**Library Media K-12 Curricular Philosophy**

***Simsbury, CT***

The goal of education is to give learners the opportunity to do something with what they know. A more rigorous and relevant form of accountability emerges when information is applied in search for a solution to a problem, to better understand a problem, or to create new knowledge. The foundation of our library media program is to facilitate the competence of learners as unique individuals with interests and ideas, citizens, and future members of the workforce. The development of that competence comes from the learner’s clarity of task, ability to access information and literature, evaluate and synthesize information, produce critical and creative works, and communicate to an intended audience. Underlying this work is the learner’s ability to critically think and problem solve in an efficient, effective, and ethical manner.

Library media specialists design both stand alone and collaborative learning experiences to provide all students with the opportunity to achieve the goals articulated in the Connecticut State Department of Education’s Information and Technology Literacy Framework. The success of all students, however, is dependent upon the quality and consistency of the collaboration between the library media center and the classroom. Library media specialists dedicate their professional efforts not only to ensure vital media and tools are available to students and staff, but also to ensure that students and staff make the use of these media and tools an integrated and meaningful part of teaching and learning.

**The Mission of the 21st Century Library**

***Drafted by a BOCES Library Program in New York***

The 21st century library is a learning hub – a shared learning space where learners come together in their pursuit of knowledge and understanding of themselves and their world. Their work in an information-rich environment requires curiosity, passion, tolerance, and persistence in order to navigate, organize and make sense of information so that learners can create knowledge that is of significance.

A “library” includes those physical and virtual spaces (including library classrooms, video-conferencing/production space, computer labs, outdoor courtyards, website, portals) that are designed by the school to promote information literacy and technology as well as appreciation of aesthetics.

Evidence that a learning hub exists includes (but is not limited to) the following characteristics:

1. The walls of the space
   1. Evidence of student learning on tasks designed by the classroom staff as well as independent journeys crafted by the students
   2. Clearly state the expectations and curricular goals (AASL, NSTE) for the shared space so that learning is possible for everyone within it and people operate in an ethical, responsible manner
   3. Color of and text on the walls are conducive to learning – calming, inviting, thoughtful affect on the learner
2. The organization of the furniture, equipment and technology
   1. Comfortable chairs that invite learners to stay and read
   2. Different organizational setups to promote different types of learning: collaborative space for dialogue and problem solving; solitary space for intense study, reflection, reading; conference space for mini-lessons, meetings, and forum; class space for when a whole class is working together on a given task
   3. Tools that are designed for learners to use to facilitate their shared thinking and knowledge construction – laptop/LCD to project their thinking; flip charts/markers, post-it notes and scrap paper; access to copier machine; access to wikis, blogs, shared electronic resources; ability to transport their work to and from school (portable media devices, email accounts for students, remote access to work from home); access to computers (lab, mobile laptops)
3. The organization of exhibits
   1. Connections organized around themes and topics currently being explored in curricular and co-curricular areas
   2. Exhibits (virtual or in the library space) that are highly responsive to what is going on in the world today (both in the school and literally in the world)
   3. Exhibits designed around student interests, preferences, talents
4. The access to tools, resources, materials
   1. Signage that clearly demarks sections of the space so that it sponsors independent navigation (this applies to the library website as well)
   2. Prominent display/access to established procedures for: navigating non-fiction text, computer searches, research process (Big 6), citing sources, asking questions, ethical and responsible use of information
   3. Consistent review of access policies to ensure that students are sufficiently trained in the use of current electronic resources that are prevalent in post-secondary life (education, workplace, and social interactions)
   4. Consistent formal and informal learning opportunities to independently navigate electronic resources and data manipulation tools (both new ones and more established ones)
5. The communication of learning
   1. Ability for students to communicate with one another directly either through the exchange of ideas and information in dialogue or through the posting of learning (creation of wikis, blogs, book reviews, podcasting)
   2. Opportunities to showcase student learning through formal and informal demonstrations/performances
6. The policies
   1. Clear policy for acceptable use of technology that is enforced and tended to by all users of the space
   2. Restricted access to sites are based on a constant balance of the ability of learners to navigate space pursuing their curiosities/exploration with the responsibility to block them from places they should not be
   3. Circulation policy (both how many and also access to sources not currently available on site) encourages every learner to check out those materials they want to explore
   4. Implementation of cyber-safety curricula to protect students from bullying, scams, harassment, identity theft

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| **Library Media Curriculum Framework** | | |
| **CT K-12 Information Technology Content Standards** | **Enduring Understandings** | **Essential Questions** |
| **Responsible Use**: Students will demonstrate the responsible, legal and ethical use of information resources, computers and other technologies. | * The way you present and represent information is a reflection of your academic integrity. | * Why do I need to cite sources to give credit? |
| **Definition and Identification of information needs**: Students will define their information needs and identify effective courses of action to conduct research and solve problems. | * There are numerous ways to solve information problems. * The quality of the question determines the quality of the results. * Asking questions leads to identifying important problems to be solved. | * Why question? * What is your job when you are looking for information? * What makes a good research question? * How do I know what questions to ask? * Where do I read first? * What are the benefits of being a skeptic? |
| **Information processing:**  Students will apply evaluative criteria to the selection, interpretation, analysis, reorganization and synthesis of information from a variety of sources and formats. | * Information is available in many formats; spoken, visual and written. * Information is the currency of meaning. | * How do I conduct research? * What plan do I use? * How is solving an information problem like the job of a detective? * What is the big idea? |
| **Application:**  Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions to others. | * Information can be interpreted and manipulated. * Information skills require students to become independent learners. | * How can I manipulate information to shape others’ thoughts? * How do I figure out what is real? * What skills are necessary to make me a critical thinker? * What skills are necessary to make me an independent user of information? * How is my work in the library different from my work in the classroom? * How can I use what I learn in the library to be more successful in the classroom? * How can I use what I learn in the library to be more successful in life? |
| **Technology Use:** Students will use technologies for productivity, problem-solving and learning across the content areas. | * The relationship between literacy and technology is transactional. * New literacies are multiple in nature and change rapidly | * What technology do I use? * How does technology enhance my learning? |
| **Assessment:** Students will assess the effectiveness and efficiency of their own choices and uses of information and technology for problem-solving and communications. | * Students understand that all learning involves active participation and ownership. | * How do I know when I’m done? * What would I fix or change next time? * What is my job when I’m looking for information? |
| **Literature Appreciation:** | * Information is the currency of meaning. * “Free voluntary reading” makes a better reader. * There are different types of reading materials available. * Reading can be for many purposes and reasons, i.e. information needs, reading for pleasure, etc. | * Why do I read? * How does literature depict life? * Why do people view the same information differently? * How does reading affect my thinking, feeling and acting? |

**Library Media in Grand Island, NE**

**Clarity of Purpose**

**EQ** Why are you here? What are you trying to accomplish?

**EU** Clarity of purpose makes you more likely to be successful.

**Selecting and Using Appropriate Resources**

**EQ** Where should I look to find the information I need?

How do I get the best results when I look for information?

**EU** Every resource is designed for a specific purpose.

An effective researcher picks the right tool for the job.

**Validity of Source**

**EQ** Can I trust this source? How do I know?

**EU** Verifying information requires work on the part of the researcher.

**Presentations using software**

**EQ** How do I use technology to get my ideas/point across?

**EU** Technology is only a powerful communication tool when it supports your work.

**Publishing for a Specific Audience**

**EQ** What does quality work look like for this task? How close am I to getting there?

Who is your audience and how does that affect your work?

**EU** Within every discipline, there are commonly held expectations for what quality work looks like.

The reception of a product is based on the perspective and needs of the audience.

**Citing Sources (Intellectual Property)**

**EQ** Who “owns” the idea? How do you make sure the right person gets credit?

**EU** There are clear rules about how to acknowledge the sources that have influenced production of the task.

**Selecting Relevant Information to support a topic**

**EQ** Is this information useful?

**EU** Relevance of information is dependent on the purpose of the task and the perspective of the researcher.

**Organizing Information (graphic organizers, storyboards)**

**EQ** How do I put the pieces of information together in a way that makes sense?

**EU** A strong orginazational sturcture drives both the research and the production process.

**Note-taking**

**EQ** What’s important here and how do I remember?

When do I quote a source and when do I put it into my own words?

**EU** The format and content of notes affects your ability to use them.

**Curriculum Components of Library Media Program for Greater Southern BOCES**

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|  | **Task-Driven**  **Reading and Research** | | | **Intersection**  **of Inquiry and Curiosity** | **Unfettered**  **Reading and Research** |
| **Key Components** | * Task is generated either by staff or by individual learner * Defined process   + Inquiry   + Collaboration * Defined expectations for what quality work looks like * Personal growth comes when the task is meaningful to the learner | | | * Pursuit of inquiry * Pursuit of curiosity and wonder * Personal growth comes from development of content knowledge and understanding of self | * Undefined process for exploration * Passion * Interest * Free to browse, wonder without expectation for follow-through * Personal growth comes from the connection the learner feels when engaged in his/her own journey |
| **Essential questions** | 1. What is quality for this task? What is the best way to approach it? 2. What information do I have? What information do I need? How do I get it? How do I make sense of the information I’ve found? 3. What’s our plan? What’s my role in it? How does the way I do my part affect the work of the group? 4. How do I know what’s important? How do I record it in a way that I can use later? 5. Who owns this information and how do I give them credit? 6. (5-12) What commonalities do I see across sources? What inconsistencies (if any) do I see? When am I ready to draw a conclusion? 7. How do I present my work so my audience understands and respects it? | | | 1. What is my plan/strategy for reading this text/completing this task? How do I know if it’s working? What do I do if I get stuck? 2. What makes a source trustworthy? 3. What do I do when I come across the unexpected? | 1. What do I find fascinating? How does that affect the choices I make? 2. How will I know if I made a good choice for me? 3. How is this text measuring up to my expectations? Have I given it a fair chance? 4. What do I wonder about as I read/listen/view this? 5. How does this choice affect what I choose next? |
| **Key tasks and routines** | PreK-4 | Research task   * Use pre-selected resources to locate information on databases and print sources * Use glossary, index, table of context to locate information * Take notes using graphic organizers * Communicate information according to the assigned task   Library Orientation   * Introduction to facility and staff * (Gr. 2-4) OPAC * Book care * Rules and routines * Expectations | | Read aloud   * How to listen * Types of books (fiction/non-fiction; genres) * Book care * Book parts * Literature response * Story elements * Author’s study * Readers’ theater | Book selection   * Use of OPAC to find out what’s available * Location of resources (guided) |
| 5-8 | Research task   * Use OPAC (with support) * Independent identification of resources * Resource book use (encyclopedias and more specialized references) * Database use * Identifying key words * Internet searches * Take notes using graphic organizers, outlines, and notecards * Bibliographies and citations according to copyright law   Library Orientation   * Introduction to facility and staff * OPAC * Rules and routines * Expectations * (Gr. 7-8) Inter-library loan | | Read aloud   * Book talks * Readers’ theater | Book selection   * Independent use of OPAC to find out what’s available * Location of resources |
| 9-12 | Research task   * Independent selection of sources * Use of more sophisticated ways of conducting Internet search (Boolean, etc.) * Website evaluation * Use of more sophisticated sources with introduction and support to more specialized databases * Reinforce note-taking and organization skills * Bibliographies (more formats and parenthetical citations) according to copyright law   Library Orientation   * Introduction to facility and staff * OPAC * Rules and routines * Expectations * (Gr. 7-8) Inter-library loan | | Read aloud   * Book talks * Read aloud | Book selection   * Independent use of OPAC to find out what’s available * Location of resources |
| **Key skills (basis of mini-lessons)** | PreK-4 | (Gr. 3-4) Note-taking  Distinguish fiction from non-fiction  Location and search skills: print sources, Internet  Book care  (Gr. 3-4) OPAC  Book parts  Use references to locate information: dictionary, encyclopedia, almanac  (Gr. 3-4) Use index  (Gr. 3-4) Use Dewey | Book awards  Story elements  (Gr. 2-4) Biographies  (Gr. 4) Book reviews  Book talks  Use multimedia resources  Explore genres | | Book selection |
| 5-8 | Website evaluation  Note-taking  Plagarism and copyright  Research process  Location and search skills: print sources, Internet, structured data bases  (Gr. 5) OPAC  Use references to locate information: dictionary, encyclopedia, almanac, atlas, database  Develop bibliographies  Use magazine index  Use index  Use Dewey | Book awards  Book reviews  Podcasts  PowerPoint presentations  Internet searches  (Gr. 5-6) Biographies  Book talks  Use multimedia resources  Internet safety  Explore genres | | Book selection  Book talks |
| 9-12 | Website evaluation  Note-taking  Parenthetical citations  Location and search skills: print sources, Internet, structured data bases  Determining appropriateness and credibility of a source  Use magazine index  Inter-library loan  Electronic databases  Internet search strategies | Book talks  Use multimedia resources  Electronic databases  Internet search strategies  Inter-library loan | | Book selection  Book talks  Electronic databases  Internet search strategies  Inter-library loan |

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| **Interface with AASL standards** | 1.1.3 Develop and refine a range of questions to frame the search for new understanding.  1.1.4 Find, evaluate, and select appropriate sources to answer questions.  1.1.5 Evaluate information found in selected sources on the basis of accuracy, validity, appropriateness for needs, importance, and social and cultural context.  1.1.7 Make sense of information gathered from diverse sources by identifying misconceptions, main and supporting ideas, conflicting information, and point of view or bias.  1.1.8 Demonstrate mastery of technology tools for accessing information and pursuing inquiry.  1.1.9 Collaborate with others to broaden and deepen understanding.  1.2.2 Demonstrate confidence and self-direction by making independent choices in the selection of resources and information.  1.2.3Demonstrate creativity by using multiple resources and formats.  1.2.4 Maintain a critical stance by questioning the validity and accuracy of all information.  1.2.5Demonstrate adaptability by changing the inquiry focus, questions, resources, or strategies when necessary to achieve success.  1.2.6 Display emotional resilience by persisting in information searching despite challenges.  1.2.7 Display persistence by continuing to pursue information to gain broad perspective.  1.3.1 Respect copyright/intellectual property rights of creators and producers.  1.3.2 Seek divergent perspectives during information gathering and assessment.  1.3.3 Follow ethical and legal guidelines in gathering and using information.  1.4.2 Use interaction with and feedback from teachers and peers to guide own inquiry process.  1.4.3 Monitor gathered information, and assess for gaps or weaknesses.  1.4.4 Seek appropriate help when it is needed.  2.1.1 Continue an inquiry-based research process by applying critical-thinking skills (analysis, synthesis, evaluation, organization) to information and knowledge in order to construct new understandings, draw conclusions, and create new knowledge.  2.1.4 Use technology and other information tools to analyze and organize information.  2.1.5 Collaborate with others to exchange ideas, develop new understandings, make decisions, and solve problems.  2.1.6 Use the writing process, media and visual literacy, and technology skills to create products that express new understandings.  2.2.1 Demonstrate flexibility in the use of resources by adapting information strategies to each specific resource and by seeking additional resources when clear conclusions cannot be drawn.  2.2.2 Use both divergent and convergent thinking to formulate alternative conclusions and test them against the evidence.  2.2.3 Employ a critical stance in drawing conclusions by demonstrating that the pattern of evidence leads to a decision or conclusion.  2.3.3 Use valid information and reasoned conclusions to make ethical decisions.  2.4.2 Reflect on systematic process, and assess for completeness of investigation.  3.1.1 Conclude an inquiry-based research process by sharing new understandings and reflecting on the learning.  3.1.3 Use writing and speaking skills to communicate new understanding effectively.  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.  3.1.6 Use information and technology ethically and responsibly.  3.2.3 Demonstrate teamwork by working productively with others.  3.3.3 Use knowledge and information skills and dispositions to engage in public conversation and debate around issues of common concern.  3.3.4 Create products that apply to authentic, real-world contexts.  3.4.1 Assess the processes by which learning was achieved in order to revise strategies and learn more effectively in the future.  3.4.2 Assess the quality and effectiveness of the learning product.  3.4.3 Assess own ability to work with others in a group setting by evaluating varied roles, leadership, and demonstrations of respect for other viewpoints.  4.3.2 Recognize that resources are created for a variety of purposes.  4.3.4 Practice safe and ethical behaviors in personal electronic communication and interaction. | **Inquiry**:  1.1.1 Follow an inquiry-based process in seeking knowledge in curricular subjects, and make the real-world connection for using this process in own life.  1.1.2 Use prior and background knowledge as context for new learning.  1.1.8 Demonstrate mastery of technology tools for accessing information and pursuing inquiry.  1.3.4 Contribute to the exchange of ideas within the learning community.  1.4.3 Monitor gathered information, and assess for gaps or weaknesses.  1.4.4 Seek appropriate help when it is needed.  2.1.2 Organize knowledge so that it is useful.  2.3.1 Connect understanding to the real world.  2.3.2 Consider diverse and global perspectives in drawing conclusions.  2.4.3 Recognize new knowledge and understanding.  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.  3.1.5 Connect learning to community issues.  3.3.2 Show social responsibility by participating actively with others in learning situations and by contributing questions and ideas during group discussions.  3.3.4 Create products that apply to authentic real-world contexts.  4.1.7 Use social networks and information tools to gather and share information.  4.3.4 Practice safe and ethical behaviors in personal electronic communication and interaction.  4.4.3 Recognize how to focus efforts in personal learning.  4.4.6 Evaluate own ability to select resources that are engaging and appropriate for personal interests and needs.  **Inquiry and curiosity**:  2.1.6 Use the writing process, media and visual literacy and technology skills to create products that express new understandings.  2.4.1 Determine how to act on information (accept, reject, modify).  3.1.3 Use writing and speaking skills to communicate new understanding effectively.  3.3.5 Contribute to the exchange of ideas within and beyond the learning community.  3.3.7 Respect the principles of intellectual freedom.  4.2.3 Maintain openness to new ideas by considering divergent opinions, changing opinions or conclusions when evidence supports the change, and seeking information about new ideas encountered through academic or personal experiences.  4.3.2 Recognize that resources are created for a variety of purposes.  4.4.2 Recognize the limits of own personal knowledge.  **Curiosity**:  1.1.6 Read, view, and listen for information presented in any format (e.g., textual, visual, media, digital) in order to make inferences and gather meaning.  1.2.2 Demonstrate confidence and self-direction by making independent choices in the selection of resources and information.  1.2.3 Demonstrate creativity by using multiple resources and formats.  1.2.5 Demonstrate adaptability by changing the inquiry focus, questions, resources, or strategies when necessary to achieve success.  1.2.7 Display persistence by continuing to pursue information to gain a broad perspective.  2.4.4 Develop direction for future investigations.  4.1.4 Seek information for personal learning in a variety of formats and genres.  4.1.5 Connect ideas to own interests and previous knowledge and experience.  4.1.8 Use creative and artistic formats to express personal learning.  4.2.1 Display curiosity by pursuing interests through multiple resources.  4.3.1 Participate in the social exchange of ideas, both electronically and in person. | 4.1.1Read, view, and listen for pleasure and personal growth.  4.1.4 Seek information for personal learning in a variety of formats and genres.  4.1.5 Connect ideas to own interests and previous knowledge and experience.  4.1.6 Organize personal knowledge in a way that can be called upon easily.  4.2.1 Display curiosity by pursuing interests through multiple resources.  4.2.2 Demonstrate motivation by seeking information to answer personal questions and interests, trying a variety of formats and genres, and displaying a willingness to go beyond academic requirements.  4.4.1 Identify own areas of interest. |

