# The Garden Chef 

 Cooking Through the Food GroupsA collection of recipes and activities for the elementary classroom


Virginia Agriculture in the Classroom

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# Cooking Through the Food Groups 

A collection of recipes and activities<br>for the elementary classroom



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## Introduction:

Nutrition has an immeasurable impact on a child's growth, development and ability to learn. A child who receives proper nutrition will be poised to achieve their maximum physical and mental potential. In addition, a child who is educated about agriculture at an early age will identify more easily with the processes of growing, harvesting, and planting food and will become an adult who understands the importance of Virginia agriculture.

The Garden Chef: Cooking Through the Food Groups provides teachers with a cooking and activity book that incorporates skills from the core subject areas. This book is divided by the five major food groups: Grains, Vegetables, Fruits, Milk, and Meat \& Beans. The recipes feature nutritionally wholesome foods and contain extension ideas for teachers to use in elementary school classrooms.

## Acknowledgements:

AITC acknowledges the contributions of our writers Lynn Glowinski, Tammy Maxey, David Pippin and Lynn Stadelmeier. Lynn is a 30 -plus year master teacher of Work and Family Studies. Lynn and her husband live on a beef cattle and grain farm in central Virginia. David serves as a facilitator with Agriculture in the Classroom. He is president of David Pippin, Inc and specializes in floral design, garden consultations and horticulture lectures. Tammy Maxey and Lynn Stadelmeier serve as AITC education coordinators.

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## TABLEOF CONTENTS

Introduction ..... 3
Acknowledgements ..... 3
Grain
Grain to Flour ..... 7
RECIPES
Buried Treasure Snack Mix ..... 8
Elvis Pancakes ..... 8
Easy Fried Rice. ..... 9
Crock Pot Macaroni and Cheese ..... 9
Mini Soft Pretzels ..... 10
LESSONS
Grain Exploration ..... 11
Tortilla Tasting ..... 12
Graphing the Food Pyramid ..... 13
Vegetables
Vegetable Production in Virginia ..... 15
RECIPES
Sweet Potato Fries ..... 16
Easy Egg Rolls ..... 16
Fresh Tomato Salsa ..... 17
Garden Vegetable Wraps ..... 17
Corn and Zucchini Medley ..... 18
Pizza Fries ..... 18
Potato Pancakes with Cinnamon Apples ..... 19
LESSONS
Investigating Edible Plant Parts ..... 20
Wanted: Healthy Vegetables ..... 22
Vegetables A to Z ..... 23
Fruit
Fruit Production in Virginia Pick-Your-Own Operations ..... 25
RECIPES
Microwave Afternoon Apple Snacks ..... 26
Fruity Kebabs ..... 26
Frothy Orange-Pineapple Cooler ..... 27
Dessert Nachos ..... 27
Griddled Fruit and Honey ..... 28


## 0

## LESSONS

Healthy Fruits ..... 29
Sink or Float? ..... 30
Pass the Apples, Please! ..... 32
Milk
Milk Production in Virginia ..... 35
RECIPES
Cheese Fondue ..... 36
Pumpkin Pie in a Bag ..... 37
Cinnamon-Honey "Fried" Ice Cream ..... 37
Milkshake ..... 38
Breakfast Parfaits ..... 38
Cream Cheese Dip for Fruit ..... 38
LESSONS
Down At the Dairy ..... 39
How Many Cows? ..... 40
Easy Outdoor Ice Cream ..... 42
Meat and Beans
Meat, Soybean, and Peanut Production in Virginia ..... 45
RECIPES
Cornmeal-Crusted Catfish Nuggets ..... 46
Sweet and Sour Pineapple Pork Chops ..... 46
Chicken Stir-Fry with Broccoli ..... 47
Beef and Cheese Quesadillas ..... 48
3-Minute Microwave Breakfast ..... 48
Two Bean Vegetable Chili ..... 49
Kid-Friendly Tofu Sloppy Joes ..... 50
L E S S O N S
Virginia Club Sandwich ..... 51
Funky Fraction Chicken ..... 52
The First Thanksgiving ..... 54
Virginia Standards Connections ..... 55


## GRATNS

## GRAIN TO FLOUR

Wheat is grown in all parts of Virginia, but the main production area is between Richmond and the Chesapeake Bay. In Virginia, wheat is planted in September and harvested in June. As the wheat grows to its mature height of about three feet, it grows a head that will produce 20 to 40 kernels or seeds. As the kernels ripen, the
 entire plant turns a golden brown. A big piece of equipment called a combine is used to harvest the wheat, which separates the kernels from the stalks. The process of separating the kernels from the stalk is called threshing.

Virginia wheat may be shipped to other countries or taken to a flour mill within the Commonwealth where it is separated into flour, germ and bran. Seventy to seventy five percent of the kernel is made into flour.

Flour is used to make crackers, tortillas, bread, cakes and many other foods that we enjoy eating. Many of the foods we consume throughout the day include wheat, which is an excellent source of carbohydrates. Carbohydrates help give you energy to work, run and play!

Wheat is a very versatile grain that has been consumed by humans for many centuries because of its high nutrient content. It is often referred to as "the staff of life."

## Recipes GRAINS $^{\prime}$



## BURIED TREASURE SNACK MIX

Prep: 15 minutes
1 package ( 12.5 oz ) cheddar-flavored fish-shaped crackers
1 package ( 13.5 oz ) cinnamon corn and rice cereal
1 package (15 oz) mini-twist pretzels
1 package ( 10 oz ) honey-flavored bear-shaped graham crackers
1 package ( 11.5 oz ) giant-size cheddar-flavored fish-shaped crackers
1 bag (21.3 oz) candy-coated chocolate pieces (optional)
1 box ( 15 oz ) raisins and/or other dried fruits (optional)
1 small can of peanuts (optional)


1. Layer half of ingredients in order listed in a large clear bowl.
2. Repeat layers once.

Yield: 28 cups

* Students can practice measuring the ingredients. Read the food label to convert servings to total cups for boxes or bags.

Equipment Needed: large clear bowl, dry measuring cups

## ELVIS PANCAKES

Prep: 20 minutes
1 box pancake mix
water
1 jar peanut butter
bananas
honey

1. Prepare pancakes according to directions on the box.
2. Ladle pancake batter in circular shapes onto a griddle or electric fry pan.
3. Turn when pancakes bubble and bottoms are golden.

4. Cook 1 minute on second side.
5. Repeat till all the batter is cooked.
6. Try to keep cooked pancakes warm (wrap in aluminum foil).
7. When pancakes are completed, spread peanut butter on a pancake, layer it with sliced bananas and drizzle it with honey.
8. Top the pancake with another pancake to form a sandwich.
9. Repeat with remaining pancakes and serve with extra honey.

Yield: Varies with the amount of pancakes prepared
Equipment needed: mixing bowl, wire whisk, dry and liquid measuring cups, knife for leveling ingredients, sharp knife, cutting board, butter knife, griddle or electric fry pan, ladle, spatula, aluminum foil

EASY FRIED RICE
Prep: 15 minutes
$11 / 3$ cup cooked brown rice 1 egg (scrambled)
$1 / 2$ onion chopped
3 tablespoons soy sauce
$1 / 3$ cup water
$1 / 2$ cup frozen green peas, thawed 1 small can water chestnuts (optional)

1. Melt butter in electric fry pan.
2. Add onions and stir until translucent and starting to brown.
3. Add scrambled egg and stir until cooked.
4. Add the cooked rice, green peas and water chestnuts.
5. Pour soy sauce in water, mix well.

6. Pour soy sauce mixture on top of rice mixture and simmer for 3 to 5 minutes.

Yield: 4 servings
Equipment needed: saucepan with lid, cutting board, chef's knife, measuring spoons, liquid measuring cups, electric fry pan, spoon for mixing, serving spoon
*Students can help increase the recipe according to the number of students in the class.
CROCK POT MACARONI AND CHEESE
Prep: 15 minutes
Cook Time: 3 hours
1 pound elbow macaroni, cooked
2 cans (13 oz) evaporated milk
3 cups milk
$1 / 4$ cup plus 2 tablespoons butter, melted
4 cups shredded cheddar cheese
non-stick cooking spray

1. Cook macaroni according to directions.
2. Spray the inside of the crock pot with non-stick cooking spray.

3. Add the macaroni, and remaining ingredients.

4. Stir and cover.
5. Cook on low 2-4 hours, checking after 2 hours to make sure macaroni and cheese aren't getting overcooked or sticking to the crock pot.
Yield: 12 servings
Equipment needed: saucepan, colander, crock pot, liquid measuring cups, grater (if grating your own cheese), spoon, microwave (for melting butter), serving spoon

## Recipes ${ }^{\text {GRAINS }}$



## MINI SOFT PRETZELS

Prep: 15 minutes
1 can (11 oz) refrigerated bread sticks
1 egg, beaten
Kosher (coarse) salt, optional
1 can cheese spread
1 jar mustard or cinnamon sugar

1. Pre-heat toaster oven to $375^{\circ} \mathrm{F}$. Unroll dough, separate into 12 bread sticks. Cut each in half lengthwise. Roll each bread stick lightly to from a 10 inch rope.
2. To shape each pretzel, shape rope into a circle, overlapping dough about 2 inches from each end, leaving ends free. Take one end in each hand, twist once at point where dough overlaps. Lift ends over opposite sides of circle. Place one inch apart on ungreased cookie sheet.
3. Brush each with beaten egg; sprinkle with salt.
4. Bake 13-15 minutes or until golden brown. Remove, top with cheese or mustard.
*cinnamon and sugar can be substituted for the salt
Equipment needed: small bowl (for egg wash), fork, knife, pastry brush, toaster oven, spatula
Yield: 24 mini pretzels


## GRAIN EXPLORATION

## Content Area: Health

## Objectives

## The student will be able to:

- Define the difference between whole grains and refined grains
- Identify one reason fiber is important in the diet
- Identify the nutrients found in grains and explain their function


## Materials

- Sand paper
- Whole grain rice
- Magnifying glasses (optional)


## Procedure

- Ask students to brainstorm different types of food made with grain. Examples: cereal, pasta, bread, rice, etc.
- Now ask them if they know the difference between whole grain and refined grains. Explain that whole grains contain the entire kernel, which consists of the bran, endosperm, and germ. The outermost part is the bran, and this is where the majority of the fiber is. Define fiber and its role in a healthy diet (reduces the risk of heart disease and promotes good digestion). Explain that refined grains have been processed and the bran and germ has been removed.
- Ask students to hypothesize as to the effect of removing the bran and germ. Explain that this process removes the fiber, iron, and many $B$ vitamins.
- Conduct the following experiment to observe the removal of the bran from whole grains:
- Give each student (or group of students) two pieces of sand paper and a couple kernels of whole grain rice.
- Place the rice in between the pieces of sandpaper and rub.
- Notice that the healthy bran is coming off of the rice as you rub.
- Have students sketch what they see. If available, use magnifying glasses to observe.
- Give examples of whole versus refined grains and point out that you must read the food labels to know what type of grain is in your food.


## Extension

Divide students into pairs and give each pair a set of food labels and/or supermarket circulars. Have them cut out foods that include grain, and then sort them into whole grains and refined grains. Have each pair share some examples from each of their piles.

## Lessons <br> GRAINS

## TORTILLA TASTING

## Content Area: Health

## Objectives

## The student will be able to:

- Identify uses for grain products in our food
- Learn about the process of producing bread for our country


## Materials

- corn tortillas
- salsa
- cheese
- lunch meat such as ham or turkey
- paper plates
- napkins
- knife
- The Tortilla Factory by Gary Paulsen (Corn is Maize by Aliki may be substituted)
- unshucked ear of corn


## Procedure

1. Ask children what corn is used to produce. Show children an ear of corn pointing out the silks, outer leaves, and shuck to reveal the kernels of the ear.
2. Introduce the concept that corn is used to make many breads including tortillas.
3. Read the book The Tortilla Factory by Gary Paulsen to the group. Take time to discuss each picture within the book. Recap with the children the process of growing corn, harvesting, and bread making.
4. Ask children if they have eaten a tortilla. Discuss how tortillas can be prepared.
5. Provide students an opportunity to eat a tortilla covered topped with salsa and cheese folded in half.
6. Prepare a second tortilla with a slice of ham or turkey and cheese. Roll the tortilla up and slice off spirals for each child to sample.

## Extension

- Use the book Bread Comes to Life by George Levenson and make sandwiches with a variety of breads.
- Practice fraction concepts by cutting tortilla in halves, thirds, fourths, etc.
- Many toppings may be used for the tortilla tasting. Adding cream cheese, a slice of meat to the top of a tortilla, rolling it, and slicing into rings is a great sandwich idea.
- Using soft flour tortillas and discussing the process of making wheat flour is a good extension. Tortilla chips may also be substituted for soft tortillas.


## GRAPHING THE FOOD PYRAMID

## Content Areas: Health, Math

## Objectives

## The student will be able to:

- Understand the basics of the food pyramid
- Decide if their family's diet is in the right proportions according to the food pyramid
- Draw a bar graph and develop a conclusion regarding his/her family's diet


## Materials

- food pyramid poster(s)
- food labels
- 1 " square graph paper
- crayons or markers
- construction paper or card stock
- glue sticks
- scissors


## Procedure

1. Have students collect food labels (set a minimum number to be collected) at home for a given period of time (week or two)
2. Bring labels to school.
3. Have each student sort the labels into the 6 food groups.
4. Using one inch square graph paper, have students create a bar graph, showing the foods eaten by their family. One square inch will equal one label for each category. Color the squares to coordinate with the colors of the food pyramid.
5. Students will write a summary of his/her findings.
6. Option 1: Have students also cut one inch squares of construction paper in the coordinating color for each label. Students will combine their one inch squares and make one large graph for the classroom by gluing them onto a large piece of paper (bulletin board size). Option 2: Have students cut their graphs apart and glue them on the bulletin board. Option 3: Have students draw a new graph on the bulletin board and fill in the squares using crayons or markers.
7. Have students write a summary of the class graph.

## Extension

- Have students divide their food labels into two categories - plant and animal. Using the plant labels, have students divide them into the six basic plant parts - roots, stems, leaves, flowers, fruits and seeds.
- Have students decide which of their foods were (or could have been) grown in Virginia.


## VFCFTABLES

## VEGETABLE PRODUCTION IN VIRGINIA

Many different vegetables are grown throughout Virginia. Some of those that are commercially grown are asparagus, beans, broccoli, cabbage, cucumbers, eggplant, herbs, peppers, potatoes, peas, spinach, squash, Southern greens, sweet corn, sweet potatoes, tomatoes and zucchini.

The Eastern Shore of Virginia is known for its truck farms. Now, the farmers are not growing trucks, but using trucks to carry their vegetables to farmer's markets in cities to be sold fresh. By "trucking" their vegetables to the market themselves, it eliminates the cost of an outside shipping service and also helps ensure a fresher product. However, truck farming got its name originally from the word for bartering (Middle English "trukken," based on the Old French "troquer"). When you go to a farmer's market now and purchase vegetables from the bed of the truck, it's the negotiation over price - not the vehicle - that is the basis for the name "truck farming."

Try growing some of your own vegetables! Incorporate vegetable plants into your home landscape or grow them in containers on your patio or balcony. Vegetable plants require at least six hours of full sun per day, so keep that in mind as you are planning and planting.

Find a farmer's market near you, purchase some vegetables and support your local farmer.

## Recipes $\operatorname{VEGETABLES}$

## Ple

## SWEET POTATO FRIES

Prep: 15 minutes
$11 / 2$ lbs sweet potatoes
2 tablespoons of cinnamon sugar vegetable oil
salt to taste

1. Peel and wash sweet potatoes and cut into long thin strips, about $1 / 4$ inch thick. Place in ice water for about 15 minutes.

2. Preheat deep fryer or electric skillet to 350 .
3. Remove sweet potato fries from water and pat dry with paper towels.

Place in preheated oil and fry about 5 minutes or until golden brown.
4. Remove from oil and drain on dry paper towels.
5. Sprinkle with cinnamon sugar and salt.

Yield: 4 servings
Equipment needed: cutting board, bowl, deep fryer or electric fry pan, paper towels, tongs

## EASY EGG ROLLS

Prep: 20 minutes
1 quart vegetable oil (peanut oil should be used)
2 tablespoons all-purpose flour
2 tablespoons water
2 cups shredded cabbage
2 ounces shredded carrots
8 (7 inch square) egg roll wrappers
2 tablespoons sesame seeds (optional)

1. In a large electric skillet, heat oil to $375^{\circ} \mathrm{F}$ or medium high heat.
2. In a small bowl, combine flour and water until they form a paste.
3. In a large bowl combine the cabbage and carrots. Mix well.
4. Lay out one egg roll skin with a corner pointed toward you. Place about a $1 / 4$ cup of the cabbage/carrot mixture on egg roll paper and fold corner up over the mixture. Fold left and right corners toward the center and continue to roll. Brush a little of the flour paste on the final corner to help seal the egg roll.
5. Place egg rolls into the heated oil and fry, turning occasionally, until golden brown.
6. Drain on paper towels, sprinkle with sesame seeds if desired.

Yield: 8 servings
Equipment needed: measuring spoons, dry measuring cups, grater, electric fry pan, tongs, small bowl, spoon, large bowl, pastry brush, paper towels

FRESH TOMATO SALSA
Prep: 20 minutes
3 large tomatoes, seeded, chopped (3 cups)
4 medium green onions, sliced ( $1 / 4$ cup)
1 small green bell pepper, chopped ( $1 / 2$ cup)
3 cloves garlic, finely chopped
2 jalapeno peppers, seeded, finely chopped (1 tablespoon)
2 tablespoons chopped fresh cilantro
2 to 3 tablespoons lime juice
$1 / 2$ teaspoon salt

1. In a large glass or plastic bowl, mix all ingredients.
2. Cover, refrigerate at least 1 hour before serving to blend flavors.

Yield: 14 servings
Equipment needed: cutting board, sharp knife, dry measuring cups, measuring spoons, large glass or plastic bowl, plastic wrap.

GARDEN VEGETABLE WRAPS
Prep: 15 minutes
$1 / 2$ cup garden vegetable-flavored cream cheese
4 flour tortillas ( 8 to 10 inches in diameter)
1 cup lightly packed spinach leaves
1 large tomato diced
$3 / 4$ cup shredded carrot
8 slices (1 oz each) Muenster or Monterey Jack cheese
1 small bell pepper, chopped ( $1 / 2$ cup)

1. Spread 2 tablespoons cream cheese over each tortilla. Top with spinach and tomato to within 1 inch of edge. Sprinkle with carrot. Top with cheese. Sprinkle with bell pepper.
2. Roll up tortillas tightly. Serve immediately, or wrap securely with plastic wrap and refrigerate no longer than 24 hours.
Yield: 4 servings
Equipment needed: butter knife, dry measuring cups, sharp knife, cutting board, grater

## Recipes $\begin{aligned} & \text { VEGETABLES }\end{aligned}$

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## CORN AND ZUCCHINI MEDLEY

Prep: 5 minutes
4 slices bacon
2 cups chopped zucchini
1 small onion chopped
$11 / 2$ cups fresh corn kernels
1 pinch pepper
$1 / 4$ cup shredded Monterey Jack cheese

1. Place bacon in an electric fry pan. Cook until evenly brown. Reserve 1 tablespoon of drippings. Drain bacon, chop and set aside.
2. Heat the bacon drippings in the skillet over medium heat. Saute the zucchini, corn, and onion for about 10 minutes until tender but still crisp. Season with pepper. Spoon vegetables into a bowl and sprinkle with chopped bacon and shredded cheese.


Yield: 6 servings
Equipment needed: electric fry pan, cutting board, sharp knife, grater, cooking fork or tongs, measuring spoons, paper towels, dry measuring cups, serving bowl

## PIZZA FRIES

Prep: 20 minutes
1 bag (2 pounds) frozen French fries
1 cup spaghetti sauce, any variety
$11 / 2$ cup shredded mozzarella cheese (about 6 ounces) diced pepperoni


1. Prepare the fries in an electric fry pan or on a baking sheet in the oven, using the temperature recommended.
2. Fry or bake until fries are golden brown. If fries are in the electric fry pan, remove and place them on a baking sheet. Pour the sauce over the fries.
3. Top with the cheese and pepperoni, bake for 5 minutes or until cheese is melted.

Yield: 8 servings
Equipment needed: electric fry pan, baking sheet, liquid measuring cups, cutting board, sharp knife

Recipes $\begin{aligned} & \text { VEGETABLES }\end{aligned}$

POTATO PANCAKES WITH CINNAMON APPLES
Prep: 10 minutes
Potato Pancakes
$1 / 2$ cup baking mix
$1 / 2$ cup milk
1 teaspoon salt
3 eggs
3 cups finely shredded uncooked potatoes
Cinnamon Apples
3 medium unpeeled tart cooking apples (Granny Smith, Rome) sliced (3 cups)
$1 / 2$ cup water
$1 / 3$ cup sugar
1 teaspoon ground cinnamon

1. In a large bowl, mix baking mix, milk, salt and eggs until blended. Stir in potatoes.
2. Heat griddle or electric fry pan to $375^{\circ} \mathrm{F}$. Grease with butter if necessary.
3. For each pancake, pour slightly less than $1 / 4$ cup batter from cup onto hot griddle, spreading each slightly to make a 4-inch pancake. Cook until dry around edges. Turn and cook other side until golden brown. Keep pancakes warm.
4. In a 2-quart microwavable casserole or bowl, mix apple slices, water, sugar and cinnamon.
5. Cover and microwave on high 5 minutes. Uncover and stir. Microwave uncovered about 5 additional minutes or until apples are tender when pierced with fork. Serve on top of potato pancakes.
Yield: 6 servings (three 4-inch pancakes each)
Equipment needed: dry measuring cups, liquid measuring cups, measuring spoons, grater, cutting board, sharp knife, large bowl, whisk, spoon, griddle or electric fry pan, spatula, microwavable bowl or casserole dish, cover, fork, serving plates

## Lessons $\operatorname{VEGETABLES}$

## INVESTIGATING EDIBLE PLANT PARTS

Content Area: Health, Science
Objectives
The student will be able to:

- Identify the six basic parts of a plant (roots, stems leaves, flowers, fruits, seeds)
- Understand the function of each plant part
- Understand that parts of some plants are edible


## Materials

- plastic bowls or gallon-size plastic bags
- edible plant parts (at least one from each category)
- crayons, colored pencils or markers
- construction paper or card stock
- white copy paper
- magnifying glasses
- staplers
- rulers
- small plastic knives or sharp knives, if adults assist


## Review plant part definitions with students.

- Roots - usually the underground part of a plant that absorbs water and nutrients and can also store food; means of anchorage and support for plants
- Stems - the main trunk of a plant that supports and carries water and nutrients to the rest of the plant
- Leaves - the outgrowth from the stems whose main function is to produce food for the plant through photosynthesis
- Flowers - the parts of the plant that hold the reproductive organs
- Fruits - the fleshy part of the plant that holds the seeds
- Seeds - the fertilized ripened ovule of a flowering plant containing an embryo and capable normally of germination to produce a new plant


## Review edible plant parts with students, show fresh, artificial or illustrations.

- Roots - carrot, radish, beet, turnip, parsnip, sweet potato
- Stems - celery, asparagus, potato (fleshy underground stem called a tuber), rhubarb, cinnamon
- Leaves - lettuce, cabbage, spinach, onion (bulb), garlic (bulb), parsley, dill, rosemary, thyme, sage, collards, Brussel sprouts
- Fruit - tomato, cucumber, squash, apple, peppers, eggplant, pears, avocado, peach, green beans
- Flowers - broccoli, cauliflower, artichoke, capers
- Seeds - corn, peas, peanuts, black-eyed peas, kidney beans, pinto beans, black beans, soybeans


## Procedure

1. Review plant part definitions and examples of edible plant parts.
2. Divide students into small groups (approximately four students/group)
3. Give each group cardstock or construction paper (one/student) and white copy paper (four/student).
4. Fold the cardstock in half.

## Lessons $\operatorname{VEGETABLES}$

5. Fold each piece of copy paper in half as well and insert into the folded cardstock.
6. Staple the folded edge to create an "Edible Plant Parts Journal."
7. Give each group crayons, markers and/or colored pencils.
8. Draw a picture of a plant with edible part(s) on the cover. Use the library and Internet to research what their plant looks like.
9. Label individual pages with each plant part - roots, stems, leaves, flowers, fruits, seeds.
10. Give each group a bowl or plastic bag with an example(s) of each edible plant part. Be sure to include at least one from each group.
11. Start investigating the plant parts in the bowl/bag. Use the magnifying glass, measure the parts, etc.
12. Draw a picture of each plant part on the proper page. Write observations about each plant part.
13. Cut the plant parts in half, if possible (root, stem, fruit work best for this). Decide as a group if the cut will be made vertically or horizontally. If using a sharp knife, have an adult make the cuts for the students.
14. Draw another picture of the inside of the plant part.
15. Can you think of other edible plant parts for each page? Draw a few of them.

## Extension

- Have students develop a menu for a family meal using all six plant parts - roots, stems, leaves, flowers, fruits and seeds. Write the menu in the journal.
- Have students keep a list of the plants they eat in their journal for one week.
- Have students write a poem about an edible plant part in their journal.
- Taste a variety of edible plant parts in class. If you have a school garden, harvest from the garden and taste.
- Grow plants with edible parts in a garden bed or containers at school.

Great Plant Parts Books:
The Vegetables We Eat by Gail Gibbons
From Seed to Plant by Gail Gibbons
City Green by Dyanne Disalvo-Ryan
Top and Bottoms by Janet Stevens
The Surprise Garden by Zoe Hall
Growing Vegetable Soup by Lois Ehlert

## Lessons $\operatorname{VEGETABLES}$

## WANTED: HEALTHY VEGETABLES

Content Area: Health, Art

Objectives

## The student will be able to:

- Explain the health benefits of eating vegetables
- Explain what constitutes a serving of vegetables
- Determine what part of a plant they are eating from different vegetables


## Materials

- computer
- vegetable books from the library
- poster board or large sheets of paper
- markers, colored pencils or crayons
- fresh or canned vegetables
- ranch dressing
- knife
- cutting board
- platter
- napkins


## Procedure

1. Have students choose a vegetable they would like to research.
2. Using books and the Internet, each student will research the vegetable he has chosen. Key items to find: Where is the vegetable commercially grown? Is it commercially grown in Virginia? If so, where? What are the health benefits of the vegetable? What part of the plant is eaten? What are the recommended serving sizes? How is the vegetable eaten/prepared? Find a recipe in which the vegetable is an ingredient.
3. After doing the research, have students create a "Wanted" poster for their healthy vegetable. Include a drawing(s) and the research information.
4. Display the "Wanted" posters in your classroom, hallway or school cafeteria.
5. To conclude the lesson, have students sample different vegetables. It is recommended you use the vegetables the students were researching. Students can assist in cleaning and cutting up raw vegetables.

## Extension

Give each student an evaluation sheet for the vegetable tasting exercise. Allow them to rank each vegetable on a scale of $1-5.1$ Really do not like; $2=$ Sort of don't like; $3=$ Neither like or dislike; $4=$ Sort of like; $5=$ Really like. After tasting each vegetable, the students will mark their evaluation sheets. After all vegetables have been tasted and evaluation forms completed, average the ranking for each vegetable. Create a graph showing how each vegetable ranked with the class.

## Lessons $\operatorname{VEGETABLES}$

## VEGETABLES A TO Z

## Content Area: Health

## Objectives

## The student will be able to:

- Learn about the variety of fruits and vegetables
- Taste at least one new fruit or vegetable


## Materials

- Eating the Alphabet: Fruits and Vegetables from $A$ to $Z$ by Lois Ehlert
- collection of fresh fruits and vegetables
- fruit and vegetable coloring pages
- paper plates
- plastic bowls
- spoons
- plastic knives
- sharp knife
- hand cleaner
- $81 / 2$ " $\times 14$ " paper
- crayons, markers, colored pencils
- clear contact paper or laminate sheets


## Procedure

1. Introduce and read the book Eating the Alphabet: Fruits and Vegetables from $A$ to $Z$ to the class. Take time to discuss the fruits and vegetables highlighted in the book.
2. Tasting: Show the children the fruits and vegetables that you brought for the lesson. You can have extra ones to pass around for them to feel and explore. Cut up the fruits and vegetables and let the children taste them. Make sure that the children wash their hands before they eat or use a prepackaged hand wipe.
3. Making placemats: Use legal size paper ( $8-1 / 2$ " $\times 14$ ") to make a placemat the children can take home. Let the children color one of the fruits or vegetables which they would like to eat on the placemat. Cover the drawing with clear contact paper or laminate to make a placemat for the student to take home.

## FRUTT

## FRUIT PRODUCTION IN VIRGINIA PICK YOUR OWN OPERATIONS

Apples, Asian pears, berries, cantaloupes, grapes, pumpkins, nectarines, peaches, strawberries and watermelons are just some of the fruits that are commercially grown in Virginia. Many of these can be purchased at your local grocery store or farmer's market. Look for the "Virginia Grown" signs!

Grow some of your own fruit! If you have the space, there are many varieties of apples, peaches and pears. If you're planting trees in your landscape, why not make fruit trees some of your choices. Blueberries are a great deciduous shrub to incorporate into the landscape. Strawberries can be used as a
 ground cover or they can be grown in containers. Pumpkins and melons can be fun to grow too, but the plants take up lots of space. Fruit plants need full sun, so keep that in mind when planting.

If you don't want to grow your own fruit, but want the satisfaction of harvesting, check out some of the many "pick your own" fruit operations in Virginia. To locate a pick your own operation in your area, please refer to http://www.vdacs.virginia.gov/vagrown-directory/ index.shtm/ for a complete listing.

## Recipes ${ }^{\text {FRUIT }}$

## $\infty$

## MICROWAVE AFTERNOON APPLE SNACKS

Prep: 15 minutes
2 Red Delicious apples
lemon juice
$1 / 2$ cup chunky peanut butter
2 tablespoons honey
$1 / 2$ teaspoon ground cinnamon
6 whole graham crackers


1. Core apples and cut each in half; cut each half into 3 wedges to make a total of 12.
2. Dip wedges in lemon juice to keep apples from turning brown. Arrange in a single layer on a plate and microwave on high for $31 / 2$ to 4 minutes or until apples are tender but hold their shape.
3. Drain on paper towels.
4. In a small bowl, combine peanut butter, honey, and cinnamon. Break graham crackers in half to make 12 square crackers. Place two apple wedges on six square crackers. Spread a layer of peanut butter mixture on apples; top with remaining graham cracker squares to form a "sandwich."

Yield: 6 apple snacks
Equipment needed: apple corer, sharp knife, cutting board, plate, small bowl, spoon, butter knife, paper towels, dry measuring cups, measuring spoons

## FRUITY KEBABS

Prep: 15 minutes
4 peaches
1 can pineapple chunks (drained)
1 pint blueberries
4 bananas
1 pint strawberries
apples (optional)

1. Wash peaches, strawberries, blueberries.
2. Slice peaches and strawberries.
3. Slice bananas and brush with a small amount of lemon juice.

4. Carefully push a skewer through the ingredients, starting with a piece of peach, then a blueberry, banana, strawberry and pineapple.
5. Repeat till all fruit is used on skewers.

Yield: 8 servings
Equipment needed: cutting board, knife, pastry brush, skewers (small), colander
Try kabobs with Fruit Dip. The recipe is in the Milk recipe section of this book.

FROTHY ORANGE-PINEAPPLE COOLER
Prep: 5 minutes
2 cups unsweetened pineapple juice
1 cup (8 oz) vanilla yogurt
1 can (6 oz) frozen orange juice concentrate, thawed
2 small ripe bananas cut into chunks
$1 / 2$ cup frozen unsweetened strawberries
1 drop coconut extract (optional)

1. In a blender, combine all ingredients.
2. Cover and process on high until smooth.
3. Pour into paper cups.
4. Serve immediately.

Yield: 6 servings
Equipment needed: liquid and dry measuring cups,
 cutting board, knife, blender, paper cups

DESSERT NACHOS BUFFET STYLE
Prep: 20 minutes
3 6-inch flour tortillas non-stick cooking spray $11 / 2$ tablespoons sugar
$11 / 2$ cups fresh strawberries cleaned and hulled 1 tablespoon orange juice
8 oz vanilla yogurt
1 cup chopped strawberries

$1 / 2$ cup shredded coconut or white chocolate shavings

1. Pre-heat toaster oven to $350^{\circ}$ F. Cut the tortillas into triangles, lay them on a baking sheet, and spritz with nonstick cooking spray.
2. Sprinkle 1 tablespoon of sugar over the tops of the tortillas and bake for 12 minutes or until crisp.
3. For strawberry sauce, combine the strawberries, orange juice, and the remaining $1 / 2$ tablespoon sugar in a blender. Puree the ingredients until smooth.
4. When chips have cooled, set them on a plate. Place separate bowls containing the strawberry sauce, yogurt, chopped strawberries, and coconut or chocolate shavings.

Yield: 4-6 servings
Equipment needed: knife, measuring spoons, dry measuring cups, cutting board, peeler for chocolate shavings, toaster oven, baking sheet, blender, plate, bowls

## Recipes ${ }^{\text {FRUIT }}$



## GRIDDLED FRUIT AND HONEY

Prep: 20 minutes
3 peaches
4 apricots
2 tablespoons sugar
$1 / 2$ teaspoon cinnamon
1 cup plain yogurt
2 tablespoons honey

1. Cut each peach in half and remove the pit. Then cut each half into quarters. Halve the apricots and remove the pits.
2. In a large bowl, mix together the sugar and cinnamon, then add the fruit. Toss to coat in the sugar mixture.
3. Preheat the electric fry pan, and add the peaches, flesh side down.
 Cook for 2-3 minutes. Add the apricots, and turn over the peaches. Cook until caramelized.
4. Place the yogurt in a bowl and drizzle the honey over the yogurt. Stir to create a rippled effect.
5. Serve the warmed griddled fruit with the yogurt and honey dip.

Yield: 4 servings
Equipment needed: knife, cutting board, 2 mixing bowls, 2 metal spoons, electric fry pan, tongs

## HEALTHY FRUITS

## Content Area: Health

## Objectives

## The student will be able to:

- Explain the health benefits of fruit
- Explain the importance of washing fruit before eating
- Understand what constitutes a serving of fruit
- Compare a fruit drink to a fruit juice
- Demonstrate prevention of browning of some fruits


## Materials

- computer
- teacher-generated questions
- paper
- pencil
- fruits
- fruit dip
- lemon juice
- knife
- fruit/vegetable peeler
- cutting board
- paper plates
- paper napkins
- food labels


## Procedure

1. "An apple a day keeps the doctor away." How is this possible? Students will use the website, www.mypyramid.gov and read the information on fruits. They are to click on "inside the pyramid" and click on "fruits." After completing the reading, then click on "Nutrients and Health Implications."
2. Now, restate the statement, "An apple a day keeps the doctor away." Students can now explain why this statement is true. Fruits may be fresh, canned in $100 \%$ juice, frozen, dried, whole, cut-up or pureed. Only 100\% juice is counted as a serving.
3. Be sure students know the difference between fruit juice and fruit drink. Students can compare food labels on juice verses drink. Whole or cut-up fruit is also more beneficial than juice. Juice does not have the fiber.
4. Bring in different types and forms of fruit. Have students sample them. Most students have never tasted the different fruits. You may even make a fruit dip. The recipe can be found in Milk recipe section of this book.

## Extension

Demonstrate to students cutting and using lemon juice on the apples and bananas. Explain enzymatic browning of fruits.

## Lessons $\begin{aligned} & \text { FRUIT }\end{aligned}$

## SINK OR FLOAT?

Content Area: Science, Math

## Objectives

## The student will be able to:

- Define fruit - the fleshy part of the plant that holds the seeds
- Identify many common fruits
- Make predictions whether common fruits will sink or float based on size and density
- Draw a bar graph and develop a conclusion regarding common fruits and their ability to sink or float


## Materials

- large clear plastic container that will hold at least 2 gallons of water
- at least 2 gallons water
- a variety of fresh fruits (at least 20 in assorted sizes, shapes, colors, etc.) Some good examples: apple, cucumber, bell pepper, orange, grapes, cherry tomato, squash, small pumpkin, small melon, blueberries, pear, eggplant, strawberries, peach, lemon, lime
- 1" square graph paper
- crayons or markers


## Fruits will sink or float due to their density; not their weight.

## Procedure

1. Place the large clear plastic container in front of the class at a point where all students can see it.
2. Fill container $1 / 2$ full with water.
3. Give students the "Sink or Float" chart.
4. Write the names of the fruit on the board and have students fill out the chart.
5. As you show each fruit, have students predict if it will sink or float by marking their charts.
6. After all predictions have been made, place the individual fruits in the container of water to see if they will sink or float. As you remove the fruits, have students mark the results on their charts.
7. At the conclusion of the experiment, have students tally their predictions. How many did they predict correctly?
8. Using one inch square graph paper, have students create two bar graphs, one showing their predictions and one showing the results of the experiment. One square inch will equal one fruit for each category...sink or float.
9. Students will write a summary of his/her findings.

## Extension

At the conclusion of the experiment, cut the fruits into pieces and allow the students to sample them.

## Lessons ${ }^{\text {FRUIT }}$

## SINK OR FLOAT?

Some fruits will float in water and others will sink. Write the name of the fruits in the column on the left as the teacher shows them. Make a prediction for each of the fruits...sink or float. After you have made your prediction about each fruit, place an ' $X$ ' in either the sink or float column beside the name of each fruit. Watch as the teacher places each fruit in the bucket of water. Were you correct with your guesses? Mark the actual results.

Fruit
Prediction
Results

| X | Sink Float | Sink |
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## Lessons ${ }^{\text {FRUIT }}$

## PASS THE APPLES, PLEASE!

Content Area: Health, Reading, Music
Objective
The student will be able to:

- Describe how germs spread and identify ways to prevent this


## Materials

- Up, Up Up! It's Apple-Picking Time by Jody Fickes Shapiro or your favorite apple book
- apples
- flour
- paper towels
- paper plates
- liquid hand sanitizer or soap and water

One of the best ways to prevent the spreading of germs is to wash your hands before eating. It is also important to remember to wash your fruits and vegetables before consumption. In this lesson students will learn how to prepare food safely to prevent the spreading of germs.

## Procedure

1. Read Up, Up, Up! It's Apple Picking Time to the class.
2. Discuss new facts that children learned about apples from the book.
3. Sprinkle flour on several paper plates. Have each student stick one hand in flour.
4. Pass around an apple allowing each child to handle the apple with floured hands.
5. Point out that the apple now has everyone's floured fingerprints all over it. These represent the germs.
6. Now ask how this could have been prevented.
7. Discuss how the apple and students' hands can be cleaned by washing.
8. Wash the apple thoroughly and show a clean apple to the group.
9. Have students wash hands while singing the "Hand Washing Song". (see below)
10. Provide apples for students to eat.

## Hand Washing Song

(Sung to the tune of Twinkle, Twinkle Little Star)
I can wash my hands you see
Wash them clean as clean can be
Inside, outside, fingers too.
Round my thumbs and then I'm through
Rinse away the dirt and stains
Send those germs right down the drain!

## Extension

Have students design and make posters for the school cafeteria to promote hand washing.

## M.THK

## MILK PRODUCTION IN VIRGINIA

Dairy farms are located throughout Virginia. The top five ranking dairy counties in the state based on milk production are Rockingham, Franklin, Augusta, Fauquier and Washington. There are over 900 dairy farms in Virginia.

Most of them are small, family farms.
Seventy percent of the milk in Virginia is produced on farms with fewer than 200 cows.

In 2002, dairy cows in Virginia produced an average of 6 gallons ( 51.6 pounds) of milk per day. To produce this much
 milk, a cow consumes approximately 35 gallons of water, 20 pounds of grain and concentrated feeds, and 35 pounds of hay and silage. It has been found that cows eating a balanced diet of grains produce more milk than cows that eat just grass.

Milk is never touched by human hands. Cows are milked at least twice a day with a milking machine that carries the milk to a storage tank where it is cooled and stored. The milk is then pumped into an insulated tank truck every day or two and taken to the dairy plant. At the dairy plant, it is tested for freshness and safety; then it is homogenized and pasteurized to kill any bacteria and keep the milk fresher longer. Milk is then pumped into containers for sale and stored in a refrigerated room until it goes on refrigerated trucks and delivered to grocery stores.

## Recipes ${ }^{\text {MILK }}$



## CHEESE FONDUE

Prep: 20 minutes
$1 / 2 \mathrm{lb}$ Swiss cheese cubed
1 lb sharp cheddar cheese cubed
1 teaspoon minced garlic
1 cup chicken broth
Non-stick cooking spray
Dipping suggestions: bread cubes, cooked hot dogs, pretzels, green apple slices, raw broccoli florets.

1. Coat the fondue pot or saucepan with non-stick cooking spray.
2. Quickly sauté minced garlic in fondue pot or sauce pan.
3. Add 1 cup chicken broth to minced garlic. Heat till it just begins to bubble.
4. Add a few cheese cubes at a time -2 parts cheddar to 1 part Swiss. Stir constantly. Keep the heat on low or cheese becomes rubbery.
5. Stir until all the cheese has melted.
6. Using skewers start dipping! Do not put a hot skewer in your mouth! Put the dipped item on your plate and eat with a fork that has not been in the hot cheese.

Yield: 10 servings
Equipment needed: fondue pot with burner or saucepan (possibly an electric fry pan could be used and put complete fondue in a bowl), cutting board, knife, liquid measuring cups, wooden spoon, skewers, apple corer if using apples, colander to wash broccoli


## $\otimes$

## PUMPKIN PIE IN A BAG

Prep: 15 minutes
2 cups cold milk
1 can (15 oz) solid-packed pumpkin
1 teaspoon pumpkin pie spice
Graham crackers- enough for 25 squares
1 can whipped topping

1. Combine the milk and the instant pudding in the freezer bag.

- Remove the air and zip lock shut.
- Squeeze and knead with hands until blended for 1 minute.

2. Add the pumpkin and spice.

- Remove the air and zip lock shut.
- Squeeze and knead with hands until blended for 2 minutes.

3. Break graham crackers into squares.


- Place one square on a napkin.

4. Cut off the corner of your freezer bag.

- Carefully squeeze about 2 tablespoons of pie filling onto each graham cracker.

5. Garnish with whipped topping.

Yield: 25 servings
Equipment needed: gallon freezer bags (1 per group), can opener, scissors, napkins, liquid measuring cups, spoon, measuring spoons, timer

## CINNAMON-HONEY "FRIED" ICE CREAM

Prep: 20 minutes
3 cups chocolate or vanilla ice cream
$11 / 2$ cups finely crushed toasted cinnamon cereal
4 tablespoons honey


1. Scoop $6(1 / 2$-cup) balls of ice cream onto a cookie sheet. Freeze 15 minutes.
2. Meanwhile, place cereal in shallow pan. Drizzle 2 tablespoons of honey evenly over cereal and mix well with fork until crumbly.
3. Quickly roll 1 ball of ice cream at a time in cereal mixture to coat; return to cookie sheet. Freeze ice cream ball, until firm, about 20 minutes. If desired, cover and freeze until serving time.
4. In a small microwavable bowl, microwave remaining 2 tablespoons honey, uncovered, on high for 20-30 seconds or until warm. To serve, place ice cream ball in individual dessert dishes. Drizzle each with 1 teaspoon warm honey.

## Yield: 6 servings

Equipment needed: ice cream scoop, dry measuring cups, measuring spoons, cookie sheet, shallow bowl, fork, small microwaveable bowl, dessert dishes

## Recipe MILK

## MILKSHAKE

Prep: 10 minutes
2 cups low-fat milk or soy milk
$1 / 4$ cup chocolate syrup or 1 teaspoon vanilla extract
4 scoops of vanilla ice cream

1. Measure milk and flavoring and place in blender.
2. Cover blender and blend on low for 1 minute.
3. Add ice cream to milk mixture in blender.
4. Blend on high for 2 minutes.
5. Pour into paper cups.


Variations: strawberries, peaches, bananas, or pineapple can be added to vanilla flavored milk shake.

## Yield: 5 servings

Equipment needed: liquid measuring cups, rubber spatula, measuring spoons, ice cream scoop, paper cups, timer, blender

## BREAKFAST PARFAITS

Prep: 15 minutes
2 cups strawberries or other fruit (washed, cleaned and sliced)
4 ( 8 oz ) cartons of vanilla yogurt
$3 / 4$ cup of granola cereal or any dry cereal
Layer fruit and yogurt in 8 small plastic cups. Sprinkle with granola or any dry cereal. Serve immediately.

Yield: 8 servings
Equipment needed: cutting board, knife, dry measuring cups, plastic cups, plastic spoons

## CREAM CHEESE DIP FOR FRUIT

Prep: 5 minutes
1 (8 oz) package cream cheese
1 pint jar marshmallow cream
$1 / 8$ teaspoon ginger
fresh fruit

1. Have cream cheese at room temperature.
2. In a medium mixing bowl, beat cream cheese, marshmallow cream and ginger together.
3. Serve with fresh fruit as a dip.

## Yield: 8 servings

Equipment needed: rubber spatula, measuring spoons, mixing bowl, electric mixer

## DOWN AT THE DAIRY

## Content Area: Health

## Objectives

## The student will be able to:

- Identify recommended number of servings from the milk group
- Name three foods in the milk group
- Identify 3 main nutrients found in milk products
- Name a health risk associated with low calcium intake
- Identify a cup equivalent for 3 dairy foods
- Set a specific, measurable, realistic goal to increase recommended daily servings of milk


## Materials

- computer
- worksheet
- chicken bones
- vinegar
- measuring cups
- food models


## Procedure

1. Using the web site www .nationaldairycouncil.org, click link Nutrition and Product Information. Next click on the link Healthy Weight with Dairy.
2. Prepare a worksheet using the objectives of the lesson.
3. Students are to answer questions from the web site.
4. To demonstrate bones without calcium show the class an example of a bone with calcium (normal chicken leg bone) and a bone with little calcium (chicken bone soaked in vinegar for two days).
5. Use food models, measuring cups or sample amounts in dishes to demonstrate cup equivalent for milk, yogurt, and cheese ( 6 dice= $11 / 2$ ounces of cheese $=1$ cup milk; $1 / 3$ cup grated cheese $=1$ cup milk; 1 cup yogurt = 1 cup milk).

## Extension

- Students sample new milk products such as yogurt, cottage cheese, any cheese (not American).
- Students make butter, whipped cream or ice cream.


## Lessons ${ }^{\text {MILK }}$

## HOW MANY COWS?

Content Area: Health, Math (measuring, charts, graphs, calculation, conversion)

## Objective

## The student will be able to:

- Determine how many cows are needed to provide milk for their class, grade level, school and their family


## Materials

- measuring cups
- half pint milk cartons
- pint milk cartons
- quart milk cartons
- half gallon milk cartons
- gallon milk cartons
- several gallons of water in buckets
- graph paper
- pencils


## Cow Facts

- dairy - a farm devoted to the production of milk
- cattle - bovine animals used for milk or meat production
- homogenize - to break up the butterfat particles found in milk to make it creamy. If milk were not homogenized, the cream would rise to the top and you would have to stir or shake the milk before drinking.
- pasteurize - the process of heating liquids to high temperatures to kill bacteria. Pasteurization protects the purity and flavor of milk. This process was discovered in 1856 by French scientist Louis Pasteur.


## Procedure

1. Discuss and compare cups, pints, quarts and gallons. Have students answer the following questions using the measuring cups, milk cartons and water. This is a great lesson to do outside on a sunny day.

- How many cups are in one half pint? One. Pint? Two. Quart? Four. Half gallon? Eight. Gallon? Sixteen.
- How many half pints (the common size for milk cartons in school cafeterias) are in one pint? Two. Quart? Four. Half gallon? Eight. Gallon? Sixteen.
- How many quarts are in one half gallon? Two. Gallon? Four.

2. Show the gallon container to the class. The average dairy cow gives six gallons of milk in one day. If possible, show six one gallon containers at one time; allowing students to see exactly how much milk the average dairy cow gives in one day.
3. As a homework assignment, give each student a chart (see sample below) to keep a record of how much milk he/ she drinks each day (including all meals and snacks). Have students keep the chart for one week.
4. Have students add the number of cups consumed for the entire class. How many cups (8 oz.) does your class drink on an average day? Convert the total number of cups to ounces (number of cups x 8). Divide the total number of ounces by 132 to see how many gallons of milk the class drank in a day and in a week.
5. Remember, the average dairy cow gives six gallons of milk each day. How many dairy cows are needed to provide milk for your class daily/weekly?
6. Students can expand this activity to include their grade level, their school and their family by challenging other classes to keep records and share their information; interviewing the cafeteria manager to find out how much milk is consumed in one day and one week, as well as keeping records at home.

## Amount of Milk Consumed

1 cup $=1 / 2$ pint or 8 ounces
1 pint $=2$ cups or 16 ounces
1 quart $=2$ pints, 4 cups or 32 ounces
half gallon $=2$ quarts, 8 cups or 64 ounces
1 gallon $=4$ quarts, 16 cups or 132 ounces


## Extension

- June is Dairy Month. Celebrate! Have Dairy Day for your class, grade level or entire school. This could include inviting a guest speaker(s); hosting information tables about dairy products and nutrition or providing samples of a variety of dairy products. Provide dairy games and activities for the students. Involve your Parent Teacher Organization. If there is a local FFA Chapter or 4-H Club, involve them in your Dairy Day celebration.
- Visit a dairy farm in your area or ask a local dairy farmer to bring a cow or calf to your school for children to see.


## Lessons ${ }^{\text {MILK }}$

## EASY OUTDOOR ICE CREAM

## Content Areas: Health, Science, Math

## Objectives

## The student will be able to:

- Measure the designated amount of ingredients for a recipe
- See substances change from a liquid to a solid


## Materials

- 1 lb clean coffee can with lid
- 3 lb clean coffee can with lid
- roll of duct tape
- ice
- $3 / 4$ cup rock salt
- towel
- measuring cups
- measuring spoons
- 1 cup whipping cream
- 1 cup milk
- $1 / 2$ cup sugar

- $1 / 2$ teaspoon vanilla


## Procedure

1. Put whipping cream, milk, sugar and vanilla into the 1 lb coffee can.
2. Put the lid on tightly and secure with duct tape.
3. Insert the 1 lb can into the 3 lb can.
4. Pack ice entirely around the inside can and pour rock salt on top of ice.
5. Put the lid on tightly and secure with duct tape.
6. Roll the can around the yard for $15-20$ minutes.
7. Carefully remove tape from the 3 lb can and remove lid.
8. Lift the 1 lb can from the salt and ice mixture and dry with a towel.
9. Carefully remove tape from the 1 lb can and remove lid.
10. Ice cream is ready to serve and eat!

## Extension

Add some chocolate syrup to the mix for chocolate ice cream.

## MEAT \& BEANS

## MEAT, SOYBEAN AND PEANUT PRODUCTION IN VIRGINIA

Turkeys, chickens, beef cattle, sheep and pigs are raised in Virginia for meat. These animals are raised in all parts of the state. Rockingham County is the top agriculture producing county in the state and this is due in part to their production of broilers (chickens) and turkeys. Most of our pork production, however, is in the Southeast part of the state in the Coastal Plains region.


Soybeans are the number one cash crop in Virginia. These protein packed legumes are grown across the state. Many products are made from soybeans including soybean oil, tofu, soy milk, soy yogurt and soy flour.


Virginia is also known for its peanut production. Peanuts are grown in the Southeast part of the state in the Coastal Plains region because of the sandy soils. Peanuts and peanut butter are a great source for protein. Most of the peanuts in Virginia are sold as shelled or in-shell peanuts and are not made into peanut butter.

## Recipes $\mid$ MEAT \& BEANS

## CORNMEAL-CRUSTED CATFISH NUGGETS

Prep: 10 minutes
$3 / 4$ cup cornmeal
2 tablespoons paprika
1 teaspoons salt
1 teaspoon pepper
2 pounds catfish cut into nuggets vegetable cooking spray


1. Stir together the cornmeal, paprika, salt and pepper in a large shallow dish.
2. Dredge the catfish nuggets in the cornmeal mixture; coat lightly with the vegetable cooking spray.
3. Cook nuggets, in batches, in a hot non-stick electric fry pan on medium heat 2 to 3 minutes or until golden, gently turning to brown each side.

Yield: 4 servings
Equipment needed: dry measuring cups, measuring spoons, cutting board, knife, shallow dish, electric fry pan, tongs or cooking fork, spoon

## SWEET AND SOUR PINEAPPLE PORK CHOPS

Prep: 15 minutes
4 ( 4 to 6 oz ) boneless pork loin chops ( $1 / 2$ to $3 / 4$ inch thick)
$1 / 2$ teaspoon peppered seasoned salt
$1 / 2$ cup purchased sweet and sour sauce
$1 / 4$ cup orange juice
4 drained canned pineapple slices
1 to 2 tablespoons chopped fresh chives

cooking spray

1. Spray an electric fry pan with cooking spray; heat to medium heat.

Sprinkle both sides of pork chops with seasoned salt. Add to fry pan; cook 2 to 3 minutes on each side or until browned.
2. Add sweet and sour sauce and orange juice; mix well. Reduce heat to low; cover and simmer 10 to 15 minutes or until pork is no longer pink in center, turning and stirring once or twice.
3. Top each pork chop with pineapple slice. Spoon some glaze over top. Cook 3 to 5 minutes or until thoroughly heated. Sprinkle with chives.

Yield: 4 servings
Variations: Small cubes of pork may be substituted for chops.
Equipment needed: measuring spoons, liquid measuring spoons, can opener, electric fry pan, cooking fork, spoon

CHICKEN STIR-FRY WITH BROCCOLI
Prep: 20 minutes
2 teaspoons chopped garlic
2 tablespoons peanut oil
2 teaspoons chopped ginger
4 large skinless, boneless chicken breasts, sliced thinly (4-5 ounces each)
2 cups broccoli florets cut into small pieces
$1 / 2$ cup water chestnuts
2 cups thinly sliced mushrooms freshly ground black pepper $1 ⁄ 2$ cup low-sodium soy sauce

1. Heat an electric fry pan to $350^{\circ} \mathrm{F}$.
2. Add the garlic, peanut oil and ginger, and stir quickly for 30 seconds.
3. Raise the skillet to $400^{\circ}$ F. Add the chicken and stir-fry for 2-3 minutes. Then add the broccoli, water chestnuts, and mushrooms stirring quickly after each addition.

4. Season with pepper.
5. Add the soy sauce and cook until vegetables are tender, about 2 more minutes.

Yield: 8 servings
Equipment needed: cutting board, sharp knife, measuring spoons, dry measuring cups, can opener, liquid measuring cups, electric fry pan, spoon, spatula

## Recipes $\mid$ MEAT \& BEANS



## BEEF AND CHEESE QUESADILLAS

Prep: 10 minutes
1 lb lean ground beef
1 teaspoon ground cumin
1 teaspoon chili powder
$1 / 4$ teaspoon Kosher salt
$1 / 3$ cup prepared chili sauce
1 tablespoon olive oil
4 10-inch flour tortillas
1 cup shredded cheddar cheese


1. In an electric skillet, brown ground beef.
2. Add cumin, chili powder, salt and chili sauce, stirring to mix well. Remove from heat.
3. Heat olive oil in skillet over medium-high heat.
4. Spread $1 / 4$ of the beef mixture over half of one tortilla. Top with $1 / 4$ cup of the shredded cheese. Fold in half and place in the heated olive oil.
5. Cook until golden brown on one side, about 1 minute. Flip and cook until browned on the other side.
6. Remove to a plate. Repeat with remaining tortillas, beef, and cheese.
7. Cut each tortilla into three triangles. Serve with guacamole and tomato salsa.

Yield: 6 servings
Equipment needed: electric fry pan, measuring spoons, liquid measuring cups, grater, spatula, stirring spoon, sharp knife

## 3 MINUTE MICROWAVE BREAKFAST

Prep: 5 minutes
2 eggs
2 tablespoons milk
2 tablespoons shredded cheddar cheese
1 teaspoon chopped chives
1 teaspoon bacon bits or chopped ham dash pepper


1. In a bowl beat together, eggs, milk, chives, bacon bits and pepper. Stir in shredded cheddar cheese.
2. Pour into a microwave-safe 10 oz custard cup or bowl.
3. Microwave, uncovered, on $100 \%$ power for $11 / 2$ to 2 minutes or until almost set, pushing cooked portions to the center every 30 seconds.
4. Sprinkle with 1 tablespoon shredded cheddar cheese.
5. Let stand still till set.

Yield: 1 serving
Equipment needed: bowl, whisk, spoon, measuring spoons, grater, custard cup or small bowl, microwave

TWO BEAN VEGETABLE CHILI
Prep: 20 minutes
1 tablespoon olive oil
1 large onion, finely chopped (about $11 / 2$ cups)
2 large zucchini, chopped (about $31 / 2$ cups)
2 large carrots, chopped (about 1 cup)
1 package (10 oz) mushrooms, chopped (about 3 cups)
2 large red peppers, chopped
1 can ( 15 oz ) red kidney beans, rinsed and drained 1 can ( 15 oz ) black beans, rinsed and drained
3 cups onion and garlic spaghetti sauce
2 teaspoons ground chipotle chili pepper 1 teaspoon dried oregano leaves, crushed 1 cup grated cheddar cheese

1. Heat oil in a electric fry pan over medium heat.

2. Add the onion, zucchini, carrots, mushrooms, and peppers and cook for 5 minutes or until the vegetables are tender-crisp.
3. Stir in beans, sauce, chipotle pepper and oregano in the fry pan and heat to boil.
4. Reduce the heat to low.
5. Cook for 10 minutes or until the vegetables are tender.
6. Top servings with grated cheddar cheese.

Yield: 8 servings
Equipment needed: measuring spoons, cutting board, sharp knife, can opener, liquid and dry measuring cups, electric fry pan, spoon

## Recipes $\mid$ MEAT \& BEANS



## KID-FRIENDLY TOFU SLOPPY JOES

Prep: 10 minutes
1 lb firm tofu
2 tablespoons vegetable oil
1 tablespoon chili powder
2 tablespoons minced green pepper
2 tablespoons minced onion
2 tablespoons minced parsley
1 teaspoon prepared mustard
1 cup water
$1 / 4$ cup catsup
2 teaspoons cider vinegar
2 teaspoons brown sugar
salt and pepper to taste


1. Mash tofu and mince the green pepper, onion and parsley.
2. Heat oil in an electric fry pan, fry tofu with chili powder and veggies, 5 minutes, on high.
3. Add the remaining ingredients and simmer for 10 minutes. Serve over buns.

Yield: 4 servings
Equipment needed: cutting board, sharp knife, measuring spoons, liquid measuring cups, electric fry pan, spoon

## Lessons MEAT \& BEANS

## VIRGINIA CLUB SANDWICH

Content Area: Health, Art

## Objectives

## The student will be able to:

- Explain the health benefits of eating protein
- Explain what constitutes a serving of protein
- Create a well balance meal using the food pyramid


## Materials

- paper plate
- yarn
- brown, tan, pink, yellow, green, red construction paper
- markers, colored pencils or crayons
- scissors
- tape


## Procedure

1. Fold paper plate in half. Cut in half at the seam. Staple together rounded portions of the paper plate to form a semicircle pocket. This presents a $1 / 2$ sandwich.
2. Cut a rectangular piece of brown construction paper which represents beef. Beef piece must fit in the sandwich pocket.
3. Cut an oval shape from the tan paper representing chicken or turkey which will fit in the sandwich pocket.
4. Using the pink paper cut two pieces shaped like bacon representing pork.
5. Cheese triangle, lettuce, and tomato can be formed from yellow, green, and red construction paper to represent other segments of the food pyramid.
6. Label each piece of the Virginia Club Sandwich and attached pieces with a string to form a chain. Insert the pieces of the sandwich into the sandwich pocket.

## Extension

Provide an opportunity for each participant to create their own sandwich representing pieces of the food pyramid.

## Lessons $\quad$ MEAT \& BEANS

## FUNKY FRACTION CHICKEN

## Content Area: Math

## Objective

## The students will be able to:

- Use tactile representations to identify fractions and to compare equivalent fractions
- Create a chicken using their fraction tactiles


## Materials

- 3 white or yellow paper plates per student (lower levels may only use 2, see Background Knowledge below)
- staplers
- glue or tape
- crayons
- scissors (one per student)
- orange construction paper
- chicken feet template (attached)


## Background Knowledge

This lesson is a great way to represent fractions with your students using the funky fraction chicken. It might be helpful to start out representing fractions with objects that are placed on the plate. It is important to explain to your students that the plate serves as a whole and when the plate is cut in half then they are left with 2 halves. One $1 / 2$ is half of the plate and the other $1 / 2$ is half of the plate and when they are put together they equal a whole. Then you can cut the 2 halves in half again and explain to your students that now they have 4 fourths. One $1 / 4$ is a fourth of the plate and that same goes for the other pieces and when they are put together they make up the whole plate again. Depending on how old your students are you may want to go higher in fractions. This also serves as a great way to show equivalent fractions such as $1 / 4+1 / 4=1 / 2$ or $1 / 2+1 / 2=1$. You can also $g o$ as high or low as you wish with this step too.

This lesson can be easily adapted to grade level and/or student ability. Lower levels may stop at $1 / 4$, while upper levels may add "feathers" to their chickens and go up to $1 / 8$ th or $1 / 16$ th. Teachers who wish to stop at $1 / 4$ should only use 2 plates per child and may omit steps 5-7 below. The picture accompanying the lesson has gone up to sixteenths.

## Procedure

1. Pass out 3 paper plates to each student. Have students place the plates in a row in front of them. Talk about how each plate is the same and equivalent to the others.
2. Take the middle plate and cut it in half, by folding and then cutting on the crease.
3. Place both pieces on top of the first place. Point out that 2 halves make one whole. You may write this on the board as $1=2 / 2$ and discuss simplifying fractions.
4. Pick up one of the halves. Fold it in half and cut along the crease. You have now created 2 fourths. Place these back on the first plate. Now $1 / 2=2 / 4$, again discuss simplifying fractions.
5. Take the third plate. Fold it in half once, and then again. Cut to create fourths.
6. Take the fourths and cut them in half. Now $2 / 8=1 / 4$ and $4 / 8=2 / 4=1 / 2$.
7. Take 4 of the eighths and cut them in half. Now $2 / 16=1 / 8$ and $8 / 16=1 / 2$ and so on.
8. Now it is time to assemble your Funky Fraction Chicken.
9. Tell students to pick up the whole plate and place it upside-down in the middle of their desk. This is the chicken's body.
10. Take the piece which represents $1 / 2$ and place it right-side up at the bottom of the body. The straight side should be at the bottom. Staple the half into place. This will be the head.

## Lessons | MEAT \& BEANS

11. Now take the two quarter pieces. Put them on the side of the chicken's body so that the point is facing in. Staple into place. These are the wings.
12. Cut a small triangle out of construction paper. Glue it to the bottom of the head, point side down. This is the beak.
13. Use a black marker or crayon to draw 2 eyes on the head.
14. Cut out legs. Color them orange (or you may print these on orange paper).
15. Staple to the top of the body.
16. The eights and sixteenths are feathers; arrange and glue to the body.
17. Display the Funky Fraction Chickens around the room!

## Extension

- Engage students with more henhouse math!
- A hen lays approximately one egg every 25 hours. How many eggs will a hen lay in a week/month/year?
- A chicken egg takes 21 days to hatch. Turkey and duck eggs each take 28 days. What is the average hatching time for poultry?


## References

Original lesson adapted from Illinois Agriculture in the Classroom.


## Lessons MEAT \& BEANS

## THE FIRST THANKSGIVING

Content Areas: Health, Social Studies

## Objectives

## The student will be able to:

- Compare foods eaten on the first Thanksgiving to foods Americans enjoy at Thanksgiving today
- Define overindulgence
- Create a healthy Thanksgiving plate and separate into MyPyramid food groups


## Materials

- Thanksgiving Day by Gail Gibbons
- large paper plates
- glue
- scissors
- copies of the food pyramid
- magazines, grocery store advertisements


## Background Knowledge

Thanksgiving is a great time of the year to teach about the food pyramid and the history of the American tradition of Thanksgiving. Today, turkey is the meat we think of most at Thanksgiving. Discuss the meats that were eaten at the first Thanksgiving.

## Procedure

1. Read Thanksgiving Day by Gail Gibbons. This book will inform students of the foods eaten at the first Thanksgiving.
2. Students chart the foods eaten on a copy of the food pyramid.
3. Foods eaten today at Thanksgiving will also be placed on a second copy of the food pyramid.
4. Students compare the two pyramids.
5. Students will create a healthy Thanksgiving dinner by cutting out pictures of foods from magazines, grocery store advertisements, etc.
6. A paper plate can be divided into 5 equal parts (each food group). Students sort pictures into food groups and glue onto plate.

## Virginia Standards of Learning Connection

As of 2009 the following Virginia standards of learning are addressed in this book.

## HEALTH:

## K. 1

The student will explain that the body is a living and growing organism. Key concepts/ skills include
a) the importance of making healthy food choices (e.g., eating a variety of foods from all food groups, eating breakfast, choosing healthy snacks, eating at least five fruits and vegetables a day);
b) the effects of drugs and medicines on the body;
c) the five senses (sight, sound, smell, taste, touch) and major body parts (e.g., head, trunk, arms, legs, hands, feet);
d) the need for regular physical activity.

## K. 2

The student will explain the concept of being healthy. Key concepts/skills include
a) positive and negative emotions that affect physical health (e.g., anger, sadness, fear, frustration, happiness, pride);
b) personal hygiene practices (e.g., tooth brushing, flossing, hand washing, grooming);
c) germs (e.g., bacteria, viruses) that lead to common diseases (e.g., cold, flu).

## 1.2

The student will explain that good health is related to health-promoting decisions. Key concepts/skills include
a) personal hygiene, including care of one's teeth;
b) personal safety behaviors;
c) the harmful effects of misusing medicines and drugs;
d) sleep habits;
e) physical activity and healthy entertainment;
f) proper nutrition.

## 2.2

The student will explain that personal health decisions and health habits influence health and wellness throughout life. Key concepts/skills include
a) how food choices contribute to a healthy lifestyle;
b) the harmful effects of drugs, alcohol, and tobacco;
c) the need for regular health check-ups and screenings;
d) the importance of learning and using refusal skills to make good decisions;
e) the use of nonviolent strategies to resolve conflicts.

## 3.1

The student will explain that health habits impact personal growth and development. Key concepts/skills include
a) food and beverage choices based on nutritional content;
b) the benefits of physical activity and personal fitness;
c) safe and harmful behaviors;
d) positive interaction with family, peers, and other individuals.

## 3.5

The student will explain that customs and traditions may impact community health decisions. Key concepts/skills include
a) dietary customs and practices;
b) recreational activities;
c) celebrations and traditions.

## 4.1

The student will explain how nutrition affects personal health and academic achievement. Key concepts/skills include
a) the nutrients needed for proper brain functioning;
b) the importance of balance, variety, and moderation in a meal plan;
c) the effects of malnutrition;
d) the impact of nutrients on growth and development;
e) the impact of fats, carbohydrates, and proteins on physical performance.

## 4.5

The student will access and use health resources to improve personal and family health. Key concepts/skills include
a) the use of health care agencies, printed materials, broadcast media, Internet, and audiovisual materials;
b) identification of accurate and inaccurate health information.

## 5.2

The student will demonstrate responsibility for developing personal health habits and practicing behaviors that promote an active, healthy lifestyle. Key concepts/skills include
a) the relationship between health promotion and disease prevention;
b) the connection between nutritional guidelines and weight management;
c) strategies for managing stress;
d) the importance of exercise and recreation;
e) the effects of personal health habits on cardiovascular fitness;
f) the importance of developing and maintaining a positive self-image.

## 5.4

The student will critically evaluate how print media, broadcast media, and Internet technology influence perceptions of health information, products, and services. Key concepts/skills include
a) strategies for validating health information;
b) tools for the critical evaluation of advertisements and promotions.

## 5.5

The student will explain how peers, families, and community groups work together to build a healthy community. Key concepts/skills include
a) collaborative support for environmental issues;
b) the existence of customs and traditions;
c) promotion of the value of community health and wellness;
d) examination of community health issues;
e) development of community health projects;
f) promotion of volunteerism and community service.

## SCIENCE:

## 1.4

The student will investigate and understand that plants have life needs and functional parts and can be classified according to certain characteristics. Key concepts include
a) needs (food, air, water, light, and a place to grow);
b) parts (seeds, roots, stems, leaves, blossoms, fruits); and
c) characteristics (edible/nonedible, flowering/nonflowering, evergreen/deciduous).

## 2.8

The student will investigate and understand that plants produce oxygen and food, are a source of useful products, and provide benefits in nature. Key concepts include
a) important plant products (fiber, cotton, oil, spices, lumber, rubber, medicines, and paper);
b) the availability of plant products affects the development of a geographic area; and
c) plants provide homes and food for many animals and prevent soil from washing away

## 4.4

The student will investigate and understand basic plant anatomy and life processes. Key concepts include
a) the structures of typical plants (leaves, stems, roots, and flowers);
b) processes and structures involved with reproduction (pollination, stamen, pistil, sepal, embryo, spore, and seed);
c) photosynthesis (sunlight, chlorophyll, water, carbon dioxide, oxygen, and sugar); and
d) dormancy.

## MATHEMATICS:

## 2.4

The student will identify the part of a set and/or region that represents fractions for onehalf, one-third, one-fourth, one-eighth, and one-tenth and write the corresponding fraction.

## 3.5

The student will
a) divide regions and sets to represent a fraction; and
b) name and write the fractions represented by a given model (area/region, length/measurement, and set). Fractions (including mixed numbers) will include halves, thirds, fourths, eighths, and tenths.

### 3.14

The student will estimate and then use actual measuring devices with metric and U.S. Customary units to measure
a) length-inches, feet, yards, centimeters, and meters;
b) liquid volume-cups, pints, quarts, gallons, and liters; and
c) weight/mass-ounces, pounds, grams, and kilograms.

## 4.2

The student will
a) identify, model, and compare rational numbers (fractions and mixed numbers), using concrete objects and pictures;
b) represent equivalent fractions; and
c) relate fractions to decimals, using concrete objects.

## 5.2

The student will
a) recognize and name commonly used fractions (halves, fourths, fifths, eighths, and tenths) in their equivalent decimal form and vice versa; and will include like and unlike denominators limited to 12 or less, and mixed numbers.

## ENGLISH:

## 1.3

The student will adapt or change oral language to fit the situation.
a) initiate conversation with peers and adults.
b) follow rules for conversation.
c) use appropriate voice level in small-group settings.
d) ask and respond to questions in small-group settings

## 2.3

The student will use oral communication skills.
a) use oral language for different purposes: to inform, to persuade, and to entertain.
b) share stories or information orally with an audience.
c) participate as a contributor and leader in a group.
d) summarize information shared orally by others.

## 2.4

The student will use phonetic strategies when reading and spelling.
a) use knowledge of consonants, consonant blends, and consonant digraphs to decode and spell words.
b) use knowledge of short, long, and r-controlled vowel patterns to decode and spell words.
c) decode regular multisyllabic words.

## 2.5

The student will use meaning clues and language structure when reading.
a) use information in the story to read words.
b) use knowledge of sentence structure.
c) use knowledge of story structure and sequence

## 3.3

The student will present brief oral reports.
a) speak clearly.
b) use appropriate volume and pitch.
c) speak at an understandable rate.
d) organize ideas sequentially or around major points of information.
e) use grammatically correct language and specific vocabulary to communicate ideas.

## 4.1

The student will use effective oral communication skills in a variety of settings.
a) present accurate directions to individuals and small groups.
b) contribute to group discussions.
c) seek ideas and opinions of others.
d) use evidence to support opinions.
e) use grammatically correct language and specific vocabulary to communicate ideas.

## 5.1

The student will listen, draw conclusions, and share responses in subject-related group learning activities.
a) participate in and contribute to discussions across content areas.
b) organize information to present reports of group activities.
c) summarize information gathered in group activities.

## SOCIAL STUDIES:

## K. 1

The student will recognize that history describes events and people of other times and places by
a) identifying examples of past events in legends, stories, and historical accounts of Pocahontas, George Washington, Betsy Ross, and Abraham Lincoln;
b) identifying the people and events honored by the holidays of Thanksgiving Day, Martin Luther King, Jr. Day, Presidents' Day, and Independence Day (Fourth of July).


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# The Garden Chef 

 Cooking Through the Food GroupsA collection of recipes and activities for the elementary classroom


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