, then snow falls like a blanket to protect the tiny wheat sprouts from the cold. Spring comes and the tiny plants start to grow again.

Try performing the starch test. Put a few drops of iodine on a small sample of flour. Observe. A deep blue color results. This is a good way to determine if the substance contains starch. Use a potato, cornstarch, sugar, or salt and see what happens. BE SURE TO DESTROY SAMPLES. IODINE IS TOXIC IF INGESTED IN THIS FORM!

*Adapted from a lesson in Creative Food Experiences for Children
see bibliography

ALL ABOUT CEREALS *

OBJECTIVES: The children will investigate different cereals.
 The children will name products made from cereal grains.
 The children will discuss misleading cereal advertising.

MATERIALS:	Wheat	Various kinds of cereals like...
	Oats	Cheerios
	Barley	Grape Nuts
	Rice	Buckwheat (You may have the children
	Corn	Puffed Rice bring some from home.)
	Rye	Shredded Wheat
	Millet	Rolled Oats
	Small bowls	Pictures of these grains growing

PROCEDURE: Put each grain in a separate bowl. Encourage the children to feel each.
 Mix them up and sort them out.

Explain that cereal grains are dried seeds or the fruit of cultivated grasses. They are wheat, oats, barley, rice, corn, rye and millet. Buckwheat is not a true grain, but is used as a cereal. One or another variety may be grown anywhere on the Earth.

Ask the children to name some of the breakfast foods made from cereal grains. Have them name their favorite cereals. Have them share the cereals they may have brought. Discuss which grains each cereal is made from.

Ask what other products are made from cereal grains. (Breads, pastries, cakes are baked products. Milled products which usually have the germ and bran removed such as white rice, white flour, corn meal, pearled barley, breakfast cereals. Whole grain products which use the entire grain. They include rolled oats, brown rice, popcorn, shredded and puffed grains, breakfast foods, and home ground meals made from wheat, corn, sorghum and millet. Some beverages are made from fermented grain products such as postum and beer.

Have the children match the breakfast cereals with the cereal grains.

Taste and discuss which of the above cereals are granulated, puffed, shredded, rolled or extruded flakes.

Discuss cereal advertising. Encourage children to describe ads they have seen. The cereals most advertised are usually highly refined, have excessive sugar added and are expensive - big profit makers for the manufacturer.

(cont.)

Discuss why we eat cereals. Cereal grains have high energy value. The mineral and vitamin content depends on where they were grown, the conditions of storage and the portion of the kernel used. Whole grains are a good source of fiber important for preventing constipation and possibly certain diseases of the colon. Milled or refined cereals have 1% or less fiber. Whole grains are rich in B vitamins, trace minerals and vitamin E. Milling results in a significant loss. Enriched cereals have some of the three B vitamins and iron restored or added. Vitamin E, Vitamin B6, magnesium, and other trace minerals are not added to enriched cereals. Some breakfast cereals have added artificial coloring, artificial flavoring and anti-oxidants called BHT and BHA. Not enough is known about these additives. They are suspected of being hazardous to the body.

Supermarket Game - For older children

Have the children use their cereal boxes for the following shopping game:

- A. Children shop for...
 - cereals without sugar added
 - cereals with sugar added
 - cereals without color added
 - cereals with color added
 - cereals which are the most nutritious (whole grain or enriched)
 - cereals with added nutrients
- B. Have a discussion about the hazards of too much sugar and unnecessary food coloring.
- C. Encourage the children to dramatize what different kinds of cereals do for them or to them, such as:
 - Nutritious cereals give them "Go" power.
 - Highly sugared cereals promote cavities in their teeth.

*Adapted from a lesson in Creative Food Experiences for Children
See bibliography

MAKING BREAD *

OBJECTIVES: The children will see what ingredients are needed to make bread and how it is made.

The children will participate in making bread.

The children will discover some properties of yeast.

MATERIALS: Whole wheat flour - 3 cups Large mixing bowl
Enriched white flour - 3 cups Measuring spoons and cups
Milk - 1 cup Wooden spoon
Yeast - 1 package Saucepan
Brown sugar or molasses, $\frac{1}{4}$ cup Cup
Salt - 2 teaspoons Medium mixing bowl
Boiling water - $\frac{1}{2}$ cup Baking sheet

PROCEDURE: Have the children discuss what kinds of bread they know.

Yeast breads - loaves - rolls or flat breads - Pita or Nan sweet breads
sweet breads

sour-dough breads

rye, whole wheat, white, oatmeal

kasha, potato bread

Unleavened breads - matzos, cornmeal

Quick breads - loaves, muffins, scones, biscuits, popovers, cornbread,
spoon bread, pancakes, waffles

Discuss why stirring, beating and kneading is so important in bread making. Wheat flour has special properties which make it preferable for most breads. When liquid is added to the flour and the mixture is beaten, stirred or kneaded, a substance called gluten is formed. Gluten enables the bread batters (thin mixtures) or the dough (thick mixtures) to hold the leavening gas, producing the "lightness" in breads. Kneading develops the gluten. Flour from other grains may be mixed with the wheat flours.

Discuss the contribution of the yeast to the bread making process. The tiny yeast plants, a biological leavener, grow with moisture, warmth and a small amount of sugar. Too much sugar slows down the yeast growth. As the yeast plants grow, they produce a gas called carbon dioxide. The carbon dioxide gas bubbles throughout the flour mixture and makes the dough light and porous. In quick breads, a chemical leavening agent is used.

Have the children wash their hands very carefully.

Put into a mixing bowl: 1 package yeast, $\frac{1}{2}$ cup lukewarm water and let stand for 15 minutes.

(continued...)

Put in a separate bowl: 1 cup milk, $\frac{1}{2}$ cup boiling water, $\frac{1}{4}$ cup molasses or sugar, and 2 teaspoons salt.

Mix well, cool to lukewarm.

Add yeast to mixture. Stir in: 3 cups flour, stir with a heavy spoon or mix with hands. If sticky, add a little more whole wheat flour.

Knead until smooth. Let rise until doubles in size. (about 1 hour)

Let the children shape into loaves or imaginative shapes. Try making faces, an animal, masks, or special designs.

You may have the children make foil flags with their names. They can stick them into their masterpieces with toothpicks before they go into the oven. Shapes change on rising and baking.

Decorate the loaves with seeds, nuts or dried fruit.

Place in greased tins. Let rise to double in size (about 50 minutes) and then bake loaves about 50 minutes, rolls about 20 - 30 minutes at 375 degrees.

During every step discuss how the batter, dough, bread looks, feels, smell, etc.

Discuss why wheat is called the staff of life...Whole grains are important to our diet because they have:

- A. Many B vitamins - important for being alert, for steady nerves, and for a good appetite
- B. Minerals like iron to make our blood work better
- C. Fiber to keep us regular and prevent constipation
- D. Protein which helps build and repair our bodies

Discuss what happens as the bread bakes. The yeast is killed by the heat. The liquid in the bread is converted to steam and expands the gluten, raising the bread.

Remove the bread from the oven and cool on racks.

Taste and see how good home-made bread is. Compare it to store-bought bread.

ENRICHMENT: Use the dough for art projects. Make bread baskets by laying strips of bread criss-crossing each other on a loaf pan. The bread becomes stiff during cooking, and when removed will have a rectangular shape. Other shapes can be made, baked, and then covered with a thin coat of varnish to preserve them.

dairy foods *

*From Crunchy Bananas
See bibliography

OBJECTIVES: The children will discuss where milk comes from.
The children will discover which animals give milk.
The children will discover how milk gets to their homes.

MATERIALS: Pictures of animals that give milk to people around the world.
Book: "My Friend The Cow" by Lois Lenski
Globe
Make use of experiences that the children or perhaps their friends or relatives have had in other cultures and in other parts of the world.

PROCEDURE: Ask questions and stimulate a discussion:

1. Where do babies get milk? Mothers
2. Which animals give us milk? Cows, goats
3. Which animals give milk to people around the world?
zebra-India
buffalo-Asia, Africa
yak-mountains of central Asia
pien niu-Mongolia, China
sheep-countries around the Mediterranean Sea
goats-parts of Europe, villages in Greece
camel-deserts of Africa and Asia
reindeer-wastelands of far north caps of the Arctic lands
horses-parts of China
donkeys-parts of China

Discuss how milk comes to us. Use containers to illustrate...bags, bottles, cans, cartons, packages, etc.

Discuss how milk gets from the cows to the container. The dairy farmer milks the cows with an electric machine. The milk is put into a cooler or a refrigerated tank in a special milkroom. A refrigerated tank truck takes the milk from the dairy farm to a dairy plant in the city. (Ask the children if any of them have ever seen these trucks.) The milk is pasteurized by heating it to a certain temperature to kill any harmful bacteria. The pasteurized milk goes through pipes and is poured into sterile bottles or cartons. The bottles and cartons are put into containers and are placed in refrigerated trucks. The trucks take the milk to the stores.

Discuss the other kinds of milk available. (buttermilk, chocolate, etc.)

Use milk to prepare a pudding recipe.

ENRICHMENT: Use the pudding to fingerprint. Take field trips to a dairy farm, dairy plant, dairy section in a supermarket. Discuss how some people must drink milk made from soy beans due to allergies.

*Adapted from a lesson in Creative Food Experiences for Children
See bibliog hy

MAKING YOGURT

OBJECTIVES: The children will use a yogurt culture to convert milk into yogurt.
The children will discuss the change in form from a liquid to a solid.
The children will discover that yogurt and cheese are ways of preserving milk.

MATERIALS: Crock or earthenware bowl (1½ quart size)
Measuring spoons Thermometer (optional)
Stirring spoon Milk - 1 quart
Saucepan Culture - 4 T. plain yogurt (without preservatives)
Cups and spoons for everyone Honey / fruit to serve with yogurt

PROCEDURE: Heat milk until warm but not boiling (110 degrees F.)
Pour into crock or earthenware bowl.
Cool until a little warmer than lukewarm. (Test by putting a drop on the inside part of the wrist; the milk should feel warm but not hot.)
Add yogurt (which should be at room temperature.)
Stir gently until well blended.
Cover bowl and cover completely with a warm blanket. Let stand for at least five hours or overnight at room temperature.
Place in refrigerator.
The next day put a small amount of yogurt in the cups for the children to taste plain. Then encourage them to try it with honey or fruit.

Discuss the change in form from a liquid to a solid.

Have the children describe the taste and consistency of the yogurt.

ENRICHMENT: Older children may discuss which countries use yogurt extensively and why. (yogurt and cheese are ways of preserving milk.)
The children can discuss other foods made from milk.
Some children can investigate to determine why a culture is needed to get the yogurt-making process started.



MAKING ICE CREAM *

Ice Cream

OBJECTIVES: The children will convert milk from a liquid to a solid by freezing.
The children will observe the changes which occur.
The children will discuss what happens when liquids freeze.

MATERIALS: Freezer for making ice cream Bowl
Rotary egg beater Measuring cup
Crushed ice (6 quarts) Coarse rock salt, $1\frac{1}{2}$ cups
3 eggs 2 cups brown sugar
1 teaspoon salt 2-15oz. cans evaporated milk
2 quarts milk 2 teaspoons vanilla
Small bowls and spoons for eating or ice cream cones

PROCEDURE: Introduce the lesson with a brief history of ice cream...Until a few years ago, ice cream was a very special treat made for family celebrations, church socials, and county fairs. Today it is fashionable to turn sweets into the mainstay of the diet. A good example of this is the "High Protein Breakfast Bar", a highly fortified cake with a cream filling and often a frosting. Ice cream and cake should be considered as "extras", and not as a main part of the diet. Ice cream is not equivalent in nutrients when compared to milk. One hundred calories of milk has significantly more nutrients than one hundred calories of ice cream. This is due to the much higher fat and sugar content found in ice cream.

Break the eggs. Have the children describe how they look, feel, smell...

Beat the eggs. Discuss what happens to the color, shape, amount, consistency, etc. (Air is incorporated into the egg mixture, increasing its volume.)

Beat in the sugar and salt.

Stir in the vanilla and milk. Ask how this addition affects the consistency and the color.

Pour into a gallon-size freezing container.

Pack with crushed ice and add coarse salt to ice, alternating ice and salt in about three layers.

Turn handle slowly at first and then more rapidly. Have the children take turns. As the ice settles, add more ice and salt. It should be ready in about 25 minutes. You may want to freeze the ice cream before serving, as it will be soft.

Discuss what happened as the liquid froze.

Serve the ice cream. Add nuts, fruit, serve on cones...

ENRICHMENT: Discuss calories and why some people count their calories. Have someone investigate to find out which activities burn off the most calories.

Have someone investigate to discover why salt makes ice melt.

Have an ice cream social. Encourage the children to make their own sundaes. Invite another class.

GOOD NUTRITION (A good introduction to lessons)

- OBJECTIVES:** The children will be introduced to the nutrients in the foods they eat.
The children will discover the role these nutrients play in ensuring good health.
The children will gain a new respect for their bodies.
- MATERIALS:** Pictures or posters of food.
Watermelon
- PROCEDURE:** Encourage the children to develop an awareness and respect for their bodies.
Discuss what our eyes do for us. Have the children name some of the things we can see around us. Older children may be curious about how the eye works.
Discuss our noses and what it does for us. Have the children tell about some of their favorite smells and some they consider unpleasant. Older children may wish to know more about how the nose works.
Discuss the tongue. Have the children tell about their favorite foods. With older children, you may wish to discuss which parts of the tongue tast which things.
Discuss our teeth. Talk about the dangers and problems that can arise from not chewing food enough.
Discuss other things we do with our bodies. Some of the children may wish to make up songs, dances, skits, or a puppet show that illustrates this topic.
Explain to the children that we need to take care of our bodies and give them food that is good for them. The food that we eat becomes a part of us.
Explain that the nutrients in food help to build and repair the tissues of the body. Some of the tissues are quite hard, such as bones and teeth. Others are soft, such as muscles and skin. Still others are fluids, such as blood, tears, and saliva. The water we drink, the food we eat, and the air we breathe all help to make up these tissues.
Dark green leafy vegetables and deep yellow vegetables help us have healthy eyes and shiny hair.
Calcium from milk and cheese gives us strong bones and healthy teeth.
Iron-rich foods such as meat, dried beans and peas, whole grains, and dark leafy green vegetables give us healthy blood.
Vitamin C found in citrus fruits, cabbage, green vegetables, and tomatoes helps to protect our bodies from infection.
Fiber, vitamins and minerals help to regulate our bodies.
Protein foods supply the materials needed for growth and body repair.
Stress to the children that thier bodies are theirs for life and people, both young and old, need good food to keep them healthy. Now is the time to build healthy bodies and to establish proper eating habits. Eating habits are learned, we are not born with them.
- ENRICHMENT:** Discuss with the children how they care for pets at home and what sorts of things they feed their pets to keep them healthy.
Try an experiment with rats. Put one on a healthy diet, and one on a junk food diet. Differences between the rats should become visibale within a few weeks.

MISCELLANEOUS

(continued...)

Toothpicks can be used to spear the bananas.

ENRICHMENT: The children could write or draw a book on the kinds of food their bodies need.
The children could chart their height and weight and keep track of this throughout the school year.
Have the children make self-portraits.
Try body tracing, where a child lays on the floor and another draws around him.
Post the baby pictures and see if the children can match baby pictures with the correct child.
Try other simple recipes. Discuss the nutritional value of each.
Investigate some foods to find out how much sugar, salt, or saturated fat is present.
Discuss substitutes for salt and sugar.

THE FOOD WE CHOOSE *

- OBJECTIVES:** The children will discuss and express themselves as to how they feel about the food they eat, how they eat it, and why they eat it.
The children will help prepare the end-of-the-year breakfast.
The children will discuss how food is grown.
- MATERIALS:** Ingredients and materials to prepare the breakfast.
- PROCEDURE:** Ask the children to tell you how food was grown many years ago. It was grown on small farms and in private gardens.
Ask them to explain how most of our food is grown today. Today, huge companies own and control the production of food from the seed to the table. The same company grows it, transports it, packages it and sells it.
Ask the children if they can explain why our food is being produced by large farming corporations and not by the small farmer.
See if they can tell you how this has affected our eating habits. We tend to eat fewer natural, homemade and ethnic foods. Food may become less interesting. Convenience foods are bland and rob the cook of opportunities to develop meals creatively and with imagination. Convenience may also encourage members of the family to eat at different times.
Ask the children how many times a week they think the family or friends should eat together. Ask them to tell if they think this is possible within our hectic lifestyles.
Ask the children to tell about how they feel about convenience foods, drive-in restaurants, vending machines, etc.
Ask the children to name some of the unusual foods, regional foods, homemade foods, ethnic foods, and homegrown foods they enjoy most.
Ask them if they think they have enough variety in their eating habits.
Summarize the year's activities and prepare the end-of-the-year breakfast together.
- ENRICHMENT:** Make collages or paint pictures of foods which have special meanings, from specific geographic areas, of foods you have grown, etc.
Try to keep track during the school year of whether or not the children have changed their eating habits and their food preferences at all.
Suggest that the children try to keep a record of the kinds of foods they eat in a hurry at home, out of vending machines, at drive-ins, etc.
Invite parents or another class to the breakfast or have a potluck lunch.
Take a field trip to a place where all of the food is bought from vending machines.
Discuss what it would be like to eat like this every day.
The children can write stories about the origin of foods.

SPICES AND HERBS*

OBJECTIVES: The children will discuss the history of spices and herbs.
The children will discover which part of the herb the spices come from.
The children will discuss where we get cocoa.
The children will participate in the preparation of Mexican cocoa.

MATERIALS:	Cocoa or carob powder	Sugar
	Milk	Vanilla
	Cinnamon sticks	Marshmallows
	Measuring spoons	Measuring cup
	Spoon for stirring	Saucepan
	Heat source	Other spices and herbs

PROCEDURE: Discuss what spices and herbs are. See if the children can name a few.
Discuss the history of spices and herbs. Many years ago, only a few clever men knew where to find spices and herbs, and they sold them for pots of money. These clever men made up scary stories about fire-breathing dragons and five-headed monsters that would attack anyone who tried to bring in spices from the secret faraway lands. Almost everybody was too afraid to look for the land where these precious plants grew, but finally a few brave explorers uncovered the secret. When an explorer brought back a cargo of spice and herb treasures for his king he would say that only men without pockets could unload his ship. (Ask the children if they can figure out why.) He didn't want anyone slipping some into the pockets. Pass some of the spices and herbs around for the children to smell, see, and compare. Discuss where most spices and herbs come from. Herbs are mostly the leaves of herb plants but spices come from many different places on spice plants. They can be the flower buds, the seeds, the leaves, the root, the berry, or even the bark of a tree. Discuss where we get cocoa. The Aztec Indians in Mexico were eating chocolate when the Spanish explorers from across the ocean met them. Cocoa pods grow on evergreen trees.
Explain to the children that we are going to make Mexican Cocoa...Measure 1 T. cocoa or 1 T. and 1 t. carob powder into the saucepan. Add 1 T. and 1 t. sugar or 1 t. if using carob powder. Measure 2/3 cup milk into measuring cup. Put 1 T. milk from the cup into saucepan. Stir to form smooth paste and add remaining milk and 1/4 t. vanilla. Stir with cinnamon stick, heat, and serve with marshmallow.

ENRICHMENT: Talk about where other spices come from. (nutmeg-fruit of evergreen tree, ginger-root)
Talk about Mexico and other Mexican foods.
Discuss what carob is and why many people eat carob instead of chocolate.

*From a lesson in Crunchy Bananas
See bibliography

Protein foods: Discuss the variety, quality, source and origin of legumes, nuts, meats, fish and eggs.

Ask what forms of legumes are displayed (canned, dried, etc.).

Discuss which fish are shell fish, which are fresh water and which are salt water, and in what forms they are available (frozen, canned, fresh, dehydrated, smoked, etc.).

Ask the children to identify some of the different cuts of meat available.

Have them compare the prices of processed meats such as bologna, hot dogs, etc. to other protein foods. Processed meats are probably the poorest in nutritional value and dollar value of the protein foods.

Have the children find the best buys.

Breads and cereals: Discuss the variety, quality, sources and origin of whole grain, enriched, and unenriched cereals and breads.

Discuss how much of the whole grain bread or cereal is whole grain. Investigate the ingredients of the various breads and cereals. Explain that the ingredients are listed in order of decreasing amounts and that the first ingredient is the principal one.

Compare the weight and size of the loaves. The soft breads may be puffed up with air.

Discuss which cereals have sugar, coloring and preservatives added.

Discuss which are junk foods and which ones are nutritious and do not have excessive sugar.

Discuss which cereals have nutrients added.

Have the children select and help purchase the ingredients for the breakfast.

ENRICHMENT: Older children may find unit pricing, open dating and nutrition labeling of interest. Set up a supermarket in the classroom. Have the children bring in empty containers from home. Perhaps the school food service could provide some assistance. Overview a natural, ethnic food store or a country market. Follow the same procedures. Compare the differences in food availability, variety, quality, and price. Investigate to see whether some companies tend to produce mainly junk foods while others mostly wholesome food. Make a map of the supermarket you visited. Put in the food sections and other important information.

HOLIDAY IDEAS

HOLIDAY IDEAS *

Chinese New Year

Have an oriental party. Prepare fried rice. Construct a Chinese dragon to parade around the room or school. Prepare fried rice.

January 15th - Martin Luther King's Birthday

In December of 1955, a black woman named Rosa Parks refused to give her seat on a city bus to a white person. That started a new battle in the long struggle for the rights of blacks in the United States. For the next twelve years, their leader was Martin Luther King. Try some "Soul Foods" in his memory, such as Sweet Potato Pie:

Pastry for 9" nut pie crust	1/8 teaspoon salt
(See Miscellaneous Recipes)	1/2 cup brown sugar
2 pounds yams	3 eggs separated
1/2 cup margarine	1/4 cup lemon juice
1 teaspoon cinnamon	1/2 cup milk
1/2 teaspoon ginger	

Boil the yams until just done, peel, and mash thoroughly. Add the margarine, spices, salt and sugar to the hot yams. Beat until light and smooth. Beat the egg yolks until light and add to the yam mixture. Stir in the lemon juice, orange juice and milk, mixing well. Beat the egg whites until very stiff and fold them into the filling gently. Pour into the uncooked pastry shell and bake at 450° F. for 10 minutes. Reduce the heat to 350° F. and bake 25 to 35 minutes longer, or until the pie is puffed up and firm in the middle.

February 14th - St. Valentine's Day

Try exchanging "life cake" valentines instead of valentine cards with your friends. In centuries past, gingerbread "life cakes" were molded in old prized decorated molds. You can use heart-shaped cookie cutters or cut a heart-shape out of cardboard and use a toothpick to trace around the cardboard placed on the dough. Decorate the unbaked cookies with almonds and raisins. Write messages too.

Valentine Gingerbread:

1 cup margarine	1/4 teaspoon cloves
1/2 cup sugar	1/2 teaspoon salt
4 cups whole wheat flour	1/4 teaspoon mace
1 teaspoon ginger	3/4 cup dark molasses

Cream sugar and margarine. Add sifted dry ingredients alternately with molasses. Roll on floured board. Cut into

February 22nd - George Washington's Birthday

Try a cherry parfait. Repeat layers of vanilla custard and cherries in parfait or sherbet glasses. Make oatmeal cookies in the shape of hatchets and add to the top of each parfait.

In 1630, Indians introduced popcorn to the Pilgrims. Make popcorn and invite your friends to share it.

March 17th - St Patrick's Day

Delight your family or class with an Irish party. Put on your touch of green and decorate with shamrocks using green paper napkins. Read Irish poetry, sing Irish songs and dance Irish jigs. Serve Irish Soda Bread:

2 cups whole wheat flour	1/4 cup molasses
1 cup enriched flour	1 egg
1-1/2 teaspoons salt	1-1/2 cups sour milk or buttermilk
3/4 teaspoon soda	1-1/2 cups currants
1/2 cup corn oil	1-1/2 cups raisins
1/4 cup brown sugar	

Pre-heat oven to 325° F. Sift or mix together dry ingredients. Cream oil, sugar and molasses together. Beat in egg. Add alternately dry ingredients with sour milk. Stir in fruit. Pour batter into greased 8x4x2-1/2" loaf pan. Bake about 75 minutes.

Easter

Boil eggs. Have an Easter egg hunt. Prepare Deviled Eggs. (See recipe and lesson under protein.)

May 5th-Cinco de Mayo

This is Mexico's independence day. Discuss Mexico, the people, foods, etc. Make tortillas. Decorate a pinata.

Tortillas:

2 cups Maseca mix
1 cup flour

enough water to make doughy

Combine ingredients. Mix well. Divide dough into small balls. Roll as flat as possible. Brown both sides on a griddle.

Mother's Day

Have the class plan a special treat to take home to Mother. Perhaps you would like to use one of the recipes in the miscellaneous Section, or have the children bring one of their mother's favorite recipes from home and let the class choose which one they'd like to try. Poems or songs could also be made on homemade cards for a special surprise.

Fourth Friday in September - American Indian Day

About this time of the year, the Indians would gather seeds for the next year's crops. Why not take a family or class hike and see what kinds of seeds you can find. Can you identify the tree, the shrub or the plant, the fruit from the plant or the leaf? Perhaps you would like to pick some herbs like wild mint and hang it up to dry. Use it for tea or flavoring during the winter. Try corn pudding, Indian pudding or a corn roast in the back yard. (See lesson and recipe for corn pudding under vegetables.)

October 12th-Columbus Day

Discuss the voyage of Christopher Columbus. Celebrate with an easy Italian treat by preparing Mini-Pizzas. See lesson and recipe under protein.

October 31st-Halloween

Make a jack-o-lantern. Prepare pumpkin seeds. (See lesson and recipe under protein.) Or prepare butterscotch pudding and fingerpaint pumpkins with it.

Fourth Thursday of November-Thanksgiving Day

Thanksgiving is a time to be grateful for all our blessings. This time evolved from the Pilgrims who planted their gardens with seeds to grow their own food. Although they experienced difficult times, they were thankful for the crops they raised. The Indians introduced popcorn to the pilgrims. Prepare popcorn as shown below. The popcorn can be eaten plain or can be used to prepare caramel corn, popcorn balls, etc.

(See recipe on back.)

POPCORN

Popcorn

Oil

Salt

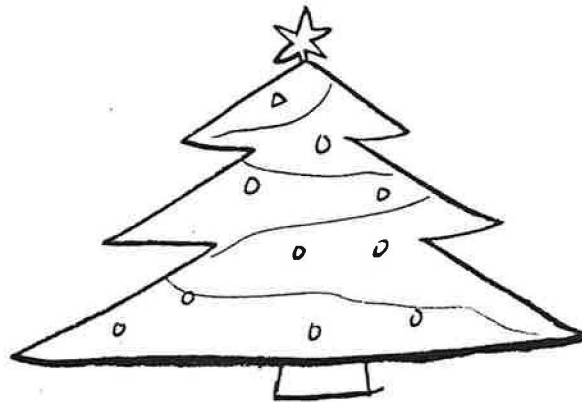
Melted butter (optional)

Pour about $\frac{1}{4}$ cup oil into electric popcorn popper (preferably the kind with glass top so children can watch). Add popcorn to cover. Have bowls or baskets hand so children can salt small amounts of popcorn to share.

Suggestions: Let children examine the kernels of corn before popping. Explain that this is a special kind of corn grown just for popping and that it is different from the kind we eat off the cob. Each kernel of popcorn has moisture ("a drop of water") inside of it and when the popcorn gets hot, the moisture turns into steam and causes the popcorn to explode.

December 25th-Christmas

Construct "gingerbread" houses using graham crackers, peppermint sticks, chocolate squares, gum drops, marshmallow cream, etc. Bake Christmas gifts for friends and family.



ADDITIONAL RECIPES

POTATO SALAD

4 - 6 medium sized boiled potatoes
 2 hard boiled eggs
 1 can pitted olives
 $\frac{1}{2}$ cup mayonnaise
 Salt and pepper to taste

Let the children peel and dice the potatoes and eggs. Cut the olives into small pieces. Mix all the ingredients together. Sprinkle paprika over the top.

PUMPKIN PUDDING

2 cups cooked pumpkin	$\frac{1}{2}$ cup brown sugar
$\frac{3}{4}$ t. salt	$\frac{1}{4}$ t. cinnamon
1 $\frac{2}{3}$ cups evaporated milk	$\frac{1}{4}$ t. ginger
2 eggs	$\frac{1}{4}$ t. nutmeg
1 T. melted butter or margarine	

Beat all ingredients. Pour into a 9" aluminum pan or custard cups. Bake at 400 degrees for 45 - 50 minutes. Insert a knife to see if done.

GOLDEN CARROTS

5 medium carrots	3 T. brown sugar
2 T. butter	

Cut tops off carrots and scrub. Peel and slice carrots. Cook half covered with water in saucepan, 8 - 10 minutes. Drain. Melt butter and add brown sugar. Add this to carrots, mix, and serve.

GREEN POTATOES

Baking potato	Broccoli
Milk	Parmesan cheese

Bake the potato. Remove the inside and whip with the cooked broccoli, a little milk, and Parmesan cheese.

CHEESE STRAWS

1 $\frac{1}{4}$ cups flour	$\frac{1}{4}$ t. salt
5 T. vegetable oil	2 shakes cayenne pepper
2 $\frac{1}{2}$ T. water	Some flour for rolling
$\frac{1}{2}$ cup grated cheese	

Mix all the ingredients. Knead the dough. Roll until the dough is $\frac{1}{4}$ " thick. Cut the dough into slices measuring $\frac{1}{4}$ " x $\frac{1}{4}$ " x 4". Put on a greased tin and bake for 15 minutes at 425 degrees.

SCRAMBLED EGGS

2 t. margarine	2 T. milk
2 eggs	$\frac{1}{8}$ t. salt

Break the eggs into a bowl. Add the milk and the salt. Heat margarine in a skillet. Pour in the egg mixture. Cook slowly over low heat. Turn gently with a broad spatula. Serve when cooked, but still moist. Cheese, meat, vegetables, etc. can be added.

SESAME SEED SQUARES

$\frac{1}{2}$ cup honey	$\frac{1}{2}$ cup coconut - shredded, unsweetened
$\frac{1}{2}$ cup peanut butter	1 cup sesame seeds
1 cup powdered milk	8" x 8" pan
Saucepan	

Heat honey and peanut butter. Add all the other ingredients. Mix and put into square pan. Refrigerate to set. Cut into cubes.

PEANUT BUTTER FONDUE

2 cups peanut butter	1 $\frac{1}{2}$ cups evaporated milk
$\frac{1}{4}$ cup brown sugar (light)	$\frac{1}{4}$ cup margarine

Mix on low heat until well blended. Wash and prepare fruit. Pierce fruit with toothpicks. Dip fruit into fondue and eat.

TUNA PINEAPPLE DIP

Drain 1 can tuna and flake.
 Drain 9 oz. can of crushed pineapple. Save the liquid.
 Soften 8 oz. package of cream cheese at room temperature.
 Combine these ingredients. Add 3 T. pineapple juice, a dash of salt, and
 a dash of nutmeg. Chill and serve on crackers.

LEMONADE

Dissolve $\frac{1}{3}$ cup honey in $\frac{1}{2}$ cup hot water.
 Add the juice of 4 lemons and 4 cups cold water.
 Add one tray of ice cubes and stir with a wooden spoon.
 Add food coloring if you wish. Serves 6.

FRUIT CANDIES

1 cup each of 3 - 4 kinds of dried fruit
 food grinder $\frac{1}{2}$ cup nuts
 orange rind ginger

Put the fruit through the food grinder, along with the nuts and one
 orange rind. To get the orange rind, you peel the orange skin off with
 a potato peeler, the wash and use the rind. Put this mixture in a bowl
 with 1 t. ginger. Mix well. Shape into little balls. Roll in coconut
 or dip in melted chocolate chips and let cool and harden. Store in the
 refrigerator. Makes 4 dozen.

BERRY PUDDING (Norway - called Rodgred Med Flode)

Wash 3 pints strawberries or raspberries.
 Remove the tops and put the berries through a food mill.
 Put the mashed berries in a saucepan.
 Cook the berries over medium-high heat until boiling.
 Boil for one minute and remove from heat.
 Make a paste of: $\frac{1}{4}$ cup cold water
 2 T. arrowroot powder
 Add this to the berries and return to the stove on low heat.
 Cook until thick, but do not boil.
 Let cool a bit, then add honey or sugar to taste.
 Serve warm, chilled, plain, or with cream and slivered almonds.

APPLE - RAISIN SLAW

1 cup raisins	4 cups raw cabbage, shredded
1 T. lemon juice	1 cup mayonnaise
3 apples, diced without paring	

Sprinkle lemon juice over the apples and stir well. Mix in the raisins and cabbage. Add mayonnaise. Season to taste. Serve at once.

FRUIT LEATHER

Fruit	Cookie sheets, plastic wrap
Food grinder or blender	Honey

Cut up and grind or puree fruit. Put pulp in pot. Add 1 T. honey for each pound of fruit. Heat to boiling. Boil 2 - 3 minutes. Let cool. Put on plastic covered cookie tins and place in oven on lowest setting. When dry, cut into strips, roll, and wrap in plastic.

FRUIT PUNCH

2 cups orange juice	2 cups pink lemonade
1 small can pineapple chunks and juice	1 cup strawberries, cut in half
Pitcher	1 orange, sections cut into chunks
Ice cubes	Stirring spoon

Mix all of the ingredients in the pitcher. Fill the pitcher with ice cubes. Stir and serve.

FRUIT SHAKE

2 cups cold juice	$\frac{1}{2}$ cup powdered milk
1 drop vanilla	Crushed ice

Combine all but ice in a quart-sized pitcher. Add crushed ice and shake until mixed. Serves 4 - 6.

An easy recipe for doughnuts...

Use refrigerated biscuit dough. Separate the biscuits. Poke a hole in the center of each. Drop into hot oil and brown both sides. Dip the doughnuts in powdered sugar.

PUDDLE CAKE

1½ cups sifted flour	3 T. cocoa	1 t. soda
1 cup brown sugar	½ t. salt	

Put these ingredients in an 8" x 8" x 2" pan. Make a puddle in the center of the pile by adding 6 T. salad oil, 1 t. vanilla, and 1 T. vinegar. Pour 1 cup cold water over the top. Stir with a spoon until smooth. Bake 35 - 40 minutes at 350 degrees.

CRUNCHY SNACKS

3 cups old fashioned oats	1 cup unsweetened coconut
1 cup wheat germ	½ cup chopped, blanched almonds

Mix the above in a bowl. In a saucepan, add ½ cup honey, 2 T. water, and ¼ cup oil or melted butter. Mix until warm. Pour these ingredients over the oat mixture. Stir so that all particles are moistened. Spread in thin layer on cookie sheet. Toast for 20 min. at 250 degrees.

LACE QUICKIES

Sift together in a bowl...

½ cup flour	½ cup sugar
¼ t. baking powder	

Stir in ½ cup quick cooking oats. Melt 1/3 cup butter. Stir in 2 T. corn syrup, 1 T. vanilla, 2 T. cream or evaporated milk. Mix all together and drop by teaspoonful 4" apart on cookie sheet. Bake 8 min. at 375 degrees.

AGRESSION COOKIES

2 cups brown sugar	1 T. baking soda	3 cups margarine
3 cups flour	6 cups oatmeal	

Mix all. Form balls. Flatten with glass dipped in sugar. Bake 10 min. at 350°.

AMBROSIA SHAKE

4 ripe bananas	pinch salt
1/3 cup orange juice	$\frac{1}{4}$ t. vanilla
6 T. honey	4 cups reconstituted nonfat dry milk

Beat bananas until smooth and creamy. Beat in the orange juice, honey, salt, and vanilla. Add the milk. Beat well. Makes 6 servings.

COLORED MILK

Each child needs...

A glass of milk	A few drops of vanilla
1 t. honey	Food coloring

Have each child add the honey and vanilla to his milk. Let them select a food coloring. They can experiment with mixing colors.

YOGURT POPSICLES

1 quart yogurt	1 large can frozen orange juice
1 T. vanilla	$\frac{1}{4}$ cup honey

Mix all of the ingredients. Put the yogurt into popsicle molds and place in the freezer. If popsicle molds are not available, paper cups can be used.

For frozen yogurt, mix yogurt with mashed fruit. Sweeten it to taste and freeze. Serve like ice cream.

SUPER MILKSHAKES

1 cup milk	$\frac{1}{2}$ cup yogurt
2 eggs	1 small can frozen orange juice'
$\frac{1}{4}$ cup powdered milk	$\frac{1}{4}$ cup cocoa powder (unsweetened)
$\frac{1}{4}$ cup honey	1 t. vanilla

Shake or put the ingredients in a blender. Add the required amount of milk to make one quart. Shake or blend again.

ENRICHMENT IDEAS

HEALTH

Children can begin to recognize the benefits of eating wholesome foods as a result of studying nutrition. They will discover the vital role nutrition plays in one's life.

Through cooking experiences, children are introduced to the contribution of the nutrients to our good health.

The children will discover that the way food is handled influences the amount of nutrients in the food. It also influences the appearance, taste, and the safety of the food.

The children will discover that all people, throughout their lives, need the same nutrients, but in different amounts.

The children can be taught that eating proper foods will give them the energy to run, jump, and to be strong and active.

Proper eating habits can be developed that may last a lifetime.

The proper use of tools and ingredients in the preparation of food can be used to reinforce principles of safety and sanitation.

Children can be taught some simple first aid techniques for burns, cuts, etc.

The effect of sugar on our teeth can be discussed.

Dental hygiene can be discussed. Toothbrushing could follow each cooking activity.

Height and weight charts can be reviewed. Suggested calorie intake can also be examined. The children can compare themselves to the average. They can also count and add up calories to discover their daily intake.

Proper table manners and eating habits can be reinforced through the use of cooking activities.

LANGUAGE ARTS

Language skills, both speaking and listening, can be developed through food preparation by using the correct terms for food, utensils, equipment, and the process taking place.

Play food lotto with the children. This can be simple identification of the foods, or can be made far more difficult by having the children classify or link complementary foods.

Decorate the room with food pictures. Encourage the children to identify the pictures. For an extra challenge - more exotic foods can be used.

Group discussion skills can be enhanced during the activities. Other ideas for discussion include...discussing the foods the children eat during the day, using pictures and books to expand discussions, asking guiding questions, and discussing favorite foods. The possibilities for discussion are limitless.

After cooking or baking, review what was done and what was used. Perhaps this would be best if done the day after the cooking activity.

Play "What happened next?" to review the sequence of the cooking steps.

Play "What am I?". Give clues to the children and they must try to guess which food is being described.

Play rhyming games where you ask questions such as, "What fruit rhymes with the word bear?"

Focus on beginning sounds. Ask the children to think of as many foods as they can that begin with a certain letter. Ending sounds can also be used.

Have the children find food names inside other words, such as "acorn".

Develop visual skills by playing "What doesn't belong?" and "Which is missing?" with foods.

Present picture cards of a cooking sequence out of order. Have the children put them back in the proper sequence.

Discuss abbreviations in cooking, such as T. and t.

(continued)

(Language Arts, continued...)

Encourage roll playing. Use nursery rhymes, books, fingerplays, dances, songs and puppets. This could be a good reinforcement activity after a field trip.

The children can be introduced to the use of symbols.

The children can be encouraged to help the teacher read the recipes.

Picture cards can be presented with words to help increase the reading vocabulary.

Build skills using logical progression - cause and effect and sequence.

Inferencing skills can be enhanced by using clues and asking the children to guess what will be prepared by examining the ingredients.

Have the children create and write down their own recipes.

Students can compile recipes and create their own classroom cookbook.

Students can write thank-you notes after their field trips.

Students can develop a better awareness of the five senses...

Hearing...listening to and describing the sounds of food

...playing a guessing game with the eyes closed

Touching...feeling and describing the texture, temperature, or weight of an object

...comparing these attributes

...play the feeling game, where food is placed in a bag and the children feel and try to guess what it is

...sort beans or nuts while blindfolded

...use descriptive words, such as sticky, crispy, smooth, etc.

Smelling...smell the foods and describe the aromas

...play a matching game - spices are put into containers, two for each spice. The child tries to match the identical spices.

Tasting...give the children the opportunity to taste many different tastes

...encourage the children to describe the different tastes

Seeing...have the students examine foods

...have them compare foods and state similarities and differences

...identifying foods by shape, color, texture, etc.

...classifying foods by shape, color, texture, etc.

MATH

Have the children participate in buying the ingredients for the cooking projects.

Set up a pretend supermarket in the corner of the classroom. Have a play cash register and play money for the children to handle.

Have the children work with measurements. Have a set of measuring cups and measuring spoons in the science corner.

Use beans and seeds and nuts for counting.

Use real food to help solve portioning problems. Let the children divide it into sections. This can also help reinforce the concept of fractions.

Give the children practice in multiplying and dividing by doubling or reducing a recipe.

The children can be introduced to equivalents, such as two cups = one pint.

Metric measurements can be introduced.

The children can compare size, and state which is bigger, smaller, more, less, and so on.

The children can weigh food and record the weight in ounces or pounds.

The children can help count and add up calories.

The children can weigh and measure themselves throughout the year.

The children can chart their growth throughout the year.

The children learn about temperature and boiling points.

The children gain a better sense of time. The children can be given the responsibility of watching the time during a recipe.

ART

Use vegetables and fruit to make prints. Cut the vegetable or fruit, dip it on a paint-soaked paper towel, and print with it. You can print table placemats on paper or on fabric. Wrapping paper can be made as well.

Use clay or play dough to make food shapes.

Make food mobiles by hanging hardened food shapes from wooden dowels or from metal hangers.

Make paper maché food by covering clay food shapes with paper maché, letting them dry, and then painting them.

Make collages using food pictures.

Make mosaics using beans, seeds, rice, pasta, etc. Rice can be colored by putting some in a covered bowl with a few drops of food coloring and shaking.

String dried foods for decorations.

Make a mural about the cooking experience.

Use food to make musical instruments. Dried gourds make nice maracas.

Make egg shell glitter by coloring the egg shells, letting them dry, and crushing them into small pieces.

Make flowers for a table centerpiece, using egg cartons, tissue paper, or wild weeds and flowers.

Make pomanders with cloves, apples, cinnamon, and orris root.

Make full-size body traces of the children. Let them fill in the features.

Cut cookies into shapes and "paint" with colored frosting.

Bread dough can be sculptured into interesting shapes before baking.

SOCIAL STUDIES

Foods from various countries can be introduced. The countries can be discussed. Songs and dances can be taught. Films and filmstrips can be shown. Some good sources for recipes are: Around the World in 80 Dishes, by Lesley Blanch
Around the World Cookbook for Young People, by Mildred Knopf
The We Care Cookbook, by Robert and Kathy Reed

Encourage the children to share food experiences from their own backgrounds.

Family mealtime customs can be discussed.

Holidays can be studied and traditional holiday foods can be prepared.

Foods can be prepared that are representative of American culture.

Foods from different regions of the United States can be studied and prepared.

Guest speakers can be invited to come and speak to the class.

Trips can be taken to ethnic stores or restaurants.

The differences in climate, soil, and culture can be discussed when discussing other lands or regions of the United States.

The role geography and transportation play in determining the availability of foods can be studied.

Advertising, the media, and pricing can be studied. The children can be introduced to the concept of supply and demand.

Similarities and differences among people can be discussed. The children will observe that some children like some things, and other children do not.

Maps can be studied to determine where certain foods are grown in the U.S.

The globe can be examined to determine where certain foods are grown worldwide.

Seasons and climates can be discussed.

SCIENCE

The children can make observations and comparisons.

They learn that food comes from plants and animals.

The children can grow foods in the classroom. Some suggestions for this activity orange, lemon, lime, and grapefruit seeds, an avocado seed, a pineapple's leafy top and about 1" of the fruit.

The children can be taught the needs that all plants have.

The origin of food can be discussed.

They can classify nuts, seeds, beans, etc.

The children can be taught about the food chain, and that all animal life depends upon plant life for food.

The children can discover that all living things need food and water.

The children can conduct several experiments to discover interesting facts about plants. Some ideas are given on the next pages.

Discuss the various ways we keep food fresh and preserve.

Discuss what happens as food spoils.

Discuss what each of the nutrients do for our bodies.

Teach the children about what happens to food after it is eaten and about the digestive system.

Discuss the affect food has on the way we look and behave.

Have the children observe the change from a liquid to a solid and the reverse.

Perform starch tests, acid tests, etc.

Watch liquids boil and discuss what is taking place.

Discuss temperatures. Compare Fahrenheit to Centigrade.

MISCELLANEOUS

Have the children try to guess what they are going to make after they have examined the ingredients.

See if the children can guess what is in the food they are eating.

Let the children make up their own recipes, and perhaps even try to cook them.

Play the fish game. Put paper clips on food pictures. The children fish with a magnet attached to string, which is attached to a stick. They sort out the pictures the "catch" into the four food groups, etc.

Play "I went to the kitchen, and I got a ...". This is a memory game. The children take turns naming things. The first item must start with an "A", the next a "B", and so on.

Have parents or grandparents come into the classroom for a breakfast or lunch.

Have the children act out or dance about food and the growth of food.

Play "What am I?". The children take turns describing a food. The others try to guess what food is being described.

Food Bingo - have bingo cards with pictures of foods on them instead of numbers.

INDEX

GLOSSARY *

- Bake - Cook in oven.
- Baste - Moisten food while it is cooking (as meat while roasting) by spooning liquid or fat over it.
- Batter - Mixture of flour and liquid, or in combination with other ingredients, thin enough to pour. Used to coat foods for frying.
- Beat - Mix vigorously over and over with a spoon or fork, or round and round with a beater.
- Blanch - Dip in and out of boiling water to loosen the skins of fruits or nuts.
- Blend - Mix thoroughly two or more ingredients until smooth.
- Boil - Cook in steaming liquid in which bubbles break on surface.
- Bread - Coat with flour, eggs and crumbs.
- Broil - Cook directly under heating unit in range or over hot coals.
- Chill - Allow to become thoroughly cold.
- Chop - Cut into pieces with knife or chopper.
- Coat - Cover with thin film as flour, fine crumbs, icing, sugar or crushed nuts.
- Cool - Let stand at room temperature until no longer warm.
- Cream - Combine 2 or more ingredients by rubbing or beating items until they have lost their individual appearances.
- Cube - Cut into 1/4 - 1/2 inch squares.
- Cut in - Mix fat into flour mixture with a pastry blender, a fork or two knives.
- Dice - Cut into very small 1/4 inch squares.
- Dot - Drop bits of butter or cheese here and there over food.
- Dough - Mixture of flour and water in combination with other ingredients, thick enough to roll, knead, or drop off a spoon.
- Drain - Pour off liquid.
- Dredge - Coat with flour or crumbs.
- Drizzle - Pour gently from a spoon.
- Dust - Sprinkle lightly with flour or sugar.
- Flake - Break lightly into small pieces.
- Flour - Dust greased pans with flour until well coated on bottom and sides. Shake out extra flour.
- Fold - Mix gently, bringing rubber scraper down through mixture, across bottom, up and over top until blended.
- Frost - Cover with icing.
- Garnish - Decorate with pieces of colorful food such as parsley, pimento, cherries or lemon.

- Grate - Rub against grater to cut into small pieces.
- Grease - Spread bottom and sides of pan with shortening.
- Grind - Cut or crush in a food grinder.
- Knead - Work dough with your hands by repeating a folding-back, pressing-forward and turning motion.
- Marinate - Cover beans or meat with a well seasoned sauce and let stand to flavor.
- Melt - Heat until liquid.
- Mince - Chop or cut into tiny pieces.
- Mix - Combine ingredients, as by stirring.
- Pan-Fry - Cook in small amount of fat in skillet.
- Pare - Cut off outside skin, as from apple or potato.
- Peel - Pull off outer skin, as from orange or banana.
- Pit - Remove pits or seeds from fruit.
- Roast - Cook by dry heat.
- Roll-out - Flatten and spread with a rolling pin.
- Scallop - Bake in a sauce with crumbs and/or grated cheese on top.
- Score - Make series of shallow cuts on surface of a food.
- Shred - Cut into very thin strips.
- Sift - Put through flour sifter or fine sieve.
- Simmer - Cook in liquid almost to boiling but not hot enough to bubble.
- Slice - Cut a thin, flat piece of large food mass, such as meat loaf or roast.
- Soak - Immerse in liquid for a time.
- Steam - Cook in the steam produced by the boiling of water or other liquid.
- Stir - Mix round and round with spoon.
- Toast - Brown by direct heat.
- Toss - Mix lightly.
- Whip - Beat with rotary egg beater or electric mixer to add air.

*From Creative Food Experiences
for Children

(see bibliography)

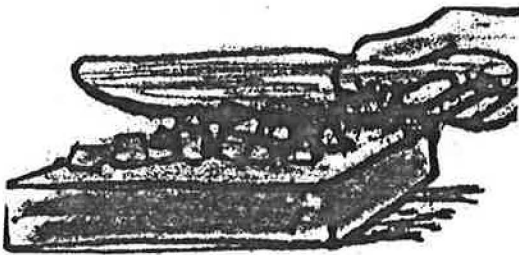
Nutrients (what our bodies need) *

*Cool Cooking for Kids

Please note: Content on this page was redacted due to copyright concerns.

CUE CARDS

Cue cards are small cards with pictures of cooking steps drawn on the front. These are placed at various locations during the cooking process to assist nonreaders. Some examples are shown below.



Chop



$\frac{2}{3}$ Cup

TEACHING POSTERS

A set of eight cooking posters can be purchased from The Learning Stuff Corporation at the following address:

Learning Stuff
P. O. Box 4123
Modesto, California

95352

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Apple Orchard - Irmengarde Eberle. Henry Z. Walck Inc., New York, 1962

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The Indoor Outdoor Grow It Book - S. Sinclair Baker. Random House, New York, 1966

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We Read About Seeds And How They Grow - Harold E. Tannenbaum and Nathan Stillman. Webster Publishing Co St. Louis, Missouri, 1960.

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Junior Plays for all Occasions - Mildred Hark and Noel McQueen. Plays Inc. Boston, Mass. 1955

Growing Up, How We Become Alive, Are Born and Grow - Karl de Schweinitz; MacMillan Co., New York, 1965

The Secret World of the Baby - Beth Day and Margaret Liley, M.D.; Random House, New York, 1968

The Little House in the Big Woods - Laura Ingalls Wilder; Harper & Row, New York, 1953

OTHER BOOKS WHICH MIGHT BE HELPFUL AS BACKGROUND MATERIAL FOR THE TEACHER:

The Organic Living Book - Bernice Kohn, Viking Press, New York, 1972

Good Earth Almanac - Volumes 1 and 2 - 2210 West 75 Street, Suite 305, Prairie Village, Kansas 66208

Farming In The Classroom - Teachers' Guide - Science Study Aid No. 8, Agricultural Research Service, U.S. Department of Agriculture

Gardening In Containers - A Handbook - Brooklyn Botanical Gardens, Brooklyn, N.Y.

Food And Man - Lowenberg, Todd Hunter, Wilson, Feeney and Savage; John Wiley and Sons, Inc., New York, 1968

Food in History - Reay Tannahill; Stein and Day Publishers, New York, 1973

How Do Your Children Grow? - Association For Childhood Education International, (ACEI) 3615 Wisconsin Avenue, N.W., Washington, D.C. 20016

* From Creative Food Experiences for Children