

Unit 3: Computer Application

Content Area: **Library/Media**
Course(s): **Library/Media Gr. 5**
Time Period: **FebMar**
Length: **50 Days**
Status: **Published**

Unit 3: Computer Application

Department of Curriculum and Instruction



Belleville Public Schools

Curriculum Guide

Fifth Grade Library/Media

Unit 3: Computer Applications

Belleville Board of Education

102 Passaic Avenue

Belleville, NJ 07109

Prepared by: Ms. Colleen Fennelly & Ms. Stephanie Bermudez

Dr. Richard Tomko, Ph.D., M.J., Superintendent of Schools

Ms. LucyAnn Demikoff, Director of Curriculum and Instruction K-12

Ms. Nicole Shanklin, Director of Elementary Education

Mr. George Droste, Director of Secondary Education

Board Approved: September 23, 2019

Unit Overview

Media Literacy is the ability to understand, interpret and express information in any form, gather and use information responsibly and safely. It provides a framework to access, analyze, evaluate and demonstrate learning in a variety of forms. The Elementary School Library/Media program is meant to scaffold students' Media literacy skills. They will explore such topics as digital citizenship, safety on the Internet, the evaluation of digital information, cyberbullying and online privacy. In addition to online skills and safety, the program provides enjoyable, hands on learning activities which serves as a support to the various areas of the curriculum content studies and projects while aligning to the language arts units of study.

Enduring Understandings

Enduring understandings:

- It is necessary to know the correct terminology in order to use technology properly.
- Technology may be used to enhance the acquisition of information.
- Selection of technology should be based on personal needs.
- It is important to be able to sift through massive amounts of information to locate what you need.
- Technology enables students to solve real world problems.

Essential Questions

Essential Questions are:

- How can the use of technology enhance understanding?
- In what ways can technology enhance expression and communication? In what ways might technology hinder it?
- What do you have to remember vs. what you can just look up?
- What makes information "true"?
- Is some information better than other information on the same topic? How do we judge?
- How can key words affect the number of results you get in a search?
- How do I use technology properly?
- How do I choose which technological tools to use and when it is appropriate to use them?
- What are my responsibilities as a user of information?
- In a world of constant technological changes, what skills should we learn?
- We must determine that not all information found in a book or online is accurate information
- How can the computer be used as a tool?
- How and when can technology enhance problem solving?

Exit Skills

By the end of 5th Grade, Library Media Unit 3 - Computer Applications, the students should be able to:

- Demonstrates appropriate online behavior
- Participates responsibly and respectfully in an online community
- Collaborate in creating a digital citizenship pledge outlining social norms and interacting with the digital world
- Understand the importance of strong secure passwords
- Recognize the information that is private
- Use a variety of tools to find, gather and evaluate information

- Recognize the differences between types of sources
- Use information to gain understanding of a topic
- Evaluate information for appropriate needs
- Gather information from a variety of sources

New Jersey Student Learning Standards (NJSLs)

N.J. Student Learning Standards and American Association of School Librarians (AASL-2017) applicable to Unit 4
Concepts About Print/Nonprint Resources include:

LA.W.5.6	With some guidance and support from adults and peers, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of two pages in a single sitting.
LA.W.5.7	Conduct short research projects that use several sources to build knowledge through investigation of different perspectives of a topic.
LA.SL.5.2	Summarize a written text read aloud or information presented in diverse media and formats (e.g., visually, quantitatively, and orally).
VI.A.1	Responsibly applying information, technology, and media to learning.
VI.A.2	Understanding the ethical use of information, technology, and media.
VI.A.3	Evaluating information for accuracy, validity, social and cultural context, and appropriateness for need.
VI.B.1	Ethically using and reproducing others work.
VI.B.2	Acknowledging authorship and demonstrating respect for the intellectual property of others.
VI.B.3	Including elements in personal-knowledge products that allow others to credit content appropriately.
VI.C.1	Sharing information resources in accordance with modification, reuse, and remix policies.
VI.C.2	Disseminating new knowledge through means appropriate for the intended audience.

VI.D.1	Personalizing their use of information and information technologies.
VI.D.2	Reflecting on the process of ethical generation of knowledge.
VI.D.3	Inspiring others to engage in safe, responsible, ethical, and legal information behaviors.
III.A.1	Demonstrating their desire to broaden and deepen understandings.
III.A.2	Developing new understandings through engagement in a learning group.
III.B.1	Using a variety of communication tools and resources.
III.B.2	Establishing connections with other learners to build on their own prior knowledge and create new knowledge
III.C.1	Soliciting and responding to feedback from others.
III.C.2	Involving diverse perspectives in their own inquiry processes.

Interdisciplinary Connections

Interdisciplinary Connections used in Unit 3 - Computer Applications include:

- **Technology**
- **Language Arts**
- **Mathematics**
- **Social Studies**
- **Science and Scientific Inquiry**

MA.5.OA.A.2	Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.
SOC.6.1.8.B	Geography, People, and the Environment
SOC.5-8.1.1.1	Construct timelines of the events occurring during major eras including comparative events in world history for the different civilizations.
SOC.5-8.1.2.1	Select and use various geographic representations to compare information about people, places, regions, and environments.
SOC.5-8.1.2.2	Use maps and other documents to explain the historical migration of people, expansion and disintegration of empires, and growth of economic and political systems.
SOC.5-8.1.4.2	Present information in a logical manner using evidence and reasoning while demonstrating presentation skills (e.g., eye contact, adequate volume, clear pronunciation).
5-ESS1-1.7	Engaging in Argument from Evidence

Learning Objectives

- **Distinguish and construct** safe, ethical, and responsible use of technological resources.

- **Formulate** an understanding of digital citizenship, safety on the Internet, the evaluation of digital information, cyberbullying, online privacy, etc.
- **Investigate** that Digital Citizens responsibly locate, evaluate, and ethically use information from a variety of digital sources.
- **Design and generate** carefully crafted activities using the computer as a tool.

Suggested Activities & Best Practices

Guidelines for Suggested Activities:

- Enlighten students through discussion about the Computer Rules, Responsibilities, and Internet Safety through a variety of videos, e-books, etc. at <http://www.netsmartzkids.org>
- Cyber Five explains various Internet Safety Rules
abcya.com http://www.abcya.com/cyber_five_internet_safety.htm
- Students will be able to identify and use components of the computer:
 - CPU
 - Monitor
 - Keyboard
 - Mouse
 - Speakers
 - Printer
 - USB Port
- *The Mysteries of Internet Research /The Mysteries of Research*, Upstart Books.
- *Computer Projects Grades 2-4* Teacher Created Resources, Inc.
- *Daily Comprehension*, Remedia Publications monthly from Sept-June "On This Date in History....." Practice keyboarding skills -5-6 Paragraphs
- Practice writing a story using Scholastic Story Starters website <http://www.scholastic.com/teachers/story-starters/>
- How to open, type, copy, paste, save an image, and how to save a document on student's drive, Desktop, My Document, or USB drive.
- Use of calculator, Paint, Microsoft Word, PowerPoint, Excel, etc.
- To familiarize the learner with navigating through a website the learner will practice using abcya.com ; typing.com ; sumdog.com ;
- Introduce the student to the computer keyboard's letters and numbers by navigating several virtual environments
 - abcya.com Technology vocabulary puzzle http://www.abcya.com/kids_technology_vocabulary.htm
 - abcya.com Find the Technology http://www.abcya.com/computer_vocabulary.htm
 - Typing.com Keyboarding Curriculum <https://typing.com/>
 - abcya.com Alpha Munchies http://www.abcya.com/kids_typing_game.htm
 - abcya.com Cup Stacking http://www.abcya.com/cup_stack_typing_game.htm
 - abcya.com Typing Rocket http://www.abcya.com/typing_rocket.htm
 - abcya.com Keyboard Invasion http://www.abcya.com/keyboard_invasion.htm
 - abcya.com Keyboarding Challenge <http://www.abcya.com/keyboard.htm>
 - abcya.com Typing Race http://www.abcya.com/typing_race_cars.htm
- Participate in "The Hour of Code" during Computer Science Education Week(First week in

December) <https://code.org/educate/curriculum/elementary-school>

- American Library Association - Great Technology and Mathematics Websites for Kids <http://gws.ala.org/category/mathematics-computers>
- Sumdog.com (Mathematics-free, ELA-Reading-Writing-Spelling-subscription) <https://www.sumdog.com/>

Assessment Evidence - Checking for Understanding (CFU)

Assessment Evidence/Checking for Understanding specifically used in Unit 3 will include:

- A Teacher observation checklist will be used to check for student's computer skills acquisition.
- Pre-assessment/Post-assessment to measure student's prior computer knowledge, growth, and attainment.
- Keyboarding skills will be assessed and recorded throughout the course of the year.
- Computer Projects using G-Suite products (Google Docs, Google Slides, Google Sheets) and/or Microsoft Word, PowerPoint, and Excel.

- 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

District-provided Primary Resources & Materials and/or those outside it that that are accessed with district resources include:

The Complete Library Skills Grade 4-McGraw-Hill Children's Publishing.

Computer Projects Teacher Created Resources, Inc.

The Mysteries of Internet Research Upstart Books.

Useful websites to introduce Internet Safety, Computer Rules, and Responsibilities:

- <https://jr.brainpop.com/artsandtechnology/technology/internetsafety/>
- <https://vimeo.com/116587103> (14 minute Video on Internet Safety-from a police officer)
- <http://www.netsmartzkids.org>
- <https://kids.usa.gov/watch-videos/online-safety/index.shtml>
- <https://www.brainpop.com/technology/freemovies/digitaletiquette/>

Familiarize students to using the computer through the following websites:

- abcy.com **Technology vocabulary puzzle** http://www.abcy.com/kids_technology_vocabulary.htm
- abcy.com **Find the Technology** http://www.abcy.com/computer_vocabulary.htm

Keyboarding:

- **Typing.com** Keyboarding Curriculum <https://typing.com/>
- abcy.com **Alpha Munchies** http://www.abcy.com/kids_typing_game.htm
- abcy.com **Cup Stacking** http://www.abcy.com/cup_stack_typing_game.htm
- abcy.com **Typing Rocket** http://www.abcy.com/typing_rocket.htm
- abcy.com **Keyboard Invasion** http://www.abcy.com/keyboard_invasion.htm
- abcy.com **Keyboarding Challenge** <http://www.abcy.com/keyboard.htm>
- abcy.com **Typing Race** http://www.abcy.com/typing_race_cars.htm
- abcy.com **Ghost Typing** http://www.abcy.com/ghost_typing.htm
- Practice writing a story using Scholastic Story Starters website <http://www.scholastic.com/teachers/story-starters/>

Other Useful websites:

- World Atlas Downloadable maps <http://www.worldatlas.com/>
- Math-Language Arts-Science-Social Studies Sheppards Software <http://sheppardsoftware.com/>
- American Library Association Websites for Kids <http://gws.ala.org>
- Computer Coding Curriculum <https://code.org/educate/curriculum/elementary-school>

Ancillary Resources

Ancillary Resources used:

Technology Infusion

Technology Infusion and/or strategies that are integrated into this unit to enhance learning include:

Internet Safety websites:

- <https://jr.brainpop.com/artsandtechnology/technology/internetsafety/>
- <https://vimeo.com/116587103> (14 minute Video on Internet Safety-from a police officer)
- <http://www.netsmartzkids.org>
- <https://kids.usa.gov/watch-videos/online-safety/index.shtml>
- BrainPop digital etiquette <https://www.brainpop.com/technology/freemovies/digital-etiquette/>

Technology Vocabulary:

abcya.com Technology vocabulary puzzle http://www.abcya.com/kids_technology_vocabulary.htm

- abcya.com Find the Technology http://www.abcya.com/computer_vocabulary.htm

Keyboarding Practice:

- Typing.com Keyboarding Curriculum <https://typing.com/>
- abcya.com Alpha Munchies http://www.abcya.com/kids_typing_game.htm
- abcya.com Cup Stacking http://www.abcya.com/cup_stack_typing_game.htm
- abcya.com Typing Rocket http://www.abcya.com/typing_rocket.htm
- abcya.com Keyboard Invasion http://www.abcya.com/keyboard_invasion.htm
- abcya.com Keyboarding Challenge <http://www.abcya.com/keyboard.htm>
- abcya.com Typing Race http://www.abcya.com/typing_race_cars.htm
- Practice writing a story using Scholastic Story Starters website <http://www.scholastic.com/teachers/story-starters/>

Other Useful websites:

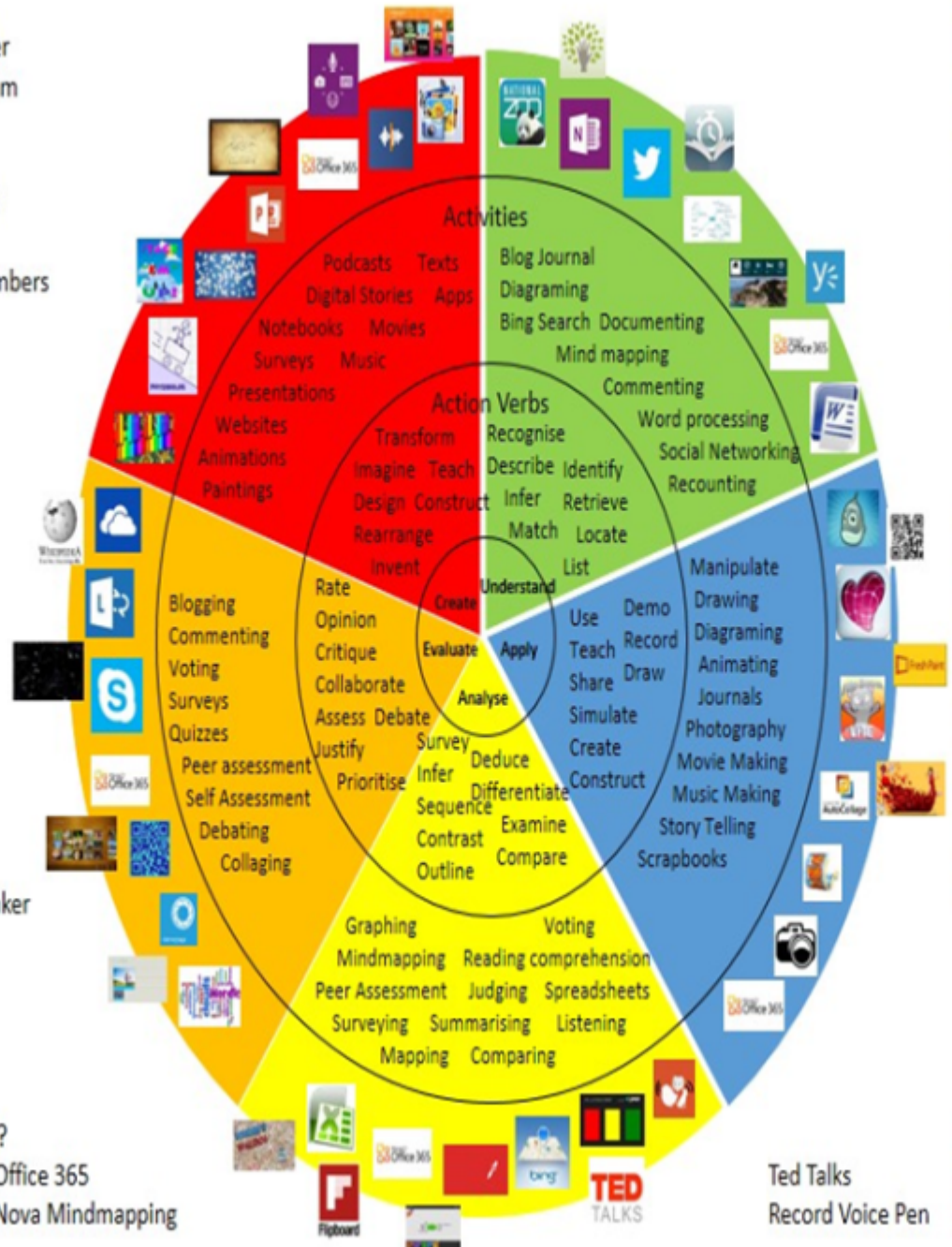
- World Atlas Downloadable maps <http://www.worldatlas.com/>
- <http://www.citationmachine.net/mla>
- <http://www.bibme.org/mla>
- <http://www.easybib.com/>
- Math-Language Arts-Science-Social Studies Sheppards Software <http://sheppardsoftware.com/>
- American Library Association Websites for Kids <http://gws.ala.org>
- Computer Coding Curriculum <https://code.org/educate/curriculum/elementary-school>

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

Alignment to 21st Century Skills & Technology

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.

PFL.9.1.8.B.8	Develop a system for keeping and using financial records.
CAEP.9.2.8.B.3	Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extracurricular activities for use in a career.
CAEP.9.2.8.B.7	Evaluate the impact of online activities and social media on employer decisions.
TECH.8.1.5.A.1	Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
TECH.8.1.5.A.4	Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data.
TECH.8.1.5.A.CS1	Understand and use technology systems
TECH.8.1.5.A.CS2	Select and use applications effectively and productively.
TECH.8.1.5.B.CS1	Apply existing knowledge to generate new ideas, products, or processes.
TECH.8.1.5.B.CS2	Create original works as a means of personal or group expression.
TECH.8.1.5.C.CS1	Interact, collaborate, and publish with peers, experts, or others by employing a variety of digital environments and media
TECH.8.1.5.C.CS2	Communicate information and ideas to multiple audiences using a variety of media and formats.
TECH.8.1.5.D.1	Understand the need for and use of copyrights.
TECH.8.1.5.D.CS1	Advocate and practice safe, legal, and responsible use of information and technology.
TECH.8.1.5.E.CS1	Plan strategies to guide inquiry.
TECH.8.1.5.E.CS2	Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
TECH.8.1.5.E.CS3	Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.

21st Century Skills/Interdisciplinary Themes

21st Century Skills/Interdisciplinary Themes presented in Unit 3 include:

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

- 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

21st Century Skills presented in Unit 3 include:

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

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

Differentiation

Effective educational Differentiation used within Unit 3 include:

- The student will be provided visual/auditory presentations during Unit 3 material and will have varied supplemental materials (websites, instructional youtube videos, etc.) and assistive technology when necessary.
- Students will be provided with simple, specific directions as to what the student is required to do and will pair these instructions with a visual (Step-by-Step instructions for Using Google in the Classroom)
- Students will be given extra time to complete the task on the presented materials.
- Center-Based, multi-sensory approach and instruction that include Tiered Activities/Assignments will be used during Unit 3-Computer Applications (Students will work at their own pace-Keyboarding and Mini workshops for Google in the Classroom projects and assignments).

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)

The **Special Education Learning** adaptations that will be utilized in Unit 3 include:

- Provide modifications as dictated in the student's own IEP/504 plan.
- Preferential seating will be utilized.
- Secure attention of the student before giving instructions/directions and having the student repeat the directions back in order to check for understanding.
- Modification and shortening of the student's assignments and test length will be utilized when appropriate.
- Center-Based and multi-sensory instruction will be used when learning keyboarding and Google in the classroom projects
- For completing Google in the classroom assignments the students will work side by side with an assigned partner.

- 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)

The **English Language** Learning adaptations that will be employed in Unit 3 include:

1. Use of instructional videos, Google Translate, illustrations, pictures, and drawings will be used to explain or clarify material in Unit 3.
2. Using computer word processing spell check and grammar check features when working in Google G-Suite/Microsoft Products
3. Teaching the key aspects and eliminating the nonessential information when introducing the students to using Google in the classroom assignments.
4. Asking peer tutors to assist the English Language Learner when they are required to complete a task.

- 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

The "At Risk" Learning adaptations that will be employed in Unit 3 include:

1. Use of instructional videos, illustrations, pictures, and drawings will be used to explain or clarify material

in Unit 3.

2. Using computer word processing spell check and grammar check features when working in Google G-Suite/Microsoft Products
3. Teaching the key aspects and eliminating the nonessential information when introducing the students to using Google in the classroom assignments.
4. Asking peer tutors to assist the "At Risk" Learner when they are required to complete a task.
 - 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)

The **Talented and Gifted** adaptations that will be employed in Unit 3 include:

1. Teacher selected instructional strategies that are focused to provide challenge, engagement, and growth opportunities. Students can extend their knowledge by digging deeper or Advanced problem-solving computer project.
2. Students will be allowed to work at a faster pace learning Keyboarding and G-Suite-Google in the Classroom activities.
3. Utilize project-based learning for greater depth of knowledge by continuing to extend computer Coding activities.

- 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:

