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Linking children's literature with multiculturalism and nutrition

Maureen Theresa Gummow

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LINKING CHILDREN'S LITERATURE
WITH MULTICULTURALISM AND NUTRITION

A Project
Presented to the
Faculty of
California State University
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education

by
Maureen Theresa Gummow

June 1995
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ABSTRACT

Literature needs to be real and relevant for its intended audience and applicable to life. Literature about edibles is highly motivating to children and food is essential to sustain life. Knowledge about nutrition and its application to one's diet can make that life healthy. Diet and nutrition play a major role in keeping children looking and feeling their best. Including multiculturalism with a study of literature and nutrition ensures that the cultural forces that shape children's perspectives are addressed and valued. The diversity in the choices that children make about what to eat add to the activities possible in the classroom and help to address the natural curiosity that children have in a way that celebrates each child's uniqueness. The first three chapters of this project provide support for these views. The appendix of this project consists of a teacher activity guide to use with a second grade class of students. The guide is built around a nutrition theme and is flexible enough to include all students in reading, writing, speaking, and listening. The activities are centered on listed book titles in a before, during, after, and beyond format.
I wish to thank all of the supportive people in my life who enabled me to author a practical text and finally become an actual writer. I hope this book will provide others with the inspiration to be the best they can be. Long live teachers!
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Statement of Problem

Introduction

In my second grade classroom, I have chosen to implement a thematic approach as a guideline for teachers to link children's literature, multiculturalism and nutrition. I believe that these activities will involve the students and provide for an environment in which learning includes reading and other content areas such as math, social studies, science and the visual and performing arts. This guideline will enable the classroom teacher to teach an integrated curriculum planned around a central theme.

A theme "invites students to meet information in a variety of genres, forms, and expressions; and it encourages reflection on both new and old knowledge in ways that promote seeing patterns and making connections" (Weaver, 1988, p.256). A theme is a unifying subject or idea that occurs within a set period of time in which it is completed (Guralnik, 1994). Teachers know that the "social conditions and experiences students bring to their learning have a profound effect on how they respond to class activities and assignments" (Freeman, 1993, p.15). The theme is "an
integral and integrating force" (Weaver, 1988) in the classroom that promotes "seeing patterns and making connections" (Weaver, 1988, p. 257).

**Statement of Problem**

In order to reach contemporary elementary students, instructors strive to give children an equal opportunity for success and avoid any artificial divisions or distinctions. Schools provide opportunities for growth and prepare children to be productive members of society. The school needs to bridge any gaps among the learners' cultural and personal differences. Schools can "make democratic values a central part of every child's education if our society is to become a safe and just place to live" (Bullard, 1993, p. 4). Schools can provide problem-solving, project-oriented units of instruction that make sense and tie all of the learning processes together in a way that is meaningful for the students. Schools can value the interests of the children and what is practical and applicable to real life.

It is an educator's responsibility to provide opportunities for tolerance, brotherhood, and respect to occur among students. "The classroom is the place where students who come from different ethnic or cultural communities can learn about one another in an
informed, systematic and non-intimidating way" (Takaki, 1994, p. 15). Human differences are normal and vital. Fair information which values and includes the social and cultural diversity present in the classroom population provides access to all. Individuals have power acting in accord with the whole class as long as their views are addressed in activities. Teachers have an obligation to promote every individual's self-esteem; and the culture of each child is part of what makes children who they are. "It's important for schools to offer a more accurate, a more inclusive multicultural classroom" (Takaki, 1994, p. 15). Human experiences are real and tied to an individual's biological and social development. When children have real information about other groups of people, it helps to eliminate the fear of the unknown. Discovery about similarities and acceptance of the differences can help. If instructors teach children how to think, cooperate, and work toward common goals; then they are successful educators. Cultural diversity is valuable and addresses children's natural curiosity about themselves and others. Teachers can reduce the suffering of minorities in the future if they reach the children with tolerance and respect and an understanding of others in the school population.
Any text can be made real, relevant, be functional and make sense. The key is to begin with what the children already know and build upon background information. If children are invited to bring their own values and experiences into the classroom, learning becomes very personal as children take their own path. A theme provides a focus point for asking questions and for productive activities. A theme centered around food and nutrition can provide relevant and appropriate materials for learning and invite the students to participate in activities. A theme that involves food is highly motivating to young children, involving them in discovery, cooking, eating, and gardening. This involvement leads to an enthusiasm for the writing and reading that accompany these activities. This theme also has a very practical value to help children make choices that will help them eat well, choose better snacks, and feed themselves if that is necessary. Using discovery in the activities themselves can increase, enhance, or erase what is found on the chalkboard of the reader's mind. When learning involves nutrition, teachers can help students learn how to choose food with conviction, use language in food related activities, and become masters of their own comprehension through nutritional activities.
The choice of good literature selections by the teacher can raise the interest level of the students. Young students have to be taught how to work through new information and add it to what they already know. A focus on the theme behind any story will aid students in the assimilation of new information. The process of discovery itself is the most important factor. Allowing children's voices to be heard helps them to involve themselves in that process. Each class will try to decide what is worth knowing and how to obtain that information (Routman, 1991). Literature materials that are available can be modified to reflect the class's personal philosophy. When prior knowledge is made primary, assimilation secondary, and assessment a guide to help students acquire more information, any well written story will create success in learning. If activities are made real, relevant, and purposeful, teaching reflects real life.

Theoretical Position

All the uses of language whether listening, speaking, reading, or writing can be mutually supportive and related to each other effectively. The most beneficial instruction is one that involves students in the integration of all four of these language processes. Therefore, this section will
provide the reader with my current theoretical position, and provide evidence and support for that position. It will describe the literacy program that attempts to reflect my views about the reading process, strategies that it utilizes and its weaknesses in practical application. This section also provides areas for improvement and change in the literacy program.

The Whole Language philosophy is a "natural and active process that brings non-visual information to the graphic symbols the author has created" (Deford, 1985, p. 2). This philosophy uses the natural and familiar language of the child to encourage reading. "Mistakes are not considered errors, but miscues that either enhance comprehension or interfere with meaning" (Deford, 1985, p. 2). It is not the number of miscues that count, but the quality that counts. If a miscue does not change or alter the meaning of the story, then it is accepted by the teacher. This is because risk taking and ease in reading material leads to fluency and the comprehension of the material itself by the reader.

The whole language approach involves grammar, meaning, situation, and background information in a transaction between the reader and the author (Weaver, 1988). The grammar or language used in the story must
make sense to the child in order to be understood. When background information is provided first before reading of the literature takes place its meaning will surface. When the situation presented in the story and the relevant data children already know is brought into focus, the reader can make connections with the new material. These connections can be made with the help of "schema". "Schema" is the term used to refer to the organized chunk of knowledge and experience people have within their minds (Smith, 1988). The children also need to have an awareness of the strategies they use when they read and be self-monitoring in order to be successful. Whole language encourages the reader to go beyond the "surface" or visual information that is "limited and mechanical, depends on performance, isolates words, and limits comprehension because of tunnel vision" (Smith, 1988, p. 28). This tunnel vision occurs when a student focuses on short parts of sentences or words instead of the meaning of the whole text. It leads to poor reading habits, reading nonsense, the use of non-relevant knowledge, and the failure to use the rich non-visual information available to the reader (Smith, 1988). If children learn to use that rich non-visual resource, reading is unlimited except by the child's imagination. Now
reading can be much more natural. Processing messages instead of just the words results in enthusiasm about learning. The reader can predict, take in and connect new information with old information, and confirm one's interpretations. As a result, reading makes sense.

"Prediction and confirmation are continually used in comprehending" (Smith, 1988, p. 32). Readers make sense and transact with the information the author provides. Whole Language uses well-crafted books and the child's own dictated stories in real activities; the child uses the context to predict what is to follow and confirms it. A good reader will skip the unknown, then guess what it is, and derive the meaning by reading the rest of the text (Weaver, 1988). There may be differences between what the reader understands and what the author wrote. These differences are acceptable, because it is the students' understanding through their own experiences that they will value and retain.

Reading is inexact. Skills do not equal comprehension; decoding does not equal comprehension. These strategies alone do not ensure that reading will make sense to the children. Even "fluency and expression are [just] part of making language relevant, purposeful, and accessible" (Weaver, 1988, p. 146). Children are encouraged to understand this process, and
originate, negotiate, and revise ideas. They are encouraged to self-correct and just keep going. The demands of each occasion motivate this creation. They will make sense out of reading if they are encouraged to do so.

A whole language approach chooses people over programs. Teachers become learners too. Thus, this attitude leads to a philosophy that believes that everyone is a learner and everyone can become an expert. It gives children the power to learn (Rich, 1985). Learning is seen as an enjoyable activity with powerful intrinsic rewards. One major goal is for the students to become self-guided learners.

Summary

I used to believe that reading was a system of three skills: decoding, vocabulary, and comprehension; and that these systems played various roles of importance when reading. Thus, I saw Reading as "climbing" a ladder of skills. Now I understand that "reading is a process of three interrelated cueing systems: graphic, syntactic, and semantic. The reader uses these to predict, confirm and integrate meaning" (Gray, 1984, p.1). These refer to the symbol, context, and meaning found in Reading. Being able to name each word correctly and identify vocabulary does not in and
of itself lead to comprehension. Comprehension is the result of active construction of meaning and common sense. The reader must form opinions and accept or reject the ideas presented by the author and interpret them. My beliefs about meaning being constructed from the reader's background and the author's have not changed. I see print and speech as equally important. I stress natural language in class and I know that fluency and the use of expression are not in and of themselves the only indicators of comprehension. A child's own dialect is important and must be valued. Simple repetition of a word does not ensure that it will become part of sight vocabulary. The emphasis or accent in words will occur naturally in reading without having to teach accent patterns in reading instruction.

I know that reading is not a perfect process, and so deviations are acceptable. Substitutions like "home" for "house" are fine as long as the meaning of the sentence does not change. In addition, learning to read is "a natural and active process of utilizing schema, and natural and familiar language" (Gray, 1984, p.1). Therefore, I believe that when children encounter an unknown, they should be encouraged to read on and come back to the written words when necessary. The important thing is that the sentences make sense to the child.
Children need to be provided with enough information about the topic covered or the subject discussed to be able to assimilate it naturally.

If reading for student interest is encouraged, time is spent providing opportunities to gain background information about the subject matter, and the reading program is designed to flow freely into other content areas, children can make connections without separate divisions. People all long for and desire sincere and real communication and this whole language philosophy is the best way for me to ensure that all students are empowered and feel that they are a vital part of their own enlightenment.
Literature Review

Any course of study needs vital components to help it be successful. These features need to unite in purpose and form an inclusive system that helps to ensure success in any endeavor. A review of the literature that is currently available provides support for the features that have been chosen to be included in this project. Literature needs to utilize thematic instruction to provide a direction for the lessons, and include multiculturalism to provide respect for all students. In the case of this project, support for the study and application of nutrition knowledge is also an intregal part of this review.

Thematic Instruction

A thematic approach to literature tends to efficiently use the instructor's time, materials and energy. Teachers are able to develop a course of study that allows them to address many concepts and bridge many disciplines as they focus on a specific topic of instruction. Baskwell (1988) explains that the vital ingredients of successful thematic units include being rich in literature, having natural links to other areas of the curriculum, and having enough time to be dealt with satisfactorily. A thematic unit that is rich in literature provides a variety of texts that address the
subject matter in a meaningful and appropriate way.

Choosing to use a topic or theme is meaningful to
the children, relevant to the curriculum and children's
lives, consistent with whole language principles and
authentic in the interrelationship of the language
processes (Routman, 1991). Ogle (1986) states that
there are three cognitive steps in which the teacher
and children must participate. Teachers must assess
what the children know, determine what they wish to
learn about, and recall what they learned. The teacher
needs to record this information to guide the direction
of the lessons. A thematic unit provides a "focal point
for inquiry and use of language for cognitive
development. It gives [children] choices of authentic,
relevant activities within productive studies"
(Goodman, 1986, p.75). A good theme allows instructors
to integrate science, language arts, math, and the arts
(Goodman, 1989). "Kidwatchers know the signs of growth
of learning in teachable moments. Teachers know how to
interpret what kids do, [and] how to see the
competence and the need that underlie what they do"
(Goodman, 1986, p.75).

These experiences with literature provide children
with opportunities to discover print and become
acquainted with written language and narrative
structure. Related literary selections are introduced in a planned sequence so that each text and its activities build on and extend prior experiences. Thus children build linguistic, literary, and conceptual background information (Hodson, 1993).

A thematic approach allows the teacher and children to bring a number of content areas into relationship with each other. An instructor can target potential materials and potential activities that will address the probable areas of student interest. This is essential because before readers ever encounter the written word on a page, they bring prior knowledge and experiences with them. These factors are grouped and combined in the complex recesses of the brain. They are "concepts stored in memory" (Smith, 1988, p. 14). Feelings and experiences help to shape the human perception of how things are, and they contain an expectation of success or failure in the future. They are all influenced by the surroundings and allow for a wide variety of interpretation (Weaver, 1988). What a reader already believes about a topic helps to structure the interpretation of new messages about this topic (Smith, 1988). Busch (1990) says a reader will "select, accommodate, and assimilate new information and what doesn't fit goes unused."
Therefore, background experience on any subject is vital in the classroom. Before reading ever begins, key concepts should be presented and the associations students offer should be grouped into categories and analyzed (Busch, 1991). In a nutritional theme, the children will group foods naturally using their own criteria, and discussion can ensue. When materials are accessible to the learners and they have the power to use them, success in learning will result. When teachers provide relevant and appropriate materials and invite the students to participate, success in learning will result. After all, the child is the one who has to build knowledge surrounding what the teacher provides (Goodman, 1986). Teachers want the children's knowledge base to grow. Therefore, the class will try to decide what is worth knowing and how to get that information (Routman, 1991). Teachers can modify and make any materials chosen reflect their personal philosophy. If instructors make prior knowledge primary, assimilation secondary, and assessment a guide to help students acquire more information; children will succeed with any well-written thematic materials.

**Multiculturalism**

Children are not born immediately before they enter school. They come to school with perspectives
shaped by their own culture and experiences. Children try to make sense out of their world long before they try to make sense out of books. When children are valued for the information they already possess, teachers can help them use that knowledge to share with others and help increase the knowledge of all the students involved. Children bring within each of them a richness of diversity that deserves to be brought forward, shared, and celebrated. When the choice of theme is learner-centered and reflects real life, the children can provide a rich "range of perspectives" (Hodson, 1993, p. 698). "All children can acquire knowledge without doing violence to their cultural beliefs and experiences" (Hodson, 1993, p. 698). Ethnic and cultural pluralism are a reality, and there is a need to accept and promote diversity. If teachers accept and celebrate diversity, they enhance the self-esteem of all children. Open-ended activities help children explore, challenge them, and allow them to develop their own views. Currently, most lessons ignore the background knowledge and experiences of a significant number of children and give undue emphasis to a particular set of customs (Hodson, 1993). It is up to the teacher to remedy this. When teachers value children's ideas in an atmosphere of mutual tolerance,
respect, and value for all participants, this attitude helps to ensure that all children feel included and participate as a vital part of the learning process. It also models cooperative behavior among the students that will help them in society later on in life. Children can explore their own understanding and develop it in response to experiences and challenges provided for them by the teacher.

When instructors decide upon what experiences and challenges they wish the children to explore, they need to design the communication so that it has the best chance of bringing about the desired results in the target audience (Hodson, 1993). Culture and communication are inseparable, and culture serves as a screen between people and their outside worlds. Instructors want students to develop healthy attitudes including respect for other groups as well as their own. "Children need to be taught to respect the right of others to choose differently from themselves" (Aronson, 1994, p. 29). This is one way that knowledge coming from a variety of viewpoints can lead to tolerance and acceptance. In the same way that an intelligent individual knows that there may be more than one answer to solve a problem, the same individual can learn to respect the alternative answers that other
students contribute to the classroom. Teachers can help foster a classroom in which "almost everyone is fascinated by cultural differences and longs to learn new forms of mental and emotional flexibility from people who do things differently" (Robinson, 1994, p. 5).

According to the National Cancer Institute Report, food is closely tied to an ethnic group's identity (Tziraki, 1991, p. 101). One way to honor and celebrate this identity is to share the differences in children's food choices because the class becomes enriched by including its diversity. "Teaching children to use the Four Food Group system in making their daily food choices will be aided by teaching them to classify their ethnic foods into the Four Food Groups" (Dairy Council, 1981, p. 4). We can help the children to realize that a wide variety of foods are equally viable choices within each group, and their choices within the food groups are just as supportive of good nutrition as the traditional Western diet. For example, soybean curd is a substitute for the milk group within the Asian community, and it is a "rich source of both protein and calcium" (Dairy Council, 1981, p. 5). In one's family diet, there are no right or wrong choices. Children can be taught to respect the rights of other children to choose differently from themselves. They can cherish
their favorite foods without requiring that others do too. However, there are better choices available to each culture, and nutrition education can help each child to eat well (Aronson, 1994).

**Nutrition**

Since educators are interested in the pragmatic value of nutrition education and its effects on elementary students, previous research indicates that former programs integrated nutrition education into a variety of other topics and lacked a specific focus (Contento, 1992, p.249). The Nutrition Education and Training Program, Nutrition in a Changing World, and Food...Your Choice, are programs that all promoted the value of a balanced diet and included nutrition activities. The results demonstrated that this curricula led to gains in nutrition knowledge but not a change in attitudes and food-related behaviors (Contento, 1992, p.259). A program that involves the children more actively in making choices for themselves and practicing those choices is needed. A dozen education programs that were directed at reducing fat and salt in the diet and increasing carbohydrate intake were aimed at reducing disease and increasing the health of the heart. They did appear to increase student knowledge but did not significantly
affect the student's choice of healthy foods
(Contento, 1992, p. 414).

Teacher preparation and parent involvement were
issues that were addressed in surveys. A "few
nutrition-related studies suggest that teacher
preparation neither assures nor is required for (the)
effectiveness of school-based nutrition education"
(Contento, 1992, p. 253). "The researchers conclude
that parent involvement is feasible and can be
effective in the initiation of behavior change"
(Contento, 1992, p. 253). However, the differences in
the results of several programs which suggested that
parent involvement is only better for younger children
could be due to ineffective materials sent to parents
of older students or neglecting to actively seek their
input and participation (Contento, 1992, p. 255). A
different type of nutrition education entitled
"Changing the Course" took a slightly different
approach. "The PRECEDE model used predisposing enabling
and enforcing factors to develop health skills"
(Contento, 1992, p. 411). They used a behavioral
approach and targeted knowledge, motivation, and
behavioral skills. They measured health promoting
eating behavior. They used social learning theory to
attempt change. There was an emphasis on models and
role playing, self-monitoring, goal setting, and rewards were utilized (Conte, 1992, p. 414). "Changing" used a treatment group only design. They called for action-oriented activities, group problem solving, kid-centered curriculum and a post-test (Conte, 1992, p. 414). In both studies the data used was generally analyzed which may have biased the results because there were low response rates and high attrition rates in the studies they used for their data. There was selection bias and response bias present and little follow-up was done. The assessment was adequate because behavior was measured by observing actual consumption or choices, using self-reports, or food recall itself (Conte, 1992, p. 415). The self-reports and food recall are subject to human error and depend heavily on individual memory.

A major finding was that most of the nutrition programs used only ten to fifteen hours of instruction during the school year. "The School Health Education Evaluation found that...fifty classroom hours were required for changes in attitudes...and behavior across a variety of health areas" (Conte, 1992, p. 412). Therefore, most of these studies did not give the curriculum enough of a chance to be effective. More recent studies have involved larger numbers, control
groups, pre- and post-test treatment-control group design, random assignment, and they are quasi-experimental (Contento, 1992, p.415). Larger numbers help to clarify potential results, control groups provide information about what differences have occurred because of instruction, and the differences in design help ensure that a more random sample has been taken. The most important results are the visible results evident in children who are able to make more healthy food choices.

Summary

This review provides support for thematic instruction, and its relevance both to the curriculum and children’s lives. It demonstrates that a thematic unit can give children choices that are authentic and relevant. Materials can be accessible to the learners and they can have the power to use them.

Multiculturalism addresses the fact that children are shaped by cultural forces outside of school and that those forces play an important role in the development of children's concepts and ideas. The review provides support for the need to accept and promote diversity if our goal is to help all children feel successful and feel that they are a vital part of society. Inclusion helps them to develop healthy
attitudes about themselves and others.

This review also indicates that schools must devote sufficient time to nutrition education in order for it to be effective. A much longer and more intense program may be needed. A focus on behavior itself may be more appropriate. There needs to be decision making on the part of the teacher as to the intensity and timing needed in order to create a longer lasting change in eating behavior. Teachers need to focus on the students' motivation and concerns. Instructors must decide what activities in the curriculum really make a difference and provide an impact on the children's healthy diet choices.
Goals and Limitations

Goals

The main goal of this project is to improve children's reading ability with literature that involves food as the theme while enabling them to make knowledgeable food choices that will support their good health. The project will list suggested books, activities and materials that are available in age-appropriate reading levels. These activities will help to build a base of commonalities to which the children can relate, and develop respect for different dietary behaviors and patterns. The activities will help the children develop good feelings about themselves and their cultural heritage.

Literature written about food is real, natural, interesting, and relevant to the children. Prior knowledge and experience with food is part of almost every child's experiences so that some background knowledge is inevitable. Each text will be read and reread by the children during the suggested time period. In some instances, Teachers can provide peer tutors if necessary and read the text to the children as an alternative to individuals reading it alone. The materials in the suggested activities almost always
contain picture clues and are easy to identify.

Teachers can give the children a great start toward a healthy lifestyle by recognizing the importance of teaching nutrition and including it in the curriculum in a way that is meaningful and relevant to the student's needs. This will be accomplished through literature choices, and addressing the needs of the children through the validation of their personal choices within their culture.

At the same time, we can help encourage tolerance as the children become aware of the many different choices that their classmates make when choosing foods that fit their culture and lifestyle. Diversity is inherent in a series of activities which are designed to approach the building up of the positive self-concept of young students. This theme emphasizes self-responsibility and decision making with a strong emphasis on personal choice. The teacher will monitor reading development as the children read the books individually and respond to the books through the reading activities that will be available.

Limitations

However, this project has limitations. It is
intended for second-grade children in a transitional whole language classroom. There should be access to a garden plot nearby and a supermarket within walking distance. There are provisions made for Hispanic and Asian student dietary differences, but very few adaptations for black students or other minorities since those differences are numerous. There are also many cultures within the Hispanic and Asian communities whose diet may not fit the guideline.

The project guideline only focuses on food-related stories and literature for ninety minute blocks of time. It includes other content areas in its activities and is only intended to cover a period of about six weeks. Adaptions may need to be made to shorten or lengthen the time spent on the activities within the guideline. The optional "bread" unit involves the entire year for brief periods of maintenance time spent within the garden and involves a great deal of commitment in time and patience. The guideline's activities are also written for the high desert in California and its locale as far as weather conditions are concerned.

The guideline does not recommend the specific amounts of food that should be included in each child's diet. It simply helps them to categorize food through
food group association and generally balance each meal. It does not address the needs of children with dietary problems or special needs. It relies heavily on learning materials that are free; but the materials will need to be preordered and available at the time the reading activities begin.

The theme involves frequent reading and rereading of the suggested books. However, the books are written in the English language. Most of the books are written at a primary reading level. If an upper grade teacher decided to use this guideline, the instructor would have to find and choose more difficult texts.

Summary

In spite of its limitations, a teacher can use this guideline to help the students discover the foods they need for growth and development while improving their reading ability. At the same time activities will encourage respect for the dietary choices of others. The wise food choices they make may give them the energy they need to perform to the best of their ability in the classroom.
References


APPENDIX A
Introduction

This teacher activity guide is designed to use with a second-grade class of students. The activities are built around a nutrition theme and include suggestions that include all students in reading, writing, speaking, and listening. Each list of activities is centered on a listed book title in a before, during, after, and beyond format. The amount of time spent on each list of activities may vary. Each teacher may decide what activities to include and what amount of time is appropriate to spend on them.

Any teacher using this guide is free to add, delete, change, and extend the activities and ideas based on the teacher's own classroom's interests and needs. Although the guide is written for second-grade, adaptations may be made to use it to address other age levels. The title of each text can be changed to include titles that are currently available to the teacher who chooses to use this guide.

Currently, my own program is based on weekly thematic units and I read to my students every day. The students also enjoy a sustained silent reading period and read other texts and books during the day. My students are often involved in tutoring one another and in partner reading. I evaluate children based upon
their ability to retell a story and their fluency and expression while reading it. All students get a chance to write frequently in journals and in creating stories. I provide background information on the subject matter that is chosen for each week, and interest groups are formed when needed.

Centers are present in the classroom that relate to the current theme. There is productive "noise" allowed at nearly all times to provide opportunities for student interaction with one another and the opportunity to gain from one another's knowledge and understanding. Students are encouraged to make choices based on their own subject interest and share this knowledge with the rest of the students.

However, I choose the theme and the stories we will read and cover. I do ask for the students' opinions regarding the topic at hand and consistently use cooperative learning to aid in class projects. The children share ideas and opinions within a small group in this way. Art activities are integrated throughout the week where appropriate. There is children's literature present in abundance with a library corner where the freedom to read on comfortable couches and pillows is encouraged. Reading for student interest is encouraged and I try to see that children view reading
as fun and important.

I teach new words in the context of sentences now to clarify meaning. I spend time providing opportunities for my students to gain background information about the subject matter so that it will enhance meaning when we read and enlarge the student's schema and information base. I design the program to flow freely into other content areas so that the children can make connections without separate divisions.

The following sections will outline the rationale this activity guide is based upon, and provide a list of the concepts that are covered by participation in the activities that the guide provides for use in the classroom.
Rationale

Nearly every person has to eat food and most people enjoy it. Children need to develop the ability to make healthy choices in order to make sensible decisions about the foods they eat. Since food is such a strong motivator, a study about food and nutrition can motivate young students to read and enjoy activities. These nutritional activities can help children improve language, motor skills, cultural awareness, and prosocial behavior. The activities value the interests of the children and are practical and applicable to real life.

The teachers' concern with enhancing self-image is a key ingredient in creating a climate of success in schools. This concern raises multicultural issues. It is often the children of ethnic minorities who fail to achieve this goal. A nutritional theme which includes ethnic foods and addresses individual differences in diet promotes and accepts diversity. The children can learn to understand and value other cultural choices. The activities can bridge gaps among cultural and social differences. This cultural diversity addresses the children's natural curiosity. The children respect different dietary patterns and behavior. There is a real danger in adopting any view of multiculturalism.
that is too restricted. The choices of activities should be based on the population within the classroom. This guide is open-ended enough to allow for that choice. The activities provide opportunities for collaborative learning that supports language development. These activities are designed to assist children to explore and develop their own views. Many of them capitalize on the cultural variations in the children's background knowledge and experiences.

These activities assess what the children know, determine what they need to learn about, and recall what they have learned. The activities extend prior experiences, and enable the children to move toward becoming self-guided learners. This is a guideline for teachers to assist in the planning of a nutrition curriculum capable of achieving an enhancement of student self-worth and success. Every racial and cultural group within the classroom has important knowledge and significant experiences to share with the other students. Students are developing their own understanding in response to experiences and challenges issued by the teacher. These activities help children to develop a personal healthy diet based on their individual nutritional needs and taste preferences. At
the same time, they encourage a great deal of reading for meaning and scientific exploration.

Concepts

This is a list of concepts that are included in the activities that may be used for comparison with district curriculum guidelines.

Food is essential for all living things.

Basic food groups exist and can be identified.

Foods can be classified into groups.

Local food varieties can be identified.

Nutrition is the food you eat.

Food is made up of different materials needed for health and growth.

Personal eating habits can be identified.

Nutritious foods and snacks can be identified.

Food menus can be identified.

Products from foods can be identified.

Physical changes occur during and after cooking food.

Diverse dietary behaviors and patterns can be identified.

The fact that to choose foods well is to be well.

Nutritional activities build linguistic literacy and conceptual background.

Literature provides opportunities to discover print.

Literature acquaints students with written language.
Each text extends prior experiences.
Food is closely tied to an ethnic group identity.
Nutritional activities are appropriate to the target audience.
Good food habits will potentially affect food selection.
Community workers provide us with the foods we need.
Participation in several experiments provide opportunities for hypothesis, investigation and evaluation.
Activities connect content areas to real life situations.

Each selected literature book includes a brief summary of the text, suggestions for class discussions, and suggested activities to be used before, during, and after reading the book. There are also activities that can be used to go beyond the story and extend the story ideas. There is an extended Bread Unit and a suggestion for a Culminating Activity included.
Selected literature and Activities:

Cream of Creature from the School Cafeteria

by Mike Thaler

The food in the cafeteria takes on a life of its own and causes a great deal of trouble. The children are in fear of their lives and need a hero to deal with the problem.

Before:
Class Discussion—How many of you like to eat? What kinds of foods have you eaten today or at dinner last night? (Teacher lists the foods by food groups without yet discussing why) How many of you have ever eaten in the cafeteria? How many of you have smelled the food? What do you like or dislike about the food? How does the food make you feel?

During:
Teacher reads the book.
Children read the book daily.

* Have a wordless copy so that the children can create their own text on it in cooperative groups.
* Hand out copies of the local lunch menu.
* Have the children color their five favorite foods from the menu.
* Have the children cross out the one they dislike the most from the menu.
* Children count how many people were eaten in the story.
* Children count how many objects were destroyed in the story.
* Children create a poem about their favorite food.
* Each child rewrites the story in a different way.
* Children create a comic strip about the story.
* Children write a thank you letter to Mikey.
* Class can view video "Fit to Be a Healthy Me" from Kelloggs and discuss it.

After:
* Children create a skit about the story.
* Children graph the results of the menu choices.
* Children write a letter to the cafeteria about the foods they like and dislike for hot lunch.
* Children write a letter to their parents about the foods they like and dislike for cold lunch.
* Children create a creature of their own that is edible and let other kids eat it.
* Children bring a picture or drawing of their favorite foods and group them together in a way that makes sense to them (At this point, the food groups may be introduced. Cards from the Dairy Council are available to use to fill in any gaps)

Beyond:
* Choose activities from Cook's Kitchen on the Dole CD ROM.

* Groups of children design cafeteria meals that are appealing to them and survey the other grade level classes to get approval. The final nutritious versions are presented to the local school cafeteria.

* Children take a look at the actual job of the cafeteria workers on a local field trip and write about what they observed.

Selected literature:

**It Looked Like Spilled Milk**

by Charles Shaw

The book is about shapes and how we see and interpret images in the clouds. It can be used as an introduction for real milk and subsequent activities.

**Before:**

Class Discussion- How many of you have ever spilled milk? How many of you have looked down to see what else it looks like? Teacher spills some white paint on paper. What do you see? (The instructor allows several children to respond)

**During:**

Children read the book daily.

Teacher shows a real carton of milk and some other milk products.
Class Discussion- Where does milk come from? Why do these things belong together? Can you name other things we could add to this group?

Teacher displays all milk cards from the Dairy Council unit and asks children to group them in any way they wish.

* Children are asked for their reasons for choice.

Teacher can now have children complete the milk group pages from the Dairy Council to check for understanding as the children work together.

After:

* In groups of four, children can make pudding using directions from the instant pudding box.

Teacher provides necessary materials and help if needed.

* Children can also make chocolate milk, using any prepared chocolate mix and following the directions.

* Children can make milk shakes in a blender with milk and ice milk, following directions made by the teacher written on the board.

* They can view the Dreyer's video about ice cream.

* They can guess which brand of vanilla ice cream will taste the best and bring in samples to do a taste test.

* They can create Banana Milk using half of a banana and one cup milk for each two children.
* Children can simulate spilled milk with white paint on paper and create a story about what they see.
* In groups, children can create games to use with the milk cards and demonstrate them for the other students.
* Children can view the process involved in getting milk from the cow to our homes by viewing the Reading Rainbow Tape entitled "Milk Makers".
* They can illustrate how we get milk in a step by step drawing.
* Children can create something new or useful using discarded milk cartons from the cafeteria.
* They write a description about it for other children and display it.

Beyond:
* They can create a new recipe using milk and try it out.
* Children can create their own poster to encourage milk drinking.
* They can experiment with adding food coloring to milk and discovering the designs that are made as teacher adds a drop of dishsoap (it breaks up surface tension). Let the children decide what happened.
* Children are present when the milk truck arrives at school and discuss with the driver where the local milk comes from.
Selected literature:

**The Apple Tree**

by Lynley Dodd

The book illustrates and discusses the changes that take place on an apple tree during each season. Sadly, a possum gets to taste the final results.

**Before:**

Class Discussion- How many of you have eaten apples? Where do they come from?

* Children can sort out the Dairy Council cards that fit.

**During:**

Teacher reads the book.

Children read the book daily.

* Children illustrate the seasonal stages of the tree.
* Each small group of children is given an apple.
* They are asked to guess how many seeds it will have.
* With help, they cut each apple open and graph the results.
* They eat half of each apple and save the other half to create applesauce in a blender.
* They eat the applesauce.
* They create a story about their favorite apple product.
* They create a card game from the Dairy Council cards.
After:
* Children bring a favorite apple to school.
* Children guess how many different kinds will be found.
* They graph the results.
* They count and examine the differences, adding well known choices that did not get to school.
* Help children cut up and share the taste of different types of apples. (Teacher may want to purchase an unusual variety or two to help)
* Children illustrate a diagram of the wide color variations in apples.

Beyond:
* Children view the Adventure Theater on the Dole CD Rom.
* Children find other apple books and share what they contain with other children.
* Children bring in an apple and give it to anyone on the school staff who has been helpful to them.

Extend this book into a unit about seasons.

Selected literature:

**Fruit is Ripe**

by Alice Rothchild

This book illustrates some summer and fall fruits and how they grow. A young man named Timothy tries the
different types of fruit in each season from his
garden.

Before:
Class Discussion—What fruits have you eaten?
Teacher creates a list of the choices.
Children sort out the Dairy Council cards that fit.

During:
Teacher reads the book.
Children read the book daily.
* Children write a story featuring their favorite fruit.
* In small groups, children illustrate and create a fruit mobile.
* Teacher brings in a samples of ripe fruit.
* Children guess what will happen if no one eats them.
Let the fruit sit for a couple of days and examine the results.
* Small groups of children find pictures of fruit in magazines and create collages.
* Children create a timeline for each month and its ripe fruit.

After:
* Each child brings a fruit of choice to school.
* Children make a labeled diagram of their choice.
* Children estimate how many seeds will be in different
fruits and graph the guesses.
* Children record the results as the fruit is prepared.
* Children use the fruit brought from home to create Friendship Salad. (This salad is created by combining each child's cut up contribution of fruit in a large bowl and sharing the result).
* Children can estimate how much fruit salad each child should receive.

Beyond:
* Children view the Adventure Theater from the Dole CD Rom.
* Children create sculptures from different types of fruit. (For example, raisin eyes on a peeled banana)
* Children illustrate the new creations before eating them.
* In small groups, children create fruit song lyrics to familiar tunes.
* Children teach another classroom how to make friendship salad.

This book can also be extended to include a unit about seasons.

Selected literature:

**The Great Big Enormous Turnip**

by Alexei Tolstoy

This book about a little turnip that grew so large
that a great deal of help is needed to harvest it. The story is predictable and easy to read.

**Before:**
Teacher shows children a turnip.
Class discussion—Does anyone know what this is? What food group do you think it will fit it? How many of you have ever eaten this? What would happen if this turnip was enormous? Let's find out.

**During:**
Teacher reads the book.
Children read the book daily.
* Children bring in a sample of any vegetable they believe the other children have not tried.
* Children taste the samples.
* Children create a play using vegetable characters as the stars.
* Teacher shows several examples of root vegetables.
* Children have a discussion about the parts of the plants that we eat.
* Teacher lists all the vegetables that the children have tasted.
* Small groups of children decide on ways to group them using the vegetable cards from the Dairy Council.
* Children can add pictures of any vegetables that are new and not included.
* Children will create a story about their favorite and least favorite vegetable and give reasons why each one is chosen.

Teacher can have the children complete the fruit and vegetable pages from the Dairy Council to check for understanding as the children work together.

* Children can "grow" onions in the dark classroom closet.

* Children can choose a place in the classroom to place other onions.

* Children will estimate what the onions will look like in a couple of weeks, and illustrate the guess with pictures and words.

After:

* Children can sample both raw and cooked turnip and describe the different tastes in a report.

* Children can rewrite the turnip story using the characters they wish to help with pulling out the turnip.

* Children can change the vegetable to another and create a new story with a new problem.

* Children can guess what will happen when celery is placed in a glass filled with water and a few drops of food coloring.

* Children can make their own vegetable juice using a
blender and samples of the vegetables they have brought in.

* Children can create carrot curls or radish flowers with a bread knife.

* Children can write recipes to save the best results and create a vegetable drink booklet.

* Children can describe any new vegetable that they have tried using poetry.

* In small groups, children can create vegetable songs and sing them for the other children.

* In small groups, children can create card games using the vegetable cards from the Dairy Council.

* Children can grow their own sweet potato plant inserting four toothpicks into a sweet potato and covering the bottom third of the plant with water.

* They can use a plant journal to illustrate and write about the results.

Beyond:

* Children can bury any remaining vegetables in the garden and illustrate and write about what they will look like in a month. (Later, they will dig them up and compare reality to their guesses)

* Children will perform their vegetable character play for another classroom.

* Children can view the Salad Factory segment from the
Dole CD Rom and create their own salad from sixteen different ingredients. The salad "computer" will tell them how healthy their choices are.

Selected literature:

**The Little Red Hen**

by Jan Brett

This story is about a little red hen who needs help as she grows and harvests wheat in order to prepare bread. The other animals refuse to offer any help until all of the work is already completed and her response is appropriate.

**Before:**

Class discussion—How many of you have chores or work that you have to do at your house or in your yard? What kind of things do you have to do? (Teacher lists responses) What would happen if each of these things was not done? (Teacher accepts responses for several of the listed choices) How many of you eat bread? What type of bread do you eat? Can you tell me what it is made from? How does it get to the store? We can read a story about one way that bread can be made.

**During:**

Teacher reads the book.

Children read the book daily.
* Teacher brings in samples of wheat, flour, and different types of bread and encourages the children to bring in samples of the different types of bread that they eat at home. The process to create tortillas and other types of bread may be compared to wheat bread by research done by the teacher and children. At this point, samples of the other foods included in the bread group may be shown either in picture or actual form. The teacher can have children complete the bread group pages from the Dairy Council to check for understanding as the children work together.
* Children may sample different types of bread.
* Children may use reader's theater and take on the parts of the different characters in the story.
* Children can create face masks to represent their characters.
* Children can make bread pudding in small groups of four using two slices of bread, a half cup of evaporated milk, and a teaspoon of sugar. They let the mixture sit until it softens.
* Children write their own version of the story using a chore that they have to do and requesting help to complete it.
* Children can write a letter to the Little Red Hen offering to provide help with the process used to
create bread.
* Children can extend the readers theatre to a skit performed for another class or two.
* Children can create a pamphlet illustrating the process involved in creating the bread of their choice.
* Children can create a bread sculpture using a few slices of white bread to which small amounts of white glue have been added.
* Children can create a poem about bread.

After:
* Children set out samples of different types of bread on the counters and guess what will happen to them in two weeks through illustrations. They will examine the samples weekly to discover any changes (like the evidence of mold).
* Children may ask for help to perform a skit using the chore from home they chose to illustrate the theme of the story.
* Children can create a timeline to illustrate the process involved in the creation of the bread they have chosen.

Beyond:
* Children may perform their new version of the story in a play for another classroom.
* Children can participate in the Bread Unit
described below.

Children can begin to understand the connection between earth and the food they eat. They can create their own living laboratory in which seeds grow into plants that provide food for them. They can write stories about their experiences, develop a plant care plan, keep a garden journal, and use the garden to do guided investigations. At the same time, they can role play the efforts of community members who enable them to obtain that food easily and conveniently. The children can have hands-on experiences in the school garden plot in the Spring. The soil should have compost mixed in by the children. The children created this mix themselves in the winter using old leaves, school grass clippings, and old coffee grounds from the teacher's room. It will be raked well by them as they take turns and problem solve assignments. They will then broadcast red wheat seeds (berries) or winter wheat from a natural food store. The role of the sun, soil, and need for water can be addressed and assignments made as the children begin to play the role of farmers. A few wheat seeds can be sprouted in a damp paper towel to show what will happen underground and out of their sight. They can monitor the progress of the plants as they grow slowly through the spring. They will see the grain
develop heads and remain green. At this point, they will have prepared for the children in the next school year to benefit from their efforts. The new class will see the changes as the wheat begins to turn brown. Then their role will begin as harvesters. They can use simple scissors to cut off the heavy gold tops. The leftovers can be cut down with grass clippers. A sheet can be laid out on the playground, and the children can do the "twist". Of course, the bottoms of their shoes must be as clean as possible. The students can use a portable vacuum cleaner with the hose at the outlet (so it blows out) to separate the wheat from the chaff, using a big tub to catch the results. They can pour the wheat berries collected into a blender (one cup at a time) and create whole wheat flour.

This recipe will make two loaves at a time:

1 package dry yeast
2 3/4 cups warm water
1/2 cup brown sugar
1/4 cup butter
2 tsp. salt
4 cups bread flour
3 1/2 cups of the ground whole wheat flour

Soften the yeast in 1/4 cup water for five minutes. Blend in the rest of the water, sugar, butter, and
salt. Stir in all the bread flour. Beat with a spoon for 10-15 minutes (providing for lots of children's turns). Add the ground flour from the garden. Knead the dough on a wooden board for about fifteen minutes. Put it in a large bowl and cover it with plastic wrap. Let it rise for one to one and a half hours. Divide it in half and make two loaves. Put them in greased 4 by 8 inch loaf pans. Cover them and let them rise for forty-five minutes. Uncover and bake them in a 375 degree oven for forty to fifty minutes (Swezey, p.91). The teacher can simplify this and use a bread maker, but I'd let the children knead it for fun for a while anyway.

