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# An Integrated Nutrition Unit for Half-Day Kindergarten

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AN INTEGRATED NUTRITION UNIT  
FOR HALF-DAY KINDERGARTEN

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A Project  
Presented to  
The Graduate Faculty  
Central Washington University

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In Partial Fulfillment  
Of the Requirements for the Degree  
Master of Education  
Master Teacher

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By  
Erin Spencer  
May 2008

## ABSTRACT

### AN INTEGRATED NUTRITION UNIT FOR HALF-DAY KINDERGARTEN

By

Erin Spencer

May 2008

The obesity rates among children in the United States have been rising rapidly over the past thirty years. Children are getting messages from the media to eat unhealthy foods. This epidemic is beginning to be addressed in schools. A nutrition curriculum was developed and implemented in a half day kindergarten program. Core academic subject were integrated using Washington State GLEs as a guide. Parent involvement was a component to strengthen student's understanding of cultural diversity as it pertained to food.

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## CHAPTER I

### BACKGROUND OF THE PROJECT

#### Introduction

According to the *Journal of the American Medical Association*, the percentage of obese children nearly tripled over the past 30 years (Center for Disease Control and Prevention, 2007). Studies have shown that obesity among children increases their chance of becoming obese adults by 80 percent. If the onset of obesity occurs prior to age eight, obesity in adulthood will become more severe (Centers for Disease Control and Prevention, 2007). Due to this rising epidemic, children today may not have as great a life expectancy as their parents (National Institutes of Health, 2005). With reports of obesity on the rise, it is unsurprising that consumption of healthy foods such as whole grains, fruits and vegetables among children is low (Kirby, Baranowich, Reynolds, Taylor & Binkley, 1995). According to a study by Dennison, Rockwell and Baker (1998), children aged two to five eat approximately one quarter of the recommended daily vegetable servings.

Children are exposed to food advertisements daily. According to a study funded by the Kaiser Foundation, children ages two to seven see an average of twelve food commercials a day. As the children get older, statistics show television viewing increases; thus, the amount of food advertisements seen also rises. Commercials for candy, snacks and fast foods account for 41 percent of total television advertising, while ads for fruits and vegetables account for less than 1 percent. With the average child watching three and a half hours of television a day, kids are getting many messages to eat unhealthy foods (Gatz, Schwartz, Angelini, & Rideout, 2007)

The federal government recognizes the importance of promoting nutrition in schools. In 2004, The Child Nutrition and Women, Infant, Child (WIC) Reauthorization Act created new nutritional regulations for school districts, to be fully implemented by the 2006-2007 school year. The act mandated that all schools participating in school meal programs establish “school wellness policies” (The Child Nutrition and WIC Reauthorization Act of 2004). These policies were to include goals for nutrition education, nutritional guidelines for all food available to students during the school day, and plans for physical activity and other programs that promote wellness. Under this act, the Team Nutrition Network was also created to require states to play a role in supporting school districts. This network is defined as a “statewide, multidisciplinary program for children to promote healthy eating and physical activity for children based on scientifically valid information and sound educational, social and marketing principles” (The Child Nutrition and WIC Reauthorization Act of 2004). The 2004 law stated the purposes of the Nutrition Team Network to include nutrition education; assistance in developing comprehensive and integrated curricula related to health; provide training for those who work in food services; and share programs proven effective at helping students maintain a healthy weight.

In Washington State over 50 percent of public school kindergarteners attend a half day of school (OSPI, 2006). These programs typically require students to attend class between two and a half to three hours a day, five days a week. Within this time, kindergarteners are expected to meet grade-specific state standards in the areas of reading, writing, math, communication, and science.

During the first six years of life, children are establishing food and dietary preferences (Birch 1998), suggesting that children should be exposed to a variety of healthy foods in order

to develop preferences for healthy foods. Research also indicates that young children are more likely to try different foods in settings with their peers (Birch, 1980), indicating young children should be trying new foods in an environment with other children their age. Because kindergarten is when most children enter the school system, nutrition education should be a focus at this level. Unfortunately, due to increased rigorous academic standards and the small amount of time half-day programs offer, nutrition and other non-core academics are often not addressed. Therefore, an approach that integrates nutrition is vital to both teaching content and covering state standards.

This project establishes a nutrition curriculum for a half-day kindergarten program that integrates literacy, math, science, art and social studies. Learning objectives will be directly tied to the Washington State Standards for kindergarten. Hands-on activities, including cooking, will be used to demonstrate a variety of nutritious foods. Foods from a variety of cultures, including those from students' ethnic backgrounds, will be included to expand students' understanding of diversity.

### Purpose

The purpose of this project is to provide kindergarten students with information and experiences to help them identify and select nutritious foods. This project will also provide half-day kindergarten teachers with an integrated curriculum that supports nutrition learning while addressing many of the state standards in reading, writing, math and science. It is also intended to address students' cultural diversity as it pertains to food. This curriculum project will focus on a hands-on approach to educating students about nutritious foods.

### Rational

Currently, the majority of Washington State public school kindergarten classrooms offer half day programs. With over 75 academic standards in reading, writing, math and science that teachers need to meet by the end of the kindergarten year, integration of curriculum is necessary in order for all required content to be covered.

Studies have shown that good nutrition habits are best taught to children at a young age (Singer, Moore, Garrahe, & Ellison, 1995). While many children are in quality preschool and prekindergarten programs, kindergarten is the universal entrance into formal schooling, making it an opportune time to promote healthy eating habits.

### Limitations

Due to the purposeful incorporation of Washington State Essential Academic Learning Requirements, this curriculum is limited to kindergarten programs in Washington State. This project is designed for a half day program; however, it could be adapted for use in a full day program as well, although such adaptation would require an additional time commitment from the instructor.

This project is also partially limited to programs that utilize more than one adult in the classroom setting. Many of the program's activities can be executed by the classroom teacher alone, but portions of this project are designed for programs that utilize more than one teacher or adult in the classroom setting. The cooking activities, which are essential components to this project, require donated supplies as well as increased adult supervision to ensure safety. A food

budget and/or food donations from families or local businesses would be required to make this unit successful.

### Definitions

Nutrition: 1) The science or practice of taking in and utilizing food 2) A nourishing substance

(Medicinenet.com, n.d.)

Healthy: 1) Being free from sickness; well; fit 2) Having to do with a good mind and body 3)

Showing good mental or physical condition (Wordsmyth, n.d.)

Unhealthy: 1) In bad health; ill 2) Causing poor health or disease (Wordsmyth, n.d.)

Obesity: A condition characterized by excessive bodily fat. (Merriam Webster, 1993)

Integration: Combining two or more subject areas to help students understand and learn through different modes ( Hall, 2007, p. 123).

## CHAPTER II

### REVIEW OF LITERATURE

With the steady increase in childhood obesity over the last thirty years and the projection that children today will have a shorter life expectancy than their parents (Centers for Disease Control and Prevention, 2007, National Institutes of Health, 2005) nutrition education is drawing more attention. Government leaders as well as health organizations, researchers, educators and communities are all examining ways to increase the health and nutrition of today's children. This review will look at what the research has shown about developing nutritious eating habits, best practice in preschool and elementary nutrition education, and the strengths and effectiveness of integration.

Research has found that the formation of food preference in young children can be influenced by peers and stories. In a study conducted by Birch (1980), 39 preschoolers were individually asked what they thought of nine different vegetables. The information was used to create two groups: the target group (those not liking the vegetable) and the peer group (those liking the vegetable). Over the next eight weeks, seating arrangements were made so that children from the target group were sitting with children from the peer group during meal times. Results showed that the target group's food preferences were influenced by the peer group's food predilections, indicating that in order to encourage children to prefer healthy foods, they need to have an opportunity to try different foods in an environment with their peers.

In the preschool program "Food Friends: Making New Foods Fun for Kids," children are introduced to new foods in a positive feeding environment. In this program, children gain experiences with hands-on nutrition activities and storybooks and gain multiple opportunities to try new foods. In a pilot study of this program (Young, Anderson, Beckstrom, Bellows & Johnson, 2003) pre and post tests were administered to assess the willingness of preschool children to try new foods. Results found an increase in the overall acceptance of new foods. Through observational data, children were also shown to become increasingly more excited about new foods and more willing to try foods upon first exposure to the new food as they progressed through the program. This demonstrates that tasting experiences with a variety of healthy foods can help children develop preferences for those foods, thus contributing to increased consumption of fruits and vegetables.

In a study by Bryne and Nitzke (2002), 118 preschool students from 9 Head Start classes were randomly assigned to a positive, negative or control group. The students were preassessed on their knowledge and willingness to try kohlrabi, a novel vegetable. Then the students heard a story about that vegetable that contained either a positive, negative or neutral message about the food. The students were again assessed on their knowledge and willingness to try kohlrabi. Results showed that the group who heard the positive message was significantly more likely to try the vegetable. This demonstrates that hearing positive messages about healthy foods promotes an increased acceptance of those foods.

Many national organizations, including the American Psychological Association, view schools as playing an important role in promoting healthy eating habits among children (Talley & Short 1995). In a 1996 report published by the Center for Disease Control (CDC), schools are described as being the ideal setting for nutrition education for several reasons, including

reaching almost all children, and providing opportunities to practice healthy eating.

Evaluations suggest that school-based nutrition education can improve the eating of young people (CDC, 1996). Elementary school teachers are believed to potentially have the greatest influence, outside the home, on a child's health (Baxter 1998).

Developmental theory suggests that children learn through their experiences. Based on this idea, a two year study was designed to measure preschool children's criteria for food classification and their play behaviors in a toy kitchen (Matheson, Spranger, & Saxe 2002). The results showed that children mainly relied on physical characteristics to classify food. Children's play in the kitchen included activities such as meal planning, food preparation, table preparation, serving food, eating and cleaning. This data indicates that children learn a great deal about food and eating through their personal experiences. Their pretend play relating to food was realistic and included routines they may have experienced. The authors of this study concluded that nutrition education programs based on children's day-to-day experiences with food rather than on their understanding of food groups would be more effective in changing their behavior. This demonstrates the need for young children to engage in activities that promote healthy eating.

An article by Rickard, Gallahue, Wadlington and Bitner (1995) reinforces the belief that play is an effective method for teaching young children about healthy eating habits. Integration of other subject areas was also emphasized in this article. A program was described, the Healthy Bodies Wilshine Program, that was aimed at educating elementary-aged students and their families about prevention of obesity. In this after-school and weekend program, parents and students had hands-on experiences with food, food labels and exercise equipment such as hula hoops, Frisbees and balls. Students were given opportunities to create,

taste and eat healthy snacks. This program was also adapted for kindergarten students. The process was the same, but the content was modified for developmental appropriateness. As a result of this program, students and parents learned how to incorporate nutrition and physical activity into their daily routine. This again reinforces the idea that young children need to be active participants when it comes to learning about healthy eating. The study also indicates that a parent component is a necessary part of nutrition education programs.

Schools should create healthful environments where students are provided with models of nutritious food choices and opportunities to make healthy food choices (CDC, 1996). The CDC also recognizes the need for developmentally appropriate material in order to promote healthy eating, stating that "Nutrition education for young children should focus on concrete experiences (e.g. increasing exposure to many healthy foods and building skills in choosing healthy foods)" (CDC, 1996, p.18). Also, due to young children's cognitive abilities, they may not be able to fully understand more abstract concepts such as nutrient content in food or the classification of foods into food groups (CDC, 1996)

In the CDC's report, *Guidelines for School Health Programs to Promote Lifelong Healthy Eating* (1996), age appropriate strategies are described within three realms: environment, personal characteristics, and behavioral skills and experiences. The strategies for lower elementary students are described below.

*Strategies to make the food environment more health enhancing*

- Make healthy foods widely available at school and discourage the availability of foods high in fat, sodium and added sugars.
- Involve parents in education through homework.
- Provide role models for healthy eating.

- Provide cues through posters, and marketing-style incentives, which encourage students to make healthy choices about eating and physical activity.
- Use incentives, such as verbal praise or token gifts, to reinforce healthy eating and physical activity. Do not use food for reward or punishment for any behavior.

*Strategies to enhance personal characteristics that will support healthy eating*

- Make basic connections between food and health (e.g. “You need food to feel good and to grow”).
- Teach the importance of balancing food intake and physical activity.
- Identify healthy snacks.
- Increase students’ confidence in their ability to make healthy food choices by gradually building up their food selection and preparation skills and giving them practice.

