

PUBLIC SCHOOLS OF EDISON TOWNSHIP
DIVISION OF CURRICULUM AND INSTRUCTION

Introduction to Baking

Length of Course:	Semester
Elective/Required:	Elective
Schools:	Middle School
Eligibility:	Grade 6-8
Credit Value:	N/A
Date Approved:	January 27, 2020

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Course Description

The Edison Public School District is committed to improving the instruction and needs of each student as well as challenging them academically. *Introduction to Baking* is a middle school elective program that will allow students to develop their understanding of basic baking techniques while giving them a safe environment to take risks, think critically, and test new ideas.

This hands-on elective program will provide students with a general understanding of the ingredients, techniques and procedures used in creating baked goods. As part of the coursework, students will progress through becoming proficient in the use of baking tools and various equipment to utilizing ingredients to create basic breads, cakes, cookies, and pastries. In addition to learning kitchen basics and safety fundamentals, students will learn to work effectively as part of a team, think creatively to solve problems, and apply their learning to new situations.

Units of Study

UNIT	FOCUS*
1	Kitchen Safety and Introduction to Baking Techniques
2	Quick Breads
3	Yeast Breads
4	Cookies
5	Specialty Pastries

*In the case of a quarterly elective, the instructor will omit the Yeast Breads and Specialty Pastry units.

Unit 1: Kitchen Safety and Introduction to Baking Techniques

Targeted Standards: 9.3HT-RFB.2, 9.3 HT-RFB.4, 9.3 HT-RFB.7, 9.3 HT-RFB.8 ,9.3 HT-RFB.10

21st Century Skills/Career Ready Practices:

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP6. Demonstrate creativity and innovation.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Unit Objectives/Enduring Understandings: Students will be able to identify essential baking tools and equipment and their uses, where to locate them, and demonstrate proficiency in using small and large kitchen equipment in a safe, organized, and efficient manner. Students will understand that:

- Certain tools/equipment are needed for specific tasks.
- Accurate measurements are necessary for successfully preparing baked products.
- Ingredients function differently during the baking process.
- Proper food handling techniques are necessary to prevent illness.
- Accidents in the kitchen can be prevented.
- Cooperation, following directions, accountability, and time management are necessary skills for group tasks.

Essential Questions:

- How does baking differ from cooking?
- Why is it important to identify and use proper tools to accomplish a given task?
- Why are the correct measuring techniques important for a successful product?
- What are the basic ingredients in baking and how do they function in the recipe?
- How do substituting ingredients affect the overall baking process?
- Why is safety and sanitation important in the home and in the foods lab?
- What skills are necessary to work together in a group?

Core Content		Instructional Actions	
Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment How students demonstrate their learning.
<ul style="list-style-type: none"> Essential baking tools and equipment and their uses. Proper measuring techniques and use of small and large kitchen equipment. Main functions of basic baking ingredients Strategies for reading and adjust a recipe yield Basic kitchen rules and safety and sanitation procedures. Procedures for working safely with others in groups in a kitchen setting. 	<ul style="list-style-type: none"> Identify tools and equipment and explain their use in the kitchen Explain and demonstrate proper measuring techniques Adjust the measurements of ingredients to increase/decrease the yield. Explain the main function of basic baking ingredients Explain proper safety, sanitation and food handling techniques. Practice good organizational skills in kitchen setting. Work safely with others in groups in a kitchen setting. 	<p>General Activities:</p> <ul style="list-style-type: none"> Practical application of concepts and skills in a laboratory setting. Preparation of a simple recipe using appropriate skills, weights, measures and related/ appropriate kitchen equipment for this unit of study. <p>Technology Implementation: When appropriate, understand and use technology systems, select and use applications effectively and productively, and exhibit digital citizenship by practicing safe, legal, and responsible use of information and technology.</p> <p>Interdisciplinary Connections Infused within the unit are connections to the New Jersey Student Learning Standards in Science, Language Arts, and Mathematics as listed in the following standards: 5.2.12.C.1; RI.9-10.4; and G-CO.12</p>	<p>Formative Assessments:</p> <ul style="list-style-type: none"> Teacher Observation Class Participation Worksheets Lab Evaluations Do Nows Exit Slip Discussions <p>Summative Assessments</p> <ul style="list-style-type: none"> Written Tests Quizzes Practical Tests Final edible product
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices</p> <ul style="list-style-type: none"> Appropriate articles, websites, and resources on baking fundamentals, sanitation and safety procedures including: <ul style="list-style-type: none"> https://www.aafcs.org/about/about-us/what-is-fcs https://tasty.co/ https://www.consumered.org/healthy-hygiene-with-kids https://www.aafcs.org/about/about-us/what-is-fcs https://www.allrecipes.com/ 		<p>Instructional Adjustments: Modifications, student difficulties, possible misunderstandings</p> <ul style="list-style-type: none"> Recipe modifications based on students' dietary and cultural needs Immersion for ESL students IEP adjustments as needed per student Purposeful small group instruction to target specific needs and misunderstandings based on formative assessments 	

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| <ul style="list-style-type: none">○ https://baking.com○ https://www.epicurious.com/● Supplemental worksheets● Vocabulary worksheets● Supplemental culinary texts and recipes | |
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Targeted Standards: NJSL: 9.3 HT-RFB.2 9.3 HT-RFT.4, 9.3 HTRFB.7,9.3 HT-RFB.8, 9.3HT-RFB.10

21st Century Skills/Career Ready Practices:

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- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Unit Objectives/Enduring Understandings: Students will be able to apply knowledge of kitchen fundamentals, mixing techniques, safe use of equipment, and sanitation procedures to creating quick breads. Students will understand that:

- Each ingredient has a specific purpose.
- Different mixing methods are used to produce quick bread products and success is dependent upon proper technique.
- Addition/substitution of certain ingredients can increase the nutritional value of quick breads.

Essential Questions:

- What is the function of each basic quick bread ingredient?
- What are the differences between the muffin and biscuit methods of mixing?
- What is the nutritional value of quick breads in the diet?
- What is the proper way to store this item?
- How do substituting ingredients affect the overall baking process?

Core Content		Instructional Actions	
Concepts	Skills	Activities/Strategies	Assessment
What students will know.	What students will be able to do.	Technology Implementation/ Interdisciplinary Connections	How students demonstrate their learning.
<ul style="list-style-type: none"> ● How basic ingredients function in quick breads. ● The steps in the biscuit and 	<ul style="list-style-type: none"> ● Explain how ingredients function in the recipe. ● Demonstrate both biscuit and 	General Activities: <ul style="list-style-type: none"> ● Practical application of concepts and skills in a laboratory setting. 	Formative Assessments: <ul style="list-style-type: none"> ● Teacher Observation ● Class Participation

<p>muffin methods of mixing quick breads.</p> <ul style="list-style-type: none"> • Several types and varieties of quick breads available. • The main nutrients in quick breads. 	<p>muffin methods of mixing quick breads.</p> <ul style="list-style-type: none"> • Compare and contrast types and varieties of quick breads. • Identify the main nutrients in quick breads. • Explain how to increase the nutritional value of quick breads. • Apply principles of safety and sanitation. • Exhibit workplace readiness skills such as cooperation with others and following oral and written directions. 	<ul style="list-style-type: none"> • Preparation of recipes using appropriate skills, weights, measures and related/appropriate kitchen equipment for this unit of study. <p>Technology Implementation: When appropriate, understand and use technology systems, select and use applications effectively and productively, and exhibit digital citizenship by practicing safe, legal, and responsible use of information and technology.</p> <p>Interdisciplinary Connections Infused within the unit are connections to the New Jersey Student Learning Standards in Science, Language Arts, and Mathematics as listed in the following standards: 5.2.12.C.1; RI.9-10.4; and G-CO.12</p>	<ul style="list-style-type: none"> • Worksheets • Lab Evaluations • Do Nows • Exit Slip • Discussions <p>Summative Assessments</p> <ul style="list-style-type: none"> • Written Tests • Quizzes • Practical Tests • Final edible product
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices</p> <ul style="list-style-type: none"> • Appropriate articles, websites, and resources on baking fundamentals and baked goods including: <ul style="list-style-type: none"> ○ https://www.aafcs.org/about/about-us/what-is-fcs ○ https://tasty.co/ ○ https://www.allrecipes.com/ ○ https://baking.com ○ https://www.epicurious.com/ • Supplemental worksheets • Vocabulary worksheets • Supplemental culinary texts and recipes 		<p>Instructional Adjustments: Modifications, student difficulties, possible misunderstandings</p> <ul style="list-style-type: none"> • Recipe modifications based on students' dietary and cultural needs • Immersion for ESL students • IEP adjustments as needed per student • Purposeful small group instruction to target specific needs and misunderstandings based on formative assessments 	

Unit 3: Yeast Doughs

Targeted Standards: NJSL: 9.3 HT-RFB.2 9.3 HT-RFT.4, 9.3 HTRFB.7,9.3 HT-RFB.8, 9.3HT-RFB.10

21st Century Skills/Career Ready Practices:

- CRP1. Act as a responsible and contributing citizen and employee.
- CRP2. Apply appropriate academic and technical skills.
- CRP3. Attend to personal health and financial well-being.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP6. Demonstrate creativity and innovation.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP9. Model integrity, ethical leadership and effective management.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.

Unit Objectives/Enduring Understandings: Students will be able to apply knowledge of working with yeast and dough to understand fermentation in order to create doughs and batters. Students will understand that:

- Each ingredient has a specific purpose.
- Specific conditions and techniques are necessary for fermentation and development of gluten to occur.
- Different mixing methods and leavening agents are used to produce quick bread and yeast bread products.
- Yeast breads can be used and served in a variety of ways.
- Yeast breads contribute to the nutritional value of a healthy diet.

Essential Questions:

- What is the function of each basic yeast dough ingredient?
- What nutritional values do yeast breads provide?
- How do quick breads and yeast breads differ?
- How are yeast breads used and served?
- How do you prepare a variety of yeast dough products?
- What is the proper way to store this item?
- How do substituting ingredients affect the overall baking process?

Unit Assessment: (What is the authentic evidence that students have achieved the targeted standards/unit objectives?)

- Dough formation methods
- Kneading techniques
- Consistency and appearance of dough
- Fermentation processes
- Differentiating between quick bread and yeast bread

Core Content		Instructional Actions	
Concepts What students will know.	Skills What students will be able to do.	Activities/Strategies Technology Implementation/ Interdisciplinary Connections	Assessment How students demonstrate their learning.
<ul style="list-style-type: none"> ● Purpose and function of yeast dough ingredients ● Concepts involved in the yeast process ● Proper methods of “folding” ● Steps in the fermentation process ● Differences between quick breads and yeast breads ● Nutritional values of yeast breads ● Proper safety and sanitation procedures in the kitchen. ● Selection and execution of proper formulas/steps in the baking process ● Strategies for communicating and working effectively in groups 	<ul style="list-style-type: none"> ● Develop and feed a starter dough ● Use various techniques for kneading dough. ● Form dough into shapes and sizes using appropriate methods. ● Practice good organizational skills in kitchen setting. ● Be proficient with measurements in various mediums 	<p>General Activities:</p> <ul style="list-style-type: none"> ● Practical application of concepts and skills in a laboratory setting. ● Preparation of recipes using appropriate skills, weights, measures and related/ appropriate kitchen equipment for this unit of study. <p>Technology Implementation: When appropriate, understand and use technology systems, select and use applications effectively, and exhibit digital citizenship by practicing safe, legal, and responsible use of information and technology.</p> <p>Interdisciplinary Connections Infused within the unit are connections to the NJSLs in Science, Language Arts, and Mathematics as listed in the following standards: 5.2.12.C.1; RI.9-10.4; and G-CO.12</p>	<p>Formative Assessments:</p> <ul style="list-style-type: none"> ● Teacher Observation ● Class Participation ● Worksheets ● Lab Evaluations ● Do Nows ● Exit Slip ● Discussions <p>Summative Assessments</p> <ul style="list-style-type: none"> ● Written Tests ● Quizzes ● Practical Tests ● Final edible product
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices</p> <ul style="list-style-type: none"> ● Appropriate articles, websites, and resources on baking fundamentals and baked goods including: <ul style="list-style-type: none"> ○ https://www.aafcs.org/about/about-us/what-is-fcs ○ https://tasty.co/ ○ https://www.allrecipes.com/ ○ https://baking.com ○ https://www.epicurious.com/ ● Supplemental worksheets ● Vocabulary worksheets ● Supplemental culinary texts and recipe 		<p>Instructional Adjustments: Modifications, student difficulties, possible misunderstandings</p> <ul style="list-style-type: none"> ● Recipe modifications based on students' dietary and cultural needs ● Immersion for ESL students ● IEP adjustments as needed per student ● Purposeful small group instruction to target specific needs and misunderstandings based on formative assessments 	

Unit 4: Cookies

Targeted Standards: NJSL: 9.3 HT-RFB.2 9.3 HT-RFT.4, 9.3 HTRFB.7,9.3 HT-RFB.8, 9.3HT-RFB.10

21st Century Skills/Career Ready Practices:

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 CRP4. Communicate clearly and effectively and with reason.
 CRP5. Consider the environmental, social and economic impacts of decisions.
 CRP6. Demonstrate creativity and innovation.
 CRP7. Employ valid and reliable research strategies.
 CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
 CRP9. Model integrity, ethical leadership and effective management.
 CRP10. Plan education and career paths aligned to personal goals.
 CRP11. Use technology to enhance productivity.
 CRP12. Work productively in teams while using cultural global competence.

Unit Objectives/Enduring Understandings: Students will be able to apply knowledge of mixing, assembling baking techniques, knowledge of nutritional value and function of ingredients to create a variety of cookies. Students will understand that:

- Different preparation techniques are used for different types of cookies.
- Cookies are classified according to the shaping and baking directions of the recipe.
- Cookies supply mostly calories to the diet.
- Chewy cookies and crisp cookies are stored differently.

Essential Questions:

- How do you prepare a variety of cookies?
- Why do cookies provide mostly calories?
- How do you store and serve various types of cookies?
- How do substituting ingredients affect the overall baking process?

Core Content		Instructional Actions	
<p>Concepts What students will know.</p>	<p>Skills What students will be able to do.</p>	<p>Activities/Strategies Technology Implementation/ Interdisciplinary Connections</p>	<p>Assessment How students demonstrate their learning.</p>
<ul style="list-style-type: none"> • How to make a variety of cookies. 	<ul style="list-style-type: none"> • Demonstrate techniques and skills in making various types 	<p>General Activities:</p> <ul style="list-style-type: none"> • Practical application of concepts and skills in a laboratory setting. 	<p>Formative Assessments:</p> <ul style="list-style-type: none"> • Teacher Observation • Class Participation

<ul style="list-style-type: none"> • How to classify cookies by type. • The nutritional contribution of cookies. • Storage techniques for different types of cookies. 	<p>of cookies.</p> <ul style="list-style-type: none"> • Classify cookie by type of preparation used. • Explain why cookies should be consumed in moderation. • Describe proper storage techniques for cookies. • Apply principles of safety and sanitation. • Exhibit workplace readiness skills such as cooperation with others and following oral and written directions 	<ul style="list-style-type: none"> • Preparing recipes using appropriate skills, weights, measures and related/appropriate kitchen equipment for this unit of study. <p>Technology Implementation: When appropriate, understand and use technology systems, select and use applications effectively and productively, and exhibit digital citizenship by practicing safe, legal, and responsible use of information and technology.</p> <p>Interdisciplinary Connections Infused within the unit are connections to the New Jersey Student Learning Standards in Science, Language Arts, and Mathematics as listed in the following standards: 5.2.12.C.1; RI.9-10.4; and G-CO.12</p>	<ul style="list-style-type: none"> • Worksheets • Lab Evaluations • Do Nows • Exit Slip • Discussions <p>Summative Assessments</p> <ul style="list-style-type: none"> • Written Tests • Quizzes • Practical Tests • Final edible product
<p>Resources: Essential Materials, Supplementary Materials, Links to Best Practices</p> <ul style="list-style-type: none"> • Appropriate articles, websites, and resources on baking fundamentals and baked goods including: <ul style="list-style-type: none"> ○ https://www.aafcs.org/about/about-us/what-is-fcs ○ https://tasty.co/ ○ https://www.allrecipes.com/ ○ https://baking.com ○ https://www.epicurious.com/ • Supplemental worksheets • Vocabulary worksheets • Supplemental culinary texts and recipes 		<p>Instructional Adjustments: Modifications, student difficulties, possible misunderstandings</p> <ul style="list-style-type: none"> • Recipe modifications based on students' dietary and cultural needs • Immersion for ESL students • IEP adjustments as needed per student • Purposeful small group instruction to target specific needs and misunderstandings based on formative assessments 	

Unit 5: Specialty Pastries

Targeted Standards: NJSL: 9.3 HT-RFB.2 9.3 HT-RFT.4, 9.3 HTRFB.7,9.3 HT-RFB.8, 9.3HT-RFB.10

21st Century Skills/Career Ready Practices:

- CRP1. Act as a responsible and contributing citizen and employee.
 CRP2. Apply appropriate academic and technical skills.
 CRP3. Attend to personal health and financial well-being.
 CRP4. Communicate clearly and effectively and with reason.
 CRP5. Consider the environmental, social and economic impacts of decisions.
 CRP6. Demonstrate creativity and innovation.
 CRP7. Employ valid and reliable research strategies.
 CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
 CRP9. Model integrity, ethical leadership and effective management.
 CRP10. Plan education and career paths aligned to personal goals.
 CRP11. Use technology to enhance productivity.
 CRP12. Work productively in teams while using cultural global competence.

Unit Objectives/Enduring Understandings: Students will be able to apply knowledge of mixing, assembling baking techniques, knowledge of nutritional value and function of ingredients to create a variety of pastries. Students will understand that:

- Each ingredient has a specific purpose.
- There are correct procedures for making pastry dough.
- Pies are classified according to type of crust and type of filling used.
- Different types of pies use specific preparation techniques.
- Proper storage of pies depends upon the type prepared.

Essential Questions:

- What are the ingredients and functions of each ingredient when making pastry dough?
- What are the correct procedures for making pastry?
- What are the differences in preparation and storage of different pastry items?
- How do substituting ingredients affect the overall baking process?

Core Content		Instructional Actions	
<p>Concepts What students will know.</p>	<p>Skills What students will be able to do.</p>	<p>Activities/Strategies Technology Implementation/ Interdisciplinary Connections</p>	<p>Assessment How students demonstrate their learning.</p>
<ul style="list-style-type: none"> • How ingredients function in pastry dough. 	<ul style="list-style-type: none"> • Identify pastry ingredients and their function. 	<p>General Activities:</p> <ul style="list-style-type: none"> • Practical application of concepts and skills in a laboratory setting. 	<p>Formative Assessments:</p> <ul style="list-style-type: none"> • Teacher Observation • Class Participation

<ul style="list-style-type: none"> • The procedures and techniques used in making pastry dough. • Pies are classified according to type of crust and type of filling used. • Dessert pies are usually high in fat and sugar. 	<ul style="list-style-type: none"> • Demonstrate techniques for preparing a variety of pies. • Identify the various types of pies through interpretation of the recipe. • Explain why dessert pies should be eaten in moderation. • Apply principles of safety and sanitation. • Exhibit workplace readiness skills such as cooperation with others and following oral and written directions. 	<ul style="list-style-type: none"> • Preparation of recipes using appropriate skills, weights, measures and related/appropriate kitchen equipment for this unit of study. <p>Technology Implementation: When appropriate, understand and use technology systems, select and use applications effectively and productively, and exhibit digital citizenship by practicing safe, legal, and responsible use of information and technology.</p> <p>Interdisciplinary Connections Infused within the unit are connections to the New Jersey Student Learning Standards in Science, Language Arts, and Mathematics as listed in the following standards: 5.2.12.C.1; RI.9-10.4; and G-CO.12</p>	<ul style="list-style-type: none"> • Worksheets • Lab Evaluations • Do Nows • Exit Slip • Discussions <p>Summative Assessments</p> <ul style="list-style-type: none"> • Written Tests • Quizzes • Practical Tests • Final edible product
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