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| **Interface with NY State Learning Standards in**  **ELA** | **By the end of 1st grade…**  **Standard 1:**  **(EQ 1, 2, 4, 8)**   * Locate and use classroom and library media center resources to acquire information, with assistance * Read grade-level informational texts to begin to collect data, facts, and ideas, with assistance * Distinguish between texts with stories and texts with information * Use a picture dictionary as a resource for vocabulary development * Select books to meet informational needs, with assistance   **Standard 2**  **(EQ 1, 3, 7, 8, 11, 12, 14, 15)**   * Comprehend and respond to imaginative texts and performances; interpret, with assistance * Engage in pre-reading and reading activities to: select books, tapes, and poems on the basis of personal choice/interest or teacher-selected criteria such as theme/topic; predict what might happen next in a story read aloud or independently; draw conclusions from a story; identify characters, setting and events in a story; retell a story; distinguish between what is real and what is imaginary * Dramatize or retell stories using puppets, toys and other props   **Standard 3**  **(EQ 1, 2, 4, 7, 8, 10)**   * Identify, explain, and evaluate ideas, themes, and experiences from texts and performances * Engage in pre-reading and reading activities to: identify what they know, want to know, and have learned about a specific story, theme or topic; predict what could happen next or the outcome of a story or article; change the sequence of events in a story to create a different ending; compare a character in a story or article to a person with the same career or experience; evaluate and select books, poems, or tapes on the basis of personal choice or teacher-selected criteria such as theme, topic, author, and illustrations; identify the characters in a story and explain what each contributes to the events of the story; recognize different plots in books by the same author   **Standard 4**  **(EQ 3, 14)**   * Share reading experiences to build relationships with peers or adults * Respect the age, gender, position, and cultural traditions of the writer | **By the end of 4th grade…**  **Standard 1:**  **(EQ 1, 2, 3, 4, 8, 9, 12)**   * Acquire information by locating and using library media resources, with some assistance * Collect and interpret data, facts, and ideas from unfamiliar texts * Understand written directions and procedures * Locate information in a text that is needed to solve a problem * Identify a main idea and supporting details in informational texts * Recognize and use organizational features, such as table of contexts, indexes, page numbers, and chapter headings/subheadings to locate information * Select books independently to meet informational needs * Make inferences and draw conclusions on the basis of information from the text, with assistance * Use text features, such as captions, charts, tables, graphs, maps, notes and other visuals to understand and interpret informational texts * Use text features, such as headings, captions, and titles to understand and interpret informational texts with assistance * Distinguish between fact and opinion with assistance   **Standard 2**  **(EQ 1, 8, 9, 11, 12, 13, 14, 15)**   * Select literature on the basis of personal needs and interests from a variety of genres and by different authors * Read print-based and electronic literary texts silently on a daily basis for enjoyment * Make predictions, draw conclusions, make inferences about events and characters * Use knowledge of story structure, story elements and key vocabulary to interpret stories * Read, view, and interpret literary texts from a variety of genres with assistance * Define the characteristics of different genres, with assistance * Use graphic organizers to record significant details about characters and events in stories   **Standard 3**  **(EQ 1, 2, 3, 4, 7, 8, 9, 14)**   * Evaluate the content by identifying: the author’s purpose, whether events, actions, characters, and/or settings are realistic; important and unimportant details; statements of fact, opinion, and exaggeration, with assistance; recurring themes across works in print and media * Analyze ideas and information on the basis of prior knowledge and personal experience * Judge accuracy of content to gather facts, with assistance * Use opinions and reactions of teachers and classmates to evaluate personal interpretation of ideas, information, and experience * Evaluate information, ideas, opinions and themes in text by identifying, with assistance: a central idea and supporting details; missing or unclear information * Identify different perspectives, such as social, cultural, ethnic, and historical on an issue presented in more than one text, with assistance   **Standard 4**  **(EQ 3, 5, 7, 9, 11, 12, 13, 15)**   * Share reading experiences to build relationships with peers or adults * Respect the age, gender, position, and cultural traditions of the writer | **By the end of 8th grade…**  **Standard 1:**  **(EQ 1, 2, 6, 8, 10)**   * Acquire information by locating and using library media resources * Apply thinking skills such as define, classify, and infer; to interpret data, facts and ideas from informational texts * Read and follow written multistep directions or procedures to accomplish a task or complete an assignment * Preview informational texts to assess content and organization and select texts useful for the task * Use indexes to location information and glossaries to define term * Use knowledge of structure, content, and vocabulary to understand informational text * Distinguish between relevant and irrelevant information * Identify missing, conflicting or unclear information * Formulate questions to be answered by reading informational texts * Compare and contrast information from a variety of different sources * Condense, combine, or categorize new information from one or more sources * Draw conclusions and make inferences on the basis of explicit and implied information * Make, confirm, or revise predictions   **Standard 3**  **(EQ 9)**   * Evaluate the validity and accuracy of information, ideas, themes, opinions, and experiences in texts   **Standard 4**  **(EQ 10, 11, 12, 13, 14, 15)**   * Share reading experiences to build relationships with peers or adults * Respect the age, gender, position, and cultural traditions of the writer | **By the end of 12th grade…**  **Standard 1:**  **(EQ 1, 2, 6, 8, 10)**   * Locate and use school, public, academic and special library resources for information and research: use primary and secondary sources such as dictionaries and abstracts; set purpose for reading by asking questions about what they need to know for their research * Check consistency of hypothesis with given information and assumption * Analyze and synthesize information from different sources by making connections and showing relationships to other texts, ideas, subjects and the world at large * Employ a range of post-reading practices to think about new learning and to plan future learning   **Standard 2**  **(EQ 11, 12, 13, 14, 15)**   * Read, view, and respond independently to literary works that represent a range of social, historical and cultural perspectives * Read and interpret literary texts from a range of authors, genres, and subjects, including literary criticism   **Standard 3**  **(EQ 2, 6)**   * Analyze and evaluate non-fiction texts, including professional journals, technical manuals, and position papers to determine the writer’s perspectives, purposes, and intended audience * Select, reject, and reconcile ideas and information in light of beliefs   **Standard 4**  **(EQ 10, 12, 15)**   * Share reading experiences to build relationships with peers or adults * Respect the age, gender, position, and cultural traditions of the writer |

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| **Interface with NY State Learning Standards in**  **SCIENCE** | **Standard 1, Key Idea 1: Scientific Inquiry (EQ 11, 14)**   * Ask “why” questions in attempts to seek greater understanding concerning objects and events they have observed and heard about * Question the explanations they hear from others and read about, seeking clarification and comparing them with their own observations and understandings * Identify similarities and differences between explanations received from others or in print and personal observations or understandings   **Standard 2, Key Idea 1: Information Systems (EQ 5, 14)**   * Use computer technology, traditional paper-based resources, and interpersonal discussions, to learn, do, and share science in the classroom * Select appropriate hardware and software that aids in word processing, creating databases, telecommunications, graphing, data display, and other tasks * Use information technology to link the classroom to world events   **Standard 2, Key Idea 2: Information Systems (EQ 5, 14)**   * Use a variety of media to access scientific information * Consult several sources of information and points of view before drawing conclusions * Identify and report sources in oral and written communications   **Standard 2, Key Idea 3: Information Systems (EQ 9-10)**   * Demonstrate ability to critically evaluate information and misinformation | **Standard 1, Key Idea 1: Scientific Inquiry (EQ 2, 4, 5, 6, 8, 9, 10)**   * Formulate questions independently with the aid of references appropriate for guiding the search for explanations of everyday observations * Seek to clarify, to assess critically, and to reconcile their own thinking with the ideas presented by others, including peers, teachers, authors, and scientists   **Standard 2, Key Idea 1: Information Systems (EQ 1-10)**   * Use spreadsheets and database software to collect, process, display, and analyze information. Students access needed information from electronic databases and on-line telecommunication services * Systematically obtain accurate and relevant information pertaining to a particular topic from a range of sources, including local and national media, libraries, museums, government agencies, industries, and individuals | **Standard 1, Key Idea 1: Scientific Inquiry (EQ 2)**   * Hone ideas through reasoning, library research, and discussion with others, including experts   **Standard 1, Key Idea 2: Scientific Inquiry (EQ 2, 3, 8, 9, 10)**   * Refine their research ideas through library investigations, including electronic information retrieval and reviews of literature, and through peer feedback obtained through review and discussion   **Standard 1, Key Idea 3: Scientific Inquiry (EQ 1, 2, 5, 7)**   * Develop a written report for public scrutiny that describes their proposed explanation, including a literature review, the research they carried out, its result, and suggestions for further research   **Standard 2, Key Idea 1: Information Systems (EQ 1-10)**   * Access, select, collate, and analyze information obtained from a wide range of sources, such as research databases, foundations, organizations, national libraries, and electronic communication networks, including the Internet * Utilize electronic networks to share information |

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| **Interface with NY State Standards Learning Standards in**  **SOCIAL STUDIES** | **Standard 1, Key Idea 3 (EQ 1-10)**   * Gather and organize information about the important accomplishments of individuals and groups, including Native American Indians, living in their neighborhoods and communities * Classify information by type of activity: social, political, economic, technological, scientific, cultural, or religious   **Standard 1, Key Idea 4**  **(EQ 1-10)**   * Consider different interpretations of key events and/or issues in history and understand the differences in these accounts * Explore different experiences, beliefs, motives, and traditions of people living in their neighborhoods, communities, and State * View historic events through the eyes and experiences of those who were there, as shown in their art, writings, music and artifacts   **Standard 2, Key Idea 1**  **(EQ 1-10)**   * Read historical narratives, myths, legends, biographies, and autobiographies to learn about how historical figures lived, their motivations, hopes, fears, strengths, and weaknesses * Explore narrative accounts of important events from world history to learn about different accounts of the past to begin to understand how interpretations and perspectives develop * Study about different world cultures and civilizations focusing on their accomplishments, contributions, values, beliefs and traditions   **Standard 2, Key Idea 3**  **(EQ 1-10)**   * Understand the roles and contributions of individuals and groups to social, political, economic, cultural scientific, technological, and religious practices and activities * Gather and present information about important developments in world history   **Standard 2, Key Idea 4**   * Consider different interpretations of key events and developments in world history and understand the differences in these accounts * Explore the lifestyles, beliefs, traditions, rules and laws, and social/cultural needs and wants of people during different periods in history and in different parts of the world * View historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts   **Standard 3, Key Idea 2**  **(EQ 1-10)**   * Ask geographic questions abut where places are located; why they are located where they are; what is important about their locations; and how their locations are related to the location of other people and places * Gather and organize geographic information from a variety of sources and display in a number of ways * Analyze geographic information by making relationships, interpreting trends and relationships, and analyzing geographic data   **Standard 4, Key Idea 2**  **(EQ 1-10)**   * Locate economic information using card catalogues, computer databases, indices, and library guides * Collect economic information from textbooks, standard references, newspapers, periodicals, and other primary and secondary sources * Make hypotheses about economic issues and problems, testing refining, and eliminating hypotheses and developing new ones when necessary * Present economic information by developing charts, tables, diagrams, and simple graphs | **Standard 1, Key Idea 2 (EQ 1-10)**   * Investigate key turning points in New York State and United States history and explain why these events or developments are significant   **Standard 1, Key Idea 3 (EQ 1-10)**   * Complete well-documented and historically accurate case studies about individuals and groups who represent different ethnic, national, and religious groups, including Native American Indians, in New York state and the United States at different times and in different locations * Gather and organize information about the important achievements and contributions of individuals and groups living in New York state and the United States   **Standard 1, Key Idea 4 (EQ 1-10)**   * Consider the sources of historic documents, narratives, or artifacts and evaluate their reliability * Understand how different experiences, beliefs, values, traditions, and motives cause individuals and groups to interpret historic events and issues from different perspectives * Compare and contrast different interpretations of key events and issues in New York state and United States history and explain reasons for these different accounts * Describe historic events through the eyes and experiences of those who were there   **Standard 2, Key Idea 1 (EQ 1-10)**   * Interpret and analyze documents and artifacts related to significant developments and events in world history   **Standard 2, Key Idea 2 (EQ 1-10)**   * Study about major turning points in world history by investigating the causes and other factors that brought about change and the results of these changes   **Standard 2, Key Idea 3 (EQ 1-10)**   * Investigate the roles and contributions of individuals and groups in relation to key social, political, cultural and religious practices throughout world history * Interpret and analyze documents and artifacts related to significant developments and events in world history   **Standard 2, Key Idea 4 (EQ 1-14)**   * Explain the literal meaning of a historical passage or primary source document, identifying who was involved, what happened, where it happened, what events led up to these developments, and what consequences or outcomes followed * Analyze different interpretations of important events and themes in world history and explain the various frames of reference expressed by different historians * View history through the eyes of those who witnessed key events and developments in world history by analyzing the literature, diary accounts, letters, artifacts, art, music, architectural drawings and other documents * Investigate important events and developments in world history by posing analytic questions, selecting relevant data, distinguishing fact from opinion, hypothesizing cause-and-effect relationships, testing these hypotheses, and forming conclusions   **Standard 3, Key Idea 2 (EQ 1-10)**   * Formulate geographic questions and define geographic issues and problems * Use a number of research skills to locate and gather geographical information about issues and problems * Present geographical information in a variety of formats, including maps, tables, graphs, charts, diagrams and computer-generated models * Interpret geographic information by synthesizing data and developing conclusions and generalizations about geographic issues and problems   **Standard 4, Key Idea 2 (EQ 1-10)**   * Identify and collect economic information from standard reference works, newspapers, periodicals, computer databases, textbooks, and other primary or secondary sources * Organize and classify economic information by distinguishing relevant from irrelevant information, placing ideas in chronological order, and selecting appropriate labels for data * Evaluate economic data by differentiating fact from opinion and identifying frames of reference * Develop conclusions about economic issues and problems by creating broad statements which summarize findings and solutions * Present economic information by using media and other appropriate visuals such as tables, charts, and graphs to communicate ideas and conclusions | **Standard 1, Key Idea 2 (EQ 1-10)**   * Develop and test hypotheses about important events, eras, or issues in New York State and United States history, setting clear and valid criteria for judging the importance and significance of these events, eras, or issues * Compare and contrast the experiences of different groups in the United States   **Standard 1, Key Idea 3 (EQ 1-10, 12, 13)**   * Compare and contrast the experiences of different ethnic, national, and religious groups, including Native American Indians, in the United States, explaining their contributions to American society and culture * Research and analyze major themes and developments in New York state and United States history * Prepare essays and oral reports about the important social, political, economic, scientific, technological, and cultural developments, issues, and events from New York State and United States history   **Standard 1, Key Idea 4 (EQ 1-10)**   * Analyze historical narratives about key events in New York State and United States history to identify the facts and evaluate the authors’ perspectives * Consider different historians’ analyses of the same event or development in United States history to understand how different viewpoints and/or frames of reference influence historical interpretations * Evaluate the validity and credibility of historical interpretations of important events or issues in New York State and United States history, revising these interpretations as new information is learned and other interpretations are developed   **Standard 2, Key Idea 1 (EQ 1-10, 13)**   * Analyze historic events from around the world by examining accounts written from different perspectives * Understand the broad patterns, relationships, and interactions of cultures and civilizations during particular eras and across eras * Analyze changing and competing interpretations of issues, events, and developments throughout world history   **Standard 2, Key Idea 2 (EQ 1-10)**   * Analyze evidence critically and demonstrate an understanding of how circumstances of time and place influence perspective * Explain the importance of analyzing narratives drawn from different times and places to understand historical events * Investigate key events and developments and major turning points in world history to identify the factors that brought about change and the long-term effects of these changes   **Standard 2, Key Idea 3 (EQ 1-10, 11, 13)**   * Analyze the roles and contributions of individuals and groups to social, political, economic, cultural and religious practices and activities   **Standard 2, Key Idea 4 (EQ 1-14)**   * Identify historical problems, pose analytical questions or hypotheses, research analytical questions or test hypotheses, formulate conclusions or generalizations, raise new questions or issues for further investigation * Interpret and analyze documents and artifacts related to significant developments and events in world history * Plan and organize historical research projects related to regional or global interdependence * Analyze different interpretations of important events, issues, or developments in world history by studying the social, political, and economic context in which they were developed; by testing the data source for reliability and validity, credibility, authority, authenticity, and completeness; and by detecting bias, distortion of the facts, and propaganda by omission, suppression, or invention of facts   **Standard 3, Key Idea 2 (EQ 1-10)**   * Plan, organize, and present geographic research projects * Locate and gather geographical information from a variety of primary and secondary sources * Select and design maps, graphs, tables, charts, diagrams, and other graphic representations to present geographic information * Analyze geographic information by developing and testing inferences and hypotheses, and formulating conclusions from maps, photographs, computer models, and other geographic representations * Develop and test generalizations and conclusions and pose analytic questions based on the results of geographic inquiry   **Standard 4, Key Idea 2 (EQ 1-10)**   * Identify, locate, and evaluate economic information from standard reference works, newspapers, periodicals, computer databases, monographs, textbooks, government publications, and other primary or secondary sources * Use economic information by identifying similarities and differences in trends; inferring relationships between various elements of an economy; organizing and arranging information in charts, tables, and graphs; extrapolating and making conclusions about economic questions, issues, and problems * Apply a problem-solving model to identify economic problems or issues, generate hypotheses, test hypotheses, investigate and analyze selected data, consider alternative solutions or positions, and make decisions about the best solution or position * Present economic information and conclusions in different formats, including graphic representations, computer models, research reports, and oral presentations |

| **College, Career and Citizen Ready Skill** | **Novice** | **Emerging** | **Proficient** | **Exemplary** |
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| **Critical Thinking** *Analyze and evaluate information, ideas, or objects to develop a point of view, make predictions, or draw inferences.* | Identify information, ideas, or objects to make straightforward predictions or inferences based on background knowledge | Analyze information, ideas or objects to develop a point of view, make predictions, or draw inferences with limited reasoning/evidence | Analyze and evaluate information, ideas, or objects and use evidence to support a point of view, make predictions, or draw inferences | Analyze and evaluate concrete and conceptual information, ideas, or objects to distinguish patterns and use evidence to guide decision-making and/or defend/modify perspectives |
| **Problem-Solving**  *Identify and define a problem-situation and work through a procedure to determine viable and appropriate solutions and next steps and carry out as applicable* | Given a problem, work through a procedure to determine viable and appropriate solutions and next steps and carry out as applicable | Given a situation, set of data, and/or parameters, identify the problem and work through a procedure to determine viable and appropriate solutions and next steps and carry out as applicable | Identify and define a problem-situation and work through a procedure to determine viable and appropriate solutions and next steps and carry out as applicable | Identify and define a complex problem- situation and its underlying assumptions, and work through a procedure to determine / carry out viable and appropriate solution(s) and consider possible ramifications/plan of action |
| **Creativity and Innovation**  *Generate and develop ideas, solutions and connections to create something original / novel that is meaningful or useful* | Explore and connect similar and unrelated facts, events, techniques, or data to create or to modify an idea / solution. | Explore and connect similar and unrelated facts, events, techniques, or data to create or to modify an idea / solution that is personally meaningful or useful | Generate and develop ideas, solutions and connections to create something original / novel that is meaningful or useful | Generate and develop novel ideas, solutions, and connections that expand personal, conventional, technical, or technological boundaries |
| **Information Literacy**  *Use an inquiry process to locate, evaluate and use sources based on accuracy, authority, and point of view to explore a question/topic and synthesize and share findings and give appropriate credit/ citation* | Given a set of resources, select and use sources to explore a question/topic, share findings, and give appropriate credit/citation | Use an inquiry process to locate, evaluate, and use sources with some consideration of accuracy, authority, and point of view to explore a question/topic, synthesize and share findings, and give appropriate credit/ citation | Use an inquiry process to locate, evaluate and use sources based on accuracy, authority, and point of view to explore a question/topic and synthesize and share findings and give appropriate credit/ citation | Use an inquiry process to locate, evaluate, and use diverse sources based on accuracy, authority, and point of view and weigh conflicting evidence to contribute to the body of knowledge through synthesizing findings/ draw conclusions and giving appropriate credit/ citation |

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| **Communication**  *Select and use appropriate format to effectively engage the target audience in a topic, point of view, argument and/or creative work* | Use a given format to present information and ideas clearly so that main points are relevant to the purpose and audience | Select from a variety of formats to engage an audience about a topic, point of view, argument, or creative work | Select and use appropriate format to effectively engage the target audience in a topic, point of view, argument and/or creative work | Strategically select and use an appropriate format and its features to effectively engage the target audience in a topic, point of view, argument, and/or creative work to achieve a desired result and assess its impact |
| **Social Responsibility**  *Contribute to the improvement of the local, national, or global community by making decisions / taking actions to enhance the welfare of society in an ethical manner* | Based on a given need, make decisions/take actions for an individual, family, group, or organization | Identify a need, make decisions/take actions for an individual, family, group, or organization, and evaluate effectiveness of the decisions/actions | Contribute to the improvement of the local, national, or global community by making decisions / taking actions to enhance the welfare of society in an ethical manner | Demonstrate ongoing commitment to a local, national, or global cause by initiating communication, seeking solutions, and influencing others’ actions in an ethical manner |
| **Collaboration**  *Work with others by sharing responsibility and critically examining knowledge and ideas to build consensus in order to achieve an objective* | Based on established roles and responsibilities, exchange information and respond to others’ thinking to achieve an objective | Based on established roles and responsibilities, share and be open to information, appropriately respond to others’ thinking, and evaluate/adjust the group’s process to achieve an objective | Work with others by sharing responsibility and critically examining knowledge and ideas to build consensus in order to achieve an objective | Network locally or remotely with peers, experts, and others to leverage collective expertise to achieve an objective |
| **Initiative and Self-Direction**  *Independently select area of focus, develop achievable goals, organize and carry out plan, and seek feedback to achieve goals within designated timelines* | Given an area of focus, select achievable goals and organize and carry out a plan within designated timelines with significant scaffolding | Select area of focus, translate into achievable goals, and organize and carry out plan within designated timelines with occasional support and redirection | Independently select area of focus, develop achievable goals, organize and carry out plan, and seek feedback to achieve goals within designated timelines | Independently select area of focus, develop challenging and achievable goals, organize and sustain focus by seeking feedback and incorporating that into work within designated timelines |

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| **DRAFT: 21st Century Skills, OCM BOCES** | | | | |
| **Skill** | **Novice** | **Emerging** | **Proficient** | **Exemplary** |
| **Global competence**  *Recognizes how culture and conditions impact perspective, investigates the world beyond the immediate environment, and translates ideas and findings into appropriate actions to improve conditions* | * Identifies different cultural views exist but views the world primarily through one’s own perspective for a given problem/ situation and suggests an idea/action accordingly | * Compares cultural differences on a variety of dimensions for a given problem/ situation but one’s solutions are primarily through own cultural perspective | * Compares cultural differences on a variety of dimensions for a given problem/situation, recognizes how culture shapes perspective, and translates that into appropriate ideas and actions | * Investigates cultural differences on a variety of dimensions for a given problem/situation, recognizes how culture shapes perspective, creates appropriate ideas and actions, and articulates the potential impact of those actions |
| **Social responsibility**  *Contributes to the improvement of the local, national, and global community through empathy, ethical choices, shared responsibility and action* | * Demonstrates shared awareness and respond to an established cause or an immediate need | * Identifies a shared need and take appropriate action based on personal interest, integrity and commitment | * Develops and/or contributes to a shared plan of action based on personal interest, integrity, and commitment to influence others’ awareness of a cause | * Initiates and sustains ongoing commitment to a cause through communication, creating solutions, and influencing others’ actions. |
| **Critical Thinking** *Analyzes information, ideas, and possibilities to develop a point of view, draw conclusions and make predictions.* | * Uses current and prior knowledge to establish a comparison, develop point of view, and attempt to explain it concretely | * Identifies current and prior knowledge to establish and develop a point of view, make predictions, and clarify reasoning | * Analyzes abstract ideas/ patterns by distinguishing credible evidence to predict implications and defend perspectives | * Evaluates abstract ideas/ patterns by using credible evidence to predict implications, justify/modify perspectives, and apply to other situations |
| **Problem-Solving**  *Systematically identifies, evaluates and determines viable and appropriate solutions.* | * Given a problem, selects the appropriate procedure/ structure and carry the steps out to arrive at a solution | * Within a given set of parameters, identifies a problem, selects and applies an appropriate procedure/ structure to determine a viable solution | * Independently identifies a complex problem and its underlying assumptions and applies a relevant procedure/ structure to determine viable and appropriate solution(s) | * Independently identifies a complex problem and its underlying assumptions, applies a relevant procedure/ structure, creates viable and appropriate solution(s) and consider possible ramifications |
| **Creative and innovative thinking**  *Generates original ideas, unique solutions, or new associations of existing ideas for an aesthetic or practical purpose* | * Identifies an idea/approach within a guided structure to address a problem or complete a task that are an extension of an existing idea/approach | * Generates novel ideas, stories, and models that either are not fully developed or mimic something/ someone else | * Generates and extends a novel or unique idea, question, format or product to create new knowledge or knowledge that solves an existing need/problem, and/or evokes an aesthetic response | * Creates a novel or unique idea, question, format or product that crosses multidisciplinary boundaries and makes new associations to solve an existing or anticipated need/problem and/or evokes an aesthetic response |
| **Information and media literacy**  *Access and evaluate information and sources critically; apply information to complete the task in an ethical and legal manner* | * Accesses, identifies and reports sources to complete a task without consideration of its relevance, bias, appropriateness, or attribution | * Accesses and identifies sources and asks questions to identify missing information before applying that information with some consideration of relevance, bias, appropriateness or attribution | * Accesses and evaluates sources in order to determine its relevance, bias, appropriateness * Uses that knowledge to seek information and alternate points of view * Organizes information to draw inferences and conclusions with appropriate attribution | * Accesses and evaluates sources based on accuracy, authority, and point of view * Resolves conflicting evidence or clarifies reasons for differing interpretations of information and ideas * Organizes information to draw inferences and conclusions with appropriate attribution |
| **Collaboration**  *Interacts with diverse groups to reach workable solutions while displaying flexibility and willingness to understand alternate points of view* | * Engages in dialogue among diverse members of the group that is characterized by uneven participation and a narrow viewpoint that compromises a workable solution | * Engages in dialogue among diverse members of the group characterized by respect and cooperation but one viewpoint dominates which impacts the solution | * Engages in dialogue among diverse members of the group characterized by respect, cooperation, and openness to divergent viewpoints that results in a workable solution | * Engages in dialogue and capitalizes on the diversity of the group to expand ideas and uses the creative tension to develop a shared ownership of a solution. |
| **Initiative and self-direction**  *Identify an area of focus; establish goal(s); organize and sustain effort in service of goal(s); monitor and adjust accordingly to complete in a timely manner.* | * Selects area of focus and achievable goals with significant teacher input * Organizes and carries out plan with significant teacher scaffolding in a timely manner. | * Independently selects area of focus that inspires but needs teacher assistance to translate focus into achievable goals * Organizes and carries out plan with occasional support and redirection in a timely manner. | * Independently selects area of focus that motivates learning and develops concrete, achievable goals * Independently organizes and carries out plan to achieve goals in a timely manner | * Independently selects area of focus that motivates learning and develops concrete, challenging, and achievable goals * Independently organizes and sustains focus through seeking feedback and incorporating that into their work in a timely manner |
| **Communication**  *Communicates ideas effectively mindful of audience, purpose, and medium* | * Conveys basic information without consideration of audience, clarity of purpose, and medium * Uses visual aids and/or supporting details/evidence that are tangential or distracting | * Conveys basic information using features of the medium without consideration of audience and clarity of purpose * Uses visual aids and/or supporting details/evidence in a limited manner | * Uses the features of a medium to convey information to an audience to achieve a desired result * Uses visual aids and/or supporting details/evidence that explains one’s thinking in a predictable manner | * Deliberately uses the features of a medium to convey sophisticated information based on knowledge of audience to achieve a desired result * Uses visual aids/supporting details/evidence that illuminate the content |

**Recurring Transfer Tasks for Library Media**

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| **Transfer Task** | **Definition** | **AASL** | **College, Career and Citizen-Ready Skill** | **Example (Elementary)** | **Example (Secondary)** |
| Create an annotated bibliography | * Collects and identifies resources using an established format for citations. * Written/visual entries include description, analysis, or evaluation of content designed to answer questions and for a specific audience. | AASL 1.  Inquire, think critically, and gain knowledge.  AASL 2.  Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.  AASL 3. Share knowledge and participate ethically and productively as members of our democratic society. | Communication  Critical Thinking  Problem-Solving  Ethical citizenship | List of books to recommend for a friend to read on a specific topic. Citation consists of author/ title and brief description. | Annotated bibliography of resources to support both sides of an argument. Citation consists of approved citation format, brief description of content, and analysis of why the resource is useful for the task. |
| Set up a creative, novel, or innovative question(s) to pursue | * Poses a higher order question(s) for which there is no straightforward answer and potentially more than one answer. * Includes rationale for the pursuit of this question. | AASL 1.  Inquire, think critically, and gain knowledge. | Critical Thinking  Problem solving  Creative/Innovative Thinking  Productivity | Develop questions related to the use of natural resources for energy in general. | Create a set of questions to interview students in another country about popular culture topics. |
| Conduct research to answer questions or explore topics | * Selects, uses, and synthesizes a resource(s) to answer questions or explore a given topic. * Communicates findings and new knowledge in expository writing or oral presentations. | AASL 1.  Inquire, think critically, and gain knowledge.  AASL 2.  Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.  AASL 3. Share knowledge and participate ethically and productively as members of our democratic society. | Critical thinking  Problem solving  Digital Literacies  Ethical Citizenship  Productivity | How does the use of resources in Virginia affect the way people live in each of the regions? Collect information from multiple resources (print, electronic, pictures, interview). Identify patterns and draw conclusions. | How does the use of resources in three countries on three different continents affect the way people live in each of the regions? Collect information from multiple resources (print, electronic, pictures, interview). Identify patterns and draw conclusions |
| Build and use a collection of information resources for life-long learning | * Reads for pleasure and to gain knowledge. * Selects resources. * Evaluates usefulness of resources. * Sets up a structure or organizational scheme. * Regularly updates resources. * Interacts with resources. | AASL 1.  Inquire, think critically, and gain knowledge.  AASL 4.  Pursue Personal and Aesthetic Growth | Digital literacy  Productivity  Critical thinking  Communication | Create a list in Destiny around a topic of personal interest | Use social bookmarking tools to build a collection of resources around your career pathway. |
| Conduct research to persuade an audience | * Understands the principles of persuasion and applies them to a specific audience. * Understands audience and tailors research to support persuasive arguments. | AASL 1.  Inquire, think critically, and gain knowledge.  AASL 2.  Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.  AASL 3.  Share knowledge and participate ethically and productively as members of our democratic society. | Critical thinking  Creative/innovative  Digital literacies  Communication  Productivity | Create a multimedia presentation to share your conclusions with your audience (e.g, where should Aunt Lucy move? What should the farmer do about his insect problem?) | Participate in a debate via video conferencing to argue views about representative democracies |

**K-12 Information Literacy and Technology Rubrics**

***Carrollton-Farmers Branch Public Schools; Farmers-Branch, TX***

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| **Area of Competency: Fluently Navigate the Net** | | | | | | |
|  | ***Mastery*** | | ***Progressing*** | | ***Beginning*** | |
| Information problem | Uses prior knowledge about the problem and with the Net to efficiently and effectively begin a search and follow it through to its execution | | Exhibits willingness to use new tools to retrieve information which provides both important experience and new frustration when solving information problems | | Uses the same tool regardless of the information problem and searches using inappropriately broad terms or literal questions | |
| Navigation | Surveys the range of landmark features and tools and picks the most strategic path to navigate the database/web page | | Uses landmarks of the database/web page to move deeper into the tool/site | | Loses of track of where they are and demonstrates frustration when trying to get back to where they were | |
| **Area of Competency: Effectively Communicate Ideas and Information** | | | | | | |
|  | ***Mastery*** | | ***Progressing*** | | ***Beginning*** | |
| Interplay between images and text | The way words and the images are presented enrich the other without being redundant | | Images and words presented are consistent with one another | | The inclusion and/or layout of the images and words distracts from the overall message | |
| Selection of evidence or detail for the given task and audience | Uses knowledge of the platform and the audience to make specific choices to enhance the effectiveness of the message | | Demonstrates working knowledge of the platform and/or audience but struggle with using that to personalize the communication | | Presents information without consideration of the audience or the platform | |
| **Area of Competency: Safely Use Technology** | | | | | | |
|  | ***Mastery*** | | ***Progressing*** | | ***Beginning*** | |
| Recognizing Cyberbullying | Recognize cyberbullying when it occurs and know what steps they can take immediately to protect themselves as well as know what steps they can take in the long term-both to deal with the ripple effect and in terms of notifying the authorities. | | Recognize cyberbullying when it occurs (both in their own lives and with others). They know the appropriate steps to take to try to deal with the situation. | | Treats cyberbully like a “regular” bully. Either engage or try to ignore the attacks which only escalates the problem. | |
| Safety of Online Practices | Protects personal information by applying a higher level of discretion before logging on to any publicly shared computer, filling out any electronic forms, responding to any emails or communicating in any virtual conversations. | | Protects personal information in new or unfamiliar situations but once becoming comfortable they tend to share information more freely. | | Protects personal information in obviously threatening or dangerous situations but becomes overly trusting when given the appearance of assurances or propriety. | |
| Web Presence | Creates a web presence for oneself that is a respectful and professional portrayal regardless of where it is hosted. Monitors what information is available about oneself online and knows how to remedy misinformation and protect from over exposure. | | Creates multiple web presences for oneself that are only appropriate for some audiences to view. Monitors what information is available about oneself online. | | Creates a web presence for oneself and assumes that the intended audience is all that will view it. | |
| **Area of Competency: Ethically Use Technology** | | | | | | |
|  | ***Mastery*** | | ***Progressing*** | | ***Beginning*** | |
| Stealing Someone else’s Work - Copyright Plagiarism | Sees intellectual property as something that is legally owned by someone else and any use of it requires appropriate permissions. | | Sees intellectual property as something that is legally owned but is casual about the citation format and permission process. | | Believes that a small modification to intellectual property means they now “own” it. | |
| Digital Citizenship | Behaving in a virtual community in a way that demonstrates your integrity and care for others. | | Recognize that a virtual community is a real connection with people where what you say and do matters. | | Takes advantage of the perceived anonymity of a virtual community by saying and doing things they would not otherwise do. | |
| **Area of Competency: Develop a Deeper Understanding About a Problem Through the Use of Technology** | | | | | | |
|  | ***Mastery*** | | ***Progressing*** | | ***Beginning*** | |
| Identify Information Problems | Develops robust background knowledge about the topic in order to articulate good questions that are worth pursuing | | Develops robust background knowledge about the topic but struggles to frame a question that hasn’t been asked before. | | Asks questions that are readily answered upon doing substantive research. | |
| Develop Models that Illustrate a Problem, Pattern or Situation | Use available information to create a powerful visual display of the extension of an existing problem, pattern or situation over time. | | Use available information to create a visual display of the extension of an existing problem, pattern or situation over time in a way that is flawed, incomplete or unreliable. | | Displays available information related to a problem, pattern or situation. | |
| **Area of Competency: Ability to function with technology they have never seen before drawing on past experiences.** | | | | | | |
|  | ***Mastery*** | | ***Progressing*** | | Beginning | |
| Navigation of Technology | Make an initial comparison between the new technology and existing technology experience leveraging assumptions but also explores new capacities that the technology offers. | | Make a comparison between the new technology and existing technology experience and operate according to those assumptions. | | Searches for what they are looking for through trial and error or through the use of help menus or other users. | |
| **Area of Competency: Imagine/Anticipate Next Generation Technologies and the Impact That it will Have on the Quality of Life** | | | | | | |
|  | ***Mastery*** | | ***Progressing*** | | Beginning | |
| Anticipate Need | Projecting ahead to identify problems that haven’t surfaced yet. | | Conducts an investigation of what people would like to see and analyzes what currently is and is not working as well. | | Conducts an investigation of what people would like to see. | |
| Imagine Solution | Develop a novel idea that is inspired by the needs of the consumer and the vision of the creators. | | Develop a solution that is an incremental improvement of an existing innovation. | | Develop a solution that is a direct redress of a known problem. | |
| Execute Idea | Conceptualization creates a need and a passion where previously none existed even if the technology is still being perfected. | | Conceptualization meets the need it was intended to serve. | | Conceptualization has some good or powerful aspects but is too complicated to use or too underdeveloped to function reliably enough to inspire regular use. | |
| **Access, interpret and evaluate information from a variety of sources** | | | | | | |
| Validity and relevance of sources | Investigates content accuracy and trustworthiness relative to credibility/intent of author and comparison to other sources to determine whether the information merits inclusion | | Selects information relevant to the task and considers credibility of authorship based primarily on point of view, date published, and publisher before including in research | | Selects information relevant to the task but only considers credibility when there are obvious concerns | |
| Interpretation, analysis and synthesis utilizing a variety of sources | Constructs knowledge based on analysis and synthesis of relevant information from a variety of sources, including reflection on areas of debate/uncertainty | | Constructs knowledge based on inclusion and analysis of relevant information from a variety of sources | | Constructs knowledge by inclusion of relevant information from a limited number of sources | |
| **Work independently and collaboratively to produce, evaluate and improve work** | | | | | | |
| Collaboration | | Group members are invested in their individual tasks, serve as a resource/sounding board for others, and focus on a cohesive result | | Group members complete their individual tasks, motivate others, and coordinate the parts to complete the assigned task. | | Group members’ efforts to complete their individual tasks are compromised because of working in isolation from one another or from ineffective criticism of one another |
| Plan/process for production | | Creates and implements a plan, actively engages in critique, evaluates that feedback, and applies innovative solutions or revisions when appropriate. | | Creates and implements a plan, incorporates feedback, and makes adjustments as needed | | Works toward creation of an end product in an orderly manner but reluctant to make adjustments along the way |
| Critique of another’s work | | Provides clear, detailed feedback based on established criteria in a constructive manner so that the other student has clarity on ways to rethink or revise his/her work | | Provides clear feedback based on established criteria and analysis of the work | | Provides feedback related to established criteria but inserts personal preferences into the analysis |
| Revision / refinement of work | | Reevaluates the entire work to incorporate feedback and to address self-identified areas of concern | | Uses feedback (based on prior attempts and grading criteria) to improve the quality of the overall work | | Fixes obvious mistakes but cannot independently address more complicated problems |

**Information Literacy & Technology Curricular Philosophy**

***Carrollton-Farmers Branch, TX***

As *An* *Innovative Leader in Learning*, the Carrollton-Farmers Branch ISD prepares all students to be competitive in a global market. This undertaking requires robust information literacy, problem solving, critical thinking and collaboration skills in order to tackle authentic and complex tasks. The results of engagement in such significant tasks is that students are able to pursue curiosities, investigate the possibilities and effectively communicate their ideas, aspirations and evidence for themselves and their communities.

The real strength and challenge in information literacy and technology curricula is its integrated philosophy: targeted-skills and competencies are embedded in subject area content. This presumes that classroom level staff are like-minded in their commitment to these vital curricular goals and provide students with the necessary time and feedback to develop the skills to mastery.

The district media specialists and instructional technology specialists collaborated to articulate K-12 curricular components that are a seminal part of robust information literacy and technology curriculum aligned with the district larger graduate level profile expectations. There are three components:

* Non-negotiable competencies necessary for students to be literate in the 21st century world
* Benchmark tasks at the end of 4th, 7th and 11th grade to evaluate whether students have achieved the desired learning goals – Note: Benchmark grades are 4th, 7th and 11th so that specialists have an additional year to improve skills before students transition to another building or graduate.
* Rubrics that evaluate the degree of success so that further instruction is personalized to fit the needs of every learner

The documents that directly influenced the development include:

* AASL’s 21st Century Learning Standards (2008 – www.ala.org/ala/mgrps/divs/aasl/aaslproftools/learningstandards/aasl\_learningstandards.pdf)
* Partnership for 21st Century Skills ([www.21stcenturyskills.org](http://www.21stcenturyskills.org))
* TEKS
* NETS-S (National Education Technology Standards – Students from ISTE)
* Carrollton-Farmers Branch Graduate Level Profile

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| **Fluently Navigate the Net (the bullet)** | | |
| By the end of 4th grade | By the end of 7th grade | By the end of 11th grade |
| Non-negotiable skills / processes:  -Use a browser to navigate specific websites to find given information | Non-negotiable skills / processes  -Use textual and visual cues on a website to navigate to needed information | Non-negotiable skills / processes  -Navigate independently the internet to find needed information |
| As measured by their ability to complete the following task(s):  Given a specific URL, the students will type in the address and use navigation buttons & links to find specific information within that site.  Key vocabulary:  URL  Hyperlink  Favorites  Refresh  Escape | As measured by their ability to complete the following task(s):  Given the district library resources page, the students will navigate to needed information using the appropriate links listed.  Key vocabulary:  Search engine  browser | As measured by their ability to complete the following task(s):  Given a situation of applying for admission to a college, the student will navigate on the internet to find the application form on at least two college websites. |
| **Effectively Communicate Ideas and Information (the bullet)** | | |
| By the end of 4th grade | By the end of 7th grade | By the end of 11th grade |
| Non-negotiable skills/processes:   * use software, peripherals and other devices to communicate effectively | Non-negotiable skills / processes:   * demonstrate proficiency in software, peripherals and other devices to communicate effectively | Non-negotiable skills / processes:   * analyze a situation and apply appropriate tools to communicate effectively |
| As measured by their ability to complete the following task(s):   * Given specific tools and a task the student will communicate their ideas and information | As measured by their ability to complete the following task(s):   * Given a task of creating a product students will be given a limited choice of tools to effectively communicate ideas and information | As measured by their ability to complete the following task(s):   * Given a situation of finding a job, the student will select the best tools to design a project to market himself/herself effectively. |

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| **Safely use technology (the bullet)** | | |
| By the end of 4th grade | By the end of 7th grade | By the end of 11th grade |
| Non-negotiable skills / processes:  -Identify safe and unsafe email and take appropriate action  -Define cyber bullying | Non-negotiable skills / processes:  - Identify/track real source of information (who the author/sponsor is)  -Analyze a set of circumstances to determine if the situation qualifies as cyber bullying | Non-negotiable skills / processes:  -Evaluate real source of information (who the author/sponsor is)  -Develop strategies for resolving instances of cyber bullying |
| As measured by their ability to complete the following task(s):  -Give students safe and unsafe sample emails and have the student determine the appropriate course of action  -Categorize examples as bullying or non-bullying | As measured by their ability to complete the following task(s):  - Give students a sample Facebook page and have the student evaluate what information that the person is sharing is dangerous or hurtful  - Categorize examples as bullying or non-bullying | As measured by their ability to complete the following task(s):  - Give students a sample Wiki page and ask the students to determine the accuracy of the information  -Given a cyber bullying scenario the student will develop a plan of action to address the issue |
| **Ethically use technology (the bullet)** | | |
| By the end of 4th grade | By the end of 7th grade | By the end of 11th grade |
| Non-negotiable skills / processes:  -Rephrase information from an original source into the student’s own words  -acknowledge sources used in student work  -understand rights and ownership of digital media | Non-negotiable skills / processes  - Summarize information from original sources in the students own words  -cite sources used in student work  -understand the process of securing permission to use copyrighted material | Non-negotiable skills / processes  -Synthesize information from multiple sources to create a new work  -cite multiple sources in formal citation style  -demonstrate understanding rights and ownership of digital media |
| As measured by their ability to complete the following task(s):  -Give students a multimedia presentation to distinguish between original student and plagiarized work.  -The students will also determine if the sources have been appropriately acknowledged. | As measured by their ability to complete the following task(s):  -Give students an article and have them appropriately cite the information they use in their writing  -The students will request permission to use the copyrighted material. | As measured by their ability to complete the following task(s):  -Students will utilize multiple sources including digital media to create an original work using proper citation. |
| **Develop a deeper understanding about a problem through the use of technology** | | |
| By the end of 4th grade | By the end of 7th grade | By the end of 11th grade |
| Non-negotiable skills/processes   * Use designated district online resources and other predetermined technology tools to glean a deeper understanding of a specified problem | Non-negotiable skills / processes   * Students develop efficient and effective use of online resources to glean a deeper understanding of a specified problem | Non-negotiable skills / processes   * Students will effectively use technology to glean a deeper understanding of a problem |
| As measured by their ability to complete the following task(s):   * Given a specific problem the teacher will guide the students through the process of collecting, understanding and sharing their findings. | As measured by their ability to complete the following task(s):   * Given a specific problem the teacher will facilitate the students while they go through the process of collecting, understanding and sharing their findings. | As measured by their ability to complete the following task(s):   * Students select a personal issue of concern, identify the problem and independently go through the process of collecting, understanding and sharing their findings. |
| **Ability to function with technology they have never seen before drawing on past experiences** | | |
| By the end of 4th grade | By the end of 7th grade | By the end of 11th grade |
| Non-negotiable Skills/processes   * Use a specific technology they are unfamiliar with to complete a task | Non-negotiable skills / processes   * Given selected technologies that the students are unfamiliar with they will choose the best tool to complete a task | Non-negotiable skills / processes   * Analyze a situation and evaluate unfamiliar technology tools to complete a task. |
| As measured by their ability to complete the following task(s):   * Given a specific task and an unfamiliar technology the teacher will guide the students through the use of the technology to complete the task. * Compare the use of technology to non-technology | As measured by their ability to complete the following task(s):   * Given a specific task and unfamiliar technology students will use the “Help” feature and prior knowledge to successfully complete the task. | As measured by their ability to complete the following task(s):   * Given a situation the students will research to find an unfamiliar technology tool, draw on past experiences and successfully complete the task. |

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| **Imagine/anticipate next generation technologies and the impact that it will have on the quality of life** | | |
| By the end of 4th grade | By the end of 7th grade | By the end of 11th grade |
| Non-negotiable  Skills/processes   * Use prior knowledge about technology to predict a new technology and its impact. | Non-negotiable skills / processes   * Use prior knowledge about technology to predict future technologies and its impact. | Non-negotiable skills / processes   * Evaluate the impact of future technologies. |
| As measured by their ability to complete the following task(s):   * Given a timeline on robots, students will invent a robot to do a task that is currently completed by humans and describe how that would change their daily lives. | As measured by their ability to complete the following task(s):   * Envisioning a typical daily event such as shopping, completing homework, or watching a movie, students will describe the tools that they might use that have not yet been invented and the impact it would have on daily life. | As measured by their ability to complete the following task(s):   * Given a description of a cutting-edge technology (such as robotics), students will describe future developments and their positive and negative implications. |

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| **What does it look like when students are really doing research?** | **What does it look like when they aren’t but are still doing something?** |
| * Clear research focus that is driven by the task prompt / question or thesis statement * Clear on the learning goals that the task measures and what quality work looks like * Time (and willingness) to agonize, explore, comprehend * Discriminating type and quality of information (fact vs. opinion, perspective, funding of information, contemporary relevance, genre type) * Clarity on the point of view of the information source and how it affects content * Documenting research with a clear understanding of whose ideas and words are being presented * Distinguish between paraphrasing and direct quotations when taking notes * Making connections amongst information collected to look for areas of consistency and areas of inconsistency * Strategically selecting additional resources based on what they’ve already found (and haven’t found) * Ability to determine when they have enough information to move on * Organizing information in a way that addresses the task so that their thinking and research will be accessible to the audience * Strategize about how to overcome research challenges and adjust the way they are working (need to revise thesis, need for another way of searching for information, need for better understanding of who the authorities are in the subject, need to focus on time management and chunking the task) * Work in a non-linear/circular way as appropriate -- rethinking, redoing, undoing of thesis statement, organization of information and ideas and research process * Reflect on the effectiveness of their process to determine how to do better | * Looking for direct answers to indirect/complex inquiries * Follow an orderly, linear process or execute a plan from start to finish without reflecting on whether its working * Copying what they find without thinking about it * Motivated by getting it done as quickly as possible * Confuse quantity of information with quality of research * Every published source is considered valid * Don’t consider the authority or motivation of the author, they only focus on the content * All parts of the task are equal in importance * Focus more on the “bells and whistles” than the substance * Overly narrow or broad inquiry that they are unable to refine inquiry * Collecting details without thinking about connections amongst them and areas of incongruence or information gaps * Assume that if they found the “answer” in one source that they have “finished” looking (validity and depth of answer) |