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After-school cooking curriculum: fruits & vegetables

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After-School Cooking Curriculum: Fruits & Vegetables

Primary Grades

By

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Childhood General Education and Literacy

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Submitted in partial fulfillment of the requirements of the degree of

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Bank Street College of Education

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Abstract

After-School Cooking Curriculum: Fruits & Vegetables

Lauren Cooke

This thesis is an after-school cooking curriculum for 2nd or 3rd graders focusing on fruits and vegetables. The rationale highlights my inspiration and decision to write a cooking curriculum as well as the academic and life skills students will learn while participating in it. The curriculum’s primary goal is to help students discover a love of food as opposed to studying the health benefits of eating well. Students will develop an understanding of how fruits and vegetables grow, they will have the opportunity to taste fruits and vegetables and they will learn how to read, create and cook while using recipes. Most of the mini lessons include tasting lessons, cooking lessons and field trips to local farms and farmers’ markets. Integrated throughout the curriculum are books to read aloud, art projects and recipe writing activities. I strive to help my students become as passionate about food as I am and share this passion with their friends and family. Ideally, their enjoyment of making and eating food will lead to a life-long relationship with it, and it is my hope that it will become a dynamic and evolving presence in their lives.
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Introduction

The recipe that inspired me to write this curriculum and fueled my life long love of cooking was lasagna. Ironically, the recipe came off the box of Ronzoni lasagna noodles. The irony is that these days I would never dream of cooking something off the box of a store bought product. My love and appreciation of food grew so that now when I’m buying items, such as fruits and vegetables, I want to know where they came from, how they were planted, when they were picked and how they were transported. Now when I make my lasagna, the noodles are from the pasta shop down the street that has been opened since 1820, and my meat is from the local butcher and my parsley is fresh, not dried. Over the years I’ve come to make my own decisions about how to prepare my lasagna. As such, I have changed the recipe to suit my palate and my appreciation for good ingredients.

This curriculum was developed to help empower students to make similar choices. Ideally, my hope for students participating in this after school curriculum is that it will help them to:

1. Brighten their palates and introduce them to foods they never thought they would eat.
2. Take risks in the kitchen and become confident about their cooking abilities.
3. Learn to observe, describe and discuss the foods they eat.
4. Explore different flavors and test out new techniques.
5. Learn patience because a fabulous dish is rarely created on the first try.
6. Bond with their classmates and develop a sense of teamwork as they work on creating dishes together.
7. Share their enthusiasm and appreciation for food with their families.

**Classic Lasagna (the back of the Ronzoni box)**

Preheat oven to 375°F. Brown sausage; drain fat, and set aside. Cook pasta according to package directions; drain. Put drained strips in single layer on sheet of wax paper until ready to proceed with recipe. In a large bowl mix together the ricotta cheese, egg, parsley flakes, nutmeg, sugar, salt and pepper to taste. Pour 1 1/3 cups sauce in bottom of 9x13 inch dish, then a layer of pasta strips, ½ of the ricotta cheese mixture, mozzarella and sausage and another layer of pasta strips. Repeat layers ending with final 1 1/3 cups of sauce. Sprinkle with Parmesan cheese. Cover with aluminum foil and bake 30 minutes. Remove foil and bake for 15 more minutes. Let stand for 10 minutes before cutting.

**Ingredients:**
1 lb. bulk Italian sausage
1 package (8oz) RONZONI Lasagna, uncooked
2 (15oz) containers ricotta cheese
1 egg, beaten
1 Tbsp. parsley flakes
⅛ tsp. nutmeg
1 tsp. sugar
Salt and pepper to taste
1 jar (24 oz.) pasta sauce
1 cup shredded mozzarella cheese
½ cup Parmesan cheese

**Ingredients for My Lasagna**
Ingredients:
1 lb. lean ground beef (from my local butcher)
Noodles (From the pasta shop down the street)
Homemade ricotta cheese
1 egg, beaten
1 Tbsp. **fresh** parsley
No nutmeg because I think it only belongs in banana bread
Salt and pepper to taste
Homemade pasta sauce (It’s just about as easy as opening a jar)
1 cup shredded mozzarella cheese (I would NOT buy this pre shredded. Shredding is part of the fun and process.)
½ cup Parmesan cheese (Whereas I do not enjoy grating Parmesan, I would buy it pre-grated.)
Rationale

Cooking engages people of all different backgrounds, ages and personalities. It unites us and bonds us over a common element: food. Everybody relies on food for sustenance, so at its most basic level, learning how to cook is a wonderful skill since it is vital to life. Beyond its most basic level, cooking is just fun and many kids love the opportunity to get their hands dirty in the kitchen as well as taste things!

As a little girl, I have distinct memories of cooking lasagna with my mom in the kitchen. At first, I was put in charge of tasting the noodles to ensure they were done as well as tasting the sauce to make sure it was made to my liking which meant lots of meat. Once I had mastered those tasks and had spent a number of hours in the kitchen watching my mom make lasagna, I was put in charge of helping to assemble it. That meant I was expected to put a layer of tomato sauce in the pan, followed by some noodles, ricotta, parmesan and finally top it with sauce. I was around the age of seven when I began the lasagna assembly, which was an appropriate time to be given this task as most seven year olds are learning how to sequence events (Wood, 2007). We would repeat these steps until the pan was full and ready for the oven. Eventually, I was put in charge of cooking the noodles and making the tomato sauce. At this point, I had a longer attention span and was not as easily distracted as when I was first put in charge of tasting noodles. Finally, when I was about 12 years old and able to go to the store, I was responsible for writing the grocery list, purchasing the items, prepping the kitchen and ingredients and making the lasagna on my own. Developmentally, I had an understanding of money and a budget, and I was learning the more complex skills associated with picking out products by reading the labels and differentiating between good and bad ingredients.
Intellectually, children between the ages of six to eight are learning to become more independent and enjoy real life tasks. It is often recommended that parents provide opportunities for children in the kitchen as it helps to build self-esteem, develop independence, strengthen vocabulary, and ultimately it provides a special time during the week to spend time with your child (Wood, 2007). My time in the kitchen with my mom was special because with each of the steps that I mastered, I felt so accomplished. My mom taught me skills that were developmentally appropriate. She did not hand me a knife at the age of five and she didn’t let me go grocery shopping at the age of seven, instead there was a gradual release of control based on my abilities and age. Her actions mirrored those of a teacher in the sense that each task I learned was based on whether or not I was ready to learn a new skill. Learning a new skill meant that I had mastered an easier one and slowly I began to build my toolkit.

Currently, 40% of every dollar spent on food is spent on food prepared outside the home (Alliance for a Healthier Generation, 2013). This statistic is one of the many reasons I want to provide students with the opportunity for hands-on learning through food. With knowledge, students will be empowered to eat healthy, try new foods, and make better choices about food. Cooking with my family was and still is, an activity that I cherish and one that I believe all children would cherish if given the opportunity.

Beyond learning how to cook a lasagna, I learned the rules of the kitchen such as: never get too close to the stove because it’s hot; pre-heat the oven before cooking; a sauté pan is different than a sauce pan, so be sure you know which type of pot/pan you need. I also learned the importance of following directions step by step because if you accidentally forget to put sauce on the bottom of the pan, the noodles will stick and the
lasagna will be ruined. Another important task was learning how to follow directions so I could transfer this knowledge to making my own tomato sauce. I had to carefully follow each step in the cookbook in order to produce a sauce that would be up to my mom’s standards. Also misreading a recipe and accidentally putting in 2 tomatoes instead of 2 lbs. of tomatoes could lead to a disaster when attempting to make pasta for an entire family! As Molly Katzen points out in her kid’s cookbook, *Honest Pretzels*, cooking requires children to sequence skills and develop logical thinking (Katzen, 1999). As I matured as a chef in the kitchen, I began to make more logical decisions about the amount of salt to add to the sauce or the number of tomatoes to use or whether or not to use basil, thyme or oregano. I wasn’t able to make these decisions initially as I had no frame of reference for what I was doing, and I simply didn’t realize that 2 tablespoons of salt was simply too much when making sauce for 4 people. My decisions became more logical once I had more experience.

Slowly, my mom gave me more independence and asked me to be involved in more of the process. After learning how to make the sauce, she then asked if I could create the grocery list and gave me money to go to the grocery store and purchase the ingredients. At the grocery store I had so many choices to make, and as a result, so many questions to ask such as: which noodles are the best kind; what is the difference between the cheapest ones and the most expensive ones; do they taste different; are they all made in the United States; are canned tomatoes better than fresh tomatoes when making a sauce? Molly Katzen also points out in *Honest Pretzels* that children gain a sense of responsibility by following directions and delegating tasks. I arrived at a point where I was the one directing my mom to do things as opposed to her directing me to do things.
To be a cook in the kitchen, I discovered that it requires a tremendous amount of skill and focus. The sense of accomplishment and reward I felt when I’d mastered how to make something is unlike anything I had ever experienced.

In writing this curriculum, I want to bring this same sense of accomplishment to my students. I recognize the tremendous opportunity available for me to integrate math, reading, writing and history into my lessons while still making it fun. I want my students to be as passionate about cooking as I am. My goal is to write an after school curriculum that doesn’t feel like school work, but one that still requires students to use the skills they are practicing every day in the classroom: executive functioning, cognitive skills, reasoning, reading, evaluating, sequencing, teamwork, and language skills as well as developing food literacy and an overall curiosity about the foods which they get to taste and cook!

This after school curriculum includes tasting lessons meant to enhance a student’s palate, require them to use their five senses, identify flavors and write tasting notes. These tasting notes require that they develop their language skills in the sense that they have to observe and describe the foods in front of them.

One aspect that the tasting and cooking lessons as well as the field trips include is small group work, which is a crucial life skill that will be developed throughout this curriculum. During the tasting lessons, the students will compare and contrast their notes and engage in a conversation about the foods they try. Sharing notes will help students talk to one another and have friendly debates about their favorite or least favorite food items. While they are cooking, the students will have to work together to read recipes, gather ingredients, decide who is going to perform certain tasks and create a meal. In
order to be successful during these cooking lessons, students learn to communicate with one another in an effective and efficient manner. As stated in the *Cooking with Kids* curriculum, “With so many helping hands in each cooking class, students learn to work together, take turns, and encourage their classmates during the process of preparing delicious food.” (Stacey and Walters, 2008) These are just a few of the skills the students learn while they explore being chefs in the kitchen.

The tasting lessons will lead them to cooking lessons where they will then use the information they have attained to create their own meals. They will be responsible for writing grocery lists, purchasing food, managing a budget, executing a recipe and cooking a meal. The students will write recipes. They will need to break down the meal into a step-by-step process with coordinating illustrations.

Field trips will also supplement this curriculum and bring the knowledge students have acquired in the classroom into a real world context. They will have the opportunity to go to farmers’ markets and purchase the ingredients needed to cook their meals. They will also visit farms and see first-hand how vegetables and fruits grow and are harvested. I plan to implement this curriculum in a city in which case many of the students probably have not had the opportunity to go to a farm. Therefore, trips give them firsthand experience with what it is like to live on a farm and a better understand where their food comes from. Current research shows that, “*Children today are increasingly disconnected from the natural world. This is happening at great cost to their development and to the health and future of our environment.*” (Grow to Learn, 2010) Taking the students on trips to expose them to the natural world will have long-term benefits including: better
retention of material, intellectual growth, social development and food knowledge (how food grows, gets harvested, gets transported, seasonality.)

This curriculum is meant to be all encompassing and introduce students to cooking and its many complex layers. My rationale for creating this sort of curriculum is that it introduces students to a myriad of life skills and enhances their food literacy. One might not think that in cooking you would learn to chart favorites and understand how to read and produce bar graphs, or become familiar with money and understand how to budget for groceries, or write a recipe based on the steps you’ve taken to create a meal (something that is easily transferable to other writing activities.) In fact, cooking requires all of these skills and more. I want to kindle student’s interest in food and cooking and help nurture it in the kitchen and the classroom through a variety of different activities. As Jamie Oliver (2001) has said, “There’s a lost generation of people who cannot cook, who don’t know where their food comes from or what a balanced meal is,” and this curriculum aims to solve some of these problems or at least begin to try. I want the students to establish themselves as chefs who are curious and confident and excited about coming to cooking class every single day!
Goals

One: Students will learn about fruits and vegetables as food, including how they are grown, where they are grown, when they are in season, which parts to eat and how they should be cooked.

Through observation, field trips, tasting lessons and cooking lessons students will learn about the many characteristics of fruits and vegetables. During field trips, they will become knowledgeable about how fruits and vegetables are planted and when they are harvested. During tasting lessons, they will explore fruits and vegetables in their many states: raw, cooked, sautéed, blanched, boiled and baked. As they taste them in a myriad of ways, they will understand that fruits and vegetables can be cooked to suit their taste preferences. Finally, the cooking lessons will provide them with the opportunity to test out the many ways to cook with these foods.

Two: Students will collaborate with classmates, learn to take turns and support one another in the process of creating delicious food.

One of the primary goals of this after school curriculum is to give students the opportunity to work with one another. The benefits of collaboration are plentiful, but the ones I find most beneficial are the dialogue created, the turn-taking demanded, the understanding and support required and the new perspectives that developed. During a number of lessons throughout this curriculum, the students will have the chance to work in small and large groups. Specifically, during the cooking lessons, students will be asked to work with a partner to prepare a dish. Together, they need to navigate the demands of the kitchen. They will need to gather ingredients, prep them (chopping, dicing, mincing),
mix them, cook them and decide whether or not they like the flavor and what they can do to enhance it. Ultimately, through this collaboration they’ll create a dish that they both will be proud to share with others.

**Three:** Students will understand how to identify and describe the flavors and characteristics of the food they eat.

Knowing how to articulate and write about the flavors of food is one step towards understanding the difference between good and bad food. As children practice describing the different foods they eat, they’ll learn to discern their likes and dislikes. Their palates will become more sophisticated, and they will notice that a soup they’ve made is too bland and they need to add more salt. Or perhaps they like it bland and it’s perfect just the way it is.

During each of our tasting lessons, the students will have the opportunity to try different foods and write down tasting notes that describe them. Initially, we will brainstorm words that the students can use to describe certain fruits and vegetables. For instance, when we taste apples we will make a list that consists of words like crunchy, mushy, mealy, sweet and tart. Once the students have become familiar with this process, and then they will use a thesaurus to find synonyms for the words they have written down, therefore enhancing their vocabulary.

Also during our cooking lessons, the students will taste their meals as they go and determine what additional ingredients they think should be included. The practice they have identifying flavors during their tasting lessons will help them decide what additional
flavors they might want to add to an apple pie or perhaps what ingredients they want to leave out!

**Four:** Student’s will develop and diversify their palates.

Developing and diversifying one’s palate is intrinsically linked to goal number 2 because in order to develop a student’s palate, they must first become familiar with identifying flavors. What tastes sweet and what tastes salty? What tastes rich or what tastes light and why? What are the textures of the food I’m eating? Do I like mushy or do I like crunchy? Ultimately, I want my students to make choices about the food they eat. More important, I want them to make educated choices about the food they eat. Children are much more likely to try different types of food, including fruits and vegetables, if they help prepare them. By tasting and cooking many different kinds of food, students get to experiment with their taste buds. They might decide that while they despise cooked Brussels sprouts, they enjoy eating them raw. Or they might find that when parsnips are served on their own, they are gross, but when mixed with sweet potatoes, they take on an entirely different flavor profile.

**Five:** Enhance the student’s knowledge about kitchen routines and prep, recipe reading, and creating nutritious and delicious food.

All of the tasks involved in making food such as prepping, knife skills, selecting ingredients, measuring, reading and following recipes require that the students/chefs are active participants who make choices that will affect the outcome of their final product. Just having the students understand their role in this process is crucial.
The students begin to take active roles as chefs from their very first cooking lesson. After tasting salsa, the students are asked to create it using ingredients provided to them. They must chop, mince and dice the vegetables and then follow the steps in the recipe to assemble the salsa. Once they have become familiar with following a recipe, they will be given more responsibility and asked to consider adding or eliminating ingredients. For instance, during our apple pie cooking lesson, the students will determine whether or not they want to add cheddar cheese to their pie or dollop caramel sauce on top.

**Six:** Establish a real world context for the student’s classroom learning pertaining to fruits and vegetables.

Students will participate in a number of culturally enriching field trips to farmers’ markets, orchards, grocery stores and more to explore where food comes from, how it grows, harvesting and how to budget and buy food for a meal. These real world activities will give students firsthand experience with fruits and vegetables and help them make connections between what they’ve learned in the classroom to the outside world.

Beyond the educational benefits associated with field trips, they also have social benefits. They will navigate the complexities of partnerships and small group work as well as taking turns in an environment outside their classroom. Ultimately, these field trips will provide students with the possibility to learn new academic, life and social skills through exposure to new experiences.
### Thesis Calendar:
*(Lessons highlighted in red are included in this thesis.)*

#### September: Tomatoes & Squash and Beans

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<td>What kind of food do you eat? What are your favorite foods? Lesson: Discuss and write about our favorite foods. Draw a picture of your favorite food and then explain why you like it. Do you think there are categories food fall under? Let’s brainstorm. Together we will make lists of food and the categories they fall under. Read aloud of <em>Good Enough to Eat</em> by Lizzy Rockwell (2009). Homework: Food questionnaire/reflection that they will fill out at the beginning and the end of this curriculum.</td>
<td>Introduction to USDA food plate. Compare and contrast the USDA categories to the list we created the prior day. Discussion about a balanced diet. Why we eat locally: Let’s talk about fruit! Watch fruit video: (listed in references) <a href="http://www.youtube.com/watch?v=EF50oyEu6Hg">http://www.youtube.com/watch?v=EF50oyEu6Hg</a></td>
<td>KWL chart. What do you know about tomatoes? What would you like to know? Distinction: Why is a tomato a fruit? Why are tomatoes good for us?</td>
<td>Visit Brooklyn Farm (Eagle Street Rooftop: <a href="http://rooftopfarms.org/education/">http://rooftopfarms.org/education/</a>) to see how tomatoes are planted and discuss planting with farmers. Review tomato life cycle while at the farm.</td>
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<th>Lesson 5: Monday: Tasting Lesson</th>
<th>Lesson 6: Tuesday: PBS Grocery Shopping Game</th>
<th>Lesson 7: Wednesday: Field Trip</th>
<th>Lesson 8: Thursday: Cooking Lesson</th>
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<tr>
<td>Eat salsa and the students will try and determine the components. We will then create a grocery list and discuss what we need to make our own salsa.</td>
<td>Preparing students for Field Trip. They will each have a budget for items at the farmers’ market/grocery store. They will play a grocery game that tests their math/budgeting skills. <a href="http://pbskids.org/lunchlab/#/games/fresh-pick">http://pbskids.org/lunchlab/#/games/fresh-pick</a></td>
<td>We will purchase all the ingredients we need to make salsa at the Union Square Farmers’ Market.</td>
<td>Safety discussion and rules of the kitchen. Students will then make salsa!</td>
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**Lesson 9:**
**Monday: Recipe Writing**

Students will write down their salsa recipe for a recipe book we will create at the end of the semester. We will review the recipe format in the cookbook, *Honest Pretzel* as an example of how the students will create their recipes.

**Lesson 10:**
**Tuesday: Introduction to Squash (Pumpkin) and Beans**

*Where do these vegetables come from? Are there different types of beans? Activate Prior knowledge. Interview a partner and find out if they have ever tasted squash or beans. What kind? How have they tasted them – In soup, in pasta, as a side dish?*

**Lesson 11:**
**Wednesday: Tasting Lesson**

*We will try at least four types of squash and four types of beans. Write tasting notes.*

**Lesson 12:**
**Thursday: Harvest**

Read aloud and discussion of *Strega Nona’s Harvest* by Tomie dePaola (2009).

*We will watch videos on harvesting and growing *apples* and *pumpkins* to prepare us for the upcoming field trips and cooking lessons.*

**Lesson 13:**
**Monday: Cooking Lesson Pasta e Fagioli Soup**

**Lesson 14:**
**Tuesday: Write Recipe and Nutrients Notecards**

*We will include these on bags of bean soup that the students will assemble to bring home to their families.***

**Lesson 15:**
**Wednesday: Field Trip**

*Visit a pumpkin patch to learn about harvest.*

**Lesson 16:**
**Thursday: Cooking Lesson Pumpkin Soup and Butternut Squash Pasta**

*Watch video by Anne Burrell.*
<table>
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<tr>
<th>Lesson 17: Monday: Learn about Fruit</th>
<th>Lesson 18: Tuesday: Apple KWL</th>
<th>Lesson 19: Wednesday: Tasting Lesson</th>
<th>Lesson 20: Thursday: Field Trip to Pick Apples</th>
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<td>Why is it important to eat fruit? A review of the USDA plate. Exercise: Fill up my plate with fruit: brainstorm all the types of fruits you eat and write them on your plate. Which one is your favorite? Let's make a bar graph of the class's favorite fruits!</td>
<td>Let's discuss apples. What do you know, what do you wonder and what would you like to learn?</td>
<td>Apple Tasting of Honey Crisp, Golden Delicious, Northern Spy and Jonagold Watch a video about different apple varietals.</td>
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| Lesson 21: Monday: Record an Apple Commercial | Lesson 22: Tuesday: Art with Apples Stations  
1) Apple Prints  
Printed Pumpkin Bags  
2) Shrunken Apple Heads  
(Links for activities located in references) | Lesson 23: Wednesday: Cooking Lesson  
Make pie dough  
Read aloud of *How to Make an Apple Pie and see the world* by Marjorie Priceman (1996) | Lesson 24: Thursday: Cooking Lesson  
Apple Pie (Part Two) |

| Lesson 25: Monday: Learning about Root Vegetables | Lesson 26: Tuesday: Reading Comprehension  
The students will read short blurbs about root vegetables and they will answer questions about the reading. | Lesson 27: Wednesday: Tasting Lesson  
Root Vegetables | Lesson 28: Thursday: Read Aloud  
*Tops and Bottoms* by Janet Stevens (1995) |

| Lesson 29: Monday: Field Trip Hilltop Hanover Farm | Lesson 30: Tuesday: Cooking Lesson  
Create a *root vegetable medley* and *carrot mac and cheese.* | Lesson 31: Wednesday: Finalize Our Cookbook  
Compile our recipes, illustrations and photographs. | Lesson 32: Thursday: Cooking Party  
The students will create their favorite meal for their parents and share it! |

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The students will read short blurbs about root vegetables and they will answer questions about the reading. | Lesson 27: Wednesday: Tasting Lesson  
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Compile our recipes, illustrations and photographs. | Lesson 32: Thursday: Cooking Party  
The students will create their favorite meal for their parents and share it! | Lesson 31: Thursday: Cooking Party  
The students will create their favorite meal for their parents and share it! |
Lessons

Lesson Number Three: Tomatoes Tasting Lesson

Learning Objective: Students will be able to name the different parts of a tomato plant. They will also be able to describe the differences and similarities amongst the different varieties and types of tomatoes. Ideally, they will select a type of tomato they prefer within the group.

Materials Needed: 4 types of tomatoes: cherry, plum, yellow and an heirloom. Tomato tasting chart (Appendix A), pencils, plates, forks and thesaurus

Prior Knowledge: On Monday we will have reviewed things the students know and want to know about tomatoes. They will have been introduced to different types of tomatoes so this tasting lesson will give them the opportunity to actually taste the tomatoes we discussed.

The students will be sitting together in groups of 4 or more. At each table there will be one plate of tomatoes. Each student will have a tomato chart with the varieties or each tomato listed in a box and room for a description of the tomato and a drawing.

Modeling: (I will model how the tasting notes should be written, but will illustrate the technique on a different type of tomato.)
I have a tiger striped tomato that a farmer produced by mixing different types of tomato seeds together to make a special kind of tomato. When a farmer or grower mixes seeds or parts of plants to make a new variety, it is called a hybrid. (I will write the word hybrid on a chart of food words we will continue to review throughout the next few months)

I am going to taste this hybrid tomato. There is a box with the title “Hybrid” listed at the top. I am going to think about words that best describe this tomato I am eating, and then write those words in that box. (I will be writing as I am saying this to the students.)

Before I start writing, what are some things we may notice or would like to describe about this tomato? Let’s brainstorm. (Students will generate a list that includes things like texture, firmness, ripeness, sweet or sour, juicy or dry. We will all look in our thesaurus to find words that are synonyms for some of the words we already have on the board. I’ll eat the tomato.)

So as I was eating this tomato, I was thinking to myself that this tomato is quite firm, and also dry. It is unlike the red tomatoes I’ve tasted before. It has much more flavor than the red tomatoes I’ve eaten. Now I am going to write these thoughts in the box with the word “Hybrid” in it. Then I am going to draw a quick sketch of what my tomato looks like so I remember it when I go to the farmers’ market and I want to purchase it.

Once everyone has completed his/her first box, including tasting notes and drawing, we will all get up and rotate to the next table. There are four different types of tomatoes for you to taste. Once we are all done, we will take a vote to see which tomato people like most.
**Individual Practice:** The students will return to their tables to eat the tomatoes and take tasting notes. If some tables finish before others, then the students can compare notes with one another.

**Guided Practice:** In this particular lesson, there will be a final group discussion at the end of the tasting in order to determine everyone’s favorite tomato. Graph paper will be posted on the chalkboard and the students will raise their hands to vote for their favorite tomato. The teacher will create a bar graph that highlights the winner.

**Modifications:** Modifications will include an option to record the tasting notes on an Ipad as opposed to writing them down. Instead of drawing the tomato, a student can take a photo of the tomato and include that in the tasting notes as well.

**Assessment:** I will review the charts the students create to determine how much information they have learned during this tasting session. I will also observe them while they write down these notes in order to make modifications for students that struggle with this activity.

**Follow-Up Activity:** As a fun and brief activity, I will provide the students with a tasting chart and ask them to record the things they eat at dinner. This will be an opportunity for them to share this project with their family members. I can also include a box designated for a family member to fill out so they can be actively involved in the process if they so
choose. The students can compare and contrast their work with a sibling, mother, father, etc.
Lesson Number Five: Tasting Lesson with Salsa

**Learning Objective:** Students will determine the components that are used in salsa and generate a grocery list so that we can make it together in the upcoming week.

**Materials Needed:** Salsa, bowls, spoons, grocery list, I See and Taste worksheet (Appendix B) pens and blindfolds

**Salsa Ingredients:** Tomato, onion, garlic, red pepper, limes, scallion, jalapeno, cilantro, salt and pepper

**Prior Knowledge:** During the prior week, the students had the opportunity to take tasting notes while trying different types of tomatoes. They are already familiar with the concept of writing tasting notes.

**Modeling:** (This lesson is fairly similar to the one where the students tasted tomatoes and took notes; so modeling will not be as long or intensive. I will model the technique with a bowl of Manhattan clam chowder. Visually, it is easy to identify the ingredients just as in salsa.)

Today I brought in a bowl of soup to illustrate how our tasting lesson is going to work. First, I am going to look at what I have in front of me and try and determine whether or not I can see certain ingredients before I try it. Already I can see that the broth is red, so I imagine it was made with tomatoes.
Next, I notice that there are some carrots and potatoes floating on the top. I also see some green herbs, but I can’t tell what they are, and it looks like there is pepper in here as well. I can’t tell anything else from just looking at it so I am going to write down the ingredients that I see in the **I SEE** column.

Now, I am going to taste it. The broth is definitely tomato-based so I am going to go ahead and write that down in the **I TASTE** column. I also just realized that there is celery in here too, which is something I hadn’t noticed, so I will also include in the **I TASTE** column.

You will be doing the same thing with the salsa that I just did with the soup. Once I have completed my list, I am going to confer with my partner. My partner may have noticed something that I didn’t notice. Once you have finished your partner discussion, you will create a grocery list together for our trip to the farmers’ market next week. (The students’ lists do NOT need to be the same. As a matter of fact, it will be more interesting if they are different because it will give us a great opportunity to taste everyone’s salsa and try and figure out the differences.)

**Individual Practice:** The students will return to their tables and work individually for the first ten minutes to complete the **I SEE/I TASTE** worksheets. Then they will get together with a partner and compare lists. They will create a grocery list that includes the list of items they believe they need in order to make salsa.
**Modifications:** For all of the tasting lessons, an Ipad will be available for students to record lists or type lists. This lesson also works well for those that are more dependent on sight versus smell/taste because they are able to approach this activity using different senses to determine the ingredients.

**Assessment:** The grocery lists will give me a good idea of how the students’ palates are developing. I will also be observing during this session, so I will have anecdotal notes to help me determine how well the students understand the information and are able to participate in the lesson.
Lesson Number Seven: Farmers’ Market Trip

Learning Objective: The students will learn about the purpose, organization and exchanges that occur at the farmers’ market.

Materials Needed: Grocery list, cash tracker for the students to keep track of the items they have purchased and the money they have spent, small plastic pouch to keep receipts and money

Pre-trip: The students will have created their own grocery lists, and they will be given a certain amount of money to purchase all of their supplies. They will need to manage a budget while at the farmers’ market and make decisions about quantities, etc. that they will need to purchase.

Prior to this field trip we will have had many discussions pertaining to Farmers’ markets and how goods arrive at the farmers’ market, the people who are selling these goods, the difference between organic and non-organic. In math, the students have been discussing money, budgets and quantity so they will utilize this knowledge to help manage their finances.

The students will have the chance to estimate the cost of their fruit/veggie items before we actually go to the farmers’ market. It will be helpful for them to have an idea of what they might spend and where they might have to be thrifty or where they may be able to splurge.
We will have a map of the farmers’ market and we will review the items they have on their grocery list and try and determine which stands they may be able to purchase these items.

We will also review all the safety rules pertaining to being in public spaces. (There will be a parent per each group of 4-6 students, which should be fine seeing as many of the students have similar items on their grocery list)

**During Trip:** We will take the subway to the Union Square Farmers’ Market. Our first stop will be at a stand that carries all vegetables and fruits so we will have the opportunity to talk to the farmer. He will tell us about the products he has available. We will find out about the difference between his products versus the farmer who is selling the same products across the way. After chatting with the farmer for approximately 10 minutes the students will have the chance to make their first purchase. When they make a purchase they will actually exchange money with the farmer, receive change, and save the receipt to track their purchases on their purchase tracker.

**Post-trip and Assessment:** The students will write letters to a farmer thanking him/her for guiding us around his/her stall. They will be required to include one thing they learned on the trip in this letter (acting as an informal assessment.) This activity will also give us the opportunity to discuss letter writing including common format, structure and details. Some of the students will have the chance to share their letters in class.
Lesson Number Eight: Making Salsa

**Learning Objective:** Students will learn how to read a recipe to guide them in making salsa with partners. They may have some ingredients they purchased that are not included in the recipe that they will also include. Then they will document (with a camera) the various steps they take while they cook in order to create their own recipe card for a class cookbook.

**Materials Needed:** Knives, plates, cutting boards, prep bowls, micro-plane, hand towels, aprons, graters, paper towels, kitchen safety rules and etiquette (Appendix C), salsa recipe (Appendix D), partner work checklist (Appendix E), paper and pencils

**Ingredients Needed:** Ingredients purchased by students at the farmers’ market in order to make salsa such as tomatoes, onions, cilantro, garlic, red peppers, green peppers, jalapenos, limes, lemons and scallions

**Pre-cooking:** This will be the first time the students will be working in the kitchen. I will have the students generate a list of safety rules THEY think are important while working in the kitchen. If they neglect to mention a safety rule that I want them to know, then I will mention it to them and write it on the board. Then we will create a master list together to hang on the chalkboard and reference.

We will also go over various cooking terms like dice, slice, chop and mince. The students will be using some of these techniques as they are cutting their veggies.
Modeling: For today’s tasting lesson we will be taking a look at a recipe for making salsa. First, let’s read the recipe together (I will have students read each line of the recipe aloud.) I will find one common ingredient that we all have and illustrate how we cut it. For instance, I would select the onion, as it is one of the harder things to chop.

So the onion is one of the more difficult vegetables to chop for recipes and I’ll tell you why: it’s slippery and smelly! So you have to be very careful when using a knife. First, we need to peel the layers off the onion. Let’s write these steps down as we go so you can remember what to do.

On your steps worksheet list: **STEP 1**: Peel onion. The next step is to cut the onion in between the root because we want the root to be on EACH piece of our onion. This is VERY important as it makes it much easier to cut the onion this way. (I’ll illustrate the other way you could slice it and why it is hard!)

**STEP 2**: Slice onion from the ROOT down the middle. Next, we will slice vertically or down towards the root.

**STEP 3**: Slice vertically or down towards the root. Finally, we will slice horizontally or across towards the root.

**STEP 4** is to slice horizontally or across towards the root and VOILA you have a chopped onion. Now if you want smaller pieces, you can hold your knife as such, and chop some more.

Now all of you cut your onion and we will talk about next steps, as there are a few more kitchen tricks I want to show you that that will help you in the kitchen. For instance, I believe most of you have some basil and or some mint. When you have herbs, the easiest thing to do is to pluck them off their stems. Then you can either pile them up...
and mince them or with basil you roll up 5 leaves or so and then slice across them instead of doing it individually.

Also there is a fabulous trick for garlic that will leave you amazed! I want to show you a video of it first (garlic and bowl video.) So place all your unpeeled garlic cloves in a metal bowl then place another metal bowl on top of it and shake as hard as you can. Just as the video when you remove the top bowl all of your garlic cloves will be peeled. You really only use this technique when you want MANY garlic cloves peeled. Then you can take your grater and grate your garlic into the bowl with the rest of the ingredients.

To make our salsa we will just cut, chop and dice all of our vegetables and put them in a bowl together. As you cut EACH vegetable, I want you to take a photo of each step because we are going to use these photos in the recipe you will be writing tomorrow. I will remind you to take photos as you go along. Once all of your ingredients are mixed you will take a photo of our final product: salsa!

**Group Work:** Once the students have completed all of their chopping and dicing and have mixed their ingredients, we will come together as a class and taste one another’s salsas. They will receive tasting note sheets and have the opportunity to practice writing notes. As a class we will discuss what they noticed and hope they will recognize similarities and differences among the various types of salsa. They will also be working together to take photos of their process. They will have the opportunity to use these photos or to draw illustrations for their recipe.
**Modifications:** For students who may be particularly challenged in chopping vegetables, we will have a food processor available (a teacher can help a student with the processor.) Additionally, since they will be working with partners, one partner could be responsible for cutting the vegetables and putting them in bowls and the other partner could be responsible for mixing all the ingredients.

**Assessment:**

The tasting notes will act as an assessment to determine if they are able to identify different flavors in other student’s salsas. The partner work is a crucial component of many of our lessons so I will be looking to see how well the students communicate and work with their partners. I will have a developmentally appropriate checklist for partner work available so I can check off which tasks students are able to accomplish and those that they are having a hard time achieving. Also the following day the students will be asked to record their process in a recipe format and this will show me how well they are able to write down steps and record the information from the cooking lesson.
Lesson Nine: Recipe Writing for Salsa

**Learning Objective:** Students will understand how to write down and illustrate (or use photos) the steps of a recipe.

**Materials Needed:** Recipe Sheet (Appendix F), pencils, colored pencils, photos or illustrations of steps in the process and final product

**Prior Knowledge:** Students will have completed making their own salsas. While they were making salsa, they were required to write down steps for chopping vegetables as well as kitchen tricks they learned or discovered in the process (e.g. peeling garlic, chopping onions.) They were also asked to take photos and/or illustrate their steps.

**Modeling:** Before we get started with writing, we are all going to take a look at a cookbook. The cookbook I am holding is *Honest Pretzels* by Mollie Katzen. The thing that I really like about her cookbooks is that she includes the most important details a chef needs to know in order to make a recipe and she makes it easy to understand.

Let’s take a look at what she includes: a list of ingredients, the amount of time it will take someone to make the recipe, yield – which is how many people the recipe will serve, additional things you might need in the kitchen, such as knives or tinfoil, the steps to the recipe and illustrations for each step. One thing we are going to add to our recipe sheets, which Mollie doesn’t include on hers, is “Tips,” which will be things you learned
and that you might want to share. (I’ll be writing all of this information on the board as I
review it.)

First, we are going to write a rough draft of our recipe in pencil. Once we are
certain we have all the steps down right, we will use a Sharpie and colored pencils to
create a piece which will be published in our final cookbook!

Let’s all take a look at the recipe sheets we have in front of us. What is the first
thing you will need to write down? The ingredients. So start with that list and I’ll be
walking around to take a look at it. (The recipe sheet will provide the students with a
layout that includes all of the items they need to write down.)

Now let’s write down the yield, time and other items someone will need to know
in order to make this recipe. Think about the things you had at your table while you made
your salsa. Who can remind us of a few things? Knives, cutting board, kitchen towels,
food processor, bowls, micro-plane and aprons. Start writing down these things and we
will stop once you have all completed them to discuss our next steps. (Once all or most of
the students have completed writing down these steps I will show them additional
sketches and photos from cookbooks so they have a number of different ideas as to how
they can approach their own illustrations/photos.)

Our final step is to actually write down the recipe steps, and you can decide if you
want to include illustrations or the photos you took the other day while you were making
salsa.
**Individual Work:** The students will proceed to write their recipes individually. A teacher will walk around the room to assist them in this process and assure that they are clear about the directions and writing down appropriate steps.

**Modifications:** Some students will have the option to type their recipes. Another option for students will be to record their recipes as well since we will have a digital component that goes hand in hand with the cookbook. If it seems like there are a few students who are struggling with this process, I can pull together a smaller group and focus on their specific needs and challenges.

**Assessment:** Teacher observation will be the primary means of assessment in this lesson. The teacher will have multiple opportunities to measure the student’s progress and determine their understanding of the task.
Lesson Eleven: Beans and Squash Tasting Lesson

Learning Objective: Students will familiarize themselves with different varieties of squash and beans. They will begin to identify differences in flavors amongst these varieties and discern how to describe them while writing their tasting notes. They will use the Thesaurus to enhance their “tasting vocabulary.”

Materials Needed: Tasting notes organizers (Appendix G, H), pencils, forks, plates and paper towels

Ingredients Needed: Spaghetti squash, acorn squash, butternut squash, pumpkin, cannellini beans, fava beans, kidney beans and black beans

Prior Knowledge: The students will have been introduced to the different types of squash and beans often found in the supermarket or at the farmers’ market. They will also be knowledgeable about from where squash and beans originated and the nutritional importance of both of them.

The students have had practice writing tasting notes for tomatoes so they will be familiar with this process, however they will have more items to taste and therefore more items to include in their write-up.

Modeling: Last week we had our first tasting lesson and we had the opportunity to write some tasting notes.
Today we are going to do the same activity with a TWIST. I’m handing out the tasting notes sheet and I want you to take a look at it and let me know if you notice anything that is different than last week’s notes?

Under each picture (just as last week) there are three lines to include a sentence and words to describe the food you will taste. To the right of those lines there is a box with the word synonym written in it. Who can tell us what a synonym is? (As the students provide me with answers I will record them on the board.)

A synonym is: A word or phrase that means exactly or nearly the same as another word or phrase in the same language. For example “shut” is a synonym of “close.” (I will provide them with this definition to supplement their meaning.)

Descriptive language is one of the most important things to use when writing about food, specifically flavor, texture, color, and smell. You want to try and use descriptive language when you are telling someone about food as well as when you write about it. This exercise will us expand our vocabularies!

When you think of a word that describes the squash, mushy for instance, you should look up the word “mushy” in the thesaurus and find a synonym for it!

Let’s try one together. Pretend I just ate an apple. One of the words I choose to describe it is crispy. I am going to open my thesaurus to “crispy” and read the synonyms for it: crumbly, crusty, fresh, plump, firm, green, crunchy.

Not ALL the synonyms listed in the thesaurus will make sense as a description. For instance, do you think an apple can be crusty? (No) But what might we use the word crusty to describe? Can anyone think of a food? (Bread or pie) So which synonym do you think would be a good replacement for the word “crisp?” (Crunch, firm)
Now it is your turn to start tasting and taking notes. Does anyone have any questions?

**Individual Practice:** The students will return to their tables and begin eating the squash and beans. Once they have completed their tasting notes they will then use a thesaurus to find new adjectives to describe these vegetables.

**Guided Practice:** In this particular lesson there will be a final group discussion at the end of the tasting in order to discuss the adjectives the students used to describe the vegetables. We will make a comprehensive list of these words so the students can use them for their future tasting notes.

**Modifications:** There will be an option to record the tasting notes on an Ipad as opposed to writing them down as well as the opportunity to use an online thesaurus.

**Assessment:** As the students work at their tables, I will be walking around and observing them as they describe the food items that they taste. My observations and notes will serve as an informal assessment of their progress with the tasting notes.
Lesson Thirteen: Pasta e Fagioli Cooking Lesson

Learning Objective: Students will learn how to cook a nutritious soup that contains beans. They will also learn how to transfer their knowledge about making this soup to writing a recipe, which they can share with their family.

Materials Needed: Soup ladle, pot, knives, prep bowls, oven mitts, aprons and recipe (Appendix I)

Ingredients Needed: Beans (2 types: cannellini and navy), onion, carrot, celery, rosemary, thyme, garlic, chicken stock, macaroni, tomato sauce, Parmesan and water

Prior Knowledge: As a group we will have discussed the origin of squash and beans so the students will have background knowledge already. They will also have discussed when they eat these vegetables (e.g. at lunch or dinner) and provided specific examples to a partner about the way in which they eat them.

Prior to doing any cooking the students will watch a Food Network video. The video features Rachel Ray making Pasta e Fagioli. The students will be split into groups to cook the bean soup and then we will all come together to discuss the process.

Modeling: Before we begin to cook we are going to watch a video of Rachel Ray cooking the soup we will be making today. Rachel Ray is a famous chef on the Food Network. Listen to her as she describes what she is doing because we are going to get a
chance to record ourselves cooking sometime in the future so I want you to think about the information she shares with us. Listen particularly to each step and the order of the steps. (Students will watch video.)

Now we are going to think about the steps we need to take in order to make our soup and I am going to write them down. Who can tell us what the first step was in the video we just watched? (Students will raise their hands and I will write down a list of directions on the board.)

Now that we have the steps written down, you are going to be separated into groups. When we have finished making our food, we will come together and talk about which parts of the recipe were the hardest to execute!

**Guided Practice:** As the students work in their groups, I will be walking around to assist with various kitchen tasks. For instance, during our last cooking lesson, we reviewed the best technique to cut an onion so I will remind the students of this technique and then help them as they do it. We also learned about chopping versus dicing so I will ask the students which size onion they think is best for a soup.

It is important to give them autonomy while they cook so they feel comfortable making future decisions as chefs. A recipe is important, but they should have the freedom to make changes based on the flavor profile they hope to achieve. (For instance, if they like rosemary, they can add extra rosemary, or if they think a splash of balsamic vinegar would enhance the flavor then they can add that as well.) It is also essential that the students taste their food as they cook so they can determine whether or not it needs
something else like salt, pepper, etc. All good chefs taste their food as they cook to make sure that whatever they serve is delicious!

**Modifications:** The great thing about cooking in a group is that there are multiple roles available, such as someone to prep and cut ingredients, someone to place ingredients in bowls, someone to sauté vegetables, someone to pour liquids into a pot, someone to stir, someone to taste. These tasks require different skill-sets so each task can be assigned depending on a student’s abilities.

**Assessment:** This cooking lesson is a good opportunity to conduct an informal assessment. Observation is key in order to determine how well the students are able follow instructions and work with their group members to successfully create a meal. I will create a checklist of developmentally appropriate skills needed in order to work successfully with a group and assess whether or not the students are able to meet these demands.
Lesson Fourteen: Bean Soup Recipe Card Writing

**Learning Objective:** Students will be able to write step-by-step recipe cards for pasta e fagioli soup.

**Materials Needed:** Pre-recipe card worksheets, recipe sheets (Appendix J), Post-it notes, pencils, and Sharpies

**Prior Knowledge:** The day prior to writing these recipe cards the students will have watched a video on how to make the bean soup, we will have reviewed and written down the steps and they will had the opportunity to make it.

**Modeling:** Today we are going to be writing recipe and nutrition cards, which we will include in our cookbook that we are creating. Let’s refer to a sample recipe from Mollie Katzen’s cookbook, *Honest Pretzels*, as she gives a very clear and detailed example of how to write a recipe.

What do you notice that she includes in her recipe? (Students will provide me with a list of things she includes such as ingredients, time it takes to make the recipe, yield and steps and I will write these on the board for the students to reference as they write their own recipe.)

Let’s get start by writing the rough draft of our recipe in pencil on our pre-recipe card worksheet. I am going to start my recipe with the first step for making bean soup.
Then I will list the first step and continue adding the steps until I have reached the end. You will have to think hard to remember the steps that you took to create your soup. Once you have completed your recipe, have a teacher check it and then you will write your final copy with a Sharpie on a letter size piece of paper. (We will walk through the steps together and I will write them on the board.)

After completing your recipe, you will write down ONE nutritional fact you have learned about beans. First you will write it down on a Post-It note and then you will write it in the box on the recipe sheet titled “Nutritional Fact.” (I will be modeling this as I speak.)

**Individual Practice:** Each student will be responsible for writing a rough draft and a final copy of a recipe and nutrition card. (A teacher will be walking around to assist with the writing down of steps.)

**Modifications:** If a student is not able to write his recipe and nutrition card then s/he can give verbal directions to a teacher and the teacher will type it instead. The student can also create a video version of a recipe card. Instead of writing the information on a card, a teacher can record the student as s/he lists the steps necessary in order to make the soup.

**Assessment:** The recipe and nutrition cards will act as good measures to illustrate how well the students understand recipe writing. It will also illustrate the nutritional information they retained pertaining to beans.
Lesson Fifteen: Field trip to Queens County Farm Pumpkin Patch

**Learning Objective:** Students will learn about the growth cycle of a pumpkin from seed to harvest. The students will be expected to identify the various stages of the cycle while looking at pictures of it.

**Materials Needed:** Field Trip permission slip, life cycle worksheet, pencils and clipboards

**Pre-Trip:** We will create a KWL chart before visiting the pumpkin patch to access the students’ background knowledge pertaining to pumpkins. Then I will create a collective list of all the student’s questions so they will have this sheet available to them during our trip, and they can take notes and write down information they believe is important.

**During Trip:** The Queens County Farm has a pumpkin program that teaches students how pumpkins, as well as other vine crops, grow from seeds. Each student then gets to select a pumpkin from their pumpkin patch, as well as take a guided tour of the farm, and enjoy a hayride through their nature trails.

The students will have a worksheet (similar to the one featured below) that they will need to fill out as they learn about each of these stages. (The worksheet will be blank except for the arrows and 6 blank boxes that need to be filled in.)
**Post Trip:** Each of the students will have received a pumpkin from the farm so we will continue to explore pumpkins by turning them into jack ‘o lanterns and through a read aloud of *Seed, Sprout and Pumpkin Pie* by Jill Esbaum.

The read aloud will be a good review of the pumpkin growth cycle, which the students learned about while at Queens County farm. Carving the pumpkins into jack ‘o lanterns will give the students an opportunity to observe and handle the seeds. We will dry the seeds and roast some of them to eat. We will also save some of them to plant in a garden the following year so the students will have the opportunity to watch the growth cycle of a pumpkin from beginning to harvest.
Lesson Sixteen: Butternut Squash Pasta Cooking Lesson

**Learning Objective:** Students will practice how to follow recipes step-by-step. However, they will also learn that as good chefs they can make substitutions or eliminations based on their taste preferences. (The importance of following a recipe step-by-step is more crucial while baking which is something we will discuss as a class.)

**Materials Needed:** Aprons, knives, melon ball scoopers, cutting boards, sauté pans, pasta pots, colanders, wooden spoons, bowls, forks, notecards, recipes (Appendix K) and pencils

**Ingredients Needed:** Pumpkin, pre-cut butternut squash, pancetta (bacon or mortadella), greens (chard, kale, spinach), chicken or vegetable stock

**Prior Knowledge:** The day prior to this lesson the students will have gone to a pumpkin patch to learn about fall harvest. The focus of the trip was on fruits that are abundant during this timeframe specifically pumpkins. They will also learn that pumpkins are best purchased in the fall, as they are seasonal fruits and taste best during this timeframe.

**Modeling:** We are going to watch a [video](#) of Chef Ann Burrell making the foods we will be making ourselves today. She is going to make a pumpkin soup and butternut squash pasta. Yummy.
I have handed all of you notecards because as you are watching this video, I want you to write down some reasons that Chef Burrell mentions she loves pumpkins and squash. (Reasons: cheap, last for ages, don’t need to be refrigerated, love the color, it is sweet, lovely and it can stand up to long cooking times.)

After watching the video ask the students: What are some reasons you heard Chef Burrell say she loves squash? (I will list the reasons on the board) Are there any other reasons you like squash? (I will include their answers as well)

All of you have become such good chefs the last few weeks, and one of the most important skills you need in order to become an excellent chef is thinking about how you can make recipes your own. For instance, while I was watching this video I noticed that Chef Ann was using broccoli rabe in her pasta. I do NOT like broccoli rabe, so I would change this ingredient and add kale instead. Also, did you know that when chefs make soup sometimes they like to throw in a rind of Parmesan cheese because it adds nice flavor? I think I would make this addition to my pumpkin soup as well.

Also while you are cooking, you must always taste your food to see if it needs salt and pepper or a little bit of another ingredient. For instance, my husband likes spicy food so I might add some red pepper flakes into my pasta for him.

I will assign you a partner to work with in the kitchen today. Once you have a partner, I will hand each of you a recipe card and you will be responsible for following the card step-by-step to create one of these great dishes. You will also have to decide if there are any substitutions or eliminations you’d like to make. If so, let’s discuss them before you do it, as I’d like to hear your ideas. I will be walking around to assist you as you cook.
**Modifications:** During every cooking lesson the students will have the opportunity to work with a partner. They can designate certain tasks to one another depending on their strengths and weaknesses. There will always be machines available for cutting and chopping instead of using the more traditional method of chopping with a knife. The teacher will also be available for assistance with any of these skills that require dexterity and precision.

**Assessment:** The notecards the students fill out will give me a good idea of the information they retained while watching the video. Observing the students while they cook will also help me determine how well they can follow a recipe, adapt for taste and communicate/work with a partner.
Lesson Eighteen: Organizing Apple Facts

Learning Objective: Students will categorize their apple facts into things they know, questions they have and things they have learned.

Materials Needed: KWL Chart (Appendix L) and pencils

Prior Knowledge: As a group we will have discussed the USDA food plate and the idea that everyone’s plate should be half full with vegetables and fruits on a daily basis. Using the knowledge we have about fruits and vegetables, we will discuss what they might already know about apples.

Modeling: Today we are going to prepare for our apple-tasting lesson tomorrow. To prepare we are going to work on filling out a KWL chart. Have any of you seen this type of graphic organizer before? If so can you explain to your classmates how we use it? Let’s go through each column.

First, let’s discuss the K column: things that we know. Let me think about something I know about apples. My mom always told me that “an apple a day keeps the doctor away” so they must be nutritious. But something I DON’T know is “WHY are they nutritious?” I wonder what kind of vitamins and minerals they have in them? I am going to list my question under the W (wonder) column.
Something else I think I can include in my K (Know) column is that apples are crispy. You can include information on their taste, texture, color, size, and names, how they grow, where they grow, and types of food you can make with them in this column.

Finally something I learned while exploring apples is that there are many different varieties such as Jonagold and Golden Delicious. In my L (Learned) column I am going to write down a few of the different types of apples I learned about.

Now it is your turn to work on these sheets individually for the next 10 minutes. Then we will come together as a group and I’d like each of you to share something you KNOW and something you WONDER.

Once we have all shared I am going to give you an apple fact sheet (Appendix M) to read and perhaps it will answer some of the questions you have about apples! You will also have the opportunity to do some research on www.usapple.org to learn some more facts about different varieties of apples.

**Individual Practice:** Each student will return to his/her desk to fill out the KWL chart individually.

**Guided Practice:** Once all of the students have completed their charts, we will come together to discuss what they know and the things that they still wonder. We will create a group chart of the questions they have and then our goal will be to answer the questions during the upcoming week. We will discuss the significance of sometimes asking ourselves questions that don’t always have answers. The process of questioning is obviously more important than finding the answers per se. The act of wondering and
coming up with questions about their food will most likely help them think about what they are eating and then they will find answers that will help them to decide if the food they are eating is healthy or not.

**Modifications:** Students will have the option to use a voice recorder to create a list of things they know, want to know and learn. A student can also dictate a list to a teacher and the teacher can record the information.

**Assessment:** Later in the week I will have the students complete the KWL chart and write down the information that they have learned. This chart will provide me with a good idea about the type of questions the students are asking themselves (are they deep questions? Or more obvious questions?) This chart will also help me determine additional information I may want to share with the students pertaining to apples. Further it will reveal what they are conscious of learning about apples, a fruit they may have thought they knew a lot about prior to these lessons.
Lesson Nineteen: Apple Observation and Tasting Lesson

Learning Objective: Students will become familiar with different varieties of apples available. They will take tasting notes while watching a video and then compare and contrast their notes while they taste apples.

Materials Needed: Apples: Honey Crisp, Golden Delicious, Northern Spy and Jonagold. Tasting notes organizer (Appendix N), pencils, forks, plates, and paper towels

Prior Knowledge: A day prior to our tasting lesson the students will have the opportunity to read and research fun facts about apples and then fill out a KWL chart. This will provide the teacher with valuable information pertaining to how much the students already know about apples and the type of information she or he may want to share with the students.

Modeling: Today we are going to review the information you learned yesterday while reading the fun facts sheet about apples and while researching different types of apples online. Let’s discuss some of the things you learned. (I will make a list on the board.)

Typically, we just taste our foods before writing anything down, but this time we are going to observe our apples and write down the things we notice BEFORE we actually take a bite. Let’s brainstorm some good apple adjectives before our observation so you can use the word wall to help you. (I will help the students brainstorm good apple
words to describe their texture, taste, color and size. I will write all of the words on the wall so the students can use them while writing their tasting notes.)

We have a great list of words you can use to help you while you write down your observations and then your tasting notes (Appendix N). What do you notice about the color of the apples? What about their size and shape? Once you have finished observing your apples you can start tasting them. Just as we’ve done before you can jot down your tasting notes, as you taste each variety.

**Individual Practice:** The students will return to their tables and begin observing and then eating the apples while filling out their observational and tasting sheets.

**Guided Practice:** In this particular lesson there will be a final group discussion at the end of the tasting in order to share observations and verbalize the adjectives the students used in their descriptions. We will make a list of these words on paper in order to create a list of tasting words the students can use for their future tasting notes.

**Modifications:** There will be an option to record the tasting notes on an Ipad as opposed to writing them down.

**Assessment:** As the students work at their tables, I will be walking around and observing them as they describe the food items that they taste. My observations and notes will serve as an informal assessment of their progress with the tasting notes.
Lesson Twenty: Field Trip to an Apple Orchard

**Learning Objective:** Students will understand *how apples grow* and be able to distinguish *what is happening with apples* during each distinct season through online research. They will also be able to identify the features of an apple.

**Materials Needed:** Field trip permission slip, apple parts worksheet, season worksheet, pencils and clipboards

**Pre-trip:** We will use the KWL chart the students filled out during our first discussion about apples to discuss some lingering questions we have about apples and would like to discover during the field trip. I will create a collective list of all the students’ questions so they will have this sheet available to them during our trip. They can also use this worksheet to take notes and write down interesting information they learn throughout the day.

We will also read Nan Fry’s poem “Apple”: (I will cut an apple horizontally so the students can see the star in the center.)

At the centre, a dark star
wrapped in white.
When you bite, listen
for the crunch of boots on snow,
snow that has ripened. Over it
stretches the red, starry sky.
I will ask the students to think about this poem when they get to examine and taste apples on the field trip. I will also suggest that they jot down some words that come to mind when they taste the apples.

**During Trip:** The focus of today’s trip will be to discuss the different stages of growth of an apple. First, the students will learn about what is going on in an orchard during the spring, summer, fall and winter.

Next, they will discuss what an apple looks like and talk about its various parts. They will have an apple worksheet (Appendix O) that shows the inside of the apple as well as its distinguishable features. As the farmers discuss the apple and its parts, the students will have an opportunity to fill out the below featured chart. They can add any additional features they might discover during this process.

After completing the first part of the worksheet, the students will then fill out a diagram with 4 quadrants each labeled with a different season that highlight the various stages of growth of an apple tree. The farmer will discuss the growth cycle of an apple
from the time it is a seed until it turns into a tree and is harvested. The students will complete this worksheet with information learned during this session.

The students will also have the chance to taste the apples and write down their thoughts on how the apple sounds when they bite it, or what it tastes like, or what it looks like.

**Post Trip:** The students will write thank you letters to the farmer. They will learn about the appropriate formatting for a letter (e.g. the appropriate way to address someone in a letter such as **Dear** as well as the appropriate way to sign off a letter such as **Sincerely.**

They will also be required to include at least 3 NEW details they learned about apples while on the field trip. This letter will serve as a good assessment as it will highlight the information the students learned while on the trip.

**Extension Exercise:** The students will use their notes about the taste and look of the apples they ate to create their own poems. They can use Nan Fry’s apple poem as inspiration.
Lesson Twenty-One: Make an Apple Commercial

**Learning Objective:** Students will learn to accurately and fluently discuss their favorite apple by recording a commercial for it during class.

**Materials Needed:** 4 Different Types of Apples: Honey Crisp, Golden Delicious, Northern Spy and Jonagold. Apple tasting chart (with complete notes for reference), Ipads for recording and script

**Prior Knowledge:** The students will have completed their tasting notes and decided which of the apples is their favorite. Then they will be grouped according to which apple they prefer. They will use the information they have acquired from tasting the different apples and from their field trip to write their scripts. They also will have read a variety of interesting facts pertaining to each apple so they will be able to include this information as well.

**Modeling:** Today we are going to prepare to record commercials on our favorite apple. Before we get started, we need to brainstorm the type of things you think we should put in our commercial. What do you think a customer might want to know if he/she was going to buy an apple? (As a class, we will make a list of things they want to include in their commercials. The list will include things such as: taste, texture, seasonality, which apples are local to certain states, apples that are good to cook with and more.)
Before we start recording, we need to write a brief script so we know what we want to say when the “camera” is rolling. Our commercials will be approximately 30 seconds to 1 minute long. Even though it doesn’t sound like a long time, I promise it feels like a long time when a camera is rolling so each of you is going to receive this script template (Appendix P) that will help you decide what information you’d like to include in your commercial.

You will notice that there are boxes for description of the scene (visually) and description of the scene (verbally). The visual boxes will include the things you want to show while you are recording, for instance you might want to hold up the apple or you might want to take a bite out of the apple so someone can hear the crispness. In the verbal boxes you will write down the things you want to say about your apple.

Based on the tasting notes we reviewed a few days ago for the Red Delicious apple, let’s try and fill one out together. We know the following information about this apple. (I will put the tasting notes up on the board for everyone to see.) As we are looking at this information who can tell us something they think should be included in the commercial? (We will make a list of the information we want to include.)

Now let’s take a look at the script. It has room for three shots, which basically means you can have a shot of the apple, maybe a shot of someone eating the apple and then a shot of the apple with a bite taken out of it. Let’s work on the words for the first shot. Who wants to give it a try? (Once we have completed writing the script for the Red Delicious apple, we will record a commercial together so the students are aware of how to work the Ipad. Then I will have the students work in pairs and write their own script and record a commercial.)
**Group Practice:** Students will be paired according to their favorite apple. Next, they will decide upon the information they want to include in their commercial. Then, they will narrow it down to three shots/pieces of information they will highlight during filming. Once they have written their script, the final step will be to record their commercial.

**Modifications:** The graphic organizer should be a helpful tool for anyone that may have a hard time visualizing and sequencing his/her commercial. Working in pairs will allow the students to focus on their strengths while they are participating. For instance, if a student is better at sketching and drawing then s/he can be responsible for that portion of the commercial and then the other student can be responsible for acting it out.

**Assessment:** The script will serve as a means for me to determine what information the students found most important or interesting pertaining to their apples. It will also illustrate their effectiveness in working together.
Lesson Twenty-Three: Apple Pie Cooking Lesson (Part 1 of 2)

**Learning Objective:** Students will learn how to make pie dough and assemble the ingredients while following a recipe.

**Materials Needed:** Recipe (Appendix Q), food processor, pie cutter, cutting board, bowls, parchment paper, Saran wrap, Sharpie, measuring cups, teaspoons, tablespoons and aprons

**Ingredients Required:** Flour, salt, sugar, unsalted butter and ice water

**Prior Knowledge:** This cooking lesson occurs at the end of our apple study. The students will have had the opportunity to taste apples, record a commercial based on their apple knowledge, pick their own apples, do art projects with apples, write poems about apples and listen to a read aloud about apple pie. They will be able to apply all of their knowledge and expertise about apples in order to bake a delicious pie.

**Guided Practice:** Today, we are going to be making our pie dough. All of you have a recipe in front of you that I’d like you to read through before we begin. Once you’ve read the entire recipe, then you can start collecting the ingredients you will need for the dough and set them out on the table. When you have collected all the necessary ingredients you can move on to step one of your recipe.

Next, you are going to put the cut up pieces of butter in the bowl with the flour. Use your hands to mash the butter into the flour. You want to have pea size pieces of
butter and flour. (I will be demonstrating this process as I walk them through it.) Now we will add water so that the dough is not as crumbly and so we can shape it into a ball. We only want to add a tablespoon of water at a time because if you add too much water then your dough will get sticky and you won't be able to work with it. If you don't add enough water then your dough will not come together to form a ball and it will stay crumbly. (I will continue to demonstrate these steps.)

Finally, you should split your ball into 2 equal halves and wrap EACH of them in Saran Wrap. We will then place your dough in the refrigerator for up to 30 minutes. The reason we put dough in the refrigerator is so it has time to rest. Resting makes the dough easier to roll out and cuts down on any shrinking during the baking process. Please write your name on top of the Saran Wrap using a Sharpie and place your dough in the refrigerator until it is time to be rolled out.

**Modifications:** Students will work in pairs. There are a number of steps that students might need assistance with such as: Assembling the ingredients for the dough, kneading the dough with their hands, splitting dough into 2 equal balls, and then rolling out the dough. For each of these steps there will be adults available and walking around to assist with them. Also for those who might find it easier to use a food processor to make the dough this option will be available for some.

**Assessment:** For this particular lesson the assessment will rely heavily on observation and note taking. The students will need to demonstrate that they can follow steps as I show them how to make the pie dough and roll it out.
Lesson Twenty-Four: Apple Pie Part Two

Learning Objective: Students will determine which ingredients to include in their apple pie after reading a number of recipes and then making decisions based on their taste preferences.

Materials Needed: Pie tin, aprons, recipe cards, pencils, rolling pin, rice, parchment paper, and cardboard pie boxes

Ingredients Required: Flour, salt, sugar, light brown sugar, unsalted butter, ice water, apples, lemons, cinnamon, nutmeg, cornstarch, vanilla ice cream, whipped cream

Recipes to be shared:

Recipe from “How to Make an Apple Pie and See the World” (Appendix R)

(Appendix S)


Modeling: Before we get started cooking, we are going to take a look at an apple pie recipe from the book I read aloud yesterday, as well as a few different recipes for apple pie. What are the differences you notice between these two recipes? These are recipes for the same thing so why do you think they have different ingredients? (I want to engage the
students in a discussion about flavor profiles and the fact that everybody has different taste preferences.)

The recipes have different ingredients because everybody has different palates and preferences. Some people like things sweet, whereas other people like things salty. Some people like spicy and other people prefer more bland flavors. Some people like rich foods and other people prefer light foods. For instance, when I make roast chicken often times the recipe calls for rosemary. I can’t stand the taste of rosemary because I find it completely overpowering, so I choose to leave this ingredient out when I make roast chicken. These are the types of decisions you can make as a chef.

Today, you are going to be given three different recipes for apple pies. I want you to take the time and read through each recipe. When you are done you should think about your taste preferences. Which recipe sounds the best to you? Are there other ingredients that you think might work well in your pie? I’ve included some extra ingredients on your table for you to taste and decide if you might want to include one or more of them.

**Guided Practice:** Yesterday we made our pie dough and it has been resting in the refrigerator overnight. Today we are going to make the apple pie filling, roll out the pie dough and assemble your pies.

You have all had time to look at the various recipes for apple pie so you are going to select your favorite one and begin assembling the ingredients for the inside of your pie! Remember to follow the directions VERY CAREFULLY. If you put 1 tablespoon of salt into your pie instead of 1 teaspoon you will have a very different
tasting pie! (I will walk around and assist the students as they work on creating the filling.)

Once your ingredients are assembled you will remove your dough from the refrigerator and roll it out. Then place the dough in your pie pan. (I will demonstrate this process so they can follow along.) Once the pie dough is placed in the pan, we must use a fork to poke holes in the crust. This step is necessary so the pie dough doesn’t puff up and pop in the oven. Once you have poked holes in the crust, then we will place a piece of parchment paper on top of it, and fill it with rice or something heavy. The rice will keep the dough from puffing up in the oven while we pre-cook it.

We will bake the pie dough for a few minutes before we fill it so that it won’t get soggy during the baking process. Once it has baked for approximately 10 minutes then we will remove the rice and parchment paper and then place our filling in the pie pan. The pie is now ready to go back in the oven.

**Modifications:** Students will work in pairs so if one student is better at cutting and another is better at assembling, they can choose their tasks accordingly.

**Assessment:** For this particular lesson the assessment will rely heavily on observation and note taking. The students will need to work collaboratively with his/her partner and follow a recipe to create the filling and assemble the pie.
Lesson Twenty-Seven: Tasting Lesson with Root Vegetables

**Learning Objective:** Students will become familiar with the flavor profiles of a variety of different root vegetables. They will notice the difference in the vegetables prior to being cooked and then once they are cooked. Students will be able to compare like vegetables prepared in different ways.

**Materials Needed:** Celery root, fennel, radishes, beets, tasting notes organizer (Appendix U), pencils, plates and paper towels

**Prior Knowledge:** Prior to our tasting lesson, the students will have been introduced to root vegetables and played a picture game where they need to match the name of a root vegetable with its picture. We will also read small blurbs about the vegetables and answer questions pertaining to them. This lesson will give them real life context for the information they have learned thus far. They will get the chance to taste a number of raw and cooked root vegetables.

**Modeling:** Today our tasting lesson is a little different than ones in the past because we will taste vegetables both raw and cooked. These particular vegetables can be eaten both ways so you will get to decide which way you like them best!

The root vegetables we are going to taste today are beets, celery root, fennel and radishes. First, let’s take a look at these vegetables and make a list of things we notice. (I will have a list on the board with the name of each of these vegetables.)
For instance, when we look at this beet, what does it look like right now? (I will show them the vegetable before it is cooked and after it is cooked and we will make a list of similarities and differences.) Now, let’s take a look at this vegetable after it is cooked. What similarities do you notice and what differences do you notice? (Once we have completed lists for each of the vegetables we will begin tasting them.)

Each table has all four vegetables on it, so I want you to start by tasting the vegetable raw. (I will distinguish between the raw and cooked vegetables by making signs for them or writing on the paper plate so the students can determine the difference.) As you taste, remember to write down notes about the vegetable’s flavor, texture and smell. Do they taste earthy? Are they crunchy? Do they taste a bit like you think they would taste?

Once you have finished writing your tasting notes we will share our discoveries with our classmates and see if you noticed similar or different things about them.

**Individual Practice:** The students will taste the vegetables and write about them individually. I will walk around the room and ask the students questions to help them with their thinking.

**Guided Practice:** In this particular lesson there will be a final group discussion in order to discuss the ideas and adjectives the students used to describe the root vegetables. We will create a tally of which vegetables the students preferred raw versus cooked. It is important for the students to be able to decipher how they prefer their vegetables and
fruits prepared. Ultimately, if they are able to make this determination, they will be more likely to eat them!

**Modifications:** There will be an option to record the tasting notes on an Ipad (using the voice recorder) as opposed to writing them down.

**Assessment:** As the students work at their tables, I will be walking around observing them and taking notes as they describe the food items that they taste. My observations and notes will serve as an informal assessment of their progress with the tasting notes.
Lesson 29: Field Trip to Hilltop Hanover Farm and Environmental Center

Learning Objective: The students will learn how to properly harvest and store root vegetables. They will also be able to speak about the health benefits of eating root vegetables.

Materials Needed: Field trip permission slip, Hilltop Hanover field trip worksheet (Appendix V), clipboards and pencils

Pre-trip: The students will have had a number of opportunities to discuss and explore root vegetables, prior to this field trip. They will have learned the history of a variety of different root vegetables and be able to identify each of these vegetables in pictures and in their physical form. We will also have conducted a tasting lesson so the students will also be familiar with their taste and texture.

During Trip: Students will have a worksheet to fill out with questions about the day’s activities.

First, the students will review the types of vegetables designated root vegetables and learn about why they have this moniker. (These cool weather vegetables are called root vegetables because the edible part of the plant grows underground and is the plant's root. They thrive in colder temperatures and they can be left in the ground until they are needed)
In class we will have explored more common root vegetables like radishes, fennel, and beets so the students will have the opportunity to learn about some more unusual root vegetables such as turnips, parsnips and rutabagas. They will discover the health benefits associated with many of these root vegetables such as: Eating a \( \frac{1}{2} \) cup of most root vegetables – like jicama, potatoes, rutabagas, turnips – has lots of vitamin C. Eating root vegetables is also a good way to get healthy complex carbohydrates. Complex carbohydrates give your body energy, especially for the brain and nervous system.

Finally, the students will learn about the optimum time to harvest root vegetables. While they can remain in the ground until needed, it is best to harvest them when they are young, tender and about 2 to 4 inches in diameter for beets and turnips. Once they are harvested the beets, parsnips, turnips and rutabagas should be stored in the refrigerator or in a plastic bag. Remove the green tops before storing roots.

**Post Trip:** The students will explore a variety of different recipes that use root vegetables they either tasted and learned about at the farm and then select their favorite one to cook in an upcoming class. Once they have selected a recipe, they will have to write a brief explanation about why they chose it specifically, including the health benefits associated with the vegetable they selected.
Lesson 30: Cooking Lesson with Roasted Root Vegetable Medley and Carrot Mac and Cheese

Learning Objective: Students will further develop their manual kitchen skills by chopping vegetables. They will understand that vegetables can be used in a multitude of creative ways, such as with the carrot mac and cheese.

Materials Needed: Baking dish, bowls, baking sheets, peelers, micro-plane, juicer, knives, cutting boards, aprons, roasted root vegetable medley (Appendix W), carrot mac ‘n cheese (Appendix X) and pencils

Ingredients Required: Roasted Medley: Carrots, turnips, fingerling potatoes, parsnips, celery root, garlic, rosemary (sage or thyme), salt, pepper, extra virgin olive oil.
Mac and cheese: Carrots, orange, penne, grated cheddar cheese

Prior Knowledge: This cooking lesson occurs at the end of our root vegetable study. The students will have had the opportunity to learn about the history of many root vegetables, read some fictional picture books pertaining to them, tasted them and gone on a field trip where they explored how they grow and when they are harvested. Today’s cooking lesson will give the students an opportunity to taste root vegetables roasted with some salt and pepper and then in a more unique way as incorporated into mac and cheese.
Modeling and Guided Practice: (Each of the recipes will be written out and featured on a chart so the students can follow along as we move through each step.)

Roasted Root Vegetable Medley:

Today, we are going to work with many types of root vegetables including carrots, turnips, fingerling potatoes, parsnips, onions, and celery root. There are two different recipes we are going to work on so you can try root vegetables in a few different ways. The first recipe is a simple roasted root vegetable medley and the second recipe is for a carrot mac and cheese.

I want us to work on the roasted root vegetable medley together. Take a look at the ingredients currently on your table. You’ll notice each table has about six types of root vegetables that we will need to cut. Let’s start with the vegetables that are the easiest to cut. First, we will peel and cut our carrots. Watch me as I peel and cut this carrot and then you will do the same thing. I’ll narrate while I demonstrate so you can follow along.

Now, it is your turn. Everyone at the table should pick up a carrot and peel it. Once the carrot is peeled we want to cut off the top and bottom and throw this into our garbage bowl. Now we will cut out carrots in slices and place them on the baking sheet in the middle of the table.

Now, you will peel and cut parsnips since you use the exact same technique as the one we just used with the carrots.

Next, let’s take a look at the celery root and turnips. Pick up your celery root and turn it on its side. First, we must cut off the bottom and then the top. Watch me and then try it yourself. Once you’ve finished this step, set the celery root on the flat part like this and we will start cutting off the sides. Again, I will demonstrate for you and then walk
around to assist anyone that needs help. Toss your celery root pieces onto the baking sheet and you can start cutting your turnip since it is the same technique we used to cut the celery root.

Now that we are done cutting all of the root vegetables, you should toss them in some extra virgin olive oil, salt, pepper and you can toss a twig of rosemary, thyme or sage in with them for some additional flavor. We will put these in the oven at 400 degrees for about 45 minutes and then we get to eat them! While we are waiting we will make carrot mac and cheese.

**Carrot Mac and Cheese:**

Making carrot mac and cheese is easy and it is also delicious. First, we are going to preheat our oven to 350 degrees. You’ll notice that in many recipes the first thing you need to do is turn the oven on so it is up to the correct temperature when you are ready to use it.

The next thing we want to do is prepare the carrots because they will take about 30 minutes to cook. You are already experts at peeling and cutting so once you have finished toss your carrots into the saucepan.

You will notice that there is an orange at the table, which you will need to zest and then cut in half and juice. Using the micro-plane on your table you will just rub your orange on it like so and tap this zest into the saucepan with the carrots. After we zest it, I will show you the right way to cut your orange. If you were to cut your orange from the top where the nub (or stem grows) you will notice that there is a seam down the center that will make it hard to juice. So you always want to cut an orange around the middle
when you are planning on juicing it. (I will demonstrate how to cut an orange appropriately.)

Cut your orange and then you will juice it. Place this juice in the saucepan with the carrots as well. Our carrots will cook over medium low heat with a lid on for the next 30 minutes. We want them to be soft before we take them off the stove. You can check if they are done by poking a fork into one of them. If the fork goes all the way through the carrot then we can pull them off the stove.

While we wait for our carrots to cook, we will fill a saucepan with water so we can cook our pasta. You should add a pinch of salt to the water because it gives the pasta some flavor as it cooks and it makes it boil faster! Once the water has bubbles then you know it is boiling, and it will be time to put our pasta in to cook.

Once we have pulled our carrots off the stove, we are going to transfer them to the food processor and puree them until they are smooth.

While our pasta is cooking we want to taste it every few minutes to ensure we don’t overcook it. We want our pasta to be “al dente,” which is an Italian word whose literal translation means “to the tooth.” Now this doesn’t make much sense so what does it mean? It means pasta that is cooked so it’s not TOO soft and it’s not TOO hard. It should be a little chewy but not crunchy, and it shouldn’t stick to your teeth when you chew it. Overcooked pasta is far too mushy and then as a result it loses its flavor. So we will try our pasta together and try to determine when we think it is done! Once it is done we will strain it into a colander, BUT we want to save 1 cup of the cooking water for our recipe so we must be very careful during this step.
Now we will return the pasta to the pot and add the reserved water and the carrot puree and cook over moderate heat, stirring frequently, until the pasta is coated with a thickened sauce, about 5 minutes.

Next, we will stir in about 2 handfuls of the cheese and cook, stirring for about 2 to 3 minutes.

Finally we will put the pasta into a baking dish and top it with the remaining cheese. We will place it in the pre-heated oven and bake it until the cheese is melted and lightly browned, about 20 minutes.

**Modifications:** Students will work cooperatively in pairs so they can focus on their particular strengths during this lesson. For instance, if someone has difficulty cutting them s/he can be responsible for tossing the vegetables onto the baking sheet and his/her partner can cut.

**Assessment:** For most of the cooking lessons, observation is the most reliable means of assessment. In this particular lesson, the students will watch the teacher demonstrate a technique like peeling and cutting carrots and then attempt to do it themselves. The teacher will walk around the room as the students are performing these techniques and provide assistance when necessary. The students will also be required to follow along with the recipe as we move through each step and create each of these dishes. The teacher will take notes on the student’s progress and record questions the students ask during this session.
Summative Assessments

Evaluation Accounts:

Many of the formative assessments taken during this curriculum are based on observational notes. The teacher models how to do things like chop, mince, make dough and such and then the students are asked to try the specific technique. Teachers walk around to see if students need assistance and to determine how well they are able to follow modeling and instructions. As teachers walk around, they will be taking observational notes and writing about the student’s skill-set and collaboration. At the end of the curriculum, the teacher will review all of his/her notes to measure the student’s progress. A final evaluation of each student will be based on these notes and written to determine successes, challenges and future goals.

Student Reflections:

Student feedback is an essential component of every curriculum. The students will receive a questionnaire at the beginning of the curriculum with questions such as:

What are your favorite foods?
What does food mean to you?
Do you cook and if so give examples of things you enjoy cooking?
Do you know how many servings of fruits and vegetables you should eat every day? How many do you eat?
Do you know any health benefits associated with eating fruits and vegetables?
These questions will help me assess their background knowledge and get an idea of what they know so I can tailor the curriculum to their needs.

At the end of the curriculum they will be given a follow-up questionnaire/reflection. They will be asked similar questions including:

How has your attitude about food changed since you’ve taken this course?
Did you learn anything new about fruits and vegetables?

What was your favorite aspect of this curriculum: The tasting lessons, the cooking or the field trips? The reflections will help inform the assessment goals about flavor, palate, and skills related to food preparation, recipe reading, and creating food with fruits and vegetables.

**Recipe Book:**

Throughout our cooking curriculum the students will have opportunities to write down recipes, which will be compiled in a book and presented to their families during our culmination. These recipes will highlight the student’s understanding of the ingredients and steps necessary in order to create certain dishes.

At the beginning of our curriculum, our first cooking lesson requires the students to assemble salsa. Their primary focus is on chopping and combining the ingredients in order to create this dish. As we progress we start working on more complicated recipes that include baking times, using food processors as well as more mixing, rolling and such. The recipes that have multiple steps require more sequencing and the students need to follow more of a step-by-step process. It will become significantly harder for them to write down recipes when there are ten steps as opposed to five steps so they will have to
take notes along the way. After each cooking lesson the students will write down their recipe including tips they think are helpful for the chef (for instance, wear gloves while peeling garlic; otherwise your hands will stink for days.) They might also include changes they made to the initial recipe we followed. While a recipe may call for onions, a student may discover that s/he doesn’t like onions and decide to leave this out of the dish. Ultimately, the students are given more responsibility and choice as the curriculum advances. At the end of the curriculum the students will have amassed a number of recipes to include in a book that will be presented to their families during our Café night.

**Café:**

The students will have the opportunity to cook for their friends and family during the last week of our curriculum. As a culmination for all the work we have done each student will select his/her favorite recipe and then teach their family members how to create this dish. (I will give them a selection of four recipes that are feasible to make in a certain timeframe.) The students will take on a new role as the teacher (to their parents) and demonstrate all that they have learned over the course of the past few weeks. Once the students have prepared their dishes we will all sit down and enjoy a meal together.
Conclusion

I created this curriculum so students would have the opportunity to have fun in the kitchen while learning useful skills at the same time. Without knowing it, my cooking lessons with my mom instilled in me a love for food and taught me life skills that I utilized today to forge friendships, to navigate the classroom and to make good decisions.

Cooking is not a singular experience. It should not only include working in the kitchen. Instead, it should be a multi-dimensional experience. I created this curriculum with many different types of lessons including tasting, cooking and field trips to allow students to explore the many dimensions of food. My main goal is not to teach students about the health benefits of food but rather help them develop an understanding (where does food come from, how is it harvested, what is seasonal produce) and enjoyment of food. I believe by developing student’s palates and by helping them to take risks in the kitchen, inherently they will come to understand the benefits of eating good food. My goal at the end of our cooking curriculum is for the students to feel comfortable in the kitchen and to be willing to try new things. I want to instill in them a love of food that I experienced as a child and as an adult. Food means different things to different people, but I’d like it to be a source of joy and comfort for my students. I want cooking to be something that makes them feel accomplished and proud. I hope that after an intensive study on fruits and vegetables, they will be invigorated and yearning to learn more. If so, I will have achieved my goals.
References

Books:


Digital Resources:


How apples are grown and harvested (Video File). Retrieved from (for Lesson 12): http://www.youtube.com/watch?v=DhDaE85ZCEc.


Read Aloud Suggestions:


Recipes:

Anne Burrell’s Pumpkin Soup and Butternut Squash Orecchiette:

And
Food & Wine Carrot Mac and Cheese:
http://www.foodandwine.com/recipes/carrot-macaroni-and-cheese

Food Network Roasted Root Vegetable Medley:

Rachel Ray Pasta e Fagioli Soup:

**Field Trip Suggestions:**

Eagle Street Rooftop Farm: http://rooftopfarms.org/education/

Hilltop Hanover Farm: http://www.hilltophanoverfarm.org/

Queens Country Farm: http://www.queensfarm.org/programs-children.html

Union Square Farmers Market: http://www.grownyc.org/greenmarket/manhattan-union-square


Appendices

Appendix A

**Tomato Tasting Notes**

*Write down the things you notice and taste when you look at and eat your tomatoes. What do you notice about their shape, texture, color and feel and what do you taste?*

*Example: The tomato I ate was bright red and the size of a gumball. It was ripe and a bit squishy and it was juicy and sweet when I tasted it.*

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<thead>
<tr>
<th>Cherry Tomato</th>
<th>Plum Tomato</th>
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<td>Yellow Tomato</td>
<td>Hybrid Tomato</td>
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## Salsa Tasting Lesson

When you look at the salsa in front of you, what do you see? What color is it? Do you notice anything cut up in it? Is it chunky or smooth? These are the things you will list in your I SEE column. Then you are going to taste it. What flavors do you taste? Do you taste chili peppers? Cilantro? Onions? These are things you will list in the I TASTE column.

<table>
<thead>
<tr>
<th>I SEE</th>
<th>I TASTE</th>
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Appendix C

Safety Rules & Kitchen Etiquette

- Wash your hands and dry them well.
- Tie back your hair and make sure you don't have any loose clothing or dangling jewelry.
- Wear an apron. It will keep your clothes clean. If you don't have an apron, an old shirt will do. But don't wear anything that's big and loose. Baggy sleeves or clothes could catch fire or get caught in mixer beaters or other equipment.
- Before beginning *any* recipe, get an adult's permission to work in the kitchen.
- If using a recipe, always begin by reading it through completely; be sure you understand the instructions. Gather all your ingredients, utensils, and pans that you need before you start.
- Wipe up spills as soon as they happen. Wet spots can be slippery.
- Always use oven mitts to handle food on the stove.
- Always pick up knives by their handle and do not point them at anyone. Be sure to only use a knife when an adult is close by and with permission.
- Wash utensils after you use them.
- If your recipe uses knives, the stove, or other kitchen appliances, you must have some adult help.
- Keep electrical appliances away from water to avoid shocks. Stay away from electrical sockets, especially if your hands are wet.
• Don't put cooked food on an unwashed plate or cutting board that held raw food. Always use a clean plate.

• Don't lick your fingers while preparing food

• Never add water to a pan that has hot oil in it. It could make the oil splatter and burn someone.

• Keep paper towels, dishtowels and potholders away from the range so they don't catch on fire.

• When you're done cooking, clean the kitchen. That means wipe up spills, place utensils and bowls in the dishwasher, clean pans, and put ingredients away.

• Before you leave the kitchen, make sure all appliances are turned off and are clean. Unplug mixers and food processors. Clean off the stovetop after it has cooled.
Appendix D

Salsa Recipe

Total Time:
30 minutes

Yield:
8 servings

Equipment Needed:
Juicer
Knife
Cutting Board
Bowls

Ingredients:
1 pint cherry tomatoes cut into quarters
2 garlic cloves, minced
1 jalapeno, seeded and minced (if you don’t like spicy food you can leave this out)
1 red bell pepper, diced
1 lime, juiced
Salt and pepper to taste
Chili powder to taste (if you like it spicy)
Fresh scallions and/or cilantro to taste

Directions:
In a bowl, combine all the ingredients.
Place in refrigerator for up to 12 hours for flavors to meld. If you can’t wait go ahead and eat it!

Serve with tortilla chips.
Appendix E

Checklist for Partner Work

☐ Communication
  ◦ Turn-taking
  ◦ Delegating tasks
  ◦ Listening

☐ Sharing responsibilities

☐ Nurturing one another's creativity

☐ Spatial recognition

☐ Understanding kitchen safety and employing it while working with a partner

☐ Taking risks with ingredients and assembly of ingredients

☐ Organization of food and supplies

☐ Reading recipes together

☐ Writing tasting notes together
Recipe Sheet: Salsa

Ingredients:

Yield:
Time:

Kitchen Utensils or Equipment:

Directions (illustrations/Photos and Words):

Step 1:

Step 2:

Step 3:

Step 4:

Tips
**Appendix G**

**Squash Tasting Notes**

Write down the things you notice and taste when you look at and eat your squash. What do you notice about their shape, texture, color and feel and what do you taste?

*Example: The squash I ate was yellow colored and its texture was mushy. It tasted bland as though it needs some salt. It was also stringy.*

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Appendix H

**Beans Tasting Notes**

*Write down the things you notice and taste when you look at and eat your beans. What do you notice about their shape, texture, color and feel and what do you taste?*

*Example: The beans I tasted were black and they were quite small. I thought they would be mushy, but they were firm. They didn’t taste like much. I think they need salt.*

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<td>Kidney Beans</td>
<td>Black Beans</td>
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Appendix I

Rachel Ray’s Pasta e Fagioli

Total Time:
30 minutes

Yield:
6 BIG servings

Equipment Needed:
Sauté Pans
Pots
Knives
Measuring cups
Teaspoons and tablespoons

Ingredients
2 tablespoons of extra-virgin olive oil
1/8 pound (about 3 slices) pancetta, chopped
2 (4 to 6-inch) sprigs rosemary, left intact
1 (4 to 6-inch) sprig thyme with several sprigs on it, left intact
1 large fresh bay leaf or 2 dried bay leaves
1 medium onion, finely chopped
1 small carrot, finely chopped
1 rib celery, finely chopped
4 large cloves garlic, chopped
Coarse salt and pepper
2 (15 ounce) cans cannellini beans
1 cup canned tomato sauce or canned crushed tomatoes
2 cups water
1 quart chicken stock
1 1/2 cups ditalini (short tube like pasta)
Grated Parmigiano or Romano, for the table
Crusty bread, for mopping

Directions
Heat a deep pot over medium high heat and add oil and pancetta. Brown the pancetta bits lightly, and add herb stems, bay leaf, chopped vegetables, and garlic.

Season vegetables with salt and pepper. Add beans, tomato sauce, water, and stock to pot and raise heat to high.

Bring soup to a rapid boil and add pasta. Reduce heat to medium and cook soup, stirring occasionally, 6 to 8 minutes or until pasta is cooked al dente.
Rosemary and thyme leaves will separate from stems as soup cooks. Remove herb stems and bay leaf from soup and place pot on table on a trivet.

Let soup rest and begin to cool for a few minutes.

Ladle soup into bowls and top with lots of grated cheese. Pass crusty bread for bowl mopping.
Appendix J

Recipe Sheet: Pasta e Fagioli

Ingredients:

Yield:

Kitchen Utensils or Equipment:

Time:

Directions (illustrations/Photos and Words):

Step 1: 

Step 2: 

Step 3: 

Step 4: 

Nutritional Fact
Appendix K

Ann Burrell’s Orecchiette with Pancetta, Pumpkin, and Broccoli Rabe

Total Time:
1 hour 5 minutes

Yield:
2 servings

Equipment Needed:
Sauté Pans
Spatulas
Wooden spoons
Pot
Cheese grater
Knives
Measuring Cups

Ingredients:
2 cups cheese pumpkin, cut into 1/2-inch dice
Extra-virgin olive oil
Kosher salt
1/2 bunch broccoli rabe (or kale), tough lower stems removed, cut into thirds
3/4 cup pancetta, cut into 1/2-inch dice
Pinch crushed red pepper
2 cups orecchiette pasta
1/2 cup grated parmigiana
1/4 cup green pumpkin seeds, toasted

Directions
Preheat oven to 375 degrees F.

Toss the pumpkin with olive oil and salt and place in a single layer on a sheet tray and bake in the oven until soft, about 20 minutes. Remove from oven and reserve.

Bring a large pot of well-salted water to a boil. Set up a bowl of well-salted ice water.

Drop the broccoli rabe (or kale) into the pot of boiling water, swirl it around, remove from the water, and immediately plunge into the salty ice water. (This step is called blanching a vegetable. Plunging it into cold water stops the cooking process and keeps the vegetables crispy.) Reserve the boiling water to cook the pasta in. Remove the broccoli rabe (or kale) from the ice water, squeeze out excess water, and reserve.

Coat a large sauté pan with olive oil and add the pancetta and crushed red pepper. Bring
the pan to a medium heat and cook the pancetta until brown and crispy. When the pancetta is brown and crispy add the roasted squash and about 3/4 cup of the broccoli rabe (or kale) cooking water. Simmer until the water reduces by half.

Add the orecchiette to the reserved boiling broccoli rabe water and cook until the pasta is al dente, about 1 minute less than the cooking time says on the box.

Remove the pasta from the water and add to the pan with the pancetta and squash. Add the broccoli rabe and about a 1/2 cup of the pasta cooking water. Cook until the water has evaporated and the sauce clings to the pasta. Drizzle with olive oil and sprinkle with the grated parmigiana. Toss or stir vigorously.

Divide the pasta between 2 serving dishes, sprinkle with a little more grated Parmesan, and top with toasted green pumpkin seeds.

Delicioso!!
Appendix L

K-W-L Chart

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Appendix M

Apple Fun Facts

1. An apple is a type of fruit that is grown on an apple tree.
2. It is called a pomaceous fruit because the plant that it grows on flowers. The flowers on an apple tree are pink or white.
3. Apple trees take four to five years to produce their first fruit.
4. Most apples are ready to be harvested in autumn.
5. Apples harvested from an average tree can fill 20 boxes that weigh 42 pounds each.
6. There are more than 7,000 varieties of apples grown in the world today and about 2,500 in the United States, but the crabapple is the only apple native to North America.
7. The fruit comes in many different shapes and sizes.
8. Apples also can be found in a large range of colors. Red, yellow, orange and green apples can be found in most grocery stores.
9. Some apples are extremely good for eating while others are primarily used for cooking.
10. Apples are used to make apple juice, cider, vinegar, applesauce and many different kinds of desserts.
11. Apples contain Vitamin C as well as many other antioxidants.
12. Apples are also a good source of fiber.
13. Apples ripen six to 10 times faster at room temperature than if they are refrigerated.
14. Apples are a member of the rose family.
15. It takes about 36 apples to create one gallon of apple cider.
16. Scientists and doctors are beginning to believe there might be some truth in the old saying, "An apple a day keeps the doctor away!"

New York Apple Industry Fact Sheet

1. New York is the second largest apple producing state in the United States, with an average of 25 million bushels of production annually.

2. Apples are grown on over 52,000 bearing acres in six major production districts throughout the entire state: Champlain Valley, Eastern Hudson Valley, Western Hudson Valley, Central Lake Country and Niagara Frontier.

3. Major apple producing counties are: Wayne, Ulster, Orleans, Niagara, Clinton, Columbia, Monroe, Orange, Onondaga and Dutchess.

4. There are approximately 694 commercial apple growers in New York State.

5. On average, 13,250,000 bushels (53%) are utilized as fresh fruit:
   - 663,000 bushels (5%) are marketed directly by growers and “roadside markets”.
   - 1,325,000 bushels (10%) are exported to other countries.
   - 11,262,000 bushels (85%) are marketed domestically through independent and chain supermarkets, food service and military outlets.

6. On average, 11,750,000 bushels (47%) are utilized for processing:
   - 4,465,000 bushels (38%) are processed into juice and cider.
   - 5,522,500 bushels (47%) are processed into canned products, including sauce, slices and pie filling.
   - 1,175,000 bushels (10%) are processed into frozen slices.
   - 587,500 bushels (5%) are processed into vinegar, jelly, apple butter, mincemeat, and dried products.

7. The top 10 varieties in descending order of production volume are: McIntosh, Empire, Red Delicious, Cortland, Golden Delicious, Rome, Idared, Crispin, Paula Red plus Gala, Jonagold, Jonamac.

# Appendix N

## Apple Observation and Tasting

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<td><strong>Other</strong></td>
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<td><strong>Feel of Skin</strong></td>
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<td><strong>Texture of Flesh</strong></td>
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<td><strong>Taste</strong></td>
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<td><strong>Scent</strong></td>
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Appendix O

Apple Parts

Directions: Take a look at the apple below and see if you can fill in the blanks with the appropriate parts listed in the boxes at the top of the page.

Fill in the boxes with an illustration of an apple tree during each season. Think about what you learned today at the orchard!

Retrieved from: http://www.teachingheart.net/appleunit.html
Appendix P

Apple Commercial Script Template

Name of Apple for Commercial (e.g. Golden Delicious or Granny Smith)

Adjectives to describe your apple: (e.g. mouth watering, crunchy)

Reasons to buy a (insert apple name)
(E.g. they are great in pies; they are great source of vitamins and minerals):

<table>
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<th>Illustrations or Photos of Scenes</th>
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<td>Scene 1</td>
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<td>Scene 3</td>
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Descriptions of Scenes Visually
Example scene 1: Abby takes a bite out of a Golden Delicious

Descriptions of Scene Verbally
Example Scene 1: “This is the crunchiest tasting apple I’ve ever had!”
Appendix Q

Basic Pie Crust

Total Time:
20 minutes

Yield:
2 balls pie dough

Equipment Needed:
Food processor or pie cutter
Measuring cups
Cutting board
Parchment paper and Saran wrap
Teaspoons and tablespoons

Ingredients:
2 sticks (very cold) butter
2 ¼ cups flour
1 tsp. salt
2 tsp. sugar
3 TBS ice water

Directions:
If using a food processor, first put the flour, sugar and salt in the machine and pulse once or twice to combine.
Then chop the butter into ¼ inch bits and put into the processor as well.
Pulse until the butter and flour are just barely combined and the mixture looks like small balls.
Slowly begin to add the ice water 1 TBS at a time to the mixture and continue to pulse. The small balls will begin to pull together and form to create one large ball.

If using a pie cutter, combine all ingredients in a bowl and begin to move the pie cutter back and forth to blend the ingredients. (You can also use your fingers to mix these ingredients.) The mixture will begin to form small balls. At this point, mix the ice water into the bowl and follow the same steps as above.

Divide the dough in half with your hands and pat it gently to create two disks. Don’t overwork it just squeeze it with enough pressure to hold it together. Wrap the disks in plastic wrap and refrigerate for at least 30 minutes.
Appendix R

Apple Pie
Adapted from How to Make an Apple Pie and See the World

Total Time:
1 hour

Yield:
8-10 people

Equipment Needed:
- Bowls
- Peeler
- Knife
- Pie Pan
- Rolling Pin
- Measuring cups
- Tablespoons and teaspoons

Ingredients:
- 5-7 apples of your choice
- ¾ cup sugar
- 1 tsp. cinnamon
- ¼ teaspoon salt
- 2 TBS butter

Directions:
Preheat to 425 degrees.

Take pie dough out of the refrigerator and let it rest for 15 minutes.

In large bowl, mix together sugar, cinnamon, and salt.

Peel, core, and cut apples into ½ inch slices. Toss the apples into the sugar mixture, coating them well.

Roll out the pie dough and drape it over a 9- or 10-inch pie pan to extend about 1/2-inch over the rim.

Arrange apple slices in the pie pan, piling them higher in the center. Dot with butter.

Moisten the edge of the bottom crust with water. Cover the pie with top crust. Cut some vents in the top crust.

Bake 45 minutes of until apples are tender and crust is golden brown. Remove pie and allow to cool before serving.
Appendix S

Deep-Dish Apple Pie
Adapted from Barefoot Contessa Family Style

Total Time:
1 hour 45 minutes

Yield:
1 (9-or 10-inch) pie

Equipment Needed:
Bowl
Peeler
Knife
Pie Pan
Rolling Pin
Zester
Measuring cups
Tablespoons and teaspoons

Ingredients:
4 pounds Granny Smith apples, peeled, quartered, and cored
1 lemon, zested
1 orange, zested
2 tablespoons freshly squeezed lemon juice
1 tablespoon freshly squeezed orange juice
1/2 cup sugar, plus 1 teaspoon to sprinkle on top
1/4 cup all-purpose flour
1 teaspoon kosher salt
3/4 teaspoon ground cinnamon
1/2 teaspoon ground nutmeg
1/8 teaspoon ground allspice

1 egg beaten with 1 tablespoon water, for egg wash

Directions
Preheat the oven to 400 degrees F.

Cut each apple quarter in thirds crosswise and combine in a bowl with the zests, juices, 1/2 cup sugar, flour, salt, cinnamon, nutmeg, and allspice.

Roll out the pie dough and drape it over a 9- or 10-inch pie pan to extend about 1/2-inch over the rim. Don't stretch the dough; if it's too small, just put it back on the board and re-roll it.
Fill the pie with the apple mixture.

Place the pie on a sheet pan and bake for 1 to 1 1/4 hours, or until the crust is browned and the juices begin to bubble out. Serve warm.
Appendix T

Caramel Apple Pie
Adapted from recipe courtesy of Marles Riessland

Total Time:
1 hour and 30 minutes

Yield:
8 servings

Equipment Needed:
Bowl
Knife
Pie Pan
Rolling Pin
Zester
Measuring cups
Tablespoons and teaspoons

Ingredients:
6 cups apples (Jonathan or Granny Smith)
1/2 cup packed light brown sugar
1/2 cup sugar
1/4 cup all-purpose flour
1 teaspoon cinnamon
1/4 teaspoon nutmeg
1/4 teaspoon salt
1 tablespoon lemon juice
1 teaspoon vanilla
4 tablespoons heavy cream
4 tablespoons butter

Streusel Topping:
1/2 cup all-purpose flour
3 tablespoons sugar
1 tablespoon butter
2 toffee bars or 3 ounces chocolate covered peanut or pecan brittle, crushed

Directions:
Preheat oven to 450 degrees F.

Take dough out of refrigerator and let rest for 15 minutes.

Peel and slice apples. Sprinkle with lemon juice.
Combine dry ingredients in large bowl and add apples. Toss to mix. Add vanilla and cream. Melt butter in heavy skillet. Add apple mixture and cook approximately 8 minutes, to soften apples.

Roll out the pie dough and drape it over a 9- or 10-inch pie pan to extend about 1/2-inch over the rim.

Turn filling into pie shell.

**Streusel Topping:**
Combine the flour and sugar. Mix in butter with fork until coarse crumbs.
Stir in the crushed toffee bars. Sprinkle over pie.

Bake for 15 minutes. Reduce heat to 350 degrees and bake 45 minutes longer.
Appendix U

**Root Vegetables Tasting Notes**

*Write down the things you notice and taste when you look at and eat your root vegetables. What do you notice about their shape, texture, color and feel and what do you taste? Do you notice a difference in taste between the raw vegetables and the cooked vegetables? Example: The raw parsnip I tasted was crunchy and sweet. The cooked parsnip I tasted was still sweet but it the texture was mushier.*

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Appendix V

Field Trip to Hilltop Hanover Farm

Sustainable Farming

Make some predictions. What do you think sustainable farming means?

What did you discover about sustainable farming? Was your prediction correct?

Root Vegetables

What are some new root vegetables you learned about today?

When is the best time to harvest root vegetables?

Can you list some of their health benefits? Why should you eat them?
Appendix W

Roasted Root Vegetable Medley
Recipe courtesy of Wolfgang Puck/Food Network

Total Time:
1 hour and 15 minutes

Yield:
10 to 12 servings

Equipment Needed:
Peeler
Baking Sheet

Ingredients:
8 to 12 slender carrots, peeled and trimmed
8 to 12 baby turnips, peeled
6 to 8 fingerling potatoes, scrubbed and cut lengthwise in halves
1 or 2 large parsnips, peeled, trimmed, and cut diagonally into 1-inch-thick slices
1 or 2 medium onions, trimmed, peeled and halved, each 1/2 cut into quarters
1 or 2 large beets, peeled and cut into thick wedges
1 celery root, trimmed and halved, halves cut crosswise into 1-inch-thick slices
1 whole head garlic, separated into cloves, unpeeled
2 or 3 sprigs fresh rosemary, sage, or thyme
Salt
Freshly ground black pepper
Extra-virgin olive oil

Directions:
Preheat the oven to 400 degrees F.

Put all the vegetables and the herb sprigs in a large baking dish.

Season well with salt and black pepper, drizzle generously with olive oil, and toss them with your hands to coat them evenly.

Put the baking dish in the preheated oven and cook, stirring the vegetables occasionally, until they are tender and golden brown, about 45 minutes.

Serve the vegetables from their baking dish or transfer them to a platter to accompany a roasted main course.
Appendix X

Carrot Macaroni and Cheese
Contributed by Jeremy Fox for Food and Wine

Total Time:
1 hour and 20 minutes

Yield:
4 Servings

Equipment Needed:
Peeler
Zester
Cheese grater
Colander
Pot
Saucepan

Ingredients:
¾ lbs. of carrots, peeled and thinly sliced
Zest and juice of 1 navel orange, zest and removed in strips with vegetable peeler
Salt
3 cups of penne rigate
3 ounces sharp cheddar cheese, shredded (approximately 1.5 cups)
1 TBS chopped tarragon (optional)
Freshly ground pepper

Directions:

Preheat the oven to 350°.

In a medium saucepan, combine the carrots with the zest and juice and 1/4 cup of water. Season with salt and bring to a boil. Cover and simmer over moderate heat until the carrots are very soft, about 30 minutes. Discard the zest.

Transfer the carrots and any liquid to a blender and puree until very smooth.

Meanwhile, in a large saucepan of boiling salted water, cook the pasta until al dente. Drain the pasta, reserving 1 cup of the cooking water.

Return the pasta to the pot. Add the reserved water and the carrot puree and cook over moderate heat, stirring frequently, until the pasta is coated with a thickened sauce, about 5 minutes.
Stir in three-fourths of the cheese and cook, stirring, until very creamy, 2 to 3 minutes longer. Stir in the tarragon and season with salt and white pepper.

Transfer the pasta to a medium baking dish and top with the remaining cheese.

Bake until the cheese is melted and lightly browned, about 20 minutes.

Let stand for 5 minutes before serving.