

**Consumer & Life Studies    Brunswick School Department**  
**Food Science**  
**Principles of Baking**

<b>Essential Understandings</b>	<ul style="list-style-type: none"> <li>▪ The chemical reactions that take place during mixing and baking determine the product's final appearance, texture and flavor.</li> </ul>
<b>Essential Questions</b>	<ul style="list-style-type: none"> <li>▪ What are the basic ingredients and what are their functions in a baked product?</li> <li>▪ What are leavening agents and how do they work?</li> <li>▪ What are the preparation methods?</li> </ul>
<b>Essential Knowledge</b>	<ul style="list-style-type: none"> <li>▪ Baked products all include the same basic ingredients; however, products vary greatly due to the method of mixing, amounts of ingredients, types of ingredients, and method of baking.</li> <li>▪ The presence and type of leavening agent will determine the outcome of the baked product.</li> </ul>
<b>Vocabulary</b>	<ul style="list-style-type: none"> <li>▪ <u>Terms:</u></li> <li>▪ leavening agents, gluten, yeast, carbon dioxide, knead</li> </ul>
<b>Essential Skills</b>	<ul style="list-style-type: none"> <li>▪ Analyze the basic ingredients of baking products and create possible substitutions.</li> <li>▪ Prepare a variety of baked products using different preparation methods.</li> <li>▪ Evaluate leavening agents and support the usage of each.</li> </ul>
<b>Related Maine Learning Results</b>	<p><u>Health and Physical Education</u></p> <p>A. Health Concepts</p> <p>A1. Healthy Behaviors and Personal Health</p> <p>Students predict how behaviors impact health status.</p> <ol style="list-style-type: none"> <li>a. Analyze individual responsibility for enhancing health.</li> <li>b. Predict how healthy behaviors can positively impact health status.</li> <li>c. Describe barriers to practicing healthy behaviors.</li> <li>d. Examine personal susceptibility to, and the potential severity of, injury or illness if engaging in unhealthy behaviors.</li> </ol> <p>A3. Diseases/Other Health Problems</p> <p>Students explain causes of common diseases, disorders, and other health problems and propose ways to reduce, prevent, or treat them.</p> <p>A4. Environmental and Personal Health</p> <p>Students determine the interrelationship between the environment and other factors and personal health.</p> <ol style="list-style-type: none"> <li>a. Analyze how environment and personal health are interrelated.</li> <li>b. Describe how genetics and family history can impact personal health.</li> </ol>

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<p><b>Related Maine Learning Results</b></p>	<p>B. Health Information, Products and Services  B1.Validity of Resources  Students evaluate the validity and accessibility of health information, products, and services.</p> <p>C. Health Promotion and Risk Reduction  C2.Avoiding/Reducing Health Risk  Students demonstrate a variety of behaviors to avoid or reduce health risks to self and others.</p> <ol style="list-style-type: none"> <li>Develop ways to recognize, avoid, or change situations that threaten the safety of self and others.</li> <li>Develop injury prevention and response strategies including first aid for personal, family, and community health.</li> </ol> <p>D. Influences on Health  D1.Students analyze and evaluate influences on health and health behaviors.</p> <ol style="list-style-type: none"> <li>Analyze how family, school and community influence the health of individuals.</li> <li>Analyze how peers influenced healthy and unhealthy behaviors.</li> <li>Evaluate the effect of the media on personal and family health.</li> <li>Analyze how the perceptions of norms influence healthy and unhealthy behaviors.</li> <li>Analyze how culture and personal values and beliefs influence individual health behaviors.</li> </ol> <p>E. Communication and Advocacy Skills  E1.Interpersonal Communications Skills  Students utilize skills for communicating effectively with family, peers, and others to enhance health.</p> <ol style="list-style-type: none"> <li>Demonstrate effective communication skills including asking for and offering assistance to enhance the health of self and others.</li> <li>Demonstrate refusal, negotiation, and collaboration skills to enhance health and avoid and reduce health risks.</li> <li>Demonstrate strategies to prevent, manage, or resolve interpersonal conflicts without harming self or others.</li> </ol> <p>E2.Advocacy Skills  Students demonstrate ways to influence and support others in making positive health choices.</p> <ol style="list-style-type: none"> <li>Adapt health messages and communication techniques for different audiences.</li> </ol>
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<b>Related Maine Learning Results</b>	<p>F. Decision-Making and Goal-Setting Skills  F1.Decision-Making  Students apply a decision-making process to enhance health.  a. Compare the value of thoughtful decision-making to quick decision-making in a health-related situation.  d. Defend the healthy choice when making a decision.</p> <p><u>Career and Education Development</u></p> <p>A. Learning About Self-Knowledge and Interpersonal Relationships  A3.Interpersonal Skills  Students demonstrate positive interpersonal skills and evaluate successful strategies that improve positive interpersonal skills in ways that lead to success in a variety of school, work, and community settings.  a. Getting along with others.  b. Respecting diversity.  c. Working as a member of a team.  d. Managing conflict.  e. Accepting/giving/using constructive feedback.  f. Accepting responsibility for personal behavior.  g. Demonstrating ethical behavior.  h. Following established rules/etiquette for observing/listening.  i. Demonstrating safe behavior.  j. Dealing with peer pressure.</p> <p>A4.Career and Life Roles  Students demonstrate and evaluate successful strategies for accomplishing tasks, balancing career and life roles, and reducing stress in a variety of school, work, and community settings.  a. Time management  b. Goal-setting  c. Resource management</p> <p>B. Learning about and Exploring Education and Career and Life Roles  B1.Relationships Among Learning, Work, the Community, and the Global Economy  Students evaluate strategies for improving educational achievement, increasing participation as an involved citizen, and increasing work options and earning potential in a 21<sup>st</sup> century global economy.</p>
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<p style="text-align: center;"><b>Related Maine Learning Results</b></p>	<p>B2.Skills for Individual/Personal Success in the 21<sup>st</sup> Century  Students evaluate strategies to improve skills that lead to lifelong learning and success in the classroom, and the achievement of schoolwork, work and career, and personal life goals.</p> <ol style="list-style-type: none"> <li>a. Literacy skills</li> <li>b. Numeracy</li> <li>c. Critical thinking skills</li> <li>d. Information and communication technology (ICT)</li> <li>e. Interpersonal skills</li> <li>f. Other academic skills and knowledge</li> </ol> <p>B3.Education and Career Information  Students use previously acquired knowledge and skills to evaluate and utilize a variety of resources to articulate a plan and make decisions for post-secondary education, training, and career choices.</p> <p>C. Learning to Make Decisions, Plan and Create Opportunities, and Make Meaningful Contributions</p> <p>C1.The Planning Process  Students use the planning process to make school-to-school and school-to-work decisions.</p> <ol style="list-style-type: none"> <li>a. Self-knowledge</li> <li>b. Looking for and creating personal career options</li> <li>c. Decision-making skills</li> </ol>
<p style="text-align: center;"><b>Sample Lessons And Activities</b></p>	<ul style="list-style-type: none"> <li>▪ Demonstration of food preparation techniques</li> <li>▪ Chapters 42 and 43</li> <li>▪ Worksheet</li> <li>▪ Cooking in the food laboratory (biscuits, muffins, pies, pizza)</li> </ul>
<p style="text-align: center;"><b>Sample Classroom Assessment Methods</b></p>	<ul style="list-style-type: none"> <li>▪ Test on The Bread Group</li> <li>▪ Evaluations of the food labs.</li> </ul>
<p style="text-align: center;"><b>Sample Resources</b></p>	<ul style="list-style-type: none"> <li>▪ <u>Publications:</u> <ul style="list-style-type: none"> <li>○ <u>Discovering Food and Nutrition</u>-Glencoe/McGraw Hill, 2001</li> </ul> </li> </ul>