Unit 3 - Adobe Illustrator Copied from: Intro to Computer Graphics/Digital Phot, Copied on: 02/21/22

Content Area: **Art**
Course(s): **Intro to Computer Graphics/Digital Photography**
Time Period: **JanFeb**
Length: **35 Days, Grades 10-12**
Status: **Published**

Title Section

Department of Curriculum and Instruction

Belleville Public Schools

Curriculum Guide

Introduction to Computer Graphics and Digital Photography

Unit 3: Adobe Illustrator

Belleville Board of Education

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Board Approved: September 23, 2019

Unit Overview

In this unit, students will be introduced to Illustrator, the vector-based graphic design program that is part of Adobe's Creative Suite.

- Students will understand the similarities and didfferences between Photoshop and Illustrator, and the strengths and weaknesses of each.
- Illustrator will be used to create visual representations of ideas and messages, as in public service posters.

- Illustrator skills and techniques are essential for most graphic design careers. Students will be introduced to the design world as active participants, solving problems in visual design and communication.
- Students will learn to use the pen tool to place anchor points and define paths, which is the basis for vector artwork.
- Students will learn to align and distribute elements, combine shapes in various ways, and manipulate type.
- Students will learn to translate raster images into vector-based images using Imagetrace.
- Students will apply their knowledge of the Elements of Art and the Principles of Design to the creation of and evaluation of vector-based digital images

Enduring Understanding

- Adobe Illustrator is a vector-based digital imaging program.
- Unlike Photoshop, in which images are made up of pixels, vector images are defined by mathematical formulas and algorithms.
- Raster (pixel-based) images have to store the data of every individual pixel data in the entire image while vector images convert the image into a mathematical algorithm.
- Vector images usually have smaller file sizes than their raster counterparts.
- Images created using vectors can be enlarged indefinitely without loosing quality.
- Raster-based images are better for realism, fine detail and subtle color shifts.
- Raster images can be imported into Illustrator.
- Copyrighted images cannnot be legally used without permission.
- Shapes in Illustrator are defined by anchor points and paths, and are comprised of strokes and fills..
- The Pen Tool is used to create paths which define shapes and objects in Illustrator.
- An object must be Selected in order for a tool to have an effect on it.
- Objects can be Grouped and Ungrouped.
- The effectiveness of a poster or an advertisement depends on identifying a target audience and using design elements that appeal to that audience.
- Type has many visual characteristics that determine how text elements are perceived. A message is communicated by these visual characteristics as well as by the meaning of the words themselves.

Essential Questions

- How does Illustrator differ from Photoshop?
- What does "vector-based" mean?
- Why is Illustrator used for so many commercial design applications?

- What is a Fill and a Stroke?
- What are Paths?
- What does the Pathfinder do?
- How can you translate a raster image into a vector image?
- How and why do you use the Pen Tool in Illustrator?
- Why is it important to use Layers?
- Why do companies have logos?
- What are some characteristics of a good logo?
- What makes a poster effective?
- What constitutes legal and ethical use of an image you did not create yourself?

Exit Skills

By the end of Unit 3, students will demonstrate proficiency in the use of Adobe Illustrator by:

- Creating, altering and combining shapes to create logos using the Pathfinder.
- Copying and tracing shapes and objects using the pen tool.
- Using the scale, align, reflect, rotate and distribute tools to compose balanced designs.
- Manipulating type and placing type on a path.
- Importing images from the internet in compliance with legal and ethical guidelines.
- Using images and type to communicate a visual message.
- Converting raster images to vector using Imagetrace.

New Jersey Student Learning Standards (NJSLS-S)

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 content-level and cross-curricular **New Jersey Student Learning Standards** applicable to the unit. **Do not list standards that are not used in the unit.**

VPA.1.1.12	All students will demonstrate an understanding of the elements and principles that govern the creation of works of art in dance, music, theatre, and visual art.
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.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.1.4.12.A.4	Evaluate how exposure to various cultures influences individual, emotional, intellectual, and kinesthetic responses to artwork.
VPA.1.4.12.A.CS2	Contextual clues within artworks often reveal artistic intent, enabling the viewer to hypothesize the artist's concept.
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.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

Mathematics

Lanaguage Arts, Communications

LA.RH.9-10.4	Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history and the social sciences; analyze the cumulative impact of specific word choices on meaning and tone.
LA.RST.9-10.3	Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
LA.RST.9-10.4	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 9-10 texts and topics.
LA.RST.9-10.10	By the end of grade 10, read and comprehend science/technical texts in the grades 9-10 text complexity band independently and proficiently.
	The concepts of congruence, similarity, and symmetry can be understood from the perspective of geometric transformation. Fundamental are the rigid motions: translations, rotations, reflections, and combinations of these, all of which are here assumed to preserve distance and angles (and therefore shapes generally). Reflections and rotations each explain a particular type of symmetry, and the symmetries of an object offer insight into its attributes—as when the reflective symmetry of an isosceles triangle assures that its base angles are congruent.

Learning Objectives

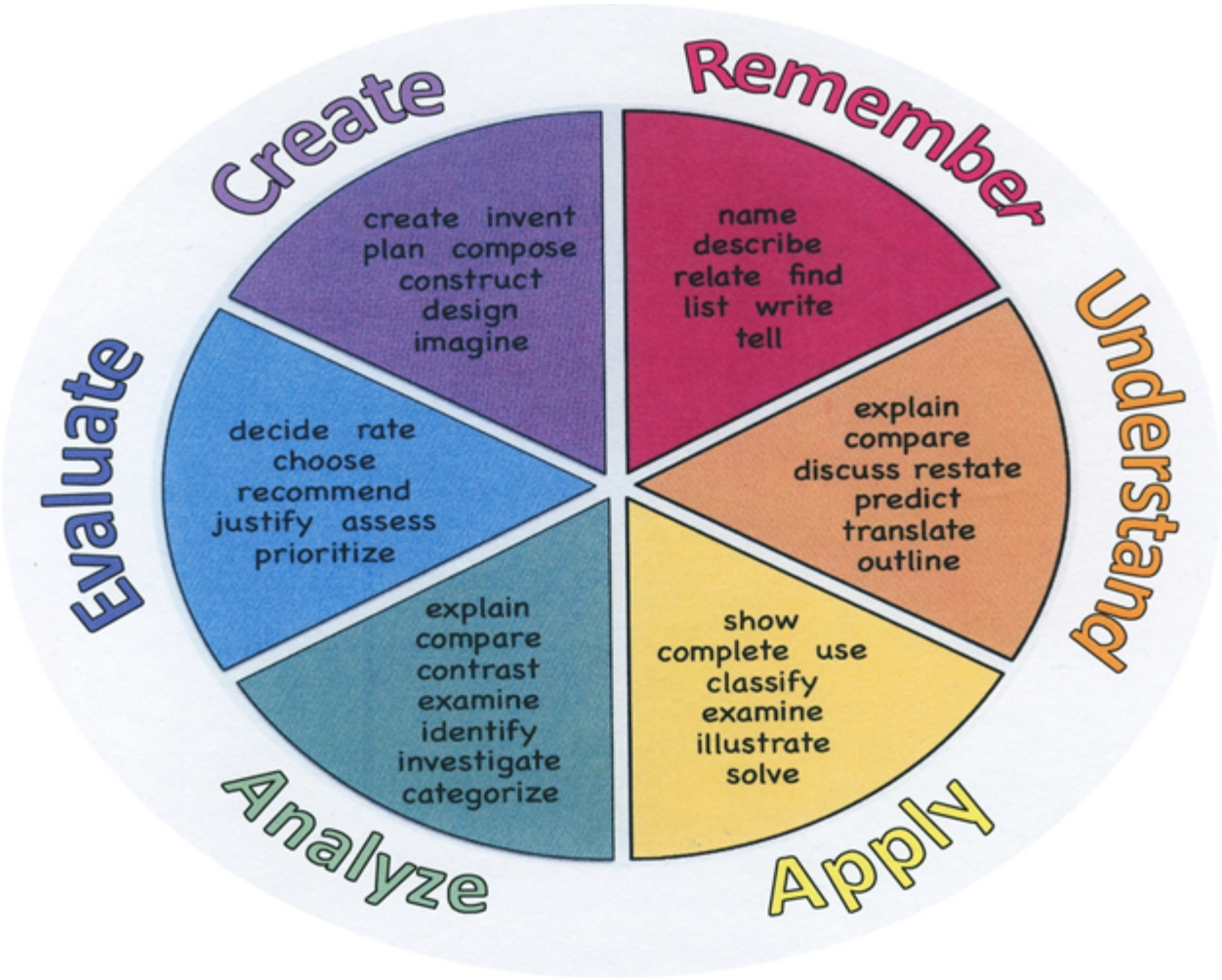
Upon completion of Unit 3, students will demonstrate the ability to:

- Combine shapes using the Pathfinder and Shape tools.
- Create Paths using the Pen Tool.
- Invent an original logo.
- Explain the legal use of images found on the internet.
- Design and create a poster that communicates a message to a target audience.

- Analyze and Critique digital images using the Principles of Design.
- Compare advertising images from different eras and hypothesize about the artist's reasons for making the design decisions that he or she did.
- Assess the effectiveness of an image in communicating a message to a targeted audience.

Action Verbs: Below are examples of action verbs associated with each level of the Revised Bloom's Taxonomy.

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

- Introduce students to the Illustrator desktop and ask them to find familiar tools and list unfamiliar ones. Students look up one tool they have not used before and experiment.
- Model use of line tool, pencil tool, shape tools, selection tools. Students create simple street and houses, then tranform them to create unique original artwork.
- Select from Adobe HelpX Illustrator video tutorials for beginning exercises using Shapebuilder, align, distribute and transform tools. Show video, then demonstrate as students complete the exercises.
- Provide written instructions so students can work at their own pace.
- Introduce paths and anchors. Students insert anchor points and adjust lines, then trace lines with pen tool, then copy objects.
- Introduce type tools, type on a path, create outlines, envelope warp.
- Alternate exercises teaching new tools with creative assignments.
- Discuss graphic design careers.

- Show efffective posters (advertisements or public service posters) from different cultures and eras. Discuss what makes them effective.

Suggested projects:

- Street scenes
- Castles with Waving Flags
- Transparency design with letters (warm or cool color scheme.)
- Notan project (balance of dark/light or positive/negative symmetrical design)
- Grayscale portrait
- ImageTrace variations
- Alter a famous painting
- Painting in the style of a Harlem Renaissance Artist
- Public Service Poster
- Movie or Concert Poster
- Advertisement

Assessment Evidence - Checking for Understanding (CFU)

- Exit tickets - formative assessment
- Observations of student work in class - formative assessment
- Teacher-student conferences regarding work in progress - alternative assessment
- Quizzes on Illustrator tools and techniques - summative assessment
- Quickwrite on qualities of an effective poster or advertisement - formative assessment
- Self-assesments - formative assessment
- Group critiques - alternative assessment
- Evaluation rubrics - formative assessment
- Create a poster - summative 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

- PowerPoint presentation on Color
- PowerPoint presentation on famous posters
- Lynda videos
- Adobe videos
- internet tutorials

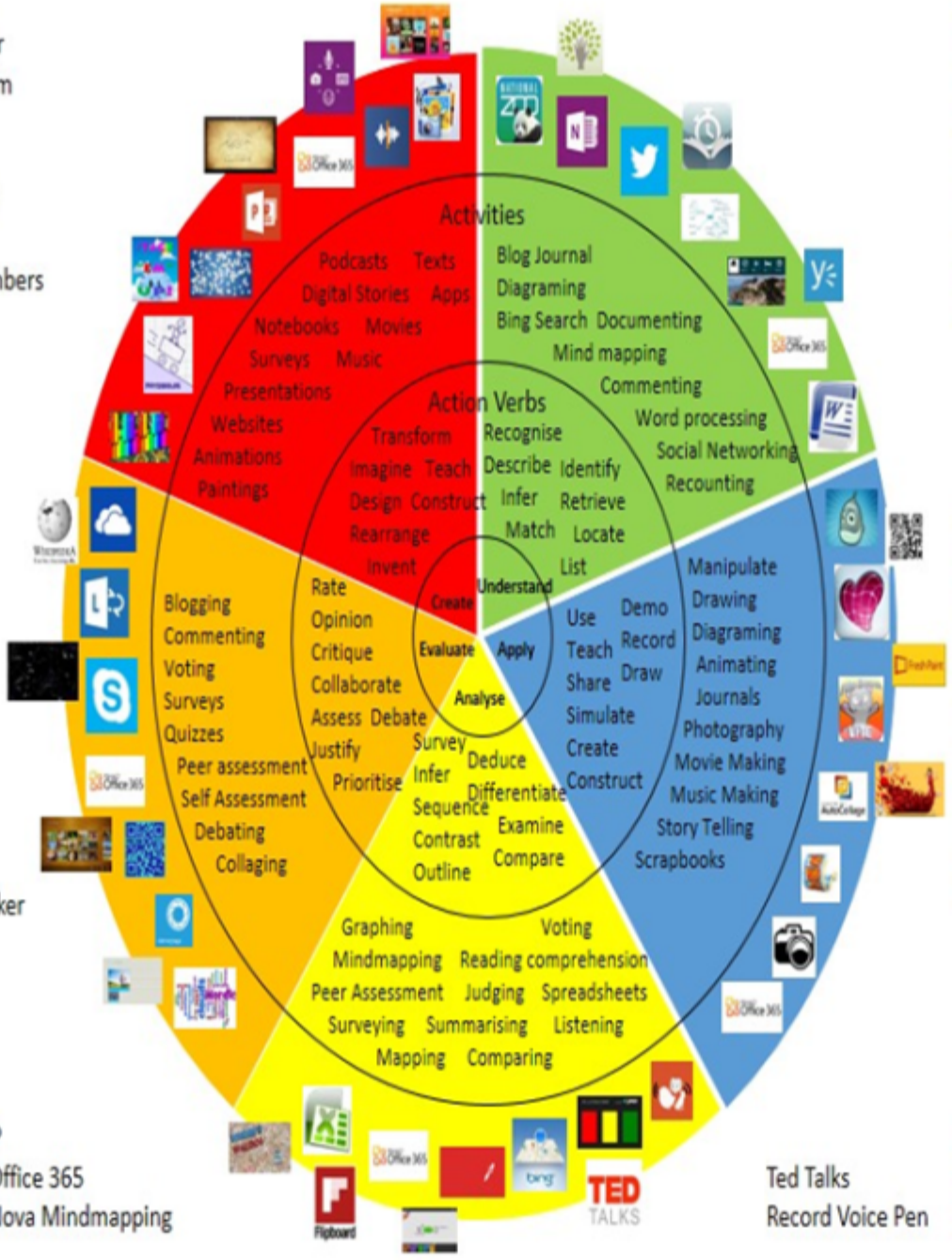
Technology Infusion

- Adobe Illustrator software
- Apple computers
- Google Classroom
- Internet searches
- Web-based tutorials
- Youtube instructional videos: Lynda.com, TastyTuts and others
- 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

- **Creativity and Invention** is at the heart of any artistic endeavor.
- **Critical Thinking and Problem Solving** is necessary in order to achieve a well-composed image that achieves a visual goal.
- Students exercise **Information Literacy** when they identify a skill or technique they wish to use and search for information that helps them acquire the knowledge they need.

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.CRP11	Use technology to enhance productivity.
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.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.3	Collaborate in online courses, learning communities, social networks or virtual worlds to discuss a resolution to a problem or issue.
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
- Small group assignments
- Extra time to complete assignments
- Pairing oral instruction with visuals
- Repeat directions
- Study guides
- Rephrase written directions
- Additional time
- Student(s) work with assigned partner
- Visual presentation

- Alternative formative and summative assessments
- Independent research and projects
- Leveled rubrics
- Project-based learning
- Tiered activities/assignments
- Exploration by interest
- Goal setting with students
- Mini workshops to re-teach or extend skills
- Varied supplemental materials

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

- Provide modifications as dictated in the student's IEP/504 plan
- Preferential seating
- Additional time for skill mastery
- Have student repeat directions to check for understanding
- Check work frequently for understanding
- Secure attention before giving instruction/directions
- Shortened assignments
- Extended time on tests/quizzes
- Use open book, study guides, test prototypes

- 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)

- 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
- Tutoring by peers
- Providing a copy of the teacher's notes with use of online translator
- Providing study guides

- 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
- Tutoring by peers
- Providing a copy of the teacher's notes
- Providing study guides
- Allowing students to correct errors (looking for understanding)
- Allowing students to select from given choices
- Allowing the use of note cards or open-book during testing

- 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)

- Advanced problem-solving
- Higher order, critical & creative thinking skills, and discovery
- Teacher-selected instructional strategies that are focused to provide challenge, engagement, and growth opportunitie
- Multi-disciplinary unit and/or project
- Allow students to work at a faster pace
- Utilize project-based learning for greater depth of knowledge
- Utilize exploratory connections to higher-grade concepts

- 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: