

**Consumer & Life Studies**  
**Food Science**  
**Unit 4: Principles of Baking**

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| <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>Analyze individual responsibility for enhancing health.</li> <li>Predict how healthy behaviors can positively impact health status.</li> <li>Describe barriers to practicing healthy behaviors.</li> <li>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>Analyze how environment and personal health are interrelated.</li> <li>Describe how genetics and family history can impact personal health.</li> </ol> |

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| <p style="text-align: center;"><b>Related<br/>Maine Learning<br/>Results</b></p> | <p>B. Health Information, Products and Services<br/>B1.Validity of Resources<br/>Students evaluate the validity and accessibility of health information, products, and services.</p> <p>C. Health Promotion and Risk Reduction<br/>C2.Avoiding/Reducing Health Risk<br/>Students demonstrate a variety of behaviors to avoid or reduce health risks to self and others.</p> <p>a. Develop ways to recognize, avoid, or change situations that threaten the safety of self and others.</p> <p>b. Develop injury prevention and response strategies including first aid for personal, family, and community health.</p> <p>D. Influences on Health<br/>D1.Students analyze and evaluate influences on health and health behaviors.</p> <p>a. Analyze how family, school and community influence the health of individuals.</p> <p>b. Analyze how peers influenced healthy and unhealthy behaviors.</p> <p>c. Evaluate the effect of the media on personal and family health.</p> <p>d. Analyze how the perceptions of norms influence healthy and unhealthy behaviors.</p> <p>e. Analyze how culture and personal values and beliefs influence individual health behaviors.</p> <p>E. Communication and Advocacy Skills<br/>E1.Interpersonal Communications Skills<br/>Students utilize skills for communicating effectively with family, peers, and others to enhance health.</p> <p>a. Demonstrate effective communication skills including asking for and offering assistance to enhance the health of self and others.</p> <p>b. Demonstrate refusal, negotiation, and collaboration skills to enhance health and avoid and reduce health risks.</p> <p>c. Demonstrate strategies to prevent, manage, or resolve interpersonal conflicts without harming self or others.</p> <p>E2.Advocacy Skills<br/>Students demonstrate ways to influence and support others in making positive health choices.</p> <p>b. Adapt health messages and communication techniques for different audiences.</p> |
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| <p style="text-align: center;"><b>Related<br/>Maine Learning<br/>Results</b></p> | <p>F. Decision-Making and Goal-Setting Skills<br/>F1.Decision-Making<br/>Students apply a decision-making process to enhance health.<br/>a. Compare the value of thoughtful decision-making to quick decision-making in a health-related situation.<br/>d. Defend the healthy choice when making a decision.</p> <p><u>Career and Education Development</u><br/>A. Learning About Self-Knowledge and Interpersonal Relationships<br/>A3.Interpersonal Skills<br/>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.<br/>a. Getting along with others.<br/>b. Respecting diversity.<br/>c. Working as a member of a team.<br/>d. Managing conflict.<br/>e. Accepting/giving/using constructive feedback.<br/>f. Accepting responsibility for personal behavior.<br/>g. Demonstrating ethical behavior.<br/>h. Following established rules/etiquette for observing/listening.<br/>i. Demonstrating safe behavior.<br/>j. Dealing with peer pressure.</p> <p>A4.Career and Life Roles<br/>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.<br/>a. Time management<br/>b. Goal-setting<br/>c. Resource management</p> <p>B. Learning about and Exploring Education and Career and Life Roles<br/>B1.Relationships Among Learning, Work, the Community, and the Global Economy<br/>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<br/>Maine Learning<br/>Results</b></p>          | <p>B2.Skills for Individual/Personal Success in the 21<sup>st</sup> Century<br/> 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> <ul 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> </ul> <p>B3.Education and Career Information<br/> 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<br/> C1.The Planning Process<br/> Students use the planning process to make school-to-school and school-to-work decisions.</p> <ul 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> </ul> |
| <p style="text-align: center;"><b>Sample<br/>Lessons<br/>And<br/>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<br/>Classroom<br/>Assessment<br/>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<br/>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>   |