*Strategies to enhance behavioral capabilities that will support healthy eating*

- Provide many healthy foods for students to taste in an enjoyable healthy context.
- Let students prepare simple snacks.
- Have students try unfamiliar and culturally diverse foods that are low in fat, sodium, and added sugar (p.37-38).

These strategy recommendations from the CDC reinforce what the research says about young children and nutrition education; children need to be exposed to many different healthy foods in a positive setting; they should have hands-on experiences with healthy foods including the preparation of foods; young children are easily influenced, so they should be exposed to

positive role models for eating, including their peers and other adults as well as through literature.

In an article by James and Adams (1998) the topic of integrating nutrition and math is discussed. The article begins by defining curriculum integration as both a social and cognitive process that “is a mechanism for helping children view school content outside of presupposed historical and academic boundaries.” (James & Adams, 1998, p. 3). They argue that curriculum integration provides a framework for children to apply knowledge from several disciplines and to use this knowledge to solve real life problems at work and at play. The authors recognize the integration of math and nutrition as being a natural partnership, citing that math concepts such as classifying, sorting and counting can be used in the early grades when nutrition is taught. By doing so, academic standards can be addressed in conjunction with nutrition education.

In a separate article focusing specifically on kindergarten (Partridge, Austin, Wadlington, & Bitner, 1996), cooking is mentioned as being a means to integrate the curriculum. While the focus of the article is around integrating mathematics, science, social studies, and reading readiness are also discussed as subjects in which learning can take place during cooking activities. The authors address incorporating the Curriculum and Evaluation Standards for School Mathematics (NCTM) into cooking activities by using skills such as number sense, numeration concepts, fractions, estimation and problem solving. Students can see how these skills are used in everyday life. Integration also provides mathematical opportunities at which young children can be successful to an extent that traditional paper and pencil activities are unable to provide. This article demonstrates how using meaningful, everyday activities can teach students a variety of academic knowledge simultaneously.

In Cosgrove's article (1991) on the value of cooking in the classroom, the author states that cooking "is an appropriate way to involve children in the responsibility for their own eating habits. It also provides children with a tremendous sense of personal achievement by giving them a peek into the adult world they often imitate in play" (Cosgrove, 1991, p.43). The article indicates that when young children help prepare the food, they are more likely to eat it. Therefore, good nutrition habits will be more readily accepted and practiced by young children who participate in the preparation of healthy foods.

### CHAPTER III

#### PROJECT DESIGN

This integrated curriculum unit includes five major components: children's literature, tasting activities, cooking, journal writing, and parent involvement. Learning extensions, assessment rubrics, and a list of suggested children's texts and are also included. All the lessons are linked back to the Grade Level Equivalencies (GLEs) for kindergarten in Washington State. Each lesson will provide opportunities for students to make connections with or make meaning from the activities in which they will be participating. While the overall focus will be around fruits and vegetables, an introduction to the Food Pyramid and its components will also be included.

##### *Overview of Children's Literature*

The books used in this unit include both fiction and non-fiction texts. The texts are used in the context of a read aloud, meaning that the books will be read out loud to the children and discussion of content will occur before, during, and after the reading. The texts will also be linked to some of the tasting, cooking, and journal writing activities.

##### *Overview of Tasting Activities*

The purpose of the tasting activities is to increase the children's exposure to fruits and vegetables in a positive, social environment. Both familiar and unfamiliar fruits and vegetables will be used, with a focus on vegetables. This is done intentionally due to the statistics stating that children from the United States consume fewer vegetables than fruits.

During these tasting activities, students will be describing, tasting, and graphing their preference for the foods. Prior to starting the tasting activities, expectations, including taking a “no, thank you” bite of food and polite ways express dislike for some food item, will be discussed.

### *Overview of Cooking Activities*

This unit consists of four cooking activities that are designed to take place in a small group setting of about four to six students. The reason there are four cooking activities is to ensure that each child has the opportunity to participate in food preparation. While these activities could be adapted as whole class activities, the author found it was easier to manage them in a smaller group because there was more active engagement and less observation on the part of the students. For each cooking activity, the group meets with the teacher for two 20-25 minute sessions over two consecutive days. During this time, the rest of the class is engaged in independent work such as center time. Having another adult in the room is helpful during these activities to assist the other students when necessary.

During the first of the two sessions, the small group meets with the teacher to discuss the cooking activity. Proper hygiene and safety are discussed and practiced. Materials and ingredients are introduced, counted, and sorted. Students can smell and taste the ingredients. The recipe is shared and predictions are made.

When the group meets again the following day, hygiene and safety are reviewed. Students also determine how many kids they are cooking for that day. The recipe is reviewed, and the group works together to prepare the food. After the preparation is finished, the small group shares the process of making the snack with the whole class. Finally, the whole class gets to taste the snack, and a discussion of taste and preference follows.

### *Overview of Journal Writing*

Most of the journal writing is linked to other lessons as opposed as being a lesson of its own. This was done with the intention of providing students an opportunity to record their thoughts and ideas based on stories and other experiences both in and outside of the classroom. In the food journal, students are able to write about experiences with foods, food preferences, and make up their own recipes. Students are also given time to share their writing with the whole class.

### *Overview of Parent Component*

In order to link the learning back to the family, homework will be given. Through parent newsletters, information about what the students are learning and how it can be reinforced at home will be communicated. Prior to beginning this unit, parents will be invited to donate supplies and volunteer to help during cooking activities as well as encouraged to bring in and share a culturally significant dish.

The duration of this unit is over the course of two months, with more time devoted during the first couple weeks in order to build some background knowledge. A desired outcome of this project would be the continuation of students tasting various healthy foods and preparation of healthy snacks throughout the school year to reinforce nutritious eating habits.

## CHAPTER IV

### THE PROJECT

Learning about and practicing nutritious habits are vital for children of the 21<sup>st</sup> century if they are to grow up to be healthy, active citizens. Schools are an important avenue to provide opportunities to experience healthy eating. The following integrated nutrition unit provides kindergarten teachers with lesson plans and activities that can be used in a half-day program to teach about healthy foods, particularly fruits and vegetables. Lessons are linked to the Washington state GLEs and promote cultural acceptance within the classroom.

The lessons include activities for large and small group instruction. Each lesson will include the GLEs related to the lesson. Approximate duration of the lesson, materials, teaching strategies, and extensions will also be included. Suggestions for fiction and non-fiction texts are provided as well.

## UNIT GOALS

### *Concepts:*

Food gives our bodies energy to move and grow.

Healthy foods help keep us from getting sick.

Healthy foods include fruits and vegetables.

Fruits and vegetables should be eaten every day.

Fruits and vegetables are a good snack.

Eating a variety of food helps our bodies get what they need.

When you try a new food, you may find that you like it.

People from different places eat different types of food.

### *Skills:*

Identify foods that are healthy.

Use knowledge of letter sounds to label foods.

Interpret classroom generated graphs to determine class food preferences.

Listen to and discuss stories related to food.

Taste new foods.

### *Attitudes & Dispositions:*

Develop positive attitudes towards fruit and vegetables.

Accept and respect different people's food preferences.

Value the importance of eating healthy foods.

### SUGGESTED COOKING SUPPLIES TO HAVE ON HAND

- 2 Large Bowls
- 2-3 hand juicers
- 2-3 cutting boards
- Set of measuring spoons
- Set of measuring cups
- Large pot with lid
- 6 plastic knives (plastic lettuce knives work best)
- Mixing spoon
- Cups and spoons for each student
- Cutting knife

Dear Parents,

We are starting a unit on nutrition. Learning and adopting healthy eating habits now will benefit children for the rest of their lives. One barrier to children eating nutritious foods may be their resistance to trying new foods. During our unit, we will explore different types of healthy foods and offer both familiar and new foods during our snack time. Students will be encouraged to try new foods and discuss what they think of them. Throughout our unit, we will also be reading about how healthy foods help our bodies and will be preparing some simple healthy snacks. We would like to explore foods from other countries as well. **If you have experience cooking food from another country, please make note of that below.**

We will be needing donations of supplies and food as well as volunteers. A small supply list is attached. If you would be interested in donating food, please check off the form below, and I will send out a list to those interested in helping out with that. If you would like to help out with our cooking projects, volunteers will be needed Wednesdays and Thursdays from 9:30-10:30 in the a.m. class and 1:30-2:30 in the p.m. class. You can let me know your availability by filling out the information below.

**If your child has any food restrictions please fill out the form below and send it back to school so that we can plan our projects accordingly.**

Child's name \_\_\_\_\_

Are there any dietary restrictions we should know about? y/n

If yes, please explain \_\_\_\_\_

**Yes, I have experience cooking from another country and would like to share that knowledge with the class.**

Name \_\_\_\_\_ Child's name \_\_\_\_\_  
Country \_\_\_\_\_ phone # \_\_\_\_\_

**I would like to volunteer to help on Wednesday or Thursday for cooking projects.**

Name \_\_\_\_\_ Child's name \_\_\_\_\_  
Days available \_\_\_\_\_ Phone # \_\_\_\_\_

**I would like to donate supplies for the cooking projects.**

Name \_\_\_\_\_ Child's name \_\_\_\_\_  
Phone # \_\_\_\_\_

## LESSON 1 ASSESSING WHAT STUDENTS KNOW

**Objective:** Students will demonstrate what they know about healthy food through individual pre-assessments.

### ***EALRs/GLEs Addressed:***

#### ***Reading***

- 1.1.1 Understand and apply concepts of print.
- 1.1.2 Understand and apply phonological awareness and phonemic awareness.

#### ***Communication***

- 1.1.1 Understands how to adapt attentive behavior to accommodate the listening situation.
- 1.1.2 Applies listening and observation skills to recall and interpret information.

### ***Materials:***

- Chart paper for recording student responses
- Pre-assessment healthy foods coloring chart
- Privacy folders/ Way of ensuring students look only at their own papers during the individual pre-assessment
- Markers and pencils

***Structure/Duration:*** The first part of this lesson is a whole class discussion lasting 15-20 minutes. The second part of this lesson is a 10-minute independent work time to gather more information about what each student knows.

### ***Preparation:***

- Make a copy of the pre-assessment for each student
- Have a privacy folder for each child. One can be made easily by stapling two file folders together, making a trifold.
- Find a variety of foods, either pictures or actual food items. Most of the examples should be fruits and vegetables.

**Activity:**

*Part 1:* Instruct students to think about food. Ask questions:

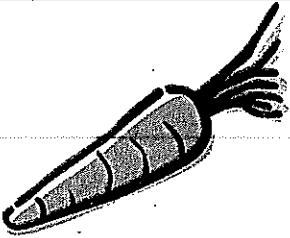

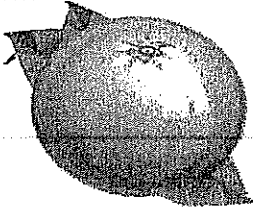
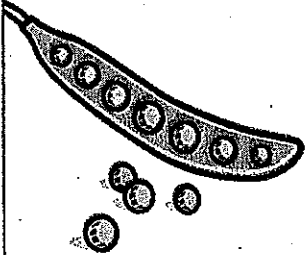
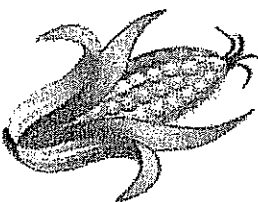
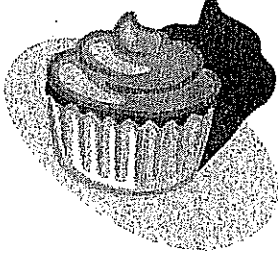
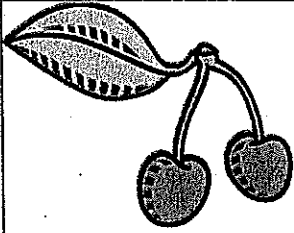

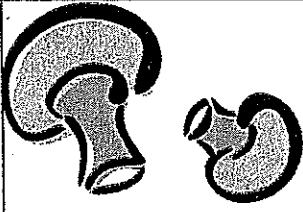
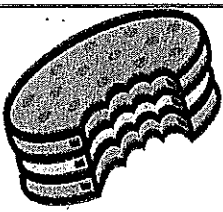


*What are foods that are good/bad for us? What are foods you like to eat?*

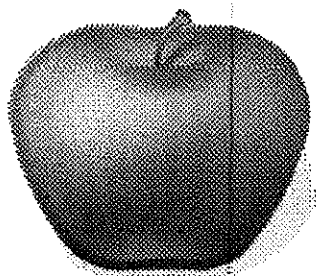
Ask students to share thoughts with a partner.

With students gathered, explain that over the next eight weeks the class will be learning about healthy foods. Ask students: *What do you know about healthy foods? Why we need healthy foods?* Have students turn and share what they know with a partner. After approximately one minute of partner sharing, have a few students share out to the class what they know. Record their ideas on the chart paper. As the teacher writes the words, maintain student engagement through practicing phonemic awareness by having students segment (break the word apart orally by individual phonemes) different food words their peers share.

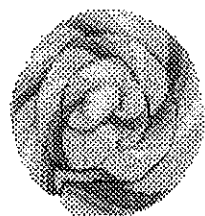
*Part 2:* Show students three sample pictures of foods, and explain they will be getting a paper with many different food pictures on it. Their job is to think about whether each food is healthy or not. If it is, have them color it. If they think it is not healthy, have them leave it blank. Model with the pictures provided. When students finish, they can turn their paper over and draw and label other foods they think are healthy. To ensure the students understand the directions, as they are completing the pre-assessment, monitor individual students and point to various foods they colored, asking if they are healthy foods.

*Pre/Post-Assessment***Name**

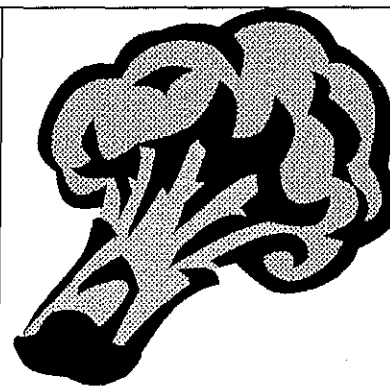
 <b>carrots</b>	 <b>soda</b>	 <b>orange</b>
 <b>peas</b>	 <b>corn</b>	 <b>cupcake</b>
 <b>cherries</b>	 <b>chips</b>	 <b>mushrooms</b>
 <b>cookie</b>	 <b>spinach</b>	 <b>pear</b>



apple



lollipop



broccoli

## LESSON 2 WHAT DO STUDENTS WANT TO LEARN ABOUT HEALTHY FOODS?

**Objectives:** As a class students, will verbally communicate their inquiries about healthy foods.

**EALRS/GLEs addressed:**

### *Reading*

1.1.1 Understand and apply concepts of print.

1.1.2 Understand and apply phonological awareness and phonemic awareness.

### *Communication*

1.1.1 Understands how to adapt attentive behavior to accommodate the listening situation.

1.1.2 Applies listening and observation skills to recall and interpret information.

### **Materials:**

- Large chart paper
- Markers

**Structure/Duration:** This is a whole class lesson that takes approximately 10-15 minutes.

**Preparation:** Review the “What We Know” chart, and ask the students to think about what they do not know and want to learn about healthy foods.

**Activity:** With the whole class gathered, ask the students to think about what they want to know about healthy foods. Provide approximately one minute of quiet think time for students to reflect on what they want to learn, and then have them quietly share with a partner. Give students a signal to gather back as a whole group and invite students to share their ideas with the class as the teacher records the ideas on the chart paper. After a student shares an idea, ask the class if anybody else agrees with that idea. Discuss the common ones, and then ask who has a different thing they want to learn about.

### LESSON 3 HOW OUR BODIES USE FOOD

#### *Objectives:*

- As a class, students will explain that food gives the body energy to move and grow.
- Students will describe the path food takes inside the body and be able to point to the four basic parts of the body that aid in digestion.

#### *EALRs /GLEs*

##### *Reading*

- 1.1.1 Understand how to ask questions about the text.
- 2.1.4 Understand how to use prior knowledge.
- 2.3.1 Understand similarities within and between informational/expository text and literary/narrative text.

##### *Communication*

- 1.1.3 Understands how to adapt attentive behavior to accommodate the listening situation.
- 1.1.4 Applies listening and observation skills to recall and interpret information.

***Duration/Structure:*** This whole class lesson takes place over two 20-minute sessions. It combines reading a nonfiction text to the class, charting the digestive system and a theatrical exercise related to digestion.

#### *Materials:*

- Small mirrors for each student
- Large blank paper
- Colored markers
- The Digestive System by Helen Frost

***Preparation:*** On the large paper, draw a basic outline of a body and a simple sketch of the digestive system. This can either be done free hand or traced by using an overhead to project an image of the digestive system onto white paper.

### *Activity*

*Part 1:* Explain to the students that they will be talking about teeth. Ask: *Why do people have teeth?*

Distribute mirrors to the students and have them look at their own teeth. Encourage them to use their tongues to feel their teeth, as well. Ask: *How are the teeth the same? How are the teeth different? Why do you think that some teeth are different from each other?*

Pass out one small cracker to each child. As they eat the cracker, ask: *Which teeth did you use to take a bite? Did you use the same or different teeth to chew up the cracker?*

Discuss that different teeth have different jobs when we eat. Teeth are part of our digestive system. The digestive system is made up of different parts of the body that help us eat and use food. Explain that over the next few days the class will be learning about the different parts of the digestive system.

*Part 2:* Show the students the book The Digestive System. Have students turn and discuss with a partner what they see on the cover. Begin reading the book. After reading about what the teeth do, use a marker and trace the corresponding part of the poster. Label each body part with the correct word. Have the students act out the actions of the teeth. Continue reading the book, stopping as new body parts are introduced to trace the corresponding parts on the poster, labeling them and acting out the action of the body parts. After reading the book to the class, review the process of digestion by referring to the poster and acting out the process. Hang the poster in a visible, accessible area and refer to it throughout the unit.

*Notes:* In the first part of this lesson, an activity is done to emphasize the role of teeth in the digestion process. This activity was adapted from Play and Find Out About the Human Body: Easy Experiments for Young Children by Jan VanCleave. Other experiments from this book could be included in the second part of the lesson to demonstrate other part of the digestive system, though the duration of this lesson would need to be extended to at least one additional 20 minute session.

## LESSON 4 WHY SHOULD WE EAT HEALTHY FOODS?

### *Objectives:*

- Students will describe two reasons our bodies need healthy foods.
- Students will name three foods that are good for the body.

### *EALRs/ GLEs*

#### *Reading*

- 1.1.2 Understand how to ask questions about the text.
- 2.1.4 Understand how to use prior knowledge.
- 2.3.2 Understand similarities within and between informational/expository text and literary/narrative text.
- 2.4.1 Understand how to give a personal response and make connections to text.

#### *Communication*

- 1.1.5 Understands how to adapt attentive behavior to accommodate the listening situation.
- 1.1.6 Applies listening and observation skills to recall and interpret information.
- 1.2.1 Understands how to infer and make personal connections to auditory and visual information.
- 3.1.3 Understands how to plan effective oral communication and presentation.
- 3.2.1 Understands how to use media and resources in oral presentations.
- 3.3.1 Applies skills for delivering effective oral communication and presentations.

#### *Writing:*

- 1.1.1 Uses pictures and talk for thinking and planning about writing.
- 1.2.1 Produces a draft of words, captions, and/or sentences.
- 2.1.1 Knows that an audience exists outside of self.
- 2.2.1 Demonstrates understanding that writing has different purposes.
- 3.1.2 Understands that writing is organized around one topic.
- 3.3.2 Uses phonemes and letter knowledge in phonetic spelling.

#### *Materials:*

- Student writing journals
- Pencils
- Why Should I Eat Well? By Claire Llewellyn

***Duration/Structure:*** This lesson has two parts. The first part is a whole class read aloud that lasts about 15 minutes. The second part consists of a 20-minute independent writing period and 5 minutes of sharing.

**Preparation:** Prepare student journals for each child. Prior to the lesson, have the students write their names on and decorate their food journals with pictures of their favorite foods.

**Activity:**

*Part 1:* Show the students the book Why Should I Eat Well?. Ask: *What do you think it means to eat well? Do you think the girl on the cover is eating well? What kinds of foods should you eat in order to eat well?* Have students turn and discuss with a partner. Begin reading the book. Discuss the different foods addressed in the book. Ask students: *Do you think these are foods our bodies need everyday?* Upon finishing the story ask: *What does it mean to eat well? Why should people eat well? What can happen if you do not eat foods that are good for you?*

*Part 2:* Explain to students that they will be writing their food journals. The topic will be why it is important to eat healthy foods. Encourage students to use examples of different healthy foods in their writing. Remind them to use details in their pictures and labels, and/or sentences as they write in their food journals. As students write independently, monitor students to assess if they are writing on topic, using letter sound approximations when attempting written language and are able to talk about their own writing. In the last five minutes of journal writing, choose 4-5 students who are finished to share their writing with the class.

Extensions:

- Reread Why Should I Eat Healthy? after the food pyramid has been introduced. As different foods are discussed in the story, help students find what food group they belong to on the food pyramid.
- Have students, either in pairs or individually, create a lunch/snack menu that would help others eat well.

## LESSON 5 WHAT FOODS SHOULD WE EAT ? (USING THE FOOD PYRAMID)

### *Objectives:*

- Students will identify the five basic food groups by using a visual model of the food pyramid.
- Students will be able to identify which food groups from which they should eat the most, using a visual model of the food pyramid.

### *EALRs/GLEs:*

#### *Reading*

Understand how to ask questions about the text.

2.1.4 Understand how to use prior knowledge.

2.3.2 Understand similarities within and between informational/expository text and literary/narrative text.

2.4.1 Understand how to give a personal response and make connections to text.

#### *Communication:*

1.1.7 Understands how to adapt attentive behavior to accommodate the listening situation.

1.1.8 Applies listening and observation skills to recall and interpret information.

1.2.1 Understands how to infer and make personal connections to auditory and visual information.

### *Materials:*

- The MyPyramid traced in pencil on large white paper
- Pictures of foods from the five basic food groups: grains, vegetables, fruits, dairy, and meat and beans
- The Edible Pyramid: Good Eating Every Day by Loreen Leedy
- Clear tape
- Orange, green, red, blue, and purple markers

***Structure/Duration:*** This whole class lesson is designed to be completed over two sessions.

The first session is a 20-minute read aloud activity. The second session is a 15-minute activity in which students are interacting with the food pyramid.

For the second part of the activity, be sure to have enough pictures of food for each student to get one.

**Preparation:** Obtain pictures of food from each of the five food groups: grains, vegetables, fruits, dairy and meat and beans. These can be easily obtained from weekly grocery store ads and/or food magazines. Use the food pyramid (a copy can be downloaded and printed from [www.mypyramid.gov](http://www.mypyramid.gov)) to determine how many pictures from each food group you should have. For example, you should have more pictures representing the grain group in proportion to the vegetable group and so forth to demonstrate that people should eat more grains than vegetables. (See “Notes” for sample class size and corresponding food picture quantities.) Cut out picture examples of each of the food groups and glue them on colored paper. The paper colors should correspond to the colors on the food pyramid. Example: grains on orange, vegetables on green. If possible, ask parents to prepare the pictures. You may want to laminate the pictures before the lesson, so they can be used for years to come.

The food pyramid poster can be easily constructed by drawing a large triangle with a pencil and dividing it into five sections. Again, use a copy of MyPyramid as your guide.

### **Activity**

**Part 1:** Introduce the book The Edible Pyramid: Good Eating Every Day. Discuss what foods are shown on the cover. Explain to the students that they will be learning about the food pyramid. The food pyramid is made up of five food groups. People should eat from each of the food groups every day to stay healthy. Tell students to listen carefully to the story so they can learn what the five food groups are. Begin reading the story. As the food groups are introduced, ask the students to look at the pictures in the book and tell what foods are in each particular food group. For example, when the grain group is introduced ask: *What are some foods from*

*the grain group that you see?* After reading the story, ask the students to share with a partner: *What food groups you remember from the food pyramid?* Then ask a few students to share their ideas with the class. As students are sharing, use the outline of the MyPyramid and trace that section of the food group with a marker of the corresponding color. For example, when a student names the grain group, use an orange marker to trace that section of the food pyramid. Label each of the food groups. Have students help by naming the first sound and letter in each of the words. After each food group has been traced and labeled on the pyramid, review the chart.

*Part 2:* Ask the students to look at the MyPyramid poster that was previously created. Ask students to share with a partner: *What are food groups do you remember from the food pyramid?* Then review the food groups as a class, looking at the first letters on the labels as the words are read. Pass out a picture of a food to each student. Have students share the name of their food and what food group they think it is in with a partner. As a class, reread each food group and ask any students who have a food picture from that group to tape it on the poster in the proper spot. Encourage students to name the food as they post it. After all the food is taped to the poster, ask students to compare the number of food pictures in the different groups. Explain that the groups that have more foods in them are the ones from which people need to eat more. The groups that have less food in them are ones from which people need to eat less. Remind students they need to eat food from each of the food groups every day in order to stay healthy. Keep the poster in a visible, accessible place in the classroom and refer to it throughout the unit.

*Notes:* An example of food picture amounts for a class of 24

9 grains

3 dairy products

5 vegetables

3 meats and/or beans

4 fruit

\*Although the oil and fats group is not discussed in this lesson because the focus is on the five basic food groups, students may notice that food group in the book and ask about it when creating the food pyramid. You may want to add it to your food pyramid, but be sure to emphasize that these are foods of which people should eat very little.

**LESSON 6    D.W. THE PICKY EATER*****Objectives:***

- Students will listen to and discuss the story.
- Students will record personal connections to the story in their journals.

***EALRs/GLEs:******Reading:***

- 1.2.2 Apply vocabulary strategies in grade level text.
- 2.1.1 Understand how to ask questions about the text
- 2.1.4 Understand how to use prior knowledge.
- 2.1.5 Understand how to infer/predict meaning.
- 2.2.3 Understand story elements.
- 2.4.1 Understand how to give a personal response and make connections to text.

***Communication:***

- 1.1.0 Understands how to adapt attentive behavior to accommodate the listening situation.
- 1.1.1 Applies listening and observation skills to recall and interpret information.
- 1.2.1 Understands how to infer and make personal connections to auditory and visual information.

***Writing:***

- 1.1.1 Uses pictures and talk for thinking and planning about writing.
- 1.2.1 Produces a draft of words, captions, and/or sentences.
- 2.1.1 Knows that an audience exists outside of self.
- 2.2.1 Demonstrates understanding that writing has different purposes.
- 3.1.2 Understands that writing is organized around one topic.
- 3.3.2 Uses phonemes and letter knowledge in phonetic spelling.

***Materials:***

- D.W. the Picky Eater by Marc Brown
- Student food journals

***Preparation:*** Familiarize yourself with the story. Because the book is not paginated, you will need to go through and mark the pages listed in the activity section of this lesson.

**Structure/Duration:** This is a two part lesson. The first is a whole group, read aloud lesson that takes approximately 15 minutes. The second part is a 20-minute, independent journal writing session with a 5-minute group sharing of the writing of a few students' writing.

**Activity:**

*Part 1:* Begin by reading the title and showing the students the cover of the book. Ask the students: *What do you see on the cover of the book? What are you thinking this story might be about? What does it mean to be a "picky eater"? Are you a picky eater or do you know someone who is?*

Have students turn and discuss with a partner for approximately 1 minute, and then ask a few students share their ideas with the rest of the class. Tell the students that while they listen to the story they are to think about if they have had any of the same experiences as the characters in the book.

Begin reading the story. After page 3, pause and define a picky eater and ask the students: *Is there any food you not like to eat?* Have the students turn and share with a partner. Have a few students share their experiences.

Continue reading. After page 9, ask the students if they thought it was a good idea for D.W. to throw a tantrum because she did not want to eat the spinach. Ask the students: *Can you think of a better way D.W. could act if she does not like a food?* Have the students do a turn and talk then a share out from a few students.

Continue reading. After page 17, have students make a prediction about whether they think D.W. will like the new food she is going to try. Have students put their thumbs up for "yes" and thumbs down for "no".

Finish reading the story. Upon finishing the book ask: *Why does D.W. have such a funny face on the last page? Have you ever tried a food you thought you did not like and then found out you liked it?*

*Part 2:* Ask students to think about foods they do not like or thought that they did not like.

*What was the food you thought you did not like? Where were you? What did you do?* Have students turn and share with a partner. Tell the students they are going to write about a time they did not like a particular kind of food. Encourage them to use details in their pictures and labels, and/or sentences as they write in their food journals. As students write independently, monitor students to assess if they are writing on topic, using letter sound approximations when attempting written language and are able to talk about their own writing. In the last five minutes of journal writing, choose 4-5 students who are finished to share their writing with the group.

## LESSON 7 TASTE TESTING

### *Objectives:*

- Students will describe a new/novel fruit or vegetable.
- Students will take a small bite of the new/novel fruit or vegetable.
- Students will graph what they thought about the fruit or vegetable as a whole class.
- Students will interpret and discuss the results from the graph.

### *EALRs/GLEs:*

#### *Mathematics:*

- 1.2.1 Understand and apply appropriate terminology to compare attributes.
- 1.3.2 Know the characteristics of familiar objects.
- 1.4.3 Understand how data can be collected and organized.
- 1.4.5 Understand how a display provides information.
- 4.2.2 Understand how to communicate or represent ideas or information using mathematical language or notation

### *Materials:*

- Washed spinach or other leafy vegetable
- Hand sanitizer
- Pre-made graph

***Preparation:*** Purchase and wash spinach. Make a large, simple graph for the students to post their preferences about spinach.

***Structure/Duration:*** This begins as a whole group lesson for the first 10 minutes. This first portion of the lesson may best be done with students sitting in a circle or horseshoe shape to make it easier for students to see and share. Students then color in a quick 5 minute, take-home paper at a table and then come back to finish with a 10 minute, whole group activity.

***Activity:*** Begin by reviewing the story D.W. the Picky Eater. Discuss how D.W. thought she hated spinach, but when she tried it, she actually liked it. Explain to the students that our tastes

can change as we get older and try new foods. Tell the students over the next couple weeks, they will get to try new fruits and vegetables. Some may be foods the students think they do not like. Explain to the students they will be asked to take a “No thank you bite,” which means they just take a small bite. If they do not like it, they do not have to finish, but if they do like it, they get to eat the whole piece. Also discuss with students how to politely say they do not like a food after they have tried it. Reinforce this during the tasting. Do not ever force students to take “No, thank you bites” if they resist, but praise those who do take a bite.

Explain to students that it is important to be clean when preparing or eating food. Model using hand sanitizer before touching the food, and discuss with students why people wash their hands before touching and eating food. Explain how you washed the spinach and put it in a clean bowl. Show the students the spinach and ask : *What color is the spinach? What shape is the spinach? What does this vegetable remind you of? How else could you describe this vegetable?*

Have students turn and share with their partners for approximately 1 minute. Then invite a few students to share out with the whole class.

Pass sanitizer around for students to clean their hands. Explain that they will get to taste a piece of spinach. Pass out a small piece for each student to try. Encourage students to talk about the food they are tasting. Is it sweet, bitter, salty? Is it crunchy, chewy, soft or hard to eat?

As students finish, introduce the paper they will fill out. Write the name of the vegetable so students can see how to spell it, naming the letters as they are written. Model how they will fill out the paper. If the students finish the paper before time is up, encourage them to write and draw on the back about their spinach tasting experience. Explain they will be taking their work

home the same day so they can share with their family about what they tried at school and what they thought of it.

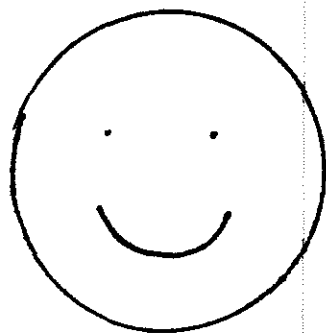
Dismiss students to their tables to complete their papers. When the time is up, have students put their work in their cubbies or wherever they put papers to bring home.

As students gather back as a group, have them record on the graph what they thought about the vegetable. After all students have recorded their preference, talk about the data gathered. Ask: *What did most people think of the spinach? What did the fewest number of people think about the spinach? Do you see anything that is the same? How do you know? How many people liked/disliked/thought it was O.K.? How can you tell?*

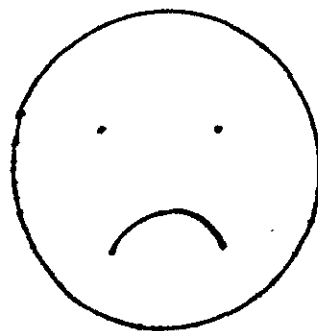
Have students share with their partners. Then have a few students share their ideas with the whole group. Promote discussion by asking students whether they agree or disagree with their peers' ideas. Invite students to come up and count different categories and/or prove their ideas. Label categories with numbers.

Name \_\_\_\_\_

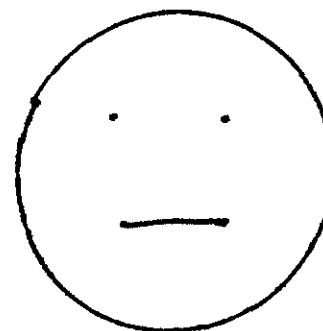
Today I tried \_\_\_\_\_ at school.  
This is what I thought of it.



good



not good



o.k.

## LESSON 8 TASTE TESTING

### *Objectives:*

- Students will describe a new/novel fruit or vegetable.
- Students will take a small bite of the new/novel fruit or vegetable.
- Students will graph what they thought about the fruit or vegetable as a whole class.
- Students will interpret and discuss the results from the graph.

### *EALRs/GLEs:*

#### *Mathematics:*

- 1.2.1 Understand and apply appropriate terminology to compare attributes.
- 1.3.2 Know the characteristics of familiar objects.
- 1.4.3 Understand how data can be collected and organized.
- 1.4.5 Understand how a display provides information.
- 4.2.2 Understand how to communicate or represent ideas or information using mathematical language or notation

### *Materials:*

- Zucchini
- Hand sanitizer
- Pre-made graph

**Preparation:** Purchase and wash zucchini. Make a simple graph large simple graph for the students to post their preferences about zucchini.

**Structure/Duration:** This begins as a whole group lesson for the first 10 minutes. This first portion of the lesson may best be done with students sitting in a circle or horseshoe shape to make it easier for students to see and share. Students then color in a quick 5 minute, take-home paper at a table and then come back to finish with a 10 minute, whole group activity.

**Activity:** Begin by reviewing graph about spinach from previous taste testing. Introduce the new vegetable and ask students to describe it to a partner. Encourage students to discuss color,

shape, size and make comparisons to other foods they know. Then invite a few students to share out with the whole class.

Ask students if anyone has eaten zucchini before. Have a couple students share their experiences. Explain to students that the zucchini will get cut up for everyone to try. Ask them how many slices will be needed so everyone gets a piece. Have students share their ideas with a partner. Then ask a couple students to share their ideas. As a class, determine how many slices will be needed.

Review the process of tasting: no thank you bites, polite ways to communicate preference towards the vegetable and hand washing.

Pass sanitizer around for students to clean their hands. As students prepare to try the zucchini, cut the vegetable into small pieces. Pass out a small piece for each student to try. Encourage students to talk about the food they are tasting. *Is it sweet, bitter, salty? Is it crunchy, chewy, soft or hard to eat?*

As students finish, explain that they will be filling out another paper like the one they did after tasting the spinach.

Write the name of the vegetable so students can see how to spell it, naming the letters as they are written. Model how they will fill out the paper. If the students finish the paper before time is up, encourage them to write and draw on the back about their zucchini tasting experience.

Remind students they will be taking their work home the same day so they can share with their family about what they tried at school and what they thought of it.

Dismiss students to their tables to complete their paper. After approximately 5-8 minutes, have students put their work in their cubbies or wherever they put papers to bring home.

Gather students back as a group, have them record on the graph what they thought about the vegetable. After all students have recorded their preference, talk about the data gathered. Ask:

*What did most people think of the zucchini? What did the fewest number of people think about the zucchini? Do you see anything that is the same? How do you know? How many people*

*liked/disliked/thought it was O.K.?*

*How can you tell?*

Have students share with their partners. Then have a few students share their ideas with the whole group. Promote discussion by asking students whether they agree or disagree with their peers' ideas. Invite students to come up and count different categories and/or prove their ideas. Label categories with numbers.

## LESSON 9 TASTE TESTING

### *Objectives:*

- Students will describe a new/novel fruit or vegetable.
- Students will take a small bite of the new/novel fruit or vegetable.
- Students will graph what they thought about the fruit or vegetable as a whole class.
- Students will interpret and discuss the results from the graph.

### *EALRs/GLEs:*

#### *Mathematics:*

- 1.2.1 Understand and apply appropriate terminology to compare attributes.
- 1.3.2 Know the characteristics of familiar objects.
- 1.4.3 Understand how data can be collected and organized.
- 1.4.5 Understand how a display provides information.
- 4.2.2 Understand how to communicate or represent ideas or information using mathematical language or notation

### *Materials:*

- Kiwi or other novel fruit
- Hand sanitizer
- Pre-made graph

**Preparation:** Purchase and wash the kiwi. Make a large simple graph for the students to post their preferences about kiwi.

**Structure/Duration:** This begins as a whole group lesson for the first 10 minutes. This first portion of the lesson may best be done with students sitting in a circle or horseshoe shape to make it easier for students to see and share. Students then color in a quick 5 minute, take-home paper at a table and then come back to finish with a 10 minute, whole group activity.

**Activity:** Begin by reviewing graphs from previous taste testing. Introduce the new fruit. Cut it in half and show the children the inside. Ask students to describe it to a partner. Encourage

students to discuss color, shape, size and make comparisons to other foods they know. Then invite a few students to share out with the whole class.

Ask students if anyone has eaten kiwi before. Have a couple students share their experiences.

As a class, determine how many slices will be needed.

Review the process of tasting: no thank you bites, polite ways to communicate preference towards the fruit and hand washing.

Pass sanitizer around for students to clean their hands. As students prepare to try the kiwi, cut the kiwi into small pieces. Pass out a small piece for each student to try. Encourage students to talk about the food they are tasting. *Is it sweet, bitter, salty? Is it crunchy, chewy, soft or hard to eat?*

As students finish, explain that they will be filling out another paper like the one they did after the previous tasting.

Ask the students to think about the sounds they hear in the word kiwi. Have them share with a partner what letters they expect to see in the word kiwi. Write the name of the fruit so students can see how to spell it, naming the letters as they are written. Review how they will fill out their papers. If the students finish the paper before time is up, encourage them to write and draw on the back about their kiwi tasting experience. Remind students they will be taking their work home the same day so they can share with their family about what they tried at school and what they thought of it.

Dismiss students to their tables to complete their papers. After approximately 5 minutes, have students put their work in their cubbies or wherever they put papers to bring home.

Gather students back as a group, have them record on the graph what they thought about the fruit. After all students have recorded their preference, talk about the data gathered. Ask: *What*

*did most people think of the kiwi? What did the fewest number of people think about the kiwi?*

*Do you see anything that is the same? How do you know? How many people*

*liked/disliked/thought it was O.K.? How can you tell?*

Have students share with their partners. Then have a few students share their ideas with the whole group. Promote discussion by asking students whether they agree or disagree with their peers' ideas. Invite students to come up and count different categories and/or prove their ideas. Label categories with numbers.

## LESSON 10 TASTE TESTING

### *Objectives:*

- Students will describe a new/novel fruit or vegetable.
- Students will take a small bite of the new/novel fruit or vegetable.
- Students will graph what they thought about the fruit or vegetable as a whole class.
- Students will interpret and discuss the results from the graph.

### *EALRs/GLEs:*

#### *Mathematics:*

- 1.2.1 Understand and apply appropriate terminology to compare attributes.
- 1.3.2 Know the characteristics of familiar objects.
- 1.4.3 Understand how data can be collected and organized.
- 1.4.5 Understand how a display provides information.
- 4.2.2 Understand how to communicate or represent ideas or information using mathematical language or notation

### *Materials:*

- Radish or other novel root vegetable
- Hand sanitizer
- Pre-made graph

***Preparation:*** Purchase and wash radish. Make a simple graph large simple graph for the students to post their preferences about radish.

***Structure/Duration:*** This begins as a whole group lesson for the first 10 minutes. This first portion of the lesson may best be done with students sitting in a circle or horseshoe shape to make it easier for students to see and share. Students then color in a quick 5 minute, take-home paper at a table and then come back to finish with a 10 minute, whole group activity.

***Activity:*** Begin by reviewing graph from the previous taste testing. Introduce the new vegetable and ask students to describe it to a partner. Encourage students to discuss color,

shape, size, and make comparisons to other foods they know. Then invite a few students to share out with the whole class.

Ask students if anyone has eaten radish before. Have a couple students share their experiences.

Explain to students that the radish will get cut up for everyone to try. As a class, determine who many slices will be needed.

Review the process of tasting: no thank you bites, polite ways to communicate preference towards the vegetable and hand washing.

Pass sanitizer around for students to clean their hands. As students prepare to try the radish, cut the vegetable into small pieces. Pass out a small piece for each student to try. Encourage students to talk about the food they are tasting. *Is it sweet, bitter, salty? Is it crunchy, chewy, soft or hard to eat?*

As students finish, explain that they will be filling out another paper like the one they did after tasting the fruits or vegetables.

Have the students say the word radish slowly, listening for letter sounds they recognize. Have them share what they are thinking with a partner. Encourage a couple students to share with the class their thinking. Then write the name of the vegetable so students can see how to spell it, naming the letters as they are written. Look for common letters from the students' ideas.

Review how they will fill out their papers. If the students finish the paper before time is up, encourage them to write and draw on the back about their radish tasting experience. Remind students they will be taking their work home the same day so they can share with their family about what they tried at school and what they thought of it.

Dismiss students to their tables to complete their paper. After approximately 5 minutes, have students put their work in their cubbies or wherever they put papers to bring home.

Gather students back as a group, have them record on the graph what they thought about the vegetable. After all students have recorded their preference, talk about the data gathered. Ask:

*What did most people think of the radish? What did the fewest number of people think about the radish? Do you see anything that is the same? How do you know? How many people liked/disliked/thought it was O.K.?*

*How can you tell?*

Have students share with their partners. Then have a few students share their ideas with the whole group. Promote discussion by asking students whether they agree or disagree with their peers' ideas. Invite students to come up and count different categories and/or prove their ideas.

Label categories with numbers.

## LESSON 11 MAKING ORANGE JUICE

### *Objectives:*

- Students will identify and count ingredients used in the snack.
- Students will identify the fruits or vegetables used in the snack.
- Students will identify the first sound in the fruit's or vegetable's name.
- Students will cooperatively describe the process used in making the snack to the whole class.
- Students will work cooperatively to prepare a snack for the class.

### *EALRs/GLEs:*

#### *Reading:*

- 1.1.1 Understand and apply concepts of print.
- 1.1.2 Understand and apply phonological awareness and phonemic awareness.
- 1.1.3 Apply understanding of oral language to develop reading skills.
- 1.1.4 Apply understanding of phonics.
- 1.2.2 Apply vocabulary strategies in grade level text.
- 1.4.1 Know common sight words appropriate to grade level.
- 2.4.2 Understand purposes of simple text.

#### *Mathematics:*

- 1.1.1 Understands the concept of number.
- 1.1.2 Understand sequential relationships among whole numbers.
- 1.2.1 Understand and apply appropriate terminology to compare attributes.
- 1.3.2 Know the characteristics of familiar objects.
- 5.3.1 Understand how mathematics is used in everyday life.

### *Materials:*

- Oranges: about one per student, plus a few extras (Cara Cara and blood oranges make a nice addition because their insides look different).
- Cups (1 per student)
- 3-4 citrus juicers with containers to catch juice
- Large bowl
- Ladle
- Cutting board
- Knife
- Sponges for clean up
- Directions on chart paper
- Parent volunteer for added supervision

**Preparation:** Send home a parent note one week before lesson begins, asking for each student to bring one orange to class. Collect the fruits in a large bowl as students bring them to class. If left out at room temperature, the oranges will get soft, making them easier to squeeze.

Create small heterogeneous groups of about 4-5 students for the cooking activities. From those small groups, decide which students will count the oranges, sort oranges from smallest to biggest, count the cups, etc.

Write down the process on chart paper using basic pictures for each step.

**Structure/Duration:** This is a three part lesson. The first two are small group activities each comprised of 20-25-minute sessions. The third part is a 5-10-minute whole class discussion about the cooking process. During the first small group activity, students will explore the ingredients and materials, go over the process using the chart and practice mathematic skills using the materials. During the second small group activity, students will follow the recipe to prepare the snack for the class. For the third and final part of the lesson, the students from the cooking group will share the preparation process with their peers. Finally, the class will taste the snack. Allow 5-10 minutes for snack time.

**Activity:**

**Part 1:** Invite the small, pre-selected small group of students to wash their hands and gather around a table. Look at the ingredients and supplies with the students. Invite them to share any personal experiences they may have had with any of the supplies that will be used. Pass an orange out to each of the students. Let them feel and smell it. Ask: *What is the first sound you*

*hear in the word orange?* Have students take turns describing the fruit. Fill a bowl with water and show the students how to rinse the fruit. Explain that fruits and vegetables must first be cleaned before they are eaten. Cut one of the oranges in half, demonstrating and discussing safe knife handling. Show them how you can put the two halves back together to make a whole.

Ask students what they see once the orange has been cut in half. Help them name the different parts of the orange such as the peel, flesh and seeds. Cut a slice for all to taste. As they are eating their orange, show them the recipe. Explain how they will need to follow the steps in order the following day so that they can make orange juice for the class. Act out the steps with the students as they are read.

*Extensions:*

- Give students 6-10 oranges, to cooperatively put in order from smallest to biggest. Ask a student to find the biggest/smallest orange from the bowl. Finally, ask the students how many oranges will there be to make the orange juice. Encourage the students to share different ways they could figure out how many oranges there are.
- Count the oranges using a couple different methods (putting the oranges in a line and counting them, counting the fruit as they are taken out/put back into the bowl).
- Advanced Students: Have these students figure out how many children are in the class if everyone is at school. Ask them to make a visual representation using picture, numbers and words.

*Part 2:* Gather the small group after washing hands and reviewing the recipe. If Cara Cara and/or blood oranges were available, put one of each in front of the students and ask them if they notice any differences between the fruits. Then cut each open and compare the inside. Let

students smell and taste for any differences. Determine how many students are at school. Have 1-2 students count out that many cups and line them up so they will be ready to fill.

Meanwhile, begin cutting the oranges in half and model how to squeeze the juice by pushing and turning the fruit on the juicer. Have a large empty bowl available to put the orange peels in. Have students take turns squeezing the oranges. While students are waiting, they can see if they can find the matching halves of the cut oranges, or they can count the cups. They can also use a warm, soapy sponge to keep the table clean.

As the containers get full, help students ladle the juice into each cup: one ladle of juice per cup.

Discuss that the thick chunks are called pulp.

As the food preparation comes to an end, review the process of making orange juice. Then have a student fill the sink with warm, soapy water to wash off the cooking utensils. Be sure everyone has the opportunity to clean up.

*Part 3:* Gather as a whole class and ask the cooking group to come to the front and share how they made the snack. Have a couple students introduce the ingredients and supplies used, a couple talk about how they used the supplies safely, and a couple read/explain the process. Encourage the rest of the class to ask questions of the cooking group about their project. After the discussion, dismiss students to prepare for snack. Be sure to reinforce proper hygiene by reminding students to wash their hands.

*Extensions:* Encourage students to write in their journals about the activity. They may write about the process of making orange juice, what they thought about making orange juice, or create their own recipes.

*Notes:* Procedure for Orange Juice

1. Cut the oranges in half.
2. Squeeze oranges.
3. Pour juice into cups
4. Clean up.

## LESSON 12 MAKING POPCORN

### *Objectives:*

- Students will identify and count ingredients used in the snack.
- Students will identify the fruits or vegetables used in the snack.
- Students will identify the first sound in the fruit's or vegetable's name.
- Students will cooperatively describe the process used in making the snack to the whole class.
- Students will work cooperatively to prepare a snack for the class.

### *EALRs/GLEs:*

#### *Reading:*

- 1.1.1 Understand and apply concepts of print.
- 1.1.2 Understand and apply phonological awareness and phonemic awareness.
- 1.1.3 Apply understanding of oral language to develop reading skills.
- 1.1.4 Apply understanding of phonics.
- 1.2.2 Apply vocabulary strategies in grade level text.
- 1.4.1 Know common sight words appropriate to grade level.
- 2.4.2 Understand purposes of simple text.

#### *Mathematics:*

- 1.1.3 Understands the concept of number.
- 1.1.4 Understand sequential relationships among whole numbers.
- 1.2.1 Understand and apply appropriate terminology to compare attributes.
- 1.3.2 Know the characteristics of familiar objects.
- 5.3.1 Understand how mathematics is used in everyday life.

### *Materials:*

- Hot plate
- Popcorn kernels
- Cooking oil
- Cinnamon
- Sugar
- Large pot with lid
- Measuring cups
- Measuring spoons
- Napkins and/or cups for serving
- Chart/note cards listing the process
- Large mixing spoon
- Soap and sponges for clean up

- Parent volunteer or other adult for added supervision

**Preparation:** Gather materials. Prepare recipe on large paper. Determine which small group will be participating in this activity. Arrange for a parent volunteer to assist with supervision.

**Structure/Duration:** This is a three part lesson. The first two are small group activities each comprised of 20-25-minute sessions. The third part is a 5-10-minute whole class discussion about the cooking process. During the first small group activity, students will explore the ingredients and materials, go over the process using the chart and practice mathematic skills using the materials. During the second small group activity students will follow the recipe to prepare the snack for the class. For the third and final part of the lesson, the students from the cooking group will share the preparation process with their peers. Finally, the class will taste the snack. Allow 5-10 minutes for snack time.

**Activity:**

**Part 1:** Invite the small pre-selected small group of students to wash their hands and gather around a table. Look at the ingredients and supplies with the students. Discuss how to safely use the heated surface. Invite them to share any personal experiences they may have had with any of the supplies that will be used. Put a small amount of each ingredient in separate containers. Pass the bowls around and allow each student to look, smell and taste each ingredient. Discuss students' observations. Explain how they will need to follow the steps in order the following day so that they can make popcorn for the class. Act out the steps with the students.

*Extensions:*

- Count how many different ingredients and/or supplies used.
- Order measuring cups/spoons from largest to smallest.
- Advanced Students: Have these students figure out how many children are in the class if everyone is at school. Ask them to make a visual representation using picture, numbers and words.

*Part 2 :* Invite the small pre-selected small group of students to wash their hands and gather around a table. Review recipe and safety rules. Follow the recipe, allowing students to take turns preparing the food (See “Notes” for more specifics on student jobs). Be sure an adult is stationed at the burner once it is on to ensure safety. Once all the kernels have been poured in to the pot, allow each child to take a turn shaking the pot. When most of the kernels have popped, remove the pot from the heat and unplug the hot plate. Pour the popcorn into a large bowl. Have students measure and pour in the final ingredients and mix them. If serving the popcorn in cups, determine how many students are at school. Have 1-2 students count out that many cups and line them up to be filled. They can also use a warm, soapy sponge to keep the table clean.

As the food preparation comes to an end, review the process of making popcorn. Then have a student fill the sink with warm, soapy water to wash off the cooking utensils. Be sure everyone has the opportunity to clean up.

*Part 3:* Gather as a whole class and ask the cooking group to come to the front and share how they made the snack. Have a couple students introduce the ingredients and supplies used, a couple talk about how they used the supplies safely, and a couple read/explain the process. Encourage the rest of the class to ask questions to the cooking group about their project. After the discussion dismiss students to prepare for snack. Be sure to reinforce proper hygiene by reminding students to wash their hands.

*Extensions:* Encourage students to write in their journals about the activity. They may write about the process of preparing the food, what they thought about making the snack, or create their own recipe.

#### Popcorn recipe

1. Put pot on burner and turn on to medium high.
2. Pour in 3 tablespoons oil and place 3 kernels into the pot.
3. Once the kernels pop, pour in 1/3 cup kernels and put lid on pot.
4. Shake the pot on the burner constantly until kernel popping has slowed.
5. Mix in 1 tablespoon sugar and 1 teaspoon cinnamon.

## LESSON 13 MAKING CARROT MUFFINS

### *Objectives:*

- Students will identify and count ingredients used in the snack.
- Students will identify the fruits or vegetables used in the snack.
- Students will identify the first sound in the fruit's or vegetable's name.
- Students will cooperatively describe the process used in making the snack to the whole class.
- Students will work cooperatively to prepare a snack for the class.

### *EALRs/GLEs:*

#### *Reading:*

- 1.1.5 Understand and apply concepts of print.
- 1.1.6 Understand and apply phonological awareness and phonemic awareness.
- 1.1.7 Apply understanding of oral language to develop reading skills.
- 1.1.7 Apply understanding of phonics.
- 1.2.3 Apply vocabulary strategies in grade level text.
- 1.4.2 Know common sight words appropriate to grade level.
- 2.4.2 Understand purposes of simple text.

#### *Mathematics:*

- 1.1.5 Understands the concept of number.
- 1.1.6 Understand sequential relationships among whole numbers.
- 1.2.1 Understand and apply appropriate terminology to compare attributes.
- 1.3.2 Know the characteristics of familiar objects.
- 5.3.1 Understand how mathematics is used in everyday life.

### *Materials:*

- Large mixing bowl
- 2 carrot peelers
- 2 cheese graters
- Measuring cups
- Measuring spoons
- Mini muffin tin, enough to make 24 mini muffins
- Access to an oven
- Parent volunteer or other adult for added supervision
- Mini muffin recipe (see "Notes")
- Recipe on chart for students to access (see "Notes")
- Ingredients: carrots, eggs, sugar, carrots, raisins, flour, baking powder, salt, cinnamon, nutmeg and oatmeal

**Preparation:** Gather materials. Prepare recipe on large paper. Determine which small group will be participating in this activity. Arrange for a parent volunteer to assist with supervision.

**Structure/Duration:** This is a three part lesson. The first two parts are small group activities each comprised of 20-25-minute sessions. The third part is a 5-10-minute whole class discussion about the cooking process. During the first small group activity, students will explore the ingredients and materials, go over the process using the chart, and practice mathematic skills using the materials. During the second small group activity, students will follow the recipe to prepare the snack for the class. For the third and final part of the lesson, the students from the cooking group will share the preparation process with their peers. Finally, the class will taste the snack. Allow 5-10 minutes for snack time.

**Activity:**

**Part 1:** Invite the small pre-selected small group of students to wash their hands and gather around a table. Look at the ingredients and supplies with the students. Discuss how to safely use an oven. Invite them to share any personal experiences they may have had with any of the supplies that will be used. Put a small amount of each ingredient in separate containers. Pass the bowls around and allow each student to look, smell and taste each ingredient, excluding the eggs. Discuss students' observations. Explain how they will need to follow the steps in order the following day so that they can make mini carrot muffins for the class. Act out the steps with the students.

**Extensions:**

- Count how many different ingredients and/or supplies are used.
- Order measuring cups/spoons from largest to smallest.
- Advanced Students: Have these students figure out how many children are in the class if everyone is at school. Ask them to make a visual representation using pictures, numbers and words.

*Part 2 :* Ask the parent volunteer to turn on the oven. If it is a convection oven, be sure to decrease the temperature by 25 degrees. Invite the small, pre-selected small group of students to wash their hands and gather around a table. Review recipe and safety rules. Follow the recipe, allowing students to take turns preparing the food. (See “Notes” for more specifics on student jobs.) Be sure students are supervised and know how to safely peel and shred the carrots. Have students measure and mix ingredients. After all the ingredients have been combined, invite students to help spoon the batter into the greased muffin tins. Review the process of making carrot muffins. Send a couple students with the parent helper to put the tins in the oven and set the timer. Have the rest of the students help clean up.

*Part 3:* Gather as a whole class and ask the cooking group to come to the front and share how they made the snack. Have a couple students introduce the ingredients and supplies used, a couple talk about how they used the supplies safely, and a couple read/explain the process. Encourage the rest of the class to ask questions of the cooking group about their project. After the discussion dismiss students to prepare for snack. Be sure to reinforce proper hygiene by reminding students to wash their hands.

**Extensions:** Encourage students to write in their journals about the activity. They may write about the process of preparing the food, what they thought about making the snack, or create their own recipe.

**Notes:**

**Carrot Raisin Mini Muffin Recipe** adapted from [www.foodfit.com](http://www.foodfit.com)

2 eggs  
 1/2 cup plus 2 tablespoons vegetable oil  
 1/2 cup sugar  
 1 1/2 cups coarsely grated carrots  
 1/2 cup raisins  
 1 1/2 cups all purpose flour  
 1/4 cup oatmeal  
 2 1/4 teaspoons baking powder  
 1/4 teaspoon salt  
 1 1/2 teaspoons cinnamon  
 1/2 teaspoon ground nutmeg

1. Preheat oven to 400°F. Grease muffin tins.
2. Whisk the eggs, oil and sugar together in a large mixing bowl. Peel and grate carrots. Stir in the carrots and raisins.
3. Stir together the remaining ingredients in another bowl. Add the flour mixture to the carrot mixture and stir to combine. (This is a stiff batter.) Spoon the mixture into muffin cups. Bake about 15 to 20 minutes until tester (use a toothpick) comes out clean.

**\*\*If doubling this recipe, double all ingredients except for baking powder.**

**Specific Student Jobs**

- 2-3 students to peel and shred the carrots (Ensure these students have an adult supervisor.)
- 2-3 students to crack eggs and measure and mix ingredients
- Other jobs can include greasing the muffin tins, setting the timer, and rinsing the dishes.

## LESSON 14 MAKING GREEN EGGS

### *Objectives:*

- Students will identify and count ingredients used in the snack.
- Students will identify the fruits or vegetables used in the snack.
- Students will identify the first sound in the fruit's or vegetable's name.
- Students will cooperatively describe the process used in making the snack to the whole class.
- Students will work cooperatively to prepare a snack for the class.

### *EALRs/GLEs:*

#### *Reading:*

- 1.1.1 Understand and apply concepts of print.
- 1.1.2 Understand and apply phonological awareness and phonemic awareness.
- 1.1.3 Apply understanding of oral language to develop reading skills.
- 1.1.4 Apply understanding of phonics.
- 1.2.4 Apply vocabulary strategies in grade level text.
- 1.4.3 Know common sight words appropriate to grade level.
- 2.4.2 Understand purposes of simple text.

#### *Mathematics:*

- 1.1.5 Understands the concept of number.
- 1.1.6 Understand sequential relationships among whole numbers.
- 1.2.1 Understand and apply appropriate terminology to compare attributes.
- 1.3.2 Know the characteristics of familiar objects.
- 5.3.1 Understand how mathematics is used in everyday life

### *Materials:*

- Hot plate
- Large skillet
- Large mixing bowl
- Whisk
- Plastic knives for students to cut vegetables
- Cheese grater (optional)
- Cups and forks for serving
- Sponge and soap for clean up
- Recipe written on chart or note cards (see "Notes")
- Ingredients: 1 dozen eggs, 3 green onions, green vegetable of choice Optional: Food coloring, 4 ounces of a white cheese, salt and pepper
- Parent volunteer or other adult for added supervision

**Preparation:** Gather materials. Prepare recipe on large paper. Determine which small group will be participating in this activity. Arrange for a parent volunteer to assist with supervision. Read Green Eggs and Ham by Druses to the class. After reading the story, explain to the students that the last cooking group will make a version of green eggs. Explain that the recipe calls for a green vegetable of their choice. Create a class list of vegetables that are green. Have students vote on which vegetable they would like to incorporate into the recipe.

**Structure/Duration:** This is a three part lesson. The first two parts are small group activities each comprised of 20-25-minute sessions. The third part is a 5-10-minute whole class discussion about the cooking process. During the first small group activity, students will explore the ingredients and materials, go over the process using the chart and practice mathematic skills using the materials. During the second small group activity students will follow the recipe to prepare the snack for the class. For the third and final part of the lesson, the students from the cooking group will share the preparation process with their peers. Finally, the class will taste the snack. Allow 5-10 minutes for snack time.

**Activity:**

**Part 1:** Invite the small pre-selected small group of students to wash their hands and gather around a table. Look at the ingredients and supplies with the students. Discuss how to safely use the heated surface. Invite them to share any personal experiences they may have had with any of the supplies that will be used. Put a small amount of each ingredient in separate containers. Pass the bowls around and allow each student to look, smell and taste each

ingredient, except for the raw egg. Discuss students' observations. Explain how they will need to follow the steps in order the following day so that they can make green eggs for the class.

Act out the steps with the students.

*Extensions:*

- Count how many different ingredients and/or supplies are used.
- Find out how many are in a dozen.
- Order measuring cups/spoons from largest to smallest.
- Advanced Students: Have these students figure out how many children are in the class if everyone is at school. Ask them to make a visual representation using picture, numbers and words.

*Part 2 :* Invite the small pre-selected small group of students to wash their hands and gather around a table. Review recipe and safety rules. Follow the recipe, allowing students to take turns preparing the food. (See "Notes" for more specifics on student jobs.) Demonstrate how to crack an egg by gently tapping it against a hard surface and carefully pushing your thumbs into the crack and pulling the shell apart over a bowl. (This is a difficult, but satisfying job for kindergarteners. Be prepared to fish some shells out of the eggs.) Hands get very sticky during this process. A wet rag may be helpful to have for students to wipe their hands on. Have a student add food coloring and whisk the eggs. While the eggs are being prepared, have the other students cut the onion and green vegetable with plastic knives. Turn on the hot plate and mix the vegetables into the eggs. Pour the mixture into the pan on the hot plate. Have one adult supervise the students scrambling the eggs while the other supervises a couple students grating the cheese. When the eggs are cooked, add salt and pepper if desired, and dish the eggs into

cups or bowls. Have cheese available in bowls with serving spoons so students can add it if they want. Clean up the cooking area and serve the eggs.

*Extensions:*

- Supervisor: This is a job for children who are reading. Have them be in charge of making sure the cooking group is following the recipe. After each step is completed, ask the “supervisor” what to do next.

*Part 3:* Gather as a whole class and ask the cooking group to come to the front and share how they made the snack. Have a couple students introduce the ingredients and supplies used, a couple talk about how they used the supplies safely, and a couple read/explain the process. Encourage the rest of the class to ask questions to the cooking group about their project. After the discussion dismiss students to prepare for snack. Be sure to reinforce proper hygiene by reminding students to wash their hands.

*Extensions:* Encourage students to write in their journals about the activity. They may write about the process of preparing the food, what they thought about making the snack, or create their own recipe.

*Notes: Making Green Eggs Process*

1. Crack 12 eggs into a large bowl.
2. Add food coloring and whisk together.
3. Cut up vegetables.
4. Turn hot plate on medium and put the pan on the burner.
5. Mix the vegetables in with the eggs.
6. Pour the mixture into the pan and mix occasionally.
7. Grate the cheese.

8. When eggs are cooked, add salt and pepper if desired.
  9. Dish out eggs.
  10. Serve with cheese.
  11. Clean up.
-

## LESSON 15 YOKO – LEARNING ABOUT ETHNIC FOODS

**Objectives:** Students will identify two foods from other countries after listening to the story.

**EARLs/GLEs:**

*Reading:*

- 2.1.1 Understand how to ask questions about the text.
- 2.1.4 Understand how to ask questions about the text.
- 2.1.4 Understand how to use prior knowledge.
- 2.1.5 Understand how to infer/predict meaning.
- 2.2.3 Understand story elements.
- 2.4.1 Understand how to give a personal response and make connections to text.
- 3.4.1 Understand different perspectives of family, friendship, culture and traditions found in literature.
- 3.4.2 Understand that literature represents different cultures and traditions.

**Materials:** Yoko by Rosemary Wells

**Preparation:** Read through the text to become familiar with the story.

**Structure/Duration:** This lesson is designed as a 20 minute, whole class read aloud.

**Activity:** Show the students the cover of Yoko. Explain that the book is about a little girl named Yoko who got teased and made fun of when she brought her lunch to school. Tell the students that it is important to have a healthy lunch every day and to be willing to try new foods. Ask them to listen to the story to discover how Yoko and her classmates learned to respect each others' choices and to try new foods. Help the students read the title of the book and identify the author and the illustrator.

Point to the illustrations on the front and back covers. Ask the students: *Do you bring your lunch to school? What do you like to bring for lunch? Has anyone ever made fun of your lunch? Do you ever want to try something new that one of your friends is eating for lunch?*

Explain to students that everyone should eat a healthy lunch every day, and that we all should be willing to try new and different foods for lunch sometimes.

As you go through the book, ask the students to talk about the different foods each child brings to school. Ask: *Which foods have you eaten before? Which new foods would you be willing to try?*

After reading the story, ask the students: *What did Yoko bring to school for her lunch and snack? Have you ever tasted any of these foods? Can you identify the country where each of the foods described in the story originated? How did Timothy make Yoko feel happier about the food she brought to school?*

Explain that the class will be having a special guest(s) visiting soon who will bring some special food from a different country. Tell the students that they will get to be like Timothy and try a new food.

## LESSON 16 FOODS AROUND THE WORLD

### *Objectives:*

- Students will identify the country from which the snack originates.
- Students will taste and identify a dish from a different country.
- Students will write about their food tasting experience in their journals.

### *EALRs/GLEs:*

#### *Writing:*

- 1.1.1 Uses pictures and talk for thinking and planning about writing.
- 1.2.1 Produces a draft of words, captions, and/or sentences.
- 2.1.1 Knows that an audience exists outside of self.
- 2.2.1 Demonstrates understanding that writing has different purposes.
- 3.1.2 Understands that writing is organized around one topic.
- 3.3.2 Uses phonemes and letter knowledge in phonetic spelling.

#### *Communication:*

- 1.1.1 Understands how to adapt attentive behavior to accommodate the listening situation.
- 1.1.2 Applies listening and observation skills to recall and interpret information.
- 2.3.1 Recognizes that each person is unique.
- 2.3.2 Recognizes that there are different languages.

### *Materials:*

- Large map of the world
- Parent volunteer who brings in a culturally significant dish
- Ingredients used in the dish
- Words in language of country on note cards such as "Hello", "thank you", "Please" (optional)
- Napkins, cups, utensils for serving food
- Students' food journals

**Preparation:** Arrange for a parent to bring in a culturally significant dish to share with the class. Emphasize that the students are learning about healthy foods, and encourage parents to bring a dish that uses vegetables and/or fruit. Be in contact with the parent guest prior to his or her visit. Use the attached guide to help plan with the parent.

Prepare students prior to the parent guest visit. Review the story of Yoko, highlighting how people from different countries may eat different foods. Explain that they will get an

opportunity to try some food(s) from different countries. Review the process of tasting: no thank you bites and polite ways to communicate food preferences.

**Structure/Duration:** This is a three part lesson. Part one consists of a whole group lesson about the country and process of making the food the students will taste. This part will take approximately 15 minutes and will be led by the parent guest, but with guidance from the instructor. Part two consists of students actually eating the snack. This will take approximately 10 minutes. Part three consists of students independently writing in their journals about the experience. This will take approximately 25 minutes.

**Activity:**

*Part 1:* With students gathered together, introduce the guest. The guest will introduce the country from which the presented dish originated. They will use the map to point to the country on a map and teach the students how to say "Hello" in that country. The guest will then briefly describe things about the country such as temperature, land features, interesting facts. Then the guest will introduce the ingredients and describe how they made the dish. As the preparation of the dish is described, the guest will invite the students to act out the process with them. After the description of the preparation of the dish is completed, the guest will answer any questions the students may have. When the discussion is complete, the students will thank the guest and be dismissed to prepare for snack time.

*Part 2:* Students will eat and talk about their snack. As they are eating, ask small groups of students *What is the name of the dish that you are eating? What country is it from? Do you*

*remember some of the ingredients in the dish? Does this dish remind you of something you have eaten before?* Be sure students clean up their area when they are finished eating.

*Part 3:* As a class, briefly discuss the dish the students tasted. Talk about some of the questions asked while they were eating. Explain that they will be writing about this experience in their food journals. You may want to write down the name of the dish and the country it is from so the students can include it in their writing. Encourage them to use details in their pictures and labels, and/or sentences as they write in their food journals. As students write independently, monitor students to assess if they are writing on topic, using letter sound approximations when attempting written language and are able to talk about their own writing. In the last five minutes of journal writing, choose 4-5 students who are finished to share their writing with the group.

*Parent Guide to Sharing a Culturally Significant Dish*

Dear Guest,

Thank you for volunteering to come to our class and share an ethnic food dish! In class, we have been learning about the importance of eating healthy foods and that people around the world eat different kinds of foods. Please choose a dish that includes vegetables and/or fruit.

Inform the teacher as to what you are planning to make a week before you come so she can plan accordingly. The following is a suggested guide for presenting the country and dish.

- Introduce yourself and your country.
- Point out your country on the classroom map.
- Write greeting on the classroom white board so students can see written language from a different country.
- Briefly discuss the country. Possible topics: weather, landforms, animals
- Introduce the ingredients used to make the dish. Please either bring in examples of the ingredients or discuss with the instructor, prior to the presentation, about obtaining the ingredients.
- Explain how the dish is made, acting out the process. Invite students to act out process with you.
- Answer student questions.
- Students will taste the dish.

## LESSON 17 ASSESSING WHAT STUDENTS KNOW

### *Objectives:*

- Students will discuss what they have learned about eating healthy foods.
- Students will demonstrate what they have learned about healthy foods through individual post-assessments.
- Students will draw and create healthy food collages on a paper plate.

### *EALRs/GLEs*

#### *Reading*

- 1.1.7 Understand and apply concepts of print.
- 1.1.8 Understand and apply phonological awareness and phonemic awareness.

#### *Communication*

- 1.1.1 Understands how to adapt attentive behavior to accommodate the listening situation.
- 1.1.3 Applies listening and observation skills to recall and interpret information.

### *Materials:*

- Large paper for recording student responses
- Markers
- Privacy folders/ way of ensuring that students
- Post-assessments healthy foods coloring chart
- Paper plates ( 1 for each student)
- Colored paper
- Scissors
- Glue
- The collection of children's books that have been used throughout this unit

***Preparation:*** Make a copy of the post-assessment for each student. Have a privacy folder for each child. Gather supplies.

***Structure/Duration:*** This lesson consists of three parts. Part one is a whole class discussion pertaining to what the students have learned about good nutrition. This will take approximately 15 minutes. Part two is an individual post assessment to measure what students learned about

healthy foods. This will take approximately 15 minutes. Part three is a project in which students individually create a collage of healthy foods using provided art supplies. This will take approximately 40 minutes.

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**Activity:**

*Part 1:* Instruct students to think about what they have learned healthy eating. Ask: *Why we need healthy foods? What are some healthy foods that you know of? What are some healthy foods you like to eat?* Have students turn and share what they know with a partner. After approximately one minute of partner sharing, have a few students share out what they know with the class. Record their ideas on the chart paper. Maintain student engagement through practicing phonemic awareness by having students segment (break the word apart orally by individual phonemes) different food words their peers share as the teacher writes the words.

*Part 2:* Show students the three sample pictures of foods, and explain they will be getting a paper with many different foods pictures on it just like they did before they learned about eating healthy. Review the process of coloring only the boxes with healthy foods and leave the unhealthy foods blank. Model with the pictures provided. Tell students that when they finish, they can turn their papers over and write about what they have learned about healthy eating. Dismiss students to get their supplies and begin working on the post-assessment. As the students are completing the post-assessment, monitor individual students and point to various foods they colored, asking if they are healthy foods, to ensure the students understand the directions.

*Part 3:* Explain to students that they will be creating art that will help other children learn about healthy foods. Tell students they will be using paper and markers to draw or create a plate full of healthy foods. Ask them to think about what healthy foods they would like to include on their plates. Let students look at books used throughout the unit if they need some support generating ideas. Remind students to think about shape and color as they are creating their “healthy foods”. Encourage them to label their work when they are finished.

*Notes:*

Sharing what we learned:

- Invite a different class to the classroom and have students explain their healthy eating project to individual guests.
- Post projects up in the hall or in the cafeteria where other students and adults in the school will see them.

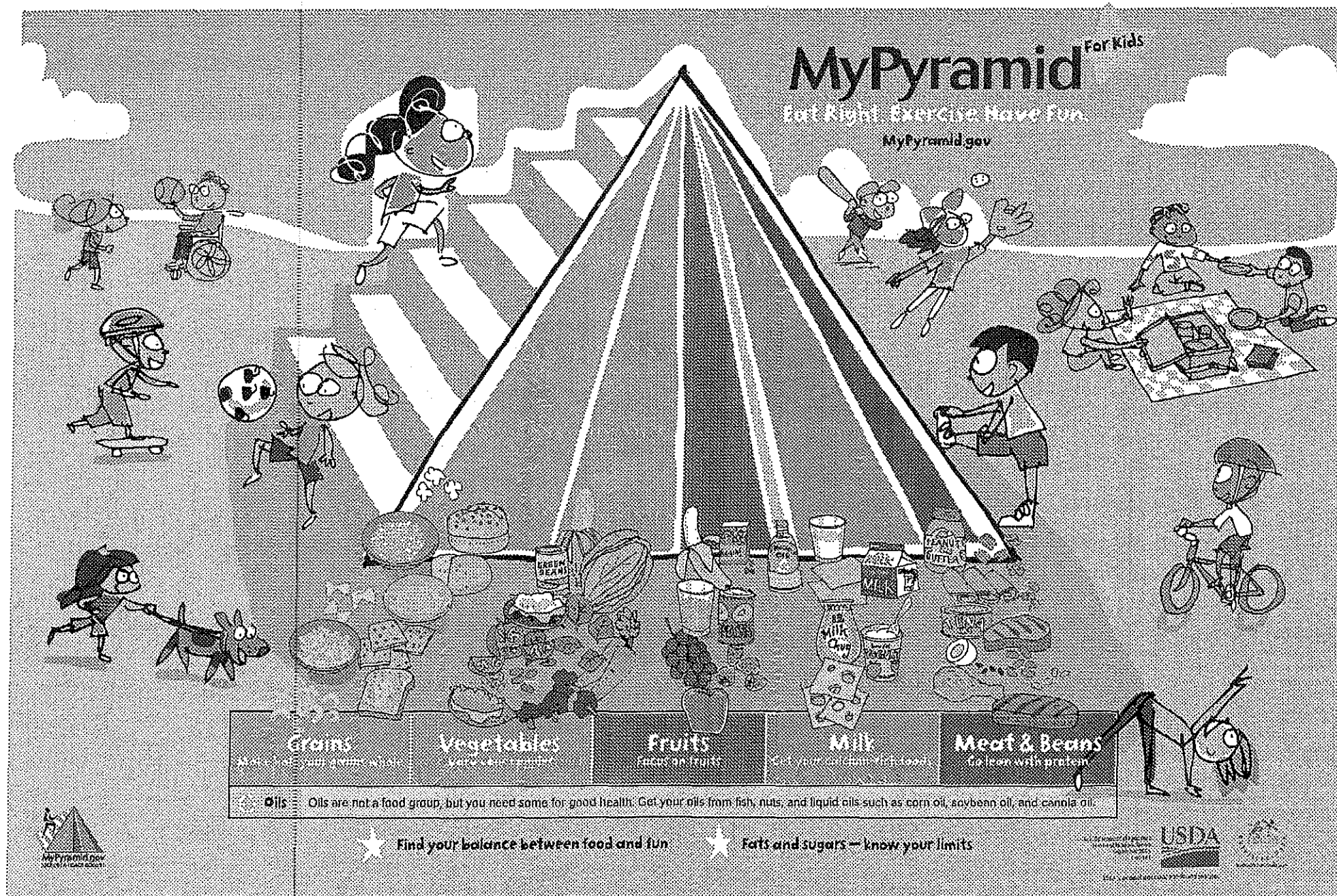
*Homework 1*

Name \_\_\_\_\_

Dear Parents,

We are learning about healthful foods and how they help the body. Please have your child draw a picture below of your family eating a healthy meal. Have your child label the healthy foods in his or her drawing.

Also, this week we have been discussing the food guide pyramid. Attached is a copy as well as some nutrition tips for families.



# Tips for Families

- 1 Make half your grains whole.** Choose whole-grain foods, such as whole-wheat bread, oatmeal, brown rice, and lowfat popcorn, more often.
- 2 Vary your veggies.** Go dark green and orange with your vegetables—eat spinach, broccoli, carrots, and sweet potatoes.
- 3 Focus on fruits.** Eat them at meals, and at snack time, too. Choose fresh, frozen, canned, or dried, and go easy on the fruit juice.
- 4 Get your calcium-rich foods.** To build strong bones serve lowfat and fat-free milk and other milk products several times a day.
- 5 Go lean with protein.** Eat lean or lowfat meat, chicken, turkey, and fish. Also, change your tune with more dry beans and peas. Add chick peas, nuts, or seeds to a salad; pinto beans to a burrito; or kidney beans to soup.
- 6 Change your oil.** We all need oil. Get yours from fish, nuts, and liquid oils such as corn, soybean, canola, and olive oil.
- 7 Don't sugarcoat it.** Choose foods and beverages that do not have sugar and caloric sweeteners as one of the first ingredients. Added sugars contribute calories with few, if any, nutrients.

## Eat Right

**1 Set a good example.** Be active and get your family to join you. Have fun together. Play with the kids or pets. Go for a walk, tumble in the leaves, or play catch.

**2 Take the President's Challenge as a family.** Track your individual physical activities together and earn awards for active lifestyles at *[www.presidentschallenge.org](http://www.presidentschallenge.org)*.

**3 Establish a routine.** Set aside time each day as activity time—walk, jog, skate, cycle, or swim. Adults need at least 30 minutes of physical activity most days of the week; children 60 minutes everyday or most days.

**4 Have an activity party.** Make the next birthday party centered on physical activity. Try backyard Olympics, or relay races. Have a bowling or skating party.

**5 Set up a home gym.** Use household items, such as canned foods, as weights. Stairs can substitute for stair machines.

**6 Move it!** Instead of sitting through TV commercials, get up and move. When you talk on the phone, lift weights or walk around. Remember to limit TV watching and computer time.

**7 Give activity gifts.** Give gifts that encourage physical activity—active games or sporting equipment.

## HAVE FUN!

From <http://mypyramid.gov>

*Homework 2*

Name \_\_\_\_\_

Help a family member prepare a meal. Talk about what ingredients you are using and what food groups they come from. Draw a picture and label you helping out with the cooking. Make a list of the ingredients you used on the back of this paper. Identify the fruits and/or vegetables.

## Ingredients

[illegible]

### *Assessment Rubrics*

#### Taste Testing

- 3 Student participates in discussion without prompting, tastes food, and graphs food preference.
- 2 Student participates in discussion with some prompting, tastes food, and graphs food preference.
- 1 Student refuses/needs extensive prompting to participate in discussion and/or refuses to taste food.

#### Cooking Activities

- 3 Student follows safety rules, participates in cooking activity and works cooperatively with peers and adults.
- 2 Student needs some prompting to follow safety rules, participate in cooking activity, and/or work cooperatively with peers and adults.
- 1 Student refuses/ needs extensive prompting to follow safety rules, participate in cooking activity, and/or work cooperatively with peers and adults.

#### Read Aloud

- 3 Student participates in discussion of book without prompting.
- 2 Student participates in discussion of book with some prompting.
- 1 Student refuses/needs extensive prompting to participate in discussion of book.

#### Journal Writing

- 3 Student writes about given topic to the best of their ability, stays on task and participates in sharing of writing.
- 2 Student needs some prompting to write about given topic to the best of their ability, stay on task, and/or participate in sharing of writing.
- 1 Student refuses/needs extensive prompting to write about given topic to the best of their ability, stay on task, and/or participate in sharing of writing.

### Suggested Children's Books

- Brown, M. (1995). *D.W. the Picky Eater*. Little Brown and Co.
- Dahl, M. (2004). *From the Garden: A Counting Book About Growing Food*. Minneapolis: Picture Window Books.
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- Dwyer, J. (2001). *Vegetables*. New York: Rosen Publishing Group Inc.
- Creasey, R. (1994). *Blue Potatoes, Orange Tomatoes*. San Francisco: Sierra Club Books for Children.
- Elhert, L. (2000). *Market Day*. San Diego: Harcourt Brace.
- Ehlert, L. (1989). *Eating the Alphabet; Fruits and Vegetables from A-Z*. San Diego: Harcourt Brace.
- Elhert, L. (1987). *Growing Vegetable Soup*. Orlando: Harcourt Brace.
- Farwell, C. (1993). *Feast for 10*. New York: Houghton Mifflin.
- Florian, D. (1991). *Vegetable Garden*. San Diego: Harcourt Brace Jovanovich, Publishers.
- French, V. (1998). *Oliver's Fruit Salad*. New York: Orchard Books.
- Frost, H. (2001). *The Digestive System*. Mankato: Capstone Press.
- Frost, H. (2000). *Eating Right*. Mankato: Capstone Press.
- Frost, H. (2000). *The Grain Group*. Mankato: Capstone Press.
- Frost, H. (2000). *The Vegetable Group*. Mankato: Capstone Press.
- Frost, H. (2000). *The Fruit Group*. Mankato: Capstone Press.
- Gibbons, G. (2007). *The Vegetables We Eat*. New York: Holiday House.
- Gibbons, G. (2002). *The Berry Book*. New York: Holiday House.
- Gibbons, G. (1988). *Farming*. New York: Holiday House.
- Hall, Z. (1998). *The Surprise Garden*. New York: The Blue Sky Press.
- Hausher, R. (1994). *What Food Is This?*. New York: Scholastic Inc.

- Klingel, C. & Noyed, R. (2002). *Vegetables*. Milwaukee: Weekly Reader Early Learning Library.
- Krauss, R. (1945). *The Carrot Seed*. New York: Harper and Row.
- Leedy, L. (1994). *The Edible Food Pyramid: Good Eating Every Day*. New York: Holiday House.
- Llewellyn, C. (2001). *Why Should I Eat Well?*. London: Barron.
- McGovern, A. (1968). *Stone Soup*. New York: Scholastic Inc.
- Mitchell, M. (2006). *Eating Well*. Minneapolis: Lerner Publications.
- Morris, A. (1989). *Bread, Bread, Bread*. New York: Scholastic Inc.
- Paulsen, G. (1995). *The Tortilla Factory*. San Diego: Harcourt Brace and Company.
- Rosenberry, V. (2001). *Who is in the Garden?*. New York: Holiday House.
- Ryan, P. (2001). *Mice and Beans*. New York: Scholastic Press.
- Schul, M. C. (2006) *Healthy Snacks*. Mankato: Capstone Press.
- Scott, J. (2003). *Let's Eat: Foods of Our World*. Minneapolis: Compass Point Books.
- Seuss (1960). *Green Eggs and Ham*. New York: Random House.
- VanCleave, J. (1998). *Play and Find Out About the Human Body: Easy Experiments for Young Children*. New York: Jon Wiley and Sons Inc.
- Wells, R. (1998). *Yoko*. New York: Hyperion Books for Children.

## CHAPTER V

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In Chapter Two of this document, the author reviewed the research relating to how children develop nutritious eating habits, best practice in preschool and elementary nutrition education, as well as strengths and effectiveness of curriculum integration. The reviewed sources indicated that children can develop healthy eating habits through repeated exposure to nutritious foods. A positive environment, positive roles models, and/or positive messages regarding healthy foods also have a significant effect on how young children view different foods. Research also demonstrated that when students have hands-on experiences in learning they can more easily make meaning from it.

Chapter Three gives an overview of the project design. In this integrated nutrition unit, five major components are addressed: children's literature, tasting activities, cooking, journal writing, and parent involvement. Learning extensions, assessment rubrics, and a list of suggested children's texts are also included. All the lessons are linked back to the Grade Level Equivalencies (GLEs) for kindergarten in Washington State. Each lesson will provide opportunities for students to make connections with or make meaning from the activities in which they will be participating. While the overall focus will be around fruits and vegetables, an introduction to the Food Pyramid and its components will also be included.

Chapter Four is the actual project. It includes 17 lesson plans that can be used in a half day kindergarten. The unit starts with a pre-assessment and ends with a post-assessment. The author executed these lessons over the course of eight weeks, with lessons one through seven occurring within the first three weeks of the unit and the remaining lessons taking place in the five subsequent weeks.

The author found this unit to be of both high interest and engagement for kindergarteners. Students showed enthusiasm and pride in cooking activities. To the author's surprise and delight, all students tried all foods introduced throughout the unit. With regard to each food introduced, only a small number of students demonstrated a dislike towards the food, causing the author to agree with the research findings related to peer influence on food preference. Students were highly engaged in book discussions and demonstrated their understanding of the importance of healthy eating habits through their writing, conversation and post-assessments. Students were observed during play and snack time using much of the vocabulary introduced throughout the lesson. They also enjoyed reenacting some of the cooking activities while at the dramatic play center.

The cultural diversity component of introducing foods from other countries was embraced and enjoyed by both students and parents. While the food was a motivating part of the lesson, students demonstrated great interest in learning about different languages, cultures, and geography.

Although this unit was found to be highly effective in helping students learn the importance of healthy eating, there are some changes and recommendations that the author would make. First, the idea that physical activity is also a component of a healthy lifestyle was not addressed. While this was not the topic of this project, physical activity does play a major role in a healthy lifestyle and combating obesity. Secondly, it is recommended that the focus on healthy food does not stop when the unit is finished. A continuation of promoting healthy foods is a vital part of instilling healthy food preferences in children. Continue to read books that highlight healthy eating and bring in a new food to try every so often. Encourage only healthy foods to be consumed in the classroom and communicate this to parents. Even holiday

and birthday celebrations do not have to be full of sugar. Holidays provide wonderful occasions to incorporate cooking activities. Encourage families to bring in a favorite healthy snack/fruit for birthdays. Finally, healthy eating habits need to be practiced throughout one's life, not just during the kindergarten year. As students get older, they will be able to understand the more complex issues dealing with nutrition. Therefore, nutrition education should be taught school wide so that students continue to learn and practice healthy eating habits.

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