Our school garden plots are about four feet by six feet long, and will probably take about two or three handfuls of wheat seeds. This section will eventually supply enough flour for five loaves. Of course the children will need to do the math to figure this out, and also to figure out how they will divide the actual chores fairly, and how they will share and serve the final product too. In a cold climate like the high desert, a March planting will result in a September harvest. The plot will have to be watered about once a week. It will also have to be weeded. When the wheat is about two feet high, it will have to be tied upright
with wood stakes and twine. The children can discover what methods will work best through trial and error. The wheat is ready when it has turned brown and the berries on the plant are too hard to dent with a fingernail. This activity can be extended as the children can play truckers and deliver the wheat to the bakery classroom, and then bakers as they create the bread. They can deliver the bread to the customers at their own tables and enjoy the results.

The children will now effectively make connections because they know where the food came from, and will have experienced for themselves the hard work involved. The garden has served a role as a scientific laboratory as guided investigation and process skills grow together along with the wheat itself.

(Note: Children can duplicate the final stages of this process using masa to create corn tortillas, or tortilla flour to create tortillas.)

Materials Needed: wheat berries-two to three handfuls, garden plot-four by six feet, kid-generated compost (leaves, grass, and coffee grounds), garden tools, a water source, wooden stakes, twine, vacuum cleaner, large plastic tub, and a blender.

Selected literature:

How My Parents Learned to Eat
by Ina Friedman

When an American sailor meets a Japanese schoolgirl, they are both afraid to eat dinner together because they do not know the eating habits of one another. The sailor goes to a Japanese restaurant to learn and the results are funny. The Japanese girl attempts to learn how to eat with a knife and fork from her uncle. When they eat dinner, they decide that they will marry and teach each other how to eat.

Before:
Teacher brings in a large bowl of rice, and samples of chopsticks, knives, and forks. The children attempt to pick up the rice with the different implements.
Class discussion—What tool was the easiest to use? Do any of you eat with other tools at home? Why do you think it was easier to use the one you liked best? How long do you think it would take you to eat this bowl with the other tool?
* Children can estimate how long it will take them to eat a small portion with an unfamiliar tool, and the other children can time the results.
* Children can estimate how long it will take them to eat a small portion with a familiar tool, and the other children can time the results.
* The times can be graphed to compare the results.
During:
Teacher reads the book.
Children read the book daily.
* Children will sort out all of the foods in the bread group.
* Children will add any foods that are not included in picture form.
* Children will complete the bread group pages from the Dairy Council booklet.
* Children will look at any Japanese picture books or other Japanese tales available from the local library.
* Children will draw a picture of a scene from Japan and compare and contrast it with a picture of the United States.
* Children will list all of the new and unusual things that they notice in the books and pictures.
* Children will share in small groups the information that they have found.
* Children will design Japanese costumes for paper dolls, using the information they have found.
* Children will use Japanese characters written with paint to create sentences or simple phrases.
* Children will create a stencil using these same characters so that other children can duplicate their messages.
* Children may use sticky gummy worms to practice using chopsticks until they can pick them up.
* Children will write a short pamphlet describing in a step by step fashion how to eat with the tools they use for dinner.
* Children can create a book of stories about Japan.

After:
* Children will find examples of Japanese music and create a new dance.
* Children will create a greeting card to send to someone in Japan.
* Children will bring in different spices to flavor rice and let other children taste the results.
* Children will read the directions to create rice pudding in small groups using the microwave and eat the results.
* Children can view the Reading Rainbow tape "The Paper Crane".

Beyond:
* Children can use yarn and material to stitch a Japanese character permanently into a piece of fabric to display.
* Children can research a Japanese holiday with help from home and celebrate during class time.
* Children can view the Reading Rainbow tape about
origami and try out the projects suggested.
* Children can create new eating implements and try them out.
* Teacher can share her knowledge with the class about Japanese customs (such as bowing to show respect)
* Children can combine vegetables and wonton paper to create wontons. Teacher will need to do the deep frying needed in a portable deep-fryer.
* Children can help provide other examples of Japanese foods to try and have a tasting party.
* Teacher and children can provide colorful material in one yard lengths so that children can wrap themselves in kimonos.

Selected literature:

**Cloudy with a Chance of Meatballs**
by Judi Barrett

The people in Chewandswallow get their daily meals from an unusual place. The weather that provides them with breakfast, lunch, and dinner is as unpredictable as the real thing, and trouble ensues. However, the people are resourceful and all turns out well. This is a story told by one of the characters within the story itself, and the last illustration might convince the reader to see mashed potatoes and butter in a sunset over a snow-covered hill.
Before:
Class Discussion—What is the weather like today? How many of you have ever tasted rain or snow? Would that water be enough to feed you? There is an expression that says, "It is raining cats and dogs." Could that really happen? If it could rain with something new, what would you choose? (Teacher lists responses) What would happen if it could rain almost any food you like? This story will help us find out what could happen. How many of you have eaten meatballs? What group would they belong in?

During:
Teacher reads the book daily.
Children dictate a simple retelling version of the book that the teacher types and runs off on ditto for them to read daily. (It is a very difficult text)
* Children write down a list of what is real and what is pretend within the story.
* Children create a new ending for the story.
* In small groups, children write down what changes are needed in the story to make it into a movie.
* Children sort out the meat group cards from the Dairy Council unit, and list any foods that they haven't tried.
* If there are any children who are vegetarians, they
can add self-made illustrations of the foods they eat in place of meat.
* Children need to recognize the protein value of other foods that are included in the meat group like tofu and peanut butter.
* Children will complete the meat group pages from the Dairy Council unit to check for understanding.
* Children re-write the story using a different town and different characters.

After:
* Children can create peanut butter in a blender using shelled peanuts and oil.
* Children can experiment and list the best combination of peanuts and oil to create the best peanut butter.
* Children can bring in a small jar of their favorite peanut butter and the children can have a taste test.
* Children will graph the results and have a discussion about what qualities they look for in peanut butter.
* Children can write down the cost of the peanut butter and compare the value of brand names and generic versions.

Beyond:
* Children can create their own meatball recipe, and roll them up. Teacher can fry the results in a portable frying pan. Teacher will remember to include a
vegetarian version.
* Children will choose meals from local restaurant menus.
* Children can design cultural restaurants using a menu based on student preferences.
* Children can create a food display divided into food groups using empty food containers brought in from home.

This story can be extended into a unit about weather.
* Children can create their own weather story using something other than food that will fall from the sky.
* They will include some possible problems and solutions in their new story.
* Children will research the animal origin for each meat group food they eat.

This story can be extended into a unit about animals.

Selected literature:

**The Popcorn Popper**

by JoAnne Nelson

This is a story about a new Popcorn popper that takes its job very seriously and refuses to quit. The young man in the story develops a new business as a result.

Before:
Teacher brings in a popcorn popper and prepares a small
amount so that the sound and smell can accompany the class discussion.

Class discussion—Can you guess what I am making? We know about many different food groups now, but we have not yet included all the foods that you may eat. What group would we put candy, pop, popcorn, and chips into? (Teacher lists responses) Some of these extra foods are fine if we eat them in small amounts and do not eat them instead of the other foods that help us grow up healthy and strong. How could popcorn be good for us? (Teacher lists responses) Please tell us why some of your favorite foods are good for us to eat. (Teacher lists responses)

During:

Teacher reads the book.

Children read the book daily.

