

# **Unit 2 - Additive & Subtractive Methods**

Content Area: **Art**  
Course(s):  
Time Period: **Sept-Jan/Feb-June**  
Length: **30 days, Grades 10, 11, 12**  
Status: **Published**

## **SCULPTURE I**

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### **Department of Curriculum and Instruction**



**Belleville Public Schools**

**Curriculum Guide**

**SCULPTURE I, Grades 10, 11, 12**

**UNIT 2 - ADDITIVE & SUBTRACTIVE METHODS**

**Belleville Board of Education**

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Board Approved:

## **Unit Overview**

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1. Discover the diversity in and connections among forms of artistic expression throughout history and from around the globe.
2. Learn how people have responded to and communicated their experiences through art making by exploring art in its historic and cultural contexts.
3. Welcome students into the global artworld as active participants, engaging with its forms and content as they research, discuss, read, write and create art and interpretations of art.
4. Explore areas such as geometric forms, balsa carvings, 3D printing with the development of deep conceptual understandings and skills.

## **Enduring Understanding**

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EU1 Creativity and innovative thinking are essential life skills that can be developed.

EU2 Artists and designers experiment with forms, structures, materials, concepts, media, and art-making approaches.

EU3 Artists and designers develop excellence through practice and constructive critique, reflecting on, revising, and refining work over time.

EU4 Objects, artifacts, and artworks collected, preserved, or presented either by artists, museum, or other venues communicate meaning and a record of social, cultural, and political experiences resulting in the cultivating of appreciation and understanding.

EU5 Visual imagery influences understand of and responses to the world.

EU6 Through art making, people make meaning by investigating and developing awareness of perceptions, knowledge, and experiences.

EU7 Materials are removed during subtractive techniques and added during additive ones.

EU8 The figure has been represented in many ways: realistically, abstractly, through symbolism are just a few.

EU9 Movement is typically created by the repetition of a dominant element such as shape, color or texture.

## **Essential Questions**

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EQ1 What conditions, attitudes, and behaviors support creativity and innovative thinking?

EQ2 How do artist work?

EQ3 What role does persistence play?

EQ4 What is an art museum?

EQ5 What is an image?

EQ6 How does engaging in creating art enrich people's lives

EQ7 How are additive and subtractive techniques different?

EQ8 How has the figure been represented in art throughout history?

EQ9 How does one create movement on a three-dimensional form?

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## **Exit Skills**

By the end of Unit 2:

Creating:

- Use multiple approaches to begin creative endeavors such as group discussions, thumbnail sketches and reading of informational/technical text.
- Shape an artistic investigation of an aspect of present-day life using a contemporary practice of art or design.
- Engage in making a work of art or design without having a preconceived plan.
- Explain how traditional and nontraditional materials may impact human health and the environment and demonstrate safe handling of materials, tools and equipment.
- Apply relevant criteria from traditional and contemporary cultural contexts to examine, reflect on, and plan revisions for works of art and design in progress.

Presenting:

- Analyze, select, and curate artifacts and/or artworks for presentation and preservation such as displays and exhibits.
- Analyze and evaluate the reasons and ways an exhibition is presented.
- Analyze and describe the impact that an exhibition or collection has on personal awareness of social, cultural, or political beliefs and understandings.

Responding

- Hypothesize ways in which art influences perception and understanding of human experiences through the use of plaster, ceramic clay, wood, stone, polymers, 3D printing.
- Analyze how one's understanding of the world is affected by experiencing visual imagery.
- Interpret an artwork or collection of works, supported by relevant and sufficient evidence found in the work and its various contexts such as plaster carvings, mobiles, stabiles, sculpture -in-the-round.

- Establish relevant criteria in order to evaluate a work of art or collection of works.

### Connecting

- Document the process of developing ideas from early stages to fully elaborated ideas through sketchbooks and written analysis.
- Describe how knowledge of culture, traditions, and history may influence personal responses to art through oral and written analysis.

## **New Jersey Student Learning Standards (NJSLS-S)**

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VA.9-12.1.5.12acc.Cr1a	Individually and collaboratively formulate new creative problems based on student's existing artwork.
VA.9-12.1.5.12acc.Cr1b	Choose from a range of materials and methods of traditional and contemporary artistic practices to plan works of art and design.
VA.9-12.1.5.12acc.Cr2a	Through experimentation, practice and persistence, demonstrate acquisition of skills and knowledge in a chosen art form.
VA.9-12.1.5.12acc.Cr3a	Engage in constructive critique with peers, then reflect on, re-engage, revise, and refine works of art and design in response to personal artistic vision.
VA.9-12.1.5.12acc.Pr4a	Analyze, select and critique personal artwork for a collection or portfolio presentation.
VA.9-12.1.5.12acc.Pr5a	Evaluate, select and apply methods or processes appropriate to display artwork in a specific place.
VA.9-12.1.5.12acc.Re7a	Recognize and describe personal aesthetic and empathetic responses to the natural world and constructed environments.
VA.9-12.1.5.12acc.Re9a	Determine the relevance of criteria used by others to evaluate a work of art or collection of works.

## **Interdisciplinary Connections**

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LA.RST.11-12	Reading Science and Technical Subjects
LA.RST.11-12.2	Determine the central ideas, themes, or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms.
LA.WHST.11-12	Writing History, Science and Technical Subjects
LA.WHST.11-12.1	Write arguments focused on discipline-specific content.
MA.G-GMD	Geometric Measurement and Dimension
SOC.6.1.12.B.2	Geography, People, and the Environment
SOC.6.1.12.D.2	History, Culture, and Perspectives
9-12.HS-PS1-6.PS1.B	Chemical Reactions

## Learning Objectives

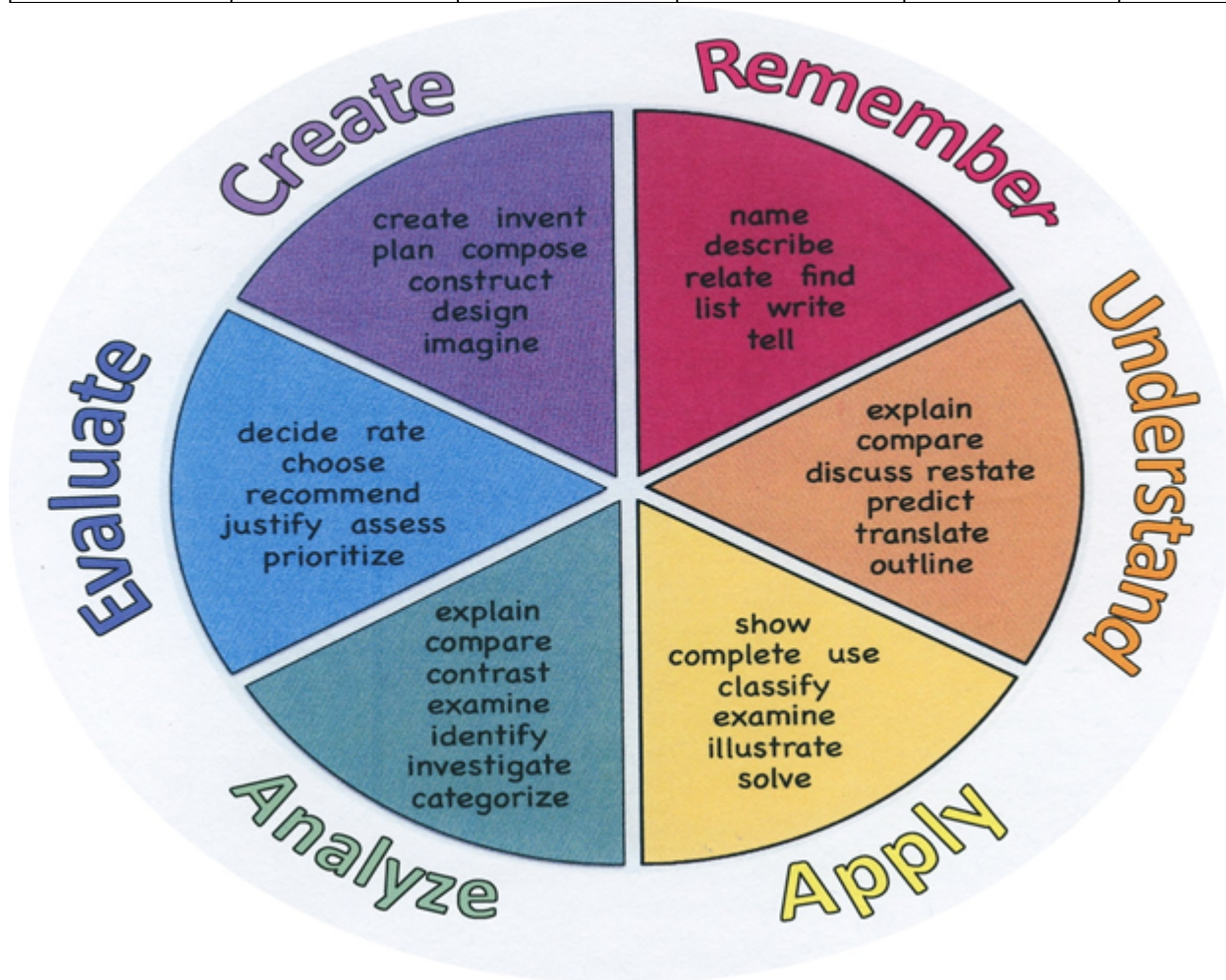
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- Identify basic problem solving.
- Incorporate correct vocabulary for use in formal analysis of art.
- Exhibit proper tool safety.
- Measure and use math skills to create forms.
- Create rhythm and movement through repetition.
- Compare and contrast how the human form is represented by various cultures.
- Integrate both additive and subtractive techniques in compositions.
- Construct and design original 3D artwork.
- Critique and reflect on both historical and personally created artwork.

**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 Repeat Reproduce	Show Summarize Tell Translate Associate Compute Convert Discuss Estimate Extrapolate Generalize Predict	Compute Discover Divide Examine Graph Interpolate Manipulate Modify Operate Subtract	Point out Separate		Propose Reconstruct Revise Rewrite Transform
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## Suggested Activities & Best Practices

Examples of Suggested Activities:

- Read ScholasticART magazine - George Segal: Working with Form
- Create an anatomy study using platercraft gauze on the body.
- Demonstrate how to safely use carving tools while working with a variety of media.
- Use Quizlet to review appropriate vocabulary words for the unit.

## **Assessment Evidence - Checking for Understanding (CFU)**

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### **Assessment Evidence:**

1. Sketchbooks/Journals (formative assessment)
2. Individual critiques (formative assessment)
3. Group critiques (alternative assessment)
4. Admit tickets (formative assessment)
5. Exit Tickets (formative assessment)
6. Study Guides (formative assessment)
7. Teacher Daily Observations (formative assessment)
8. Summary Questions (summative assessment)
9. Cooperative structured learning activities (formative assessment)
10. Do-Now Activities (formative assessment)
11. Portfolio Review (summative assessment)
12. Create a product/solve a design problem (summative assessment)
13. Quarterly/Mid-Term/Final Exam (Benchmark 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**

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- Books: *Sculpture, Principles and Practice* by Louis Slobodkin

*Materials and Methods of Sculpture* by Jack C. Rich

*Figures in Clay, Contemporary Sculpting Techniques* by Suzanne Tourtilott

*Alberto Giacometti, Sculpture in Plaster* by Ernst Scheideggy

- Magazines: *Sculptural Review*

*American CRAFT*

*ScholasticART: Giacometti*

*ScholasticART: Environmental Art*

## **Ancillary Resources**

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- Hand-outs such as: technical processes guides, selected sculptural history readings, relative vocabulary
- Historical and contemporary references such as Henry Moore, Alberto Giacometti, African masks, Italian Renaissance sculptures
- Internet use for research, image boards such as Pinterest, blog sites

## **Technology Infusion**

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**Examples could include:**

Online museum/gallery sites: ex.-Museum of Modern Art, [www.moma.org](http://www.moma.org)

Pinterest such as [www.pinterest.com/msdriskill/](http://www.pinterest.com/msdriskill/)

Classroom and artist blogs

Google cultural institute

Art critiques on social media

Ipad apps such as Adobe Sketch

QR codes and altered reality sites

Quizlet for studying appropriate vocabulary lists

Kahoot

Flipgrid

Jamboard

Art/Design talks using TEDTalks

PBS Learning Media

Art 21

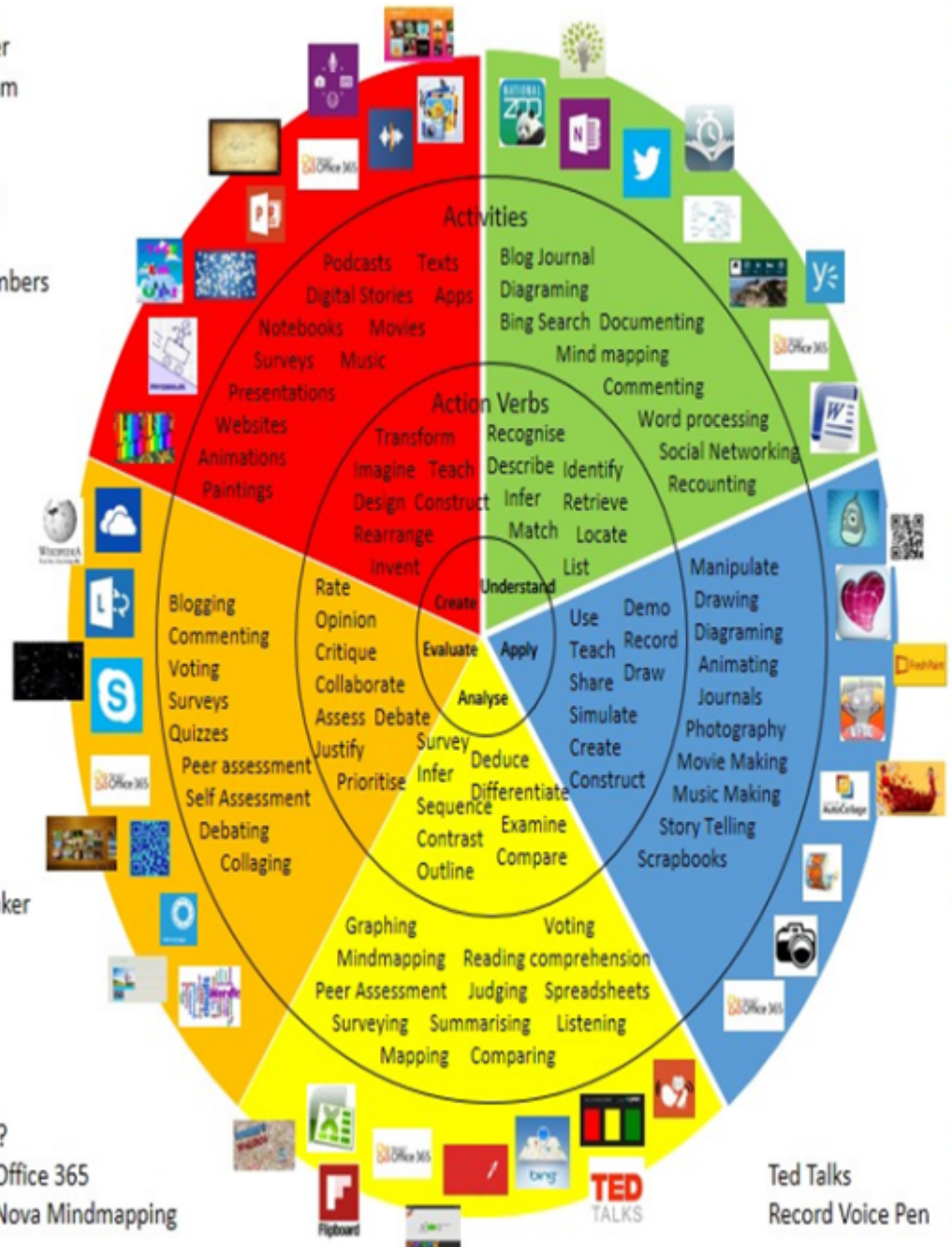
## Win 8.1 Apps/Tools Pedagogy Wheel

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  
Flipboard  
Office 365  
Nova Mindmapping

Ted Talks  
Record Voice Pen



## Alignment to 21st Century Skills & Technology

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Mastery and infusion of **21st Century Skills & Technology** and their Alignment to the core content areas is essential to student learning. The core content areas include:

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

WRK.9.2.12.CAP.3	Investigate how continuing education contributes to one's career and personal growth.
WRK.9.2.12.CAP.5	Assess and modify a personal plan to support current interests and post-secondary plans.
TECH.9.4.12.CI.1	Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a).
TECH.9.4.12.CI.2	Identify career pathways that highlight personal talents, skills, and abilities (e.g., 1.4.12prof.CR2b, 2.2.12.LF.8).
TECH.9.4.12.CI.3	Investigate new challenges and opportunities for personal growth, advancement, and transition (e.g., 2.1.12.PGD.1).
TECH.9.4.12.CT.2	Explain the potential benefits of collaborating to enhance critical thinking and problem solving (e.g., 1.3E.12profCR3.a).
TECH.9.4.12.DC.7	Evaluate the influence of digital communities on the nature, content and responsibilities of careers, and other aspects of society (e.g., 6.1.12.CivicsPD.16.a).
TECH.9.4.12.TL.1	Assess digital tools based on features such as accessibility options, capacities, and utility for accomplishing a specified task (e.g., W.11-12.6.).
TECH.9.4.12.TL.4	Collaborate in online learning communities or social networks or virtual worlds to analyze and propose a resolution to a real-world problem (e.g., 7.1.AL.IPERS.6).
TECH.9.4.12.IML.9	Analyze the decisions creators make to reveal explicit and implicit messages within information and media (e.g., 1.5.12acc.C2a, 7.1.IL.IPRET.4).

## 21st Century Skills/Interdisciplinary Themes

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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**

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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**

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1. Students will have the same subject matter but will have different outcomes.
2. Progress will be the same but the product will be different.
3. Guided instruction, direct instruction, group instruction.
4. Assist students with IEP & 504 guidelines.
5. Study guides, group and peer instruction, extended time/ test time, oral testing
6. Small group instruction
7. Small group assignments
8. Extra time to complete assignments
9. Pairing oral instruction with visuals
10. Repeat directions
11. Scheduled breaks
12. Rephrase written directions
13. Alternative formative and summative assessment
14. Leveled rubrics
15. Project-based learning
16. Exploration by interest
17. Open-ended activities

**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)

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### Special Education Learning adaptations that will be employed in the unit

- Provide modifications as dictated in the student's IEP/504 plan
  - Additional time for skill mastery
  - Have student repeat directions
  - Check work frequently for understanding
  - Secure attention before giving instructions
  - Extended time on quizzes
  - Preferential seating
  - Printed Copy of text
  - Assistive technology
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- 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)**

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- using videos, illustrations, pictures, and drawings to explain or clarify
- teaching key aspects of a topic. Eliminate nonessential information
- having peers take notes or providing a copy of the teacher's notes
- providing study guides
- allowing students to correct errors (looking for understanding)
- reducing or omitting lengthy outside reading assignments
- allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning;
- provide an interpreter
- translate study guides

- teaching key aspects of a topic. Eliminate nonessential information
- using videos, illustrations, pictures, and drawings to explain or clarify
- 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 work presented 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

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- decreasing the amount of work presented or required
  - using videos, illustrations, pictures, and drawings to explain or clarify
  - tutoring by peers
  - having peers take notes or providing a copy of the teacher's notes
  - providing study guides
  - allowing students to correct errors (looking for understanding)
  - marking student's correct and acceptable work, not the mistakes
  - reducing or omitting lengthy outside reading assignments
  - allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning
  - modifying tests to reflect selected objectives
  - allowing the use of note cards or open-book during testing
  - communication with counselor, parent/guardians in reference to the lesson.
  - after school project/specific tutoring
  - extra one-on-one class time.
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- 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 work presented 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)

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- Create a blog or social media page about their unit
- Debate issues with research to support arguments
- Complete activities aligned with above grade level text using Benchmark results
- Advanced problem-solving
- Above grade level placement option for qualified students
- Higher order, critical & creative thinking skills, and discovery
- Flexible skill grouping within a class or across grade level for rigor
- Teacher-selected instructional strategies that are focused to provide challenge, engagement, and growth opportunities
- Multi-disciplinary unit and/or project
- Allow students to work at a faster pace
- Communicating with parent/guardian regarding after school classes
- Communicating with parent/guardian regarding college opportunities
- Offering after school art experiences

- 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

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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: