



Grades 3-5

# FoodMASTER

Using Food to Teach Mathematics and Science Skills

TEACHER  
EDITION

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PARTNERED WITH:



Northern Illinois University

SPONSORED BY:

**SEPA** SCIENCE EDUCATION  
PARTNERSHIP AWARD

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**FoodMASTER**

Food, Mathematics And Science Teaching Enhancement Resource Initiative

[www.foodmaster.org](http://www.foodmaster.org)

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*This book is dedicated in loving memory of  
Beverly Wyckoff Wilson,  
a fourth grade teacher,  
and to all teachers that selflessly  
give so much every day.*

*We wish to thank family, friends, co-workers and teachers  
who have provided much love, support and feedback,  
and God with whom all things are possible.*

*— Melani W. Duffrin, Sharon Phillips and Jana A. Hovland*

## **SEPA** SCIENCE EDUCATION PARTNERSHIP AWARD

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The Science Education Partnership Award (SEPA) was created to improve K-12 health sciences education and to create public awareness of life sciences. SEPA brings educators, media experts, community leaders, and biomedical and behavior scientists together in partnerships to design and disseminate innovative K-12 science programs. SEPA is administered by the National Center for Research Resources, a component of the National Institutes of Health.

The Food, Mathematics, and Science Teaching Enhancement Resource (FoodMASTER) initiative received three years of SEPA-Phase I funding to develop the multimedia FoodMASTER Intermediate curriculum and to investigate its impact. Thirteen classrooms in Appalachian Ohio participated in the pilot program and four classrooms served as controls. Initial results showed promise for using food as a tool to teach mathematics and science to intermediate students. FoodMASTER was awarded SEPA-Phase II funding to prepare the curriculum for national dissemination and to continue to investigate the impact of FoodMASTER Intermediate.

# Table of Contents

<b>Introduction</b> .....	<b>vii</b>
<b>Equipment and Supply List</b> .....	<b>x</b>
<b>Chapter by Chapter Equipment and Supply List</b> .....	<b>xv</b>
<b>Chapter 1: Measurement</b> .....	<b>1</b>
Measuring Up .....	2
Scientific Inquiry: Cups, Spoons and Scales .....	3
Scientific Inquiry: Liquid Measurement .....	4
While You Wait: Fractional Mathematics .....	6
Answer Key .....	7
<b>Chapter 2: Food Safety</b> .....	<b>9</b>
Safe Kitchen Cooks .....	10
Scientific Inquiry: Temperature and Microorganisms .....	12
While You Wait: Kitchen Clean Up .....	13
Healthy Hands .....	14
Scientific Inquiry: Hand Washing .....	15
Answer Key .....	17
<b>Chapter 3: Vegetables</b> .....	<b>19</b>
Vegetable Jungle .....	20
Scientific Inquiry: Stating the Facts About Vegetables .....	21
Vegetable Rainbow .....	22
Scientific Inquiry: Color Changes in Acids and Bases .....	23
Eating Vegetables .....	24
Scientific Inquiry: Scientific Soup .....	25
Answer Key .....	26
<b>Chapter 4: Fruits</b> .....	<b>29</b>
Fruit Groups .....	30
Scientific Inquiry: Pomes, Drupes, Berries, Melons and Citrus Fruit .....	31
Fruit Reactions .....	32
Scientific Inquiry: Browning .....	33
While You Wait: Fruit Salad .....	34
Perfect Prune .....	35
Scientific Inquiry: Plump Plums and Pit-less Prunes .....	36
Answer Key .....	37
<b>Chapter 5: Milk and Cheese</b> .....	<b>39</b>
Many Milks .....	40
Scientific Inquiry: Comparing Milk .....	41
Making Cheese .....	43
Scientific Inquiry: Curds and Whey .....	44
While You Wait: Tasty Cheese .....	45
Answer Key .....	46

<b>Chapter 6: Meat, Poultry and Fish</b> .....	<b>49</b>
Hamburger Hints .....	50
Scientific Inquiry: Lean and Fat .....	51
Hot Diggity Dog .....	52
Scientific Inquiry: Healthier Hotdog .....	53
Something is Fishy .....	54
Scientific Inquiry: Fish in the Kitchen .....	55
While You Wait: Oh My! Omega .....	56
Answer Key .....	57
<b>Chapter 7: Eggs</b> .....	<b>59</b>
Egg-ceptional Eggs .....	60
Scientific Inquiry: Egg Facts .....	61
Fantastic Foams .....	62
Scientific Inquiry: Peaks, Peaks, Peaks .....	63
While You Wait: Egg-citing Egg Foams .....	64
Answer Key .....	65
<b>Chapter 8: Fats</b> .....	<b>67</b>
Dress it Up .....	68
Scientific Inquiry: Reading Labels .....	69
Emulsify This .....	71
Scientific Inquiry: Immiscible .....	72
Mmmm Creamy .....	73
Scientific Inquiry: We All Scream for Ice Cream .....	74
Answer Key .....	76
<b>Chapter 9: Grains</b> .....	<b>79</b>
Selecting Cereal .....	80
Scientific Inquiry: Label Logic .....	81
Rice Review .....	83
Scientific Inquiry: Nice Rice .....	84
While You Wait: Main Grain .....	85
Pasta Perfection .....	86
Scientific Inquiry: Cooking Pasta .....	87
While You Wait: Brainy Grains .....	88
Answer Key .....	89
<b>Chapter 10: Meal Management</b> .....	<b>91</b>
Menu Madness .....	92
Scientific Inquiry: Money Matters .....	93
Nutritious and Delicious .....	94
Scientific Inquiry: Let's do Lunch .....	95
Answer Key .....	96



# Introduction

# FoodMASTER Intermediate

## A food, mathematics and science activity book for grades 3-5

### Background

FoodMASTER (Food, Mathematics and Science Teaching Enhancement Resource) is a compilation of programs aimed at using food as a tool to teach mathematics and science. It is our theory that if food is used as a tool to teach mathematics and science, students will be better prepared to demonstrate and apply mathematic and scientific knowledge. Because students encounter food on a daily basis, they have preexisting contextual experiences preparing them for learning new and relevant mathematics and science material.

Food is conducive to hands-on and virtual, inquiry-based, active learning that uses multiple senses to engage students in the learning process. Utilizing food allows for an interdisciplinary approach to learning concepts and ideas in a variety of scientific subjects like general science, biology, chemistry, microbiology, nutrition and health. Additionally, food labs are a dynamic way to teach mathematics concepts such as numbers and operations, algebra, geometry, measurement and problem solving.

The knowledge and skill development that can be inspired by the FoodMASTER approach is limitless. Proper use of measurement tools, data collection and interpretation, application and generalization, classification and organization, graphing and comparative analysis, understanding chemical changes, observing functions of ingredients and controlling variables, pricing, critical thinking, self-directing learning, and team building are only a few of the potential knowledge and skill development areas for intermediate grade students experiencing FoodMASTER's scientific inquiry labs.

### Introduction

Welcome to the FoodMASTER Intermediate program! The curriculum contained in this packet was developed by FoodMASTER with funding from the National Institutes of Health: Science Education Partnership Award to present intermediate grade students with ten basic topics in foods. Each topic area includes hands-on and computer based lessons to take your students on an exciting and innovative exploration of food, mathematics and science. These engaging lessons will have your students developing skills and thinking about learning in a new fashion that is fun and exciting for everyone involved. For each lesson in this manual you will find a summary of the unit, objectives, national mathematics and science content standards addressed, a list of materials needed, detailed instructions for completing the activity, teacher tips and answer keys.

The student workbook pages are designed to be kid friendly and easy for both teachers and students to follow. Each "Scientific Inquiry" activity can be adapted to fit a variety of classroom structures. Teachers are encouraged to read through the labs ahead of time and decide on the best format (teacher-directed, small groups, or individual) for completing each lab with their students. Chosen method of implementation may vary depending on the amount of time, equipment and supplies, and number of classroom adult supervisors available; as well as safety consideration and learner needs. Computer-aided learning materials are as simple as popping a CD into the computer

and letting your students start clicking away. The hands-on and computer-aided lessons may be combined to create a multimedia curriculum or may stand alone. Teachers may choose to follow a hands-on, computer based or combined format.

Each of the ten FoodMASTER Intermediate student chapters includes a brief introduction, one to three hands-on lessons, one to three computer-aided lessons and proficiency questions. Hands-on and computer-aided lessons begin with reading activities, which introduce students to new vocabulary words and engage students in the unit topic. After reading a brief passage out loud as a class or silently, students will complete fun “Doodle Bugs,” which promote reading comprehension. Students participating in hands-on lessons will develop science and mathematics inquiry and problem solving skills using real food to complete “Scientific Inquiry” labs. Some lessons may include a “While You Wait” food activity that engages students in active learning, while food is baking or cooking. A flexible and creative classroom atmosphere will enhance the hands-on curriculum. Students participating in computer-aided lessons will be engaged in mathematics and science learning as they play virtual food games, complete virtual activities or observe computer generated animations. The computer aided format allows students to explore food without any mess. “Try this At Home” activities or recipes are found at the end of each hands-on and virtual lesson. Please send these pages home with students to reinforce classroom learning and to encourage parents and students to learn nutrition facts together. Computer-aided lessons’ “Try this At Home” pages will need to be printed from the FoodMASTER Intermediate CD.

### **What it takes to be a FoodMASTER**

Are you enthusiastic enough to be a FoodMASTER? The hands-on FoodMASTER activities in this booklet do take the commitment of a special teacher who is willing to take the extra time to bring food and supplies into the classroom. It also requires that teachers manage their classrooms in a more open fashion that they may not be comfortable with initially. However, if you desire to see mathematics and science come to life for your students, you will find this method very enjoyable, rewarding and satisfying. Teachers desiring food based activities with less mess and time commitment may choose the computer aided format or combined format. Either way, you will be filled with satisfaction when you see students applying real-life mathematics and science in the classroom and as you hear students share their stories of food lab cooking at home. Previous work with the FoodMASTER method, in an intermediate grade class, indicated that 85% of the students repeated one or more of the activities at home.

We hope that you will find the materials packet easy to use and that it provides you with the information you need to convey food, mathematics and science concepts and knowledge to students in your class with ease and simple preparation. However, if you are interested in becoming more knowledgeable about each of the topics in FoodMASTER Intermediate, check out [www.foodmaster.org](http://www.foodmaster.org) for more information.



### **Food Safety Note**

It is very important for you to follow and model good food safety behaviors! Your students will learn proper food safety practices in chapter two of the curriculum. You will need to continue to reinforce good sanitation and safe food handling practices throughout the curriculum. Please, be sure to remind students to never eat foods until they are instructed and be sure students have washed their hands before preparing or eating foods. Never, serve raw or undercooked meats or eggs, unpasteurized milk, spoiled foods or expired foods. For Scientific Inquiry activities involving eggs try buying eggs pasteurized in their shells.

Keep your classroom safe by thoroughly washing all kitchen utensils, supplies, equipment, counters, desktops and sinks. You should also maintain a Material Safety Data Sheet (MSDS) for all chemicals and cleaning supplies used or stored in the classroom. Cleaning supplies and sharp objects, such as pairing knives and can openers, should be safely stored away for teacher use only. Keep dry food items safely stored in tight containers and perishable items stored in a refrigerator or for short periods of time in a cooler with ice.

Finally, be aware of any food allergies or intolerances. Students with food allergies could have mild to severe reactions if they taste, touch or in some cases even smell their food allergen. Modify activities, when needed, to prevent allergic reactions and consider providing an appropriate alternate snack for students with food allergies or intolerances.

### **Academic Content Standards References:**

National Research Council (NRC). (1996). *National science education standards*. Washington, DC: National Academy Press.

National Council of Teachers of Mathematics (NCTM). (2000). *Principles and standards for school mathematics*. Reston, VA: Author.

# Equipment and Supply List

Listed below is a complete list of equipment, supplies and nonperishable foods you will need to complete all the FoodMASTER Intermediate activities. Needs are based on classrooms with 24 students and assumes four students per group. You may need to adjust for more or less students.

## Equipment and Supply Purchasing

Equipment and supplies may be purchased well in advance to eliminate multiple trips to the store. Before shopping for new equipment and supplies, check your classroom stock and school supply room. In the lists below, **bold** items are equipment and supplies that are considered “out of the ordinary” for a classroom setting and teachers will need to obtain these items. For budgeting purposes, if you purchase all of the **bold** items at reasonable prices, it would cost you approximately \$500.00; however most items can be reused year after year.

## Tips for obtaining equipment, supplies and food

- Try applying for small grants
- Ask for donations from your local retailers
- Shop around for sale items
- Check out garage sales or thrift stores for items in good shape (Be sure to thoroughly scrub and sanitize these items before use.)
- Watch for surplus items from school systems
- Include basic items on your classroom supply list
- Ask parents for donations
- Share equipment with family and consumer science classrooms
- Ask administration for support

When purchasing items, it is important to balance price verse quality. It is not necessary to purchase “top of the line” equipment and supplies, but it is important to make sure that the equipment quality is good enough to hold up from year to year to meet your activity needs. We will make some recommendations about items below to help guide your choices and make your purchasing process a little easier.

## Equipment

**Toaster oven or oven (double rack)**

**1 double burner hot plate**

**1-2 hand mixers**

**1 UV light (with Glo-germ gel)**

With good planning, the activities can usually be managed with two low quality single rack toaster ovens. However, having a good toaster oven will make the activities even more enjoyable. We recommend one double rack toaster oven. Some teachers even put a larger oven on their classroom “wish list”. Other teachers use larger ovens already available in their schools. We recommend a medium quality double burner hot plate. Less expensive basic small hand mixers are usually the easiest for students to handle. Most likely, you will have to purchase a UV light and Glo-Germ™ gel on-line so plan ahead. Use search terms like Glo-Germ™ gel and UV light to shop for the best price.

Another option for the UV light and Glo-Germ™ gel is to contact your local USDA Extension Agent and ask if they have the equipment. Your agent may allow you to borrow the equipment or may even come to your classroom to help deliver the food safety lesson. In addition, teachers with limited access to refrigerator space may add a small refrigerator to their “wish list.”

### **Cookware**

- 1 large pot (stock pot)**
- 2 medium-large pots with lids**
- 2 frying pans**
- 6 cookie sheets (toaster oven size)**

Ideally, clear pots with lids will be purchased. However, clear pots are often expensive and difficult to find. Purchasing a cooking set is the most cost effective option and will get you all of the pots and pans you need. Look for a set that includes at least a large stock pot with lid, 2 sauce pans with lids and 2 frying pans. We recommend purchasing a stainless steel set that has clear lids, so your students will be able to look inside the pots. (You will need a stainless steel stock pot to make cheese.) Your toaster oven will come with at least one cookie sheet. If you have difficulty finding additional cookie sheets to fit your toaster oven, try letting students put their items on disposable foil sheets. You can cut, bend or fold the sheets to fit the size of your oven. Alternatively, students can place items on foil and then transfer items to the one cookie sheet as it becomes available.

### **Bowls**

- 7 small mixing bowls**
- 6 medium bowls**
- 2 large mixing bowls**

Any type/quality of mixing bowl will do, but plastic is probably safer and the most cost effective.

### **Kitchen Measuring Equipment**

- 7 sets of dry measuring cups**
- 6 sets of measuring spoons**
- 6 liquid measuring cups**
- 2 small glass liquid measuring cups (with ounce increments marked)**
- 6 food scales**
- 1 clock or 2 timers
- 6 bimetallic stemmed thermometers**

We recommend plastic measuring sets for safety and cost efficiency. For the purposes of these activities, it is not necessary to have six high quality scales. We suggest purchasing one digital scale and five smaller inexpensive kitchen scales.

# Equipment and Supply List (continued)

## Utensils

- 1-2 spatulas**
- 6 stirring spoons**
- 2 slotted spoons**
- 1 pair of tongs**
- 1 ice cream scoop**
- 1 can opener**
- 1 egg separator**
- 1 paring knife**
- 1 fork**
- 12 small spoons (or 24 spoons)**
- 7 table knives (or 24 knives)**
- 24 forks optional**
- 1 apple slicer/corer (optional)**

Any type/quality of utensils will do. Look for blunt table knives that are not sharp at all and spoons that will be easy for kids' hands to handle. You may consider purchasing a set of 24 forks, spoons and knives. In the long run, this will cut down on costs and storage space needs associated with disposable items. However, using disposable forks, spoons and knives will decrease cleanup time. Remember, you must keep the paring knife and can opener safely stored for adult use only.

## Other

- 3 plates**
- 6 pitchers to hold water**
- 6 plastic trays (cafeteria style)
- 1 cutting board**
- 1-2 wire cooling racks or foil sheets**
- 1 strainer or colander**
- 12 glass jars with lids (1/2 pint size or larger)**
- 2 dishcloths**
- 2 dishtowels**
- 1 set of oven mitts**
- 2 pot holders**
- 1 bottle Glo Germ™ gel (see note under Equipment)**
- 1 deck of cards (representing 2-3 ounces of meat)
- 1-2, 18-gallon storage containers with tight lids (to store food and supplies)**
- 1 large cooler to transport food safely (optional)**

Any quality of equipment here will do as well. If desired, 6 mixing bowls can be used in place of the 6 pitchers; however, you will still need one pitcher. Jars with lids can be difficult to find if it is not canning season, so plan ahead. Egg separators can sometime be hard to find as well. If you will be purchasing perishable food items and traveling a distance to school, you may consider purchasing a cooler to keep foods safe. A cooler filled with ice can also keep foods safe in the classroom.

### **Classroom Supplies**

24 hand lenses  
6-24 measuring tapes (or string & rulers)  
6-12 rulers  
24 pencils  
6 packages of colored pencils  
1 permanent marker  
6 yellow markers  
6 red markers  
6 green markers (optional)  
1-2 rolls of masking tape  
6 eye droppers (optional)

Hopefully, as a teacher, you will have many of these supplies already on hand. Try finding hand lenses at discount stores, teacher catalogues or on-line to get a good price.

### **Disposable Items**

**18 gallon-size re-sealable zipper storage bags**  
**1 roll of foil**  
2 rolls of paper towels  
**72 napkins**  
**42 small foam cups (or 24 heat stable non-disposable cups)**  
**48 cups (8-ounce)**  
**170 small cups (Dixie cup style)**  
**80 disposable spoons (or 24 non-disposable spoons)**  
**48 disposable forks (or 24 non-disposable forks)**  
**350 disposable plates (or 24 non-disposable plates plus 10 paper plates)**  
1 half-pint milk carton (emptied and washed out)  
1 bar of soap  
**1 bottle kitchen sanitizer**  
**1 cheese cloth (optional)**

Disposable supplies will need to be replaced year after year. Purchase these items in bulk at a discount retailer or try asking parents to donate some of these items to the classroom.

### **Food Purchasing**

When purchasing food items, shop ahead for sales, clip coupons or try discount food stores for better prices. To keep food purchasing as simple as possible, we recommend that you purchase all of your nonperishable food items before beginning FoodMASTER. Keep these items stored in tight containers in a cool dry storage area. To minimize the possibility of contamination, do not let students obtain their ingredients directly from the storage supplies. We suggest that you or another adult obtain all the ingredients needed for each lesson and set them out in bowls. Students may then gather supplies and measure from these bowls. We also recommend replacing nonperishable items on a regular basis. Be sure to check expiration dates and label items as to purchase dates. For budgeting purposes, if you were to purchase all the nonperishable food items at reasonable prices, it would cost you approximately \$100.00. Budget another \$100.00 for the perishable food items, which will need to be purchased before selected labs.

# Equipment and Supply List (continued)

## **Nonperishable Food Supplies**

### **Baking Products**

- 1 pound sugar
- 3 pounds brown sugar
- 2 pounds flour
- 1 small container unsweetened cocoa powder
- 4 packages semisweet chocolate chips
- 18 packets of active dry yeast

### **Spices/Flavoring**

- 1 ounce imitation or regular vanilla extract
- 1 container baking powder
- 1 container baking soda
- 1 container salt
- 1-2-ounce container dry mustard
- 2-ounce container paprika
- 2-ounce container ground pepper
- 1.75-ounce container oregano
- 1.5-ounce container cream of tartar
- Optional: basil, garlic, parsley and onion flakes

### **Canned Goods**

- 15-ounce can of pineapples (un-drained)
- 16-ounce can of diced new potatoes
- 16-ounce can of carrots
- 16-ounce can of corn
- 16-ounce can of green beans
- 26-ounce jar of pasta sauce
- 48-ounce can of tomato juice
- 2 salmon pouches (6-7-ounces each)

### **Condiments**

- 1 small bottle of ketchup (optional)
- 1 bottle of mustard (optional)
- 1 bottle light mayonnaise (optional)
- 16-ounce jar chunky salsa
- 16-ounce bottle of ranch salad dressing
- 16-ounce bottle of light ranch salad dressing
- 16-ounce bottle of fat-free ranch salad dressing

### **Other**

- 24 prunes
- 1 small bottle lemon juice
- 32-ounce bottle of vinegar
- 1 bottle cooking spray
- 1 small bottle canola cooking oil (24 ounces)

### **Cereals and Snacks**

- 5 cups quick oats
- Box Wheat Chex® (or generic)
- Box Cheerios® (or generic)
- Box Frosted Shredded Wheat® (or generic)
- Box Frosted Flakes® (or generic)
- Box Froot Loops® (or generic)
- 50 whole grain crackers
- 48 crackers
- 2, 12-ounce bags mini pretzels (24 ounces)

### **Pastas and Grains**

- 1 package instant whole grain brown rice (not boil in a bag or a rice mix)
- 16-ounce box regular pasta
- 16-ounce box whole wheat pasta (rotelle, farfalle or spaghetti)

# Chapter by Chapter Equipment and Supply List

Equipment and Food Supplies are separated by chapters for easy in food purchasing and lesson preparation. Perishable food items are **bold** and will need to be purchased just prior to doing the "Scientific Inquiry" lab. Needs are based on classrooms with 24 students and assumes four students per group. You may need to adjust for more or less students. It is recommended that you read each chapter before purchasing items on this list because you may want to make recommended substitutions or adjust for your individual classroom needs.

## Chapter 1: Measurement

**3 cups butter (6 sticks)**

**6 eggs**

6 cups packed brown sugar

7 1/2 cups flour

6 cups chocolate chips (3 packages)

4 1/2 cups oats

1 1/2 teaspoons vanilla extract

2 tablespoons baking powder

1 tablespoon baking soda

1 tablespoon salt

Water

Toaster oven or oven

6 cookie sheets (toaster oven size)

7 sets dry measuring cups

6 sets measuring spoons

6 liquid measuring cups

1 spatula

6 stirring spoons

12 small spoons (not disposable)

7 table knives

7 small or medium bowls

6 medium bowls (or large bowls)

6 pitchers (or 1 pitcher and 6 medium bowls to hold water)

6 food scales

6 plastic trays (cafeteria style)

1-2 wire cooling racks or foil sheets

18 gallon-size re-sealable zipper storage bags

1 set of oven mitts

6 eye droppers (optional)

## Chapter 2: Food Safety

18 packets of active dry yeast

1 1/2 cups cold water

6 ice cubes (optional)

1 1/2 cups lukewarm water

1 1/2 cups boiling water

Sink

1 double burner hot plate

1 small pot

6 liquid measuring cups

6 bimetallic stemmed thermometers

6 pieces of paper and pencils

6 pencils

1 permanent marker

6 yellow markers

6 red markers

6 green markers (optional)

18 small foam cups

6 paper towels

1 bottle Glo Germ™ gel

1 UV light

Soap

# Chapter by Chapter Equipment and Supply List (continued)

## Chapter 3: Vegetables

**1 head of broccoli**  
**6 celery stalks**  
**6 lettuce leaves**  
**1 head of red cabbage**  
**6 green peppers**  
**6 potatoes**  
**1 raw carrot**  
**1 white onion**  
 16-ounce can of diced new potatoes  
 16-ounce can of carrots  
 16-ounce can of corn  
 16-ounce can of green beans  
 6 cups tomato juice  
 3 tablespoons of vinegar  
 3 tablespoons of baking soda  
 1 teaspoon pepper  
 1 teaspoon oregano  
 Optional: basil, garlic, parsley, onion  
     flakes, red pepper, brown sugar  
 8 cups of water  
 Double burner hot plate  
 1 large pot (stock pot)  
 2 medium pots  
 1 liquid measuring cup  
 1 set of measuring spoons  
 1 large stirring spoon  
 2 slotted spoons  
 1 paring knife  
 3 plates (strong)  
 1 can opener  
 1-6 food scales  
 6-24 hand lenses  
 6-24 measuring tapes (or string & ruler)  
 24 spoons  
 24 cups or bowls (foam/heat stable)

## Chapter 4: Fruits

**7 apples**  
**8 slices of cantaloupe**  
**8 clementines**  
**6 peaches**  
**6 strawberries**  
**7 bananas**  
**1 1/4 cups red seedless grapes**  
**4 plums (cut into 24 plum pieces)**  
 24 prunes  
 15-ounce can of pineapples (un-drained)  
 1 tablespoon sugar  
 1 tablespoon lemon juice  
 1/4 teaspoon cream of tartar  
 1/4 teaspoon water  
 1 set measuring cups  
 6 sets measuring spoons  
 1 large bowl  
 1 stirring spoon  
 6 small plates  
 24 real plates or 72 paper plates  
 6 table knives  
 24 real spoons or 30 disposable spoons  
 24 small bowls or small cups  
 1 paring knife  
 1 cutting board  
 24 hand lenses  
 6 plastic trays (cafeteria style)  
 6 packages of colored pencils  
 Apple slicer/corer (optional)  
 1 clock or timer  
 1 can opener  
 Masking tape  
 Paper towels  
 3 signs: "Prunes," "Dried Plums," and  
     "Not Sure."  
 24 napkins

## Chapter 5: Milk and Cheese

**1/2 gallon whole milk**  
**1 1/2 gallons 2% milk**  
**1/2 gallon skim milk**  
**1/2 gallon soy milk**  
**24 slices regular American cheese**  
**24 slices low-fat American cheese**  
 1 teaspoon salt  
 1/2 cup vinegar  
 48 crackers  
 1 double burner hot plate (or single burner)  
 1 stock pot (not aluminum)  
 1 set measuring cups  
 1 set measuring spoons  
 1 medium bowl  
 1 table knife  
 1 large spoon  
 1 bimetallic stemmed thermometer  
 1 clear glass or jar  
 4 trays (cafeteria style) or trash cans  
 1 strainer  
 1 cheese cloth (optional)  
 48 small plates or napkins  
 96 small cups (Dixie cup style)  
 4 "type of milk" signs ("Whole," "2%," "Skim,"  
     "Soy")  
 12-24 food labels for each milk  
 12-24 food labels for each cheese



## **Chapter 6: Meat, Poultry and Fish**

**1 pound 70% lean ground beef**  
**1 pound 90% lean ground beef**  
**1 package regular hotdogs**  
**1 package turkey hotdogs**  
**8-ounce package light cream cheese**  
**1 1/2 cups finely chopped vegetables**  
(celery, zucchini, cucumbers or carrots)  
**12 buns (optional)**  
2 salmon pouches (6-7-ounces each)  
16-ounce jar chunky salsa  
50 whole grain crackers  
1 bottle ketchup (optional)  
1 bottle mustard (optional)  
Water  
1 double burner hot plate  
2 frying pans  
2 large pots  
1 set of measuring cups  
2 small liquid measuring cups  
1 mixing bowl  
1-2 spatulas  
Tongs  
1 stirring spoon  
1 fork (real)  
1-2 table knives  
1 thermometer  
1 food scale  
53 paper plates (or 24 real plates and  
4 paper plates)  
Cost for each package of hotdogs  
12-24 food labels for each kind of hotdog

## **Chapter 7: Eggs**

**12 raw pasteurized shell eggs**  
**7 hard boiled eggs**  
2/3 cup sugar  
1/3 cup semisweet chocolate chips  
1 bottle cooking spray  
1/2 teaspoon vanilla extract  
1 tablespoon unsweetened cocoa powder  
1/8 teaspoon cream of tartar  
Toaster oven or oven  
1-2 hand mixers  
1-2 toaster oven cookie sheets  
1-2 liquid measuring cups  
19 plates or bowls  
2 mixing bowls (medium)  
1 small bowl  
1 table knife  
1 spatula  
1 egg separator  
6 food scales  
6-12 rulers  
6-12 tape measures (or five-inch strings  
and rulers)  
12-24 hand lenses  
Oven mitts  
2 pot holders  
6 packages colored pencils  
24 napkins  
Paper towels

## **Chapter 8: Fats**

**1 bunch of celery**  
**1 package of carrots**  
**1 head of broccoli**  
**1/2 gallon regular ice cream\***  
**1/2 gallon reduced-fat ice cream\***  
**1/2 gallon fat-free ice cream\***  
16-ounce bottle of ranch salad dressing  
16-ounce bottle of light ranch salad dressing  
16-ounce bottle of fat-free ranch salad  
dressing  
3 cups vinegar  
3 cups cooking oil (canola oil)  
12 teaspoons dry mustard  
12 teaspoons paprika  
6 liquid measuring cups  
6 sets measuring spoons  
24 plates  
1 ice cream scoop  
12 glass jars with lids (1/2 pint size or  
larger)  
1 roll masking tape  
1 permanent marker  
6 packages colored pencils  
72 small cups  
24 spoons  
12-24 food labels for each ice cream  
12-24 food labels for each salad dressings  
\*Purchase the same flavor and brand of ice  
cream if possible

# Chapter by Chapter Equipment and Supply List (continued)

## **Chapter 9: Grains**

Box Wheat Chex® brand name or generic)  
Box Cheerios® (or generic)  
Box Frosted Shredded Wheat® (or generic)  
Box Frosted Flakes® (or generic)  
Box Froot Loops® (or generic)  
1 package instant whole grain brown rice (not boil in a bag or a rice mix)  
16-ounce box regular pasta (or generic)  
16-ounce box whole wheat pasta (rotelle, farfalle or spaghetti)  
26-ounce jar pasta sauce  
Salt  
Water  
Double burner hot plate  
2 large pots  
1 medium pot with a lid  
1 liquid measuring cup  
1 set measuring spoons  
1 set dry measuring cups  
1 serving spoon  
2 stirring spoons  
1 plastic bowl  
1 colander or strainer  
1 pair of tongs  
1 food scale  
2 timers or 1 clock  
2 hot pad holders  
6 packages colored pencils  
24 real plates (or 72 disposable plates)  
24 real forks (or 48 disposable forks)  
Food labels for regular pasta & whole wheat pasta

## **Chapter 10: Meal Management**

**24 slices 100% whole wheat bread**  
**24 slices of turkey lunchmeat (1-ounce slices)**  
**24 slices cheddar cheese (3/4-ounce square slices)**  
**5 pounds of baby carrots (12 cups)**  
**1 head of lettuce (optional)**  
2, 12-ounce bags mini pretzels (24 ounces)  
1 bottle light mayonnaise (optional)  
1 bottle mustard (optional)  
1 1/2 gallons of water  
1 set measuring cups  
1 set measuring spoons  
1 liquid measuring cup  
1 table knife  
1 half-pint milk carton (emptied and washed out)  
1 deck of cards  
1 tennis ball  
1 kitchen scale  
24 pencils  
24, 8-ounce cups  
25 plates (1 should be paper)