* Children experiment with different amounts of popcorn in an air popper and a stir popper to discover the ratio of raw to popped corn (one ounce of corn yields one quart of popped corn).

* After these experiments, small groups of children decide how much corn they will need to prepare a bagful for each child in their group. The amounts they request are given to them (in reasonable quantities) and the results are measured and graphed to see which group was
the most accurate and why.

* Children create a poem about popcorn.
* Children create a poem about their favorite snack.
* Children create a list of reasons why other children should also choose the snack they themselves like the best.
* Children bring in samples of snacks they believe the other children have not tried.
* In small groups, the children have a taste test.
* Children graph the results.
* Children count the number of different snacks that the children have suggested and provided.
* Children complete the extra food group pages from the Dairy Council pamphlet to check for understanding.
* Children illustrate the ingredients of a healthy meal on posters and display them in the room.

**After:**

* In small groups, children complete the rest of the booklet now that all groups have been investigated and introduced.
* Children bring in foods for a healthy snack party and share their choices with the other children.
* Children design a food character that they would be willing to perform.
* Small groups of children write a short skit that
includes the characters the children have designed, and perform this skit for the other groups of children.
* Children write a new ending for each skit after they have seen the performances.

**Beyond:**
* Children create a snack game from the wrappers and containers that are left over.
* Children create an entire day's menu using all of the information they have acquired.
* Children write letters that explain why other children should also make healthy choices.
* Children write about their favorite food group, and these pages are combined into a permanent book to share all year long.

**Culminating Activity for the Theme**

Children will take a walking field trip to the local supermarket with the manager serving as a tour guide. Children can be given a list of foods from each group to look for as they walk around. Children will call out in unison as each group is found in the market. A few minutes will be devoted to the specialty foods section as children show the others what special foods their own family chooses to eat. Children will look at all sections behind and above the normal sections of the store. They will examine how the foods
arrive in crates and how the store employees cut and package them. They will enter and exit freezer sections to experience the temperatures needed to keep foods fresh. Each machine will be demonstrated by the employees and children will receive a free sample from each group in a small grocery bag as they watch and participate in activities about it. An optional activity set up by the teacher will include the bakery department as they frost and prepare a cake for the children to take back to school and use to celebrate. A good store will welcome the potential for parent return and future purchases, and its employees will show the children a great time.
FREE MATERIALS

Any Way You Slice It (Bread curriculum kit)
Pepperridge Farm Inc.
Public Relations Department
Norwalk, Connecticut 06851

American Egg Board (pamphlet)
1460 Renaissance Drive
ParkRidge, Illinois 60608

Breadwinners 2 (sandwich booklet)
Ziploc Sandwich Bags
Dept 3800
P.O. Box 78980
New Augusta, Indiana 46278

California Apricot Advisory Board (Apricot kit)
Charlotte Darius
1280 Boulevard Way
Walnut Creek, California 94595

Cream of the Crop (newsletters)
Agriculture in the Classroom
1601 Exposition Blvd
Sacramento, California 95815

Dairy Council of California (unit of materials)
1570 E. 17th Street Suite C
Santa Ana, California 92701

Dole Food Company (CD Rom disk)
Nutrition Program
155 Bovet Suite 476
San Mateo, California 94402

Dreyers Grand Ice Cream (video)
5929 College Avenue
Oakland, California 94618

Good Food Celebrations (recipes)
San Bernardino County Department of Public Health
351 North Mountain Avenue
San Bernardino, California 92410

Good Newsletter (bimonthly)
American Institute for Cancer Research
1759 R. Street N.W.
Washington, D.C. 20069

I love Animals and Broccoli (coloring book)
Vegetarian Resource Group  
Box 1463  
Baltimore, Maryland 2120

Joys of Fall (Grape Ideas)  
California Grape Commission  
P.O. Box 5498  
Fresno, California 93755

Kellogg's Fit to Be a Healthy Me (video)  
P.O. Box 5009  
BattleCreek, Michigan 49016

Kids Microwave Munchies (classroom set)  
Reynolds Wrap Kitchens  
Educational Orders  
P.O. Box 85583  
Dept CS-61  
Richmond, Virginia 23285-5583

National Live Stock and Meat Board (booklet, poster)  
Educational Department  
444 North Michigan Avenue  
Chicago, Illinois 60611

Peanuts for the Good and Healthy Life (coloring book)  
Oklahoma Peanut Commission  
P.O. Box D  
Madill, Oklahoma 73446

Sugar and Spice (booklet)  
Cowles Educational Publishing Corporation  
1202 Lexington Avenue Suite 212  
New York, New York 10028

Sunmaid Growers of California (poster)  
13525 South Bethal Avenue  
Kingsburg, California 93631

The Growers of Washington State Apples (booklet)  
Healthy Choices Education Supplement  
P.O. Box 550  
Wenatchee, Washington 98807

The Popcorn Institute (booklet)  
111 E. Wacker Drive  
Chicago, Illinois 60601

There are Sunflowers at my School (garden information)  
California Foundation for Agriculture in the Classroom
1601 Exposition Blvd.
Sacramento, California 95815

USDA Team Nutrition (parent guide)
3101 Park Center Drive
Room 802
Alexandria, Virginia 22302
APPENDIX D
Curriculum Map

Teachers may use this list to identify the activities included in this project under their corresponding subject headings. This list may be useful to justify the use of this project as a valuable resource to use in the classroom.

Reading
read books daily
read written directions
read other student work
read poems
read menus
read graphs

Writing
write songs
write stories
write poems
create a comic strip
write a thank you letter
create a skit
write a complaint letter
write a plant care plan
write in a garden journal
write descriptions
write a recipe
write lyrics
write a script
write lists
write a pamphlet

Math
count and construct numbers
write numbers
represent numbers
perform one-to-one correspondence
group, compare and order concrete materials
estimate the number of objects in sets
perform number combinations with concrete materials
compare equal and non-equal groups
use addition and subtraction with concrete materials
sort, describe and name concrete materials
compare sizes
compare and contrast concrete materials
sort, organize and collect data
display data in charts, lists, and graphs
display a labeled diagram
analyze and interpret data
design a healthy meal
create a timeline
create games, strategies and rules
classify and sort objects and numbers
conduct a survey
compare costs

Science
perform celery root experiment
create vegetable juice
create new vegetable drinks
create salad
discover new foods
discover new spices
perform compost experiments
use the garden as a scientific laboratory
create peanut butter from peanuts and oil
cook several recipes
explore and record probability
analyze and interpret data
identify the main parts of plant
identify some root vegetables
grow onions
explore raw and cooked foods
explore the process used to create different types of bread
perform a surface tension experiment
visualize the seasonal stages of the fruit tree
estimate and examine the interior of foods
create applesauce
describe the variations in concrete materials

identify the seasons

examine rotting fruit and observe the changes

Social Studies

watch cafeteria workers job

watch milktruck driver

watch grocery store workers

Drama

create a play

create a skit

design costumes

role-play community members

Art

create cloud images

draw a comic strip

use stencils

spilled milk art

create posters

create a mobile

create a collage

create sculptures

create face masks
References


Dreyer's Brand Ice Cream. (1992). *All in Good Taste, Reel to reel*.


MS-DOS, /5ADAY/ADVENTUR.EXE, (Blacksburg, VA, Microsoft, 1994), CD-Rom.


