Unit 6: Baking and Pastry: Pies, Cookies and Cakes

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Department of Curriculum and Instruction

Belleville Public Schools

Curriculum Guide

Introduction to Culinary Arts

Grades 11-12

Baking and Pastry: Pies, Cookies and Cakes

Belleville Board of Education

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Unit Overview

All baked goods contain the same basic ingredients. Each ingredient serves a particular function within the recipe. Baked goods recipes are chemical formulas and must be followed exactly. Varying ingredient proportions and mixing methods results in the distinctive differences among baked products. Correct measurements of ingredients are crucial when preparing baked products. Pies, cookies and cakes are three of the most popular desserts. Each dessert category contains several types, each with distinct characteristics and preparation techniques.

Enduring Understanding

- Communication is a skill that is developed.
- A safe working environment is essential in food preparation.
- A sanitary working environment is essential in food preparation.
- Bake goods use the same basic ingredients, yet amounts and mixing methods differ.
- Ingredients in baked goods have certain functions.
- Baked goods recipes are a chemical formula and ingredients must be measured accurately.
- Baked goods can be frozen baked or unbaked as storage methods for freshness.
- Mixing methods are important in producing different types of baked goods.
- Different flour types contain different amounts of gluten.
- Flour gluten content is important in producing different types of baked goods.

- The six types of cookies are based on their shapes.
- Cakes are classified as shortened and unshortened.
- Cake mixes can be used as convenience items to create other baked good products.
- Frosting can be made to decorate cakes and cupcakes.
- Cakes are used in many types of celebrations and are decorated to fit the celebrations.
- Baked goods are mixed utilizing the muffin or biscuit method of mixing.
- Professional food arrangement is important in presenting a culinary food order for sale.

Essential Questions

- Is the student able to work cooperatively with others to accomplish a task?
- Is the student able to use time efficiently and effectively?
- Is the student able to develop a kitchen work plan to efficiently participate in the food lab to prepare a recipe?
- Is the student able to identify and demonstrate the safe operation and care of major and small appliances used in food preparation?
- Can the student identify, select, and properly use common kitchen utensils based on function for specific tasks?
- Can the student identify the basic ingredients and explain the ingredient function in a baked goods recipe?
- Is the student able to explain and demonstrate preparation principles that contribute to successful baking?
- Is the student able to prepare baked goods products using proper and safe baking techniques?
- Can the student modify recipes to bake in quantity?
- Can the student arrange baked goods in a professional presentation for culinary orders?
- Is the student able to specify and demonstrate ways to properly store different types of bake goods?
- Can the student prepare various types of piecrusts using proper and safe mixing and baking techniques: single, double, oil, and crumb?
- Is the student able to prepare various types of pie fillings using proper and safe baking techniques: fruit, custard, chiffon, cheese, meat, and/or cream?
- Can the student prepare examples of the six types of cookies using proper and safe mixing and baking techniques?
- Can the student identify and explain the function of the basic ingredients used in cake baking?
- Is the student able to identify the different types of cakes and their characteristics?
- Is the student able to prepare examples of shortened and unshortened cakes using proper and safe baking techniques?
- Is the student able to modify convenience-baking products to create a cake mix variation?
- Is the student able to successfully frost a cake product?

Exit Skills

Students will be able to:

- measure recipe ingredients accurately.
- explain the function of recipe ingredients.

- edentify and explain the differences in flour for baking.
- identify and explain the types of chemical leaving agents used in baking.
- explain storage methods for baked goods.
- mix ingredients using the muffin method of mixing.
- mix ingredients using the biscuit method of mixing.
- identify six categories of cookies.
- select and safe use correct tools, equipment and appliances to perform culinary tasks.
- prepare cookies following a recipe with successful results.
- prepare a rolled pie crust following a recipe accurately with successful results.
- prepare a pie filling following a recipe accurately with successful results.
- identify and explain the function of the basic ingredients used in cake baking.
- identify the different types of cakes and their characteristics.
- modify convenience-baking products to create a cake mix variation.
- modify ingredient amounts to change the yield of a recipe.
- successfully frost a cake product.
- use basic buttercream techniques to decorate a cake.

New Jersey Student Learning Standards (NJSLS-S)

9.3.12.ED.1	Apply communication skills with students, parents and other groups to enhance learning and a commitment to learning.
9.3.12.ED.2	Demonstrate effective oral, written and multimedia communication in multiple formats and contexts.
9.3.12.ED.3	Use critical thinking to process educational communications, perspectives, policies and/or procedures.
9.3.12.ED.4	Evaluate and manage risks to safety, health and the environment in education and training settings.
9.3.12.ED.5	Demonstrate group collaboration skills to enhance professional education and training practice.
9.3.12.ED.10	Apply organizational skills and logic to enhance professional education and training practice.
9.3.HT-RFB.2	Demonstrate safety and sanitation procedures in food and beverage service facilities.
9.3.HT-RFB.4	Demonstrate leadership qualities and collaboration with others.
9.3.HT-RFB.7	Utilize technical resources for food services and beverage operations to update or enhance present practice.
9.3.HT-RFB.8	Implement standard operating procedures related to food and beverage production and guest service.
9.3.HT-RFB.10	Apply listening, reading, writing and speaking skills to enhance operations and customer service in food and beverage service facilities.

Interdisciplinary Connections

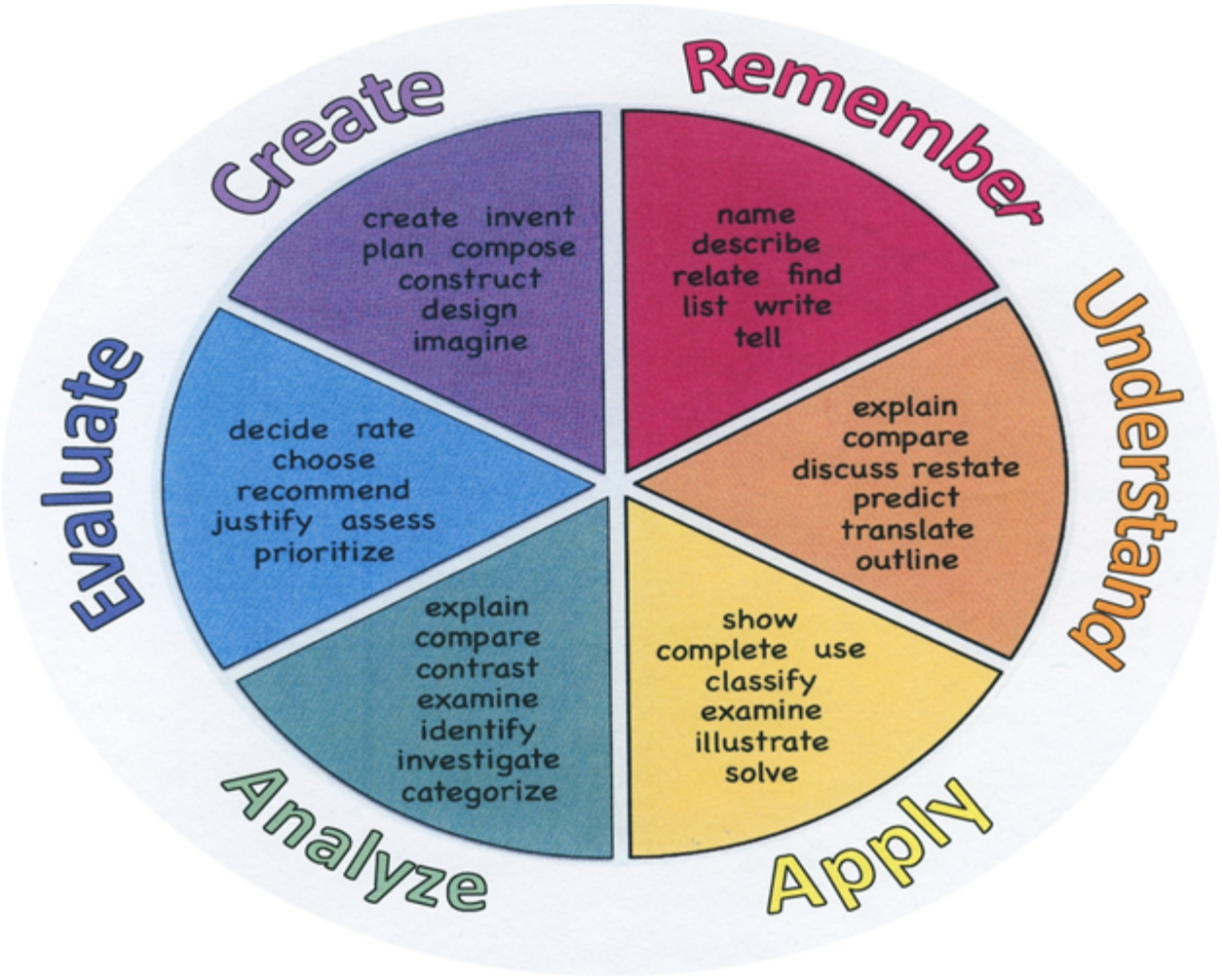
LA.RST.11-12.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
LA.RST.11-12.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics.
LA.RST.11-12.7	Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem.
LA.RST.11-12.9	Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible.

Learning Objectives

Students will demonstrate the ability to:

- list the ingredients used in baked goods and describe their function.
- explain and demonstrate the steps in the biscuit method of mixing.
- explain and demonstrate the steps in the muffin method of mixing.
- prepare different categories of cookies following a multi-step recipe
- prepare various pie crusts following a multi-step recipe.
- prepare a filling for a pie following a multi-step recipe.
- prepare both shortened and unshortened cakes following a multi-step recipe.
- prepare cake frosting using proper and safe preparation techniques.
- explain and demonstrate how to frost baked goods.
- explain and demonstrate the culinary terms and techniques used in baked goods preparation.
- evaluate food product based on established food industry criteria.

Remember	Understand	Apply	Analyze	Evaluate	Create
Choose	Classify	Choose	Categorize	Appraise	Combine
Describe	Defend	Dramatize	Classify	Judge	Compose
Define	Demonstrate	Explain	Compare	Criticize	Construct
Label	Distinguish	Generalize	Differentiate	Defend	Design
List	Explain	Judge	Distinguish	Compare	Develop
Locate	Express	Organize	Identify	Assess	Formulate
Match	Extend	Paint	Infer	Conclude	Hypothesize
Memorize	Give Examples	Prepare	Point out	Contrast	Invent
Name	Illustrate	Produce	Select	Critique	Make
Omit	Indicate	Select	Subdivide	Determine	Originate
Recite	Interrelate	Show	Survey	Grade	Organize
Select	Interpret	Sketch	Arrange	Justify	Plan
State	Infer	Solve	Breakdown	Measure	Produce
Count	Match	Use	Combine	Rank	Role Play
Draw	Paraphrase	Add	Detect	Rate	Drive
Outline	Represent	Calculate	Diagram	Support	Devise
Point	Restate	Change	Discriminate	Test	Generate
Quote	Rewrite	Classify	Illustrate		Integrate
Recall	Select	Complete	Outline		Prescribe
Recognize	Show	Compute	Point out		Propose
Repeat	Summarize	Discover	Separate		Reconstruct
Reproduce	Tell	Divide			Revise
	Translate	Examine			Rewrite
	Associate	Graph			Transform
	Compute	Interpolate			
	Convert	Manipulate			
	Discuss	Modify			
	Estimate	Operate			
	Extrapolate	Subtract			
	Generalize				
	Predict				



Suggested Activities & Best Practices

- list the ingredients used in baked goods and describe their function.
- explain and demonstrate the steps in the biscuit method of mixing.
- explain and demonstrate the steps in the muffin method of mixing.
- prepare different categories of cookies following a multi-step recipe
- prepare various pie crusts following a multi-step recipe.
- prepare a filling for a pie following a multi-step recipe.
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Assessment Evidence - Checking for Understanding (CFU)

- Common Benchmarks
- Unit 6 Test-summative assessment
- Unit Review/Test prep
- Study Guides
- Pies, Cookies and Cakes Products and Presentations-benchamrk assessment
- Evaluation Rubrics
- Teacher Observation Checklist
- Self Assessment
- Explaining-formative assessment
- Teacher Student Conference-alternate assessment

- Admit Tickets
- Anticipation Guide
- Common Benchmarks
- Compare & Contrast
- Create a Multimedia Poster
- DBQ's
- Define
- Describe
- Evaluate
- Evaluation rubrics
- Exit Tickets
- Explaining
- Fist- to-Five or Thumb-Ometer
- Illustration
- Journals
- KWL Chart
- Learning Center Activities
- Multimedia Reports

- Newspaper Headline
- Outline
- Question Stems
- Quickwrite
- Quizzes
- Red Light, Green Light
- Self- assessments
- Socratic Seminar
- Study Guide
- Surveys
- Teacher Observation Checklist
- Think, Pair, Share
- Think, Write, Pair, Share
- Top 10 List
- Unit review/Test prep
- Unit tests
- Web-Based Assessments
- Written Reports

Primary Resources & Materials

- Textbook: *Guide to Good Food*
- Textbook: *Culinary Essentials*
- Textbook – *Foundation of Restaurant Management*
- Video Clip: Baking Ingredients/Functions
- Baking Recipes: Chemical Equations
- Power Point Presentations
- Internet

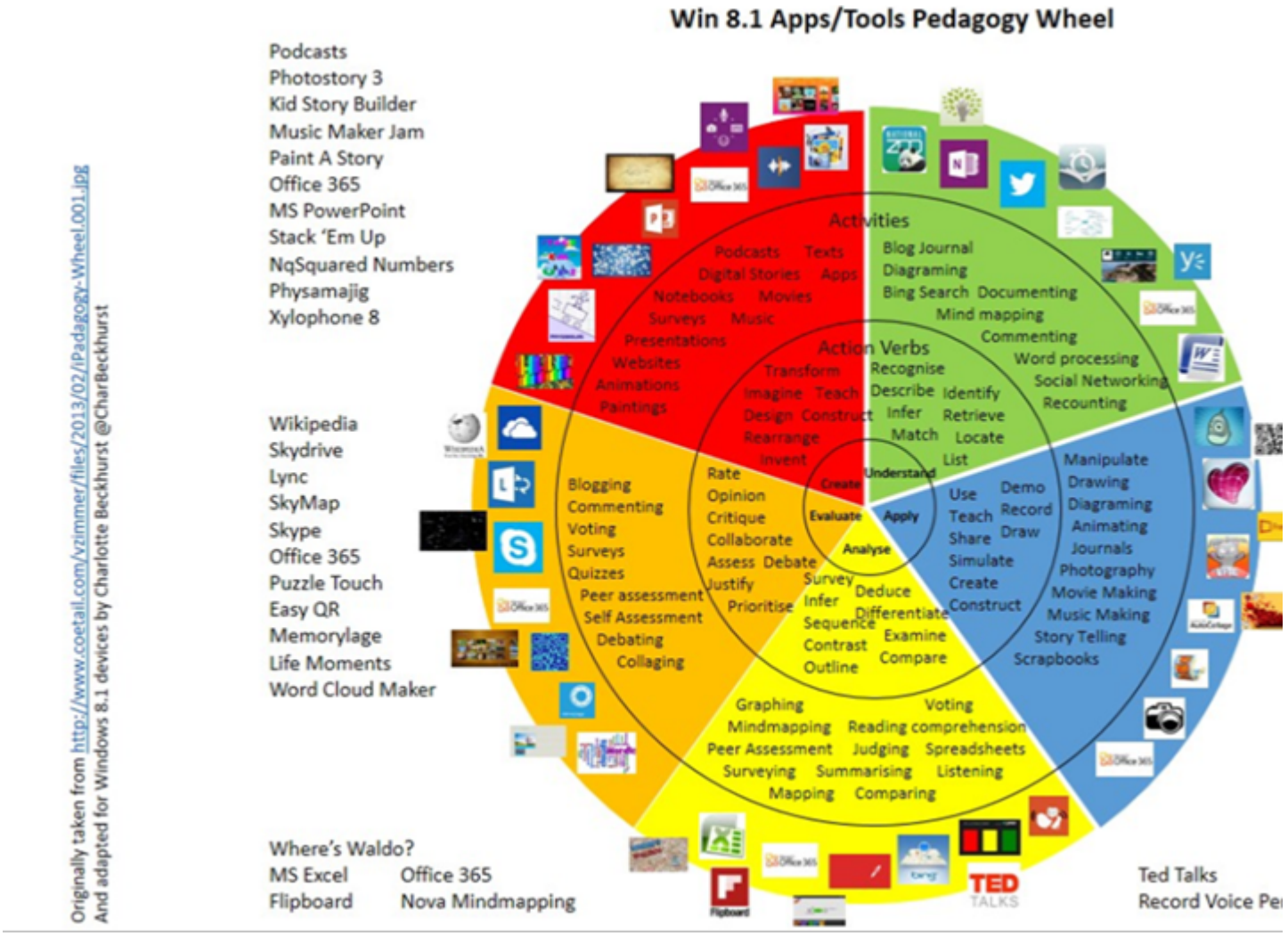
Ancillary Resources

- Demonstrations
- exit questions
- lab plans

- unit recipes
- Chapter worksheets/questions
- Filling out culinary learning log

Technology Infusion

- Google Classroom
- Interactive Smart TV Technology
- Technology Internet Research and Word Processing
- Video Demonstration
- Calculations
- Online Applications
- Power Point



Alignment to 21st Century Skills & Technology

- Communication Skills – English, Reading, Writing
- Mathematics
- Economics
- Science
- Social Skills/Interpersonal Skills

CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CAEP.9.2.12.C.2	Modify Personalized Student Learning Plans to support declared career goals.
TECH.8.1.12.B	Creativity and Innovation: Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
TECH.8.1.12.C	Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
TECH.8.1.12.E	Research and Information Fluency: Students apply digital tools to gather, evaluate, and use information.

21st Century Skills/Interdisciplinary Themes

- Communication and Collaboration
- ICT (Information, Communications and Technology) Literacy
- Interpersonal Communication
- Critical Thinking and Problem-Solving
- Financial, Economic, Business and Entrepreneurial Literacy
- Life and Career Skills

- Communication and Collaboration

- Creativity and Innovation
- Critical thinking and Problem Solving
- ICT (Information, Communications and Technology) Literacy
- Information Literacy
- Life and Career Skills
- Media Literacy

21st Century Skills

Students will be able to use their learning to …

- Use effective oral and written communication strategies for creating, expressing, and interpreting information and ideas.
- Use critical and creative thinking strategies to facilitate innovation and problem-solving both independently and in teams.
- Use technology is used to access, manage, integrate, and disseminate information.
- Use effective leadership and teamwork strategies to foster collaboration and cooperation to accomplish goals.
- Develop life skills in order to achieve continuing success in various life roles related to continuing education, career development, and personal growth.

- Develop employable skills to build the capacity for successful careers.

- Civic Literacy
- Environmental Literacy
- Financial, Economic, Business and Entrepreneurial Literacy
- Global Awareness
- Health Literacy

Differentiation

Differentiations:

- Small group assignments
- Added time to complete assignments
- Pairing oral instructions with visuals
- Repeat directions as needed
- Reinforcing on-task behaviors and skill acquisition
- Reduce amount of assignments that are due
- Rephrase written directions
- Study guides provided
- Additional time for skill mastery
- Test read to student
- Visual presentation
- Small Group Instruction
- Additional Time

Hi-Prep Differentiations:

- Project-based Learning
- Problem-based Learning

Lo-Prep Differentiations

- Goal Setting with Students
- Mini Workshops to re-teach or extend skills

Special Education Learning (IEP's & 504's)

- Study Guides/Board Notes
- Additional Time for Skill Mastery
- Assistive Technology
- Computer or Electronic Device Utilizes
- Multi-sensory Instruction
- Preferential Seating
- Student Working with an Assigned Partner
- Small Group Instruction

- Check Work Frequently for Understanding
- Extended Time on Tests/Quizzes

- printed copy of board work/notes provided
- additional time for skill mastery
- assistive technology
- behavior management plan
- Center-Based Instruction
- check work frequently for understanding
- computer or electronic device utilizes
- extended time on tests/ quizzes
- have student repeat directions to check for understanding
- highlighted text visual presentation
- modified assignment format
- modified test content
- modified test format
- modified test length
- multi-sensory presentation
- multiple test sessions
- preferential seating
- preview of content, concepts, and vocabulary
- Provide modifications as dictated in the student's IEP/504 plan
- reduced/shortened reading assignments
- Reduced/shortened written assignments
- secure attention before giving instruction/directions
- shortened assignments
- student working with an assigned partner
- teacher initiated weekly assignment sheet
- Use open book, study guides, test prototypes

English Language Learning (ELL)

- Teach Key Concepts
- Visual Teaching Aids: Videos, Illustrations, Pictures and Drawings
- Use of note cards, study guides and open book during testing
- Small Group Instruction

- Student Working with an Assigned Partner
- Preview of Content, Concepts, and Vocabulary
- Check Work Frequently for Understanding
- Peer Tutoring

- teaching key aspects of a topic. Eliminate nonessential information
- using videos, illustrations, pictures, and drawings to explain or clarif
- allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning;
- allowing students to correct errors (looking for understanding)
- allowing the use of note cards or open-book during testing
- decreasing the amount of workpresented or required
- having peers take notes or providing a copy of the teacher's notes
- modifying tests to reflect selected objectives
- providing study guides
- reducing or omitting lengthy outside reading assignments
- reducing the number of answer choices on a multiple choice test
- tutoring by peers
- using computer word processing spell check and grammar check features
- using true/false, matching, or fill in the blank tests in lieu of essay tests

At Risk

- using videos, illustrations, pictures, and drawings to explain or clarify
- teaching key aspects of a topic. eliminate nonessential information
- tutoring by peers
- providing study guides
- allowing students to correct errors (looking for understanding)
- allowing products to demonstrate student's learning
- using authentic assessments with real-life problem-solving

- allowing students to correct errors (looking for understanding)
- teaching key aspects of a topic. Eliminate nonessential information
- allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning
- allowing students to select from given choices
- allowing the use of note cards or open-book during testing
- collaborating (general education teacher and specialist) to modify vocabulary, omit or modify items to reflect objectives for the student, eliminate sections of the test, and determine how the grade will be determined prior to giving the test.

- decreasing the amount of workpresented or required
- having peers take notes or providing a copy of the teacher's notes
- marking students' correct and acceptable work, not the mistakes
- modifying tests to reflect selected objectives
- providing study guides
- reducing or omitting lengthy outside reading assignments
- reducing the number of answer choices on a multiple choice test
- tutoring by peers
- using authentic assessments with real-life problem-solving
- using true/false, matching, or fill in the blank tests in lieu of essay tests
- using videos, illustrations, pictures, and drawings to explain or clarify

Talented and Gifted Learning (T&G)

- Create a plan to solve an issue presented in the class or in a text
- Advanced problem-solving
- Higher order, critical and creative thinking skills, and discovery
- Teacher-selected instructional strategies that are focused to provide challenge, engagement, and growth opportunities
- Utilize project-based learning for greater depth of knowledge

- Above grade level placement option for qualified students
- Advanced problem-solving
- Allow students to work at a faster pace
- Cluster grouping
- Complete activities aligned with above grade level text using Benchmark results
- Create a blog or social media page about their unit
- Create a plan to solve an issue presented in the class or in a text
- Debate issues with research to support arguments
- Flexible skill grouping within a class or across grade level for rigor
- Higher order, critical & creative thinking skills, and discovery
- Multi-disciplinary unit and/or project
- Teacher-selected instructional strategies that are focused to provide challenge, engagement, and growth opportunities
- Utilize exploratory connections to higher-grade concepts
- Utilize project-based learning for greater depth of knowledge

Sample Lesson

See first unit: Employability and Career Development for an example.