Unit 4: Adobe Animate

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Title Section

Department of Curriculum and Instruction

Belleville Public Schools

Curriculum Guide

Introduction to Computer Graphics & Digital Photography

Unit 4: Adobe Animate

Belleville Board of Education

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Unit Overview

In this unit, students will explore the history of animation from early attempts to depict motion through flip books and stop-motion animation to the current variety of animation platforms. Students will be introduced to basic methods and practices in digital animation through demonstrations, viewing of related works, and hands-on experimentation in Adobe Animate CC. They will gain an understanding of frames and keyframes in Animate's Timeline and work with symbols, motion tweens and shape tweens to create original, multi-layered animations.

Enduring Understanding

- The element of motion is essential to animation.
- Humans attempted to portray motion in art centuries before the invention of digital animation.
- Stop-motion animation is created by physically manipulating real-world objects and photographing them one frame of film at a time to create the illusion of movement.
- Animations create the illusion of motion and change through the rapid display of a sequence of static images that minimally differ from each other.
- Frames and Keyframes are individual pictures in a series of images.
- The Timeline in Adobe Animate organizes and controls a document's content over time in layers and frames.
- Frame-by-frame animation requires manual creation of incrementally different elements in each frame.
- Tweening is the automatic digital creation of content between user-created Keyframes.
- Motion tweens create movements by specifying that an image occupies a different position or is a different size in a beginning and ending frame.
- Shape Tweening is a way of "morphing" one shape or object into another**.**

Essential Questions

- What does Adobe Animate have in common with Photoshop and Illustrator?
- What is Adobe Animate used for?
- What is a Flash animation?
- What are the different types of animation?
- How were the first movies made?
- What is stop action animation?
- What is frame-by-frame animation?
- How has animation changed since the advent of digital media?
- What is Tweening?
- What is the difference between a Motion Tween and a Shape Tween?
- Why use a symbol in an animation?
- How is the timing of an animation controlled?
- What employment opportunities exist within the field of animation?

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Exit Skills

By the end of Unit 4, the student should be able to:

- Identify the different types of animation.
- Create an animation using "squash and stretch."
- Create a Motion Tween utilizing symbols and motion paths.
- Use multiple layers in an animation.
- Create a Shape Tween.
- Use Shape Hints to alter the way a shape changes.
- Control the timing of an animation.

New Jersey Student Learning Standards (NJSLS-S)

VPA.1.1.12.D.CS2	Stimuli for the creation of artworks can come from many places, including other arts disciplines.
VPA.1.2.12.A.2	Justify the impact of innovations in the arts (e.g., the availability of music online) on societal norms and habits of mind in various historical eras.

VPA.1.2.12.A.CS1	Cultural and historical events impact art-making as well as how audiences respond to works of art.
VPA.1.2.12.A.CS2	Access to the arts has a positive influence on the quality of an individual's lifelong learning, personal expression, and contributions to community and global citizenship.
VPA.1.3.12.D.1	Synthesize the elements of art and principles of design in an original portfolio of two- and three-dimensional artworks that reflects personal style and a high degree of technical proficiency and expressivity.
VPA.1.3.12.D.2	Produce an original body of artwork in one or more art mediums that demonstrates mastery of visual literacy, methods, techniques, and cultural understanding.
VPA.1.3.12.D.4	Analyze the syntax and compositional and stylistic principles of two- and three-dimensional artworks in multiple art media (including computer-assisted artwork), and interpret themes and symbols suggested by the artworks.
VPA.1.3.12.D.CS2	Culturally and historically diverse art media, art mediums, techniques, and styles impact originality and interpretation of the artistic statement.
VPA.1.3.12.D.CS3	The artist's understanding of the relationships among art media, methodology, and visual statement allows the artist to use expressionism, abstractionism (nonobjective art), realism/naturalism, impressionism, and other genre styles to convey ideas to an audience.
VPA.1.3.12.D.CS4	Artists interpret/render themes using traditional art media and methodologies as well as new art media and methodologies.
VPA.1.3.12.D.CS5	Two- and three-dimensional artworks can be rendered culturally specific by using the tools, techniques, styles, materials, and methodologies that are germane to a particular cultural style.
VPA.1.4.12.A.3	Develop informed personal responses to an assortment of artworks across the four arts disciplines (dance, music, theatre, and visual art), using historical significance, craftsmanship, cultural context, and originality as criteria for assigning value to the works.
VPA.1.4.12.A.4	Evaluate how exposure to various cultures influences individual, emotional, intellectual, and kinesthetic responses to artwork.
VPA.1.4.12.A.CS3	Artistic styles, trends, movements, and historical responses to various genres of art evolve over time.
VPA.1.4.12.A.CS4	Criteria for assessing the historical significance, craftsmanship, cultural context, and originality of art are often expressed in qualitative, discipline-specific arts terminology.
VPA.1.4.12.B.2	Evaluate how an artist's technical proficiency may affect the creation or presentation of a work of art, as well as how the context in which a work is performed or shown may impact perceptions of its significance/meaning.
VPA.1.4.12.B.3	Determine the role of art and art-making in a global society by analyzing the influence of technology on the visual, performing, and multimedia arts for consumers, creators, and performers around the world.
VPA.1.4.12.B.CS2	The cohesiveness of a work of art and its ability to communicate a theme or narrative can be directly affected by the artist's technical proficiency as well as by the manner and physical context in which it is performed or shown.
VPA.1.4.12.B.CS3	Art and art-making reflect and affect the role of technology in a global society.

Interdisciplinary Connections

- History
- Mathematics
- Mass Communications
- Technology

MA.F-IF.B.5	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.
MA.F-IF.B.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
MA.F-IF.C.7	Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.
SOC.9-12.1.1.2	Analyze how change occurs through time due to shifting values and beliefs as well as technological advancements and changes in the political and economic landscape.
SOC.9-12.1.2.2	Relate current events to the physical and human characteristics of places and regions.
	Numbers and Number Systems In real world problems, the answers are usually not numbers but quantities: numbers with units, which involves measurement. In their work in measurement up through Grade 8, students primarily measure commonly used attributes such as length, area, and volume. In high school, students encounter a wider variety of units in modeling, e.g., acceleration, currency conversions, derived quantities such as person-hours and heating degree days, social science rates such as per-capita income, and rates in everyday life such as points scored per game or batting averages. They also encounter novel situations in which they themselves must conceive the attributes of interest. For example, to find a good measure of overall highway safety, they might propose measures such as fatalities per year, fatalities per year per driver, or fatalities per vehicle-mile traveled. Such a conceptual process is sometimes called quantification. Quantification is important for science, as when surface area suddenly “stands out” as an important variable in evaporation. Quantification is also important for companies, which must conceptualize relevant attributes and create or choose suitable measures for them.

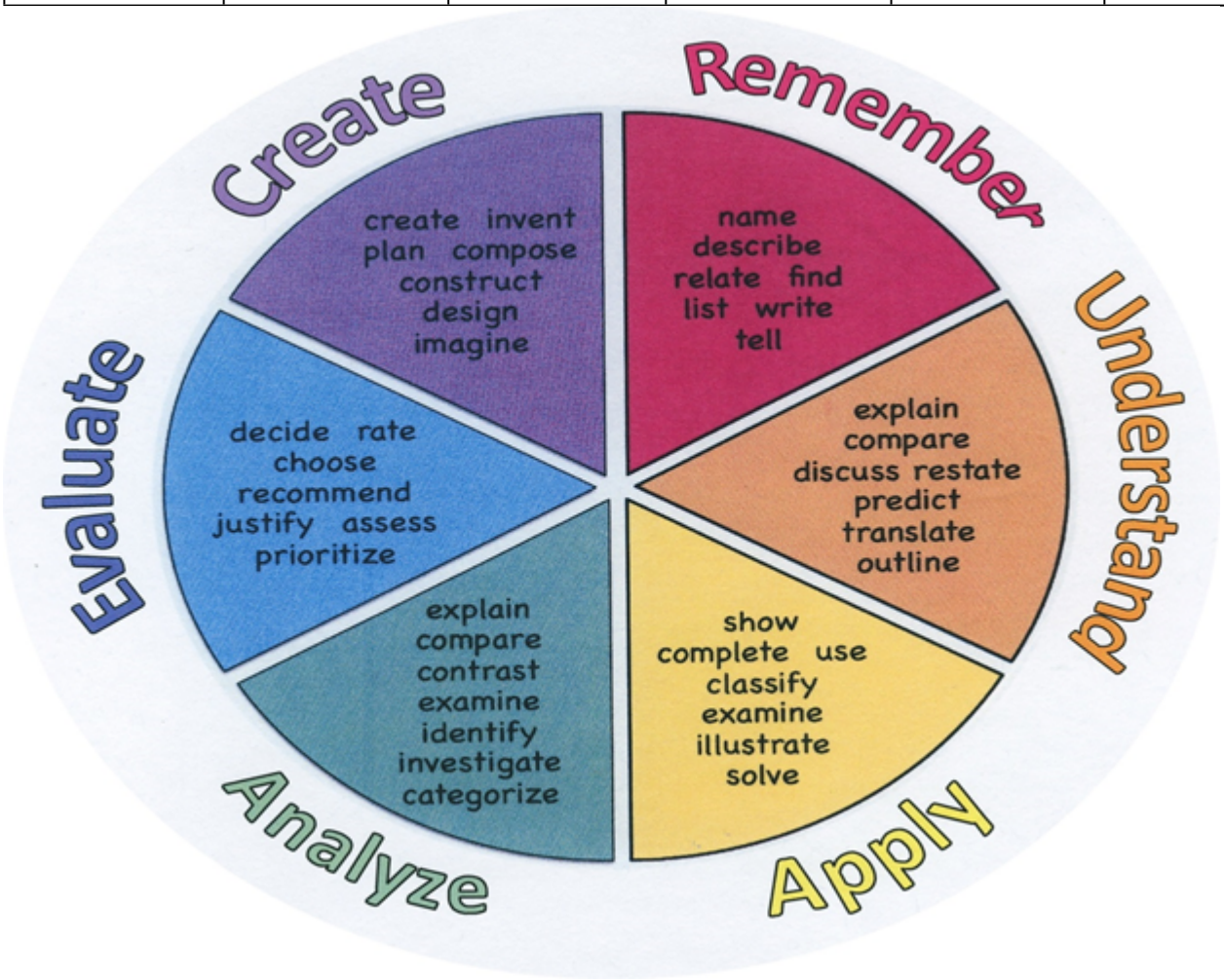
Learning Objectives

By the end of Unit 4, students will demonstrate the ability to:

- Create a flip book animation.
- Identify a frame, a keyframe, and a blank keyframe in the Timeline.
- Distinguish between a Motion Tween and a Shape Tween.
- Analyze and evaluate an animation.
- Create a looping motion tween.
- Apply the squash and stretch technique to an animation of a bouncing ball.
- Combine symbols in a scene.
- Transform one shape into another using a shape tween.
- Integrate shape hints into a shape tween.
- Construct a multi-layered digital animation.

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

- Begin with history of movies and animation: zoetrope, flip book, "magic lantern."
- Silent films, newsreels, Hollywood, Disney
- Have students create flipbooks to introduce frames and incremental change.
- Demonstrate each step.
- Provide detailed written instructions corresponding to demonstrations and videos. Some students need a hard copy to follow.
- Utilize online video tutorials for student-paced learning and reinforcement
- First digital animation: simple bouncing ball.
- Add squash and stretch and motion paths.
- Introduce shape tweens, then shape hints.
- Good tutorials for multi-layered character development: Intro to Adobe Animate CC by Tip Tut. Students create an animated monster.
- Show Stickman videos. Use older version of Tip Tut's Intro to Animate videos to demonstrate step-by-step stickman animation.
- Students create digital version of their flip books, and add background layers.

Assessment Evidence - Checking for Understanding (CFU)

- Quizzes (multiple choice or short answer) on Animate desktop and tools. - summative assessment
- Practical quizzes - students demonstrate ability to use basic Animate techniques. - summative assessment
- Exit tickets - define terms - formative assessment
- Outline - put steps in correct order - alternative assessment
- Compare and contrast - types of animation - formative assessment
- Compare and contrast - shape tweens vs. motion tweens - formative 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

- Apple computers
- Adobe Creative Cloud software
- Apple TV
- Internet connection

Ancillary Resources

- Videos of historically significant animations.
- Adobe tutorials
- Tip Tut video tutorials
- Printed materials including teacher-created transcripts of tutorials.

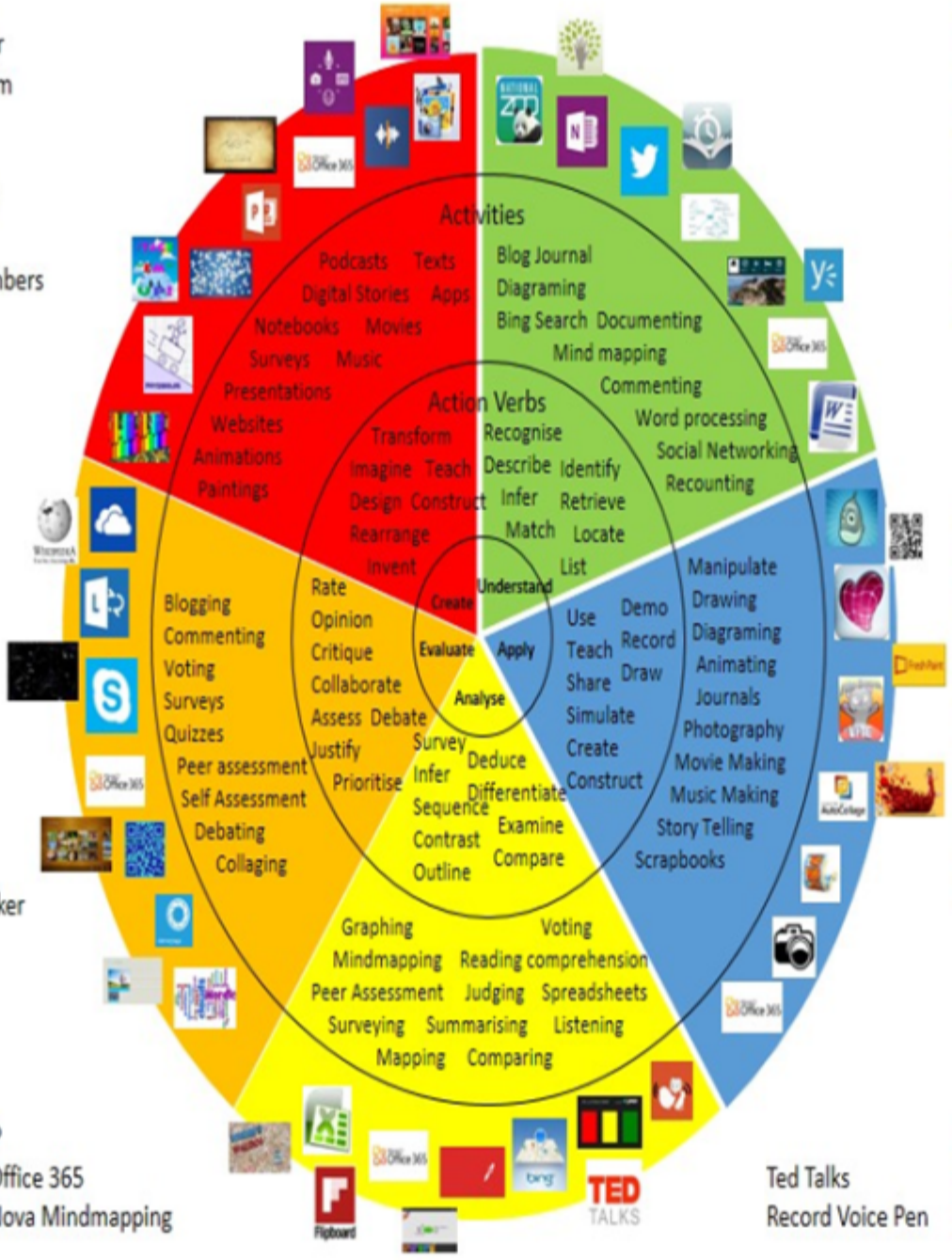
Technology Infusion

- Adobe Animate software
- Apple computers
- Google Classroom
- Internet searches
- Web-based tutorials
- Youtube instructional videos
- Adobe video tutorials
- Apple TV for demonstrations

Win 8.1 Apps/Tools Pedagogy Wheel

Podcasts
Photostory 3
Kid Story Builder
Music Maker Jam
Paint A Story
Office 365
MS PowerPoint
Stack 'Em Up
NqSquared Numbers
Physamajig
Xylophone 8

Wikipedia
Skydrive
Lync
SkyMap
Skype
Office 365
Puzzle Touch
Easy QR
Memorylage
Life Moments
Word Cloud Maker



Where's Waldo?
MS Excel Office 365
Flipboard Nova Mindmapping

Ted Talks
Record Voice Pen

Originally taken from http://www.coetail.com/vzimmer/files/2013/02/iPadagogy-Wheel.001.jpg
And adapted for Windows 8.1 devices by Charlotte Beckhurst @CharBeckhurst

Alignment to 21st Century Skills & Technology

- Mathematics
- Science and Scientific Inquiry (Next Generation);
- Social Studies, including American History, World History, Geography, Government and Civics, and Economics;
- Technology
- Visual and Performing Arts.

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.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.
CAEP.9.2.12.C	Career Preparation
CAEP.9.2.12.C.1	Review career goals and determine steps necessary for attainment.
CAEP.9.2.12.C.3	Identify transferable career skills and design alternate career plans.
TECH.8.1.12.A	Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.
TECH.8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
TECH.8.1.12.A.CS1	Understand and use technology systems.
TECH.8.1.12.A.CS2	Select and use applications effectively and productively.

21st Century Skills/Interdisciplinary Themes

Upon completion of this section, please remove all remaining descriptions, notes, outlines, examples and/or illustrations that are not needed or used.

Please list only the **21st Century/Interdisciplinary Themes** that will be incorporated into this unit.

- 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

Upon completion of this section, please remove all remaining descriptions, notes, outlines, examples and/or illustrations that are not needed or used.

Please list only the **21st Century Skills** that will be incorporated into this unit.

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

Differentiation

- Small group instruction
- Extra time to complete assignments
- Pairing oral instruction with visuals
- Repeat directions
- Rephrase written directions
- Alternative formative and summative assessments

Differentiations:

- Small group instruction
- Small group assignments
- Extra time to complete assignments
- Pairing oral instruction with visuals
- Repeat directions
- Use manipulatives
- Center-based instruction
- Token economy
- Study guides
- Teacher reads assessments allowed
- Scheduled breaks
- Rephrase written directions

- Multisensory approaches
- Additional time
- Preview vocabulary
- Preview content & concepts
- Story guides
- Behavior management plan
- Highlight text
- Student(s) work with assigned partner
- Visual presentation
- Assistive technology
- Auditory presentations
- Large print edition
- Dictation to scribe
- Small group setting

Hi-Prep Differentiations:

- Alternative formative and summative assessments
- Choice boards
- Games and tournaments
- Group investigations
- Guided Reading
- Independent research and projects
- Interest groups
- Learning contracts
- Leveled rubrics
- Literature circles
- Multiple intelligence options
- Multiple texts
- Personal agendas
- Project-based learning
- Problem-based learning
- Stations/centers
- Think-Tac-Toes
- Tiered activities/assignments
- Tiered products
- Varying organizers for instructions

Lo-Prep Differentiations

- Choice of books or activities
- Cubing activities
- Exploration by interest
- Flexible grouping
- Goal setting with students
- Jigsaw
- Mini workshops to re-teach or extend skills
- Open-ended activities
- Think-Pair-Share
- Reading buddies
- Varied journal prompts
- Varied supplemental materials

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

- Provide modifications as dictated in the student's IEP/504 plan
- Additional time for skill mastery
- Have student repeat directions to check for understanding

- 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)

- Using videos, illustrations, pictures, and drawings to explain or clarify
- Tutoring by peers
- Allowing the use of note cards or open-book during testing

- 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

- Decreasing the amount of workpresented or required
- Using videos, illustrations, pictures, and drawings to explain or clarify
- Teaching key aspects of a topic. Eliminate nonessential information

- 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)

- Teacher-selected instructional strategies that are focused to provide challenge, engagement, and growth opportunities
- Utilize project-based learning for greater depth of knowledge
- Higher order, critical & creative thinking skills, and discovery

- 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

Using the template below, please develop a **Sample Lesson** for the first unit only.

Unit Name:

NJSLS:

Interdisciplinary Connection:

Statement of Objective:

Anticipatory Set/Do Now:

Learning Activity:

Student Assessment/CFU's:

Materials:

21st Century Themes and Skills:

Differentiation/Modifications:

Integration of Technology: