Unit 3 - Computer Applications

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Course(s): **Library/Media Gr. 5**
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Title Section

Department of Curriculum and Instruction

Belleville Public Schools

Curriculum Guide

LIBRARY/MEDIA, 5TH GRADE

COMPUTER APPLICATIONS

Belleville Board of Education

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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 Understanding

Enduring understandings:

- **It is necesssary 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.**

- Summarize important ideas and core processes that are central to a discipline and have lasting value beyond the classroom;
- Synthesize what students should understand - not just know or do - as a result of studying a particular content area;
- Frame the Big Ideas that give meaning and lasting importance to such discrete curriculum elements as facts and skills;
- Transfer to other fields and adult life;
- "Unpack" areas of the curriculum where students may struggle to gain understanding or where they demonstrate misunderstandings and misconceptions;
- Provide a conceptual foundation for studying the content area;
- Articulate what students should "revisit" over the course of their lifetimes in relationship to the content area;
- Are framed as declarative sentences that present major curriculum generalizatios and recurent ideas.

Examples:

- **Enduring Understanding**: Reading is a process by which we construct meaning about the information being communicated by an author within a print or non-print medium.

- **Essential Question**: How is reading a process for constructing meaning from text?

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 outing 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-S)

New Jersey Student Learning Standards applicable to Unit 3-Computer Applications 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).
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).
AAAA.K-12.1.1.8	Demonstrate mastery of technology tools for accessing information and pursuing inquiry.
AAAA.K-12.1.3.1	Respect copyright/intellectual property rights of creators and producers.
AAAA.K-12.1.3.2	Seek divergent perspectives during information gathering and assessment.
AAAA.K-12.1.3.3	Follow ethical and legal guidelines in gathering and using information.
AAAA.K-12.1.3.5	Use information technology responsibly.
AAAA.K-12.2.1.4	Use technology and other information tools to analyze and organize information.
AAAA.K-12.2.1.6	Use the writing process, media and visual literacy, and technology skills to create products that express new understandings.
AAAA.K-12.3.1.1	Conclude an inquiry-based research process by sharing new understandings and reflecting on the learning.
AAAA.K-12.3.1.4	Use technology and other information tools to organize and display knowledge and understanding in ways that others can view, use, and assess.

AAAA.K-12.3.1.6	Use information and technology ethically and responsibly.
AAAA.K-12.4.1.6	Organize personal knowledge in a way that can be called upon easily.
AAAA.K-12.4.1.8	Use creative and artistic formats to express personal learning.
AAAA.K-12.4.3.4	Practice safe and ethical behaviors in personal electronic communication and interaction.
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.
5-LS1-1.7	Engaging in argument from evidence in 3–5 builds on K– 2 experiences and progresses to critiquing the scientific explanations or solutions proposed by peers by citing relevant evidence about the natural and designed world(s).

Interdisciplinary Connections

Interdisciplinary Connections used in Unit 3 - Computer Applications include:

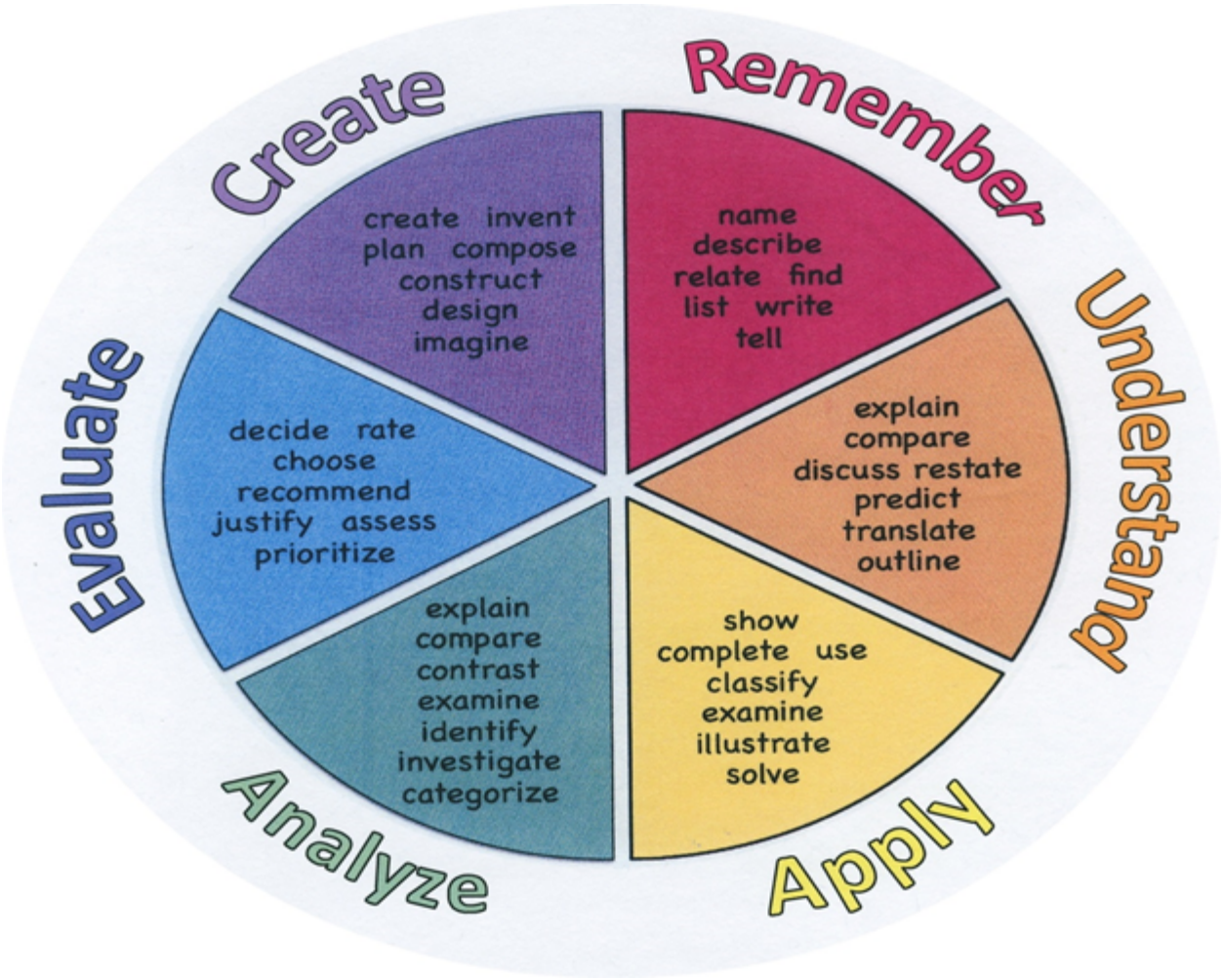
- **Technology**
- **Language Arts**
- **Mathematics**
- **Social Studies**
- **Science and Scientific Inquiry**

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.

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

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/**

Evidence of Student Learning - Checking for Understanding (CFU)

Evidence of Student Learning with Checking for Understanding (CFU) techniques used during the lesson and/or for Closure (Madeline Hunter), will be chosen from the following list:

- Admit Tickets
- Anticipation Guide
- Common benchmarks
- Compare & Contrast

- Create a Multimedia Poster
- Define
- Describe
- Evaluate
- Evaluation rubrics
- Exit Tickets
- Explaining
- Fist- to-Five or Thumb-Ometer
- Illustration
- Journals
- KWL Chart
- Newspaper Headline
- Outline
- Question Stems
- Quickwrite
- Quizzes
- Red Light, Green Light
- Self- assessments
- Socratic Seminar
- Study Guide
- Teacher Observation Checklist
- Think, Pair, Share
- Think, Write, Pair, Share
- Top 10 List
- Unit tests

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:

- 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:

- **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
- abcya.com **Ghost Typing** http://www.abcya.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 Softwarehttp://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/digitaletiquette/

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

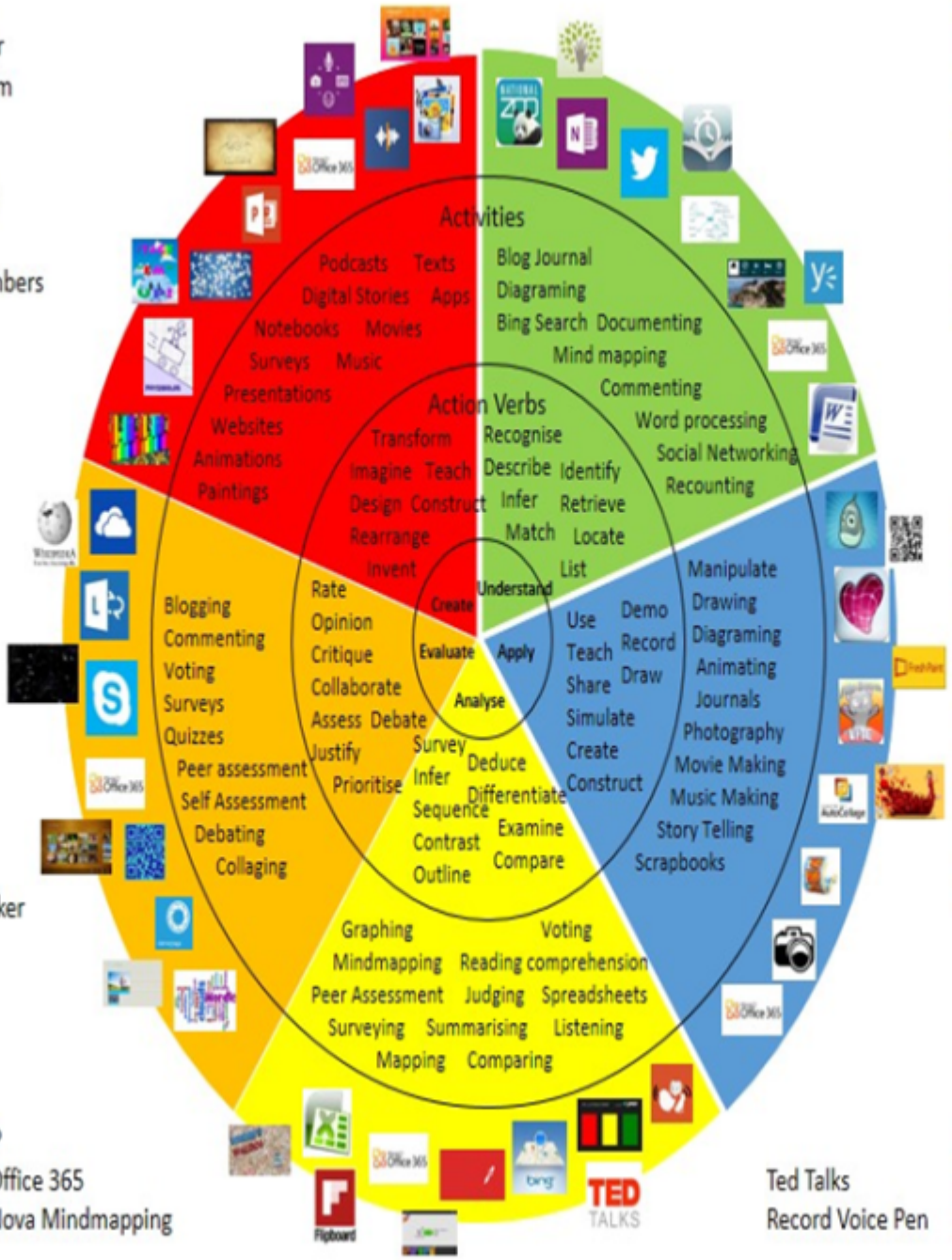
Win 8.1 Apps/Tools Pedagogy Wheel

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
Flipboard
Office 365
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

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.

21st Century Skills

The **21st Century Skills** that will be incorporated into this unit include:

- 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/Interisciplinary Themes

The **21st Century/Interdisciplinary Themes** that will be incorporated into this unit include:

- Civic Literacy
- Environmental Literacy
- Financial, Economic, Business and Entrepreneurial Literacy

- Global Awareness
- Health Literacy

Differentiation

Differentiations for this unit will be chosen from the following:

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

Intervention Strategies

Intervention Strategies employed in this unit will be chosen from the following:

- 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

Special Education Learning

Special Education Learning adaptations that will be employed in Unit 3 - Computer Application will be chosen from the following list:

- 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
- multiple test sessions
- multi-sensory presentation
- preferential seating
- preview of content, concepts, and vocabulary
- 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)

English Language Learning adaptations that will be employed in Unit 3 - Computer Application will be chosen from the following list:

- 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

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: