

# **Library and Technology Literacy Framework**

**Nursery - 12**

**Approved**

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**Library and Technology Program Belief Statement**

The American Community School at Beirut (ACS) strives to prepare its students to learn effectively and live productively in our information rich world. In this digital age, we access and acquire information in a variety of new ways using a wide range of new tools. Students routinely encounter information in formats as simple as a picture book, as complex as a multimedia package and as diverse as a literary classic or a personal blog. Information literacy, the ability to find, use and produce information, is central in the quest for lifelong learning. The library and technology program assists all students in becoming critical consumers and producers of information to solve problems and to satisfy their own curiosity. It is this ability that will allow them to thrive personally and economically and to contribute responsibly to the learning community and to society as a whole.

Reading is the cornerstone of a literate community whose members are independent, competent, self-motivated readers, viewers and listeners. The library and technology program endeavors to develop students who choose to experience and appreciate a wide variety of literature and other creative expressions of information based on personal ability and interest. The library and technology centers provide the learning community with access to information in all formats. We provide all curricular areas with resources and expertise and therefore must be central and easily accessible by all ACS community members.

At ACS, technology is an essential component of the educational program. Technology transforms the learning environment allowing students to develop critical thinking and problem solving skills. Technology connects students with the broader world where they can use relevant, real world data to solve complex problems in collaboration with a global community, enabling students to demonstrate their understanding in a wide variety of ways. Information literacy is the foundation that enables students to engage in constructivist learning as described in ACS's mission statement, thereby preparing them for global citizenship.

## Program Statement

As the keystone of a student-centered library and technology program, the teacher/librarian and technology facilitators are poised to work collaboratively with teachers, administrators, and others to increase students' competence as they navigate through the information age. As an essential partner who both contributes to and draws from the expertise of the entire learning community, the teacher/librarian or technology facilitator:

- Begins with promoting and reinforcing students' interests and abilities in reading listening and viewing.
- Expands the program to include fostering the full range of information concepts, strategies, and abilities students must master to profit from the global resources that are quite literally at their fingertips.
- Develops the full range of abilities that students need to interact effectively with information and to construct meaningful knowledge. They include:
  - Analyzing complex and conflicting presentations of information.
  - Appreciating the variety of perspectives offered by individual viewpoints, scholarly disciplines, and cultural understandings.
  - Using information competently in critical thinking, decision making, and problem solving.
  - Producing new information and creating products and presentations that communicate ideas efficiently and effectively.
  - Acting responsibly in regard to information, particularly with respect to the difficult issues of intellectual freedom, equitable access to information, and intellectual property rights in an age of global interconnectivity.
  - Developing into lifelong learners who can assimilate varying viewpoints, accommodate change, and contribute to the well-being of the community.

As the essential link who connects students, teachers, and others with the information resources they need the teacher/librarian or facilitator plays a pivotal and multifaceted role in the learning community.

- As a teacher, the teacher/librarian or facilitator:
  - Collaborates with students, teachers and other members of the learning community to analyze individual information needs, locate and use relevant resources, and help communicate the information within the resources.
  - Remains knowledgeable about current practices in teaching and learning, particularly those that call upon students to access, evaluate, and use information from multiple sources in order to learn, to think, and to create and apply new knowledge.
  - Works with teachers, administrators, and other staff to expand their general understanding of information issues and to provide them with specific opportunities to develop sophisticated skills in information literacy, including the uses of information technology.
- As an instructional partner, the teacher/librarian or facilitator:
  - Joins with teachers and others to identify links across student information needs, curricular content, and learning outcomes.

- Works with the school community to develop policies, practices, and curricula that guide students to develop the full range of information and communication abilities.
- Works closely with individual teachers designing authentic learning tasks and integrating the information and communication abilities required to meet subject matter standards.
- As information and technology specialists, the teacher/librarian or facilitator:
  - Provides leadership and expertise in acquiring and evaluating information resources in all formats.
  - Provides leadership in new technologies to ensure that teachers and students are up to date with the latest technology learning tools.
  - Maintains a constant focus on the nature, quality and ethical uses of information available in all formats.
- As program administrator, the teacher/librarian or facilitator:
  - Collaboratively defines the policies of the library and technology program and guides and directs all the activities related to it.
  - Advocates for the library and technology program and provides the knowledge, vision, and leadership to steer it creatively and energetically.
  - Plans, executes, and evaluates the program to ensure its quality both on a general level and a day-to-day basis.

## **Mission**

The mission of the library and technology program is to ensure that students and staff are effective users and producers of ideas and information. This mission is accomplished by:

- Providing intellectual and physical access to materials in all formats.
- Providing instruction to foster competence and stimulate interest in reading, viewing, and using information and ideas.
- Working with other educators to design learning strategies to meet the needs of individual students.

This mission focuses on offering programs and services that are centered on information literacy and that are designed around active, authentic student learning as described in the information literacy standards.

## Goals

The goals of the library and technology program point to the development of a community of learners that is centered on the student and sustained by a creative, energetic library and technology program. These goals provide:

1. Intellectual access to information through learning activities that are integrated into the curriculum and that help all students achieve information literacy.
2. Physical access to information through:
  - a. A carefully selected and systematically organized local collection of diverse learning resources and technology tools that represent a wide range of subjects, levels of difficulty and formats.
  - b. A systematic procedure for acquiring information and materials from outside the library and technology centers and the school.
3. Learning experiences that encourage students and others to become discriminating consumers and skilled creators of information.
4. Leadership, collaboration and assistance to teachers and others in the use of instructional and information technology for learning.
5. Resources and activities that accommodate a wide range of differences in teaching and learning styles, methods, interests and capacities.
6. A program that functions as the information center of the school.
7. Access to technology tools anywhere and anytime to support learning.
8. Access to a diversity of experiences, opinions, and social and cultural perspectives.
9. Support for intellectual freedom.

## Standard, benchmark and learner outcome arranged by standard

<b>Standard 1. Students define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal needs.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark will be assessed at Grade 2.	<ul style="list-style-type: none"> <li>Recognize a topic of interest when presented with a resource. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Ask the librarian for a book on a specific topic. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Ask for a resource to answer a curiosity or to further knowledge. (1.1)</li> <li>Know that non-fiction books provide real information. (1.2)</li> </ul>

<b>1. Students define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal needs.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
1.1 With assistance, students will state simple informational needs. 1.2 Students will understand that the library media center and the technology lab is a place where they can pursue information needs.	<ul style="list-style-type: none"> <li>Select a topic of interest for further investigation. (1.1)</li> <li>Rephrase the classroom assignment: What am I supposed to do? (1.1)</li> <li>Create charts that distinguish what they know and what they need to know. (1.1)</li> <li>Ask the librarian for books on a specific topic. (1.2)</li> <li>Recognize non-fiction as a source for factual information. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Express curiosity about a topic through questioning. (1.1)</li> <li>Examine assigned questions to identify information needs. (1.1)</li> <li>Cluster ideas to develop additional questions to guide research efforts. (1.1)</li> </ul>

<b>Standard 1. Students define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal needs.</b>			
<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
1.1 Students will develop essential questions to guide their research. 1.2 Students will describe a course of action to complete a research task, with prompting.  For a sample of a Research Process Model see Addendum A.	<ul style="list-style-type: none"> <li>Understand the criteria for the research assignment. (1.1)</li> <li>Ask questions to clarify meaning and to determine specific informational needs. (1.1)</li> <li>Develop and articulate questions about the topic. (1.1)</li> <li>Narrow and broaden focus of a given assignment. (1.1)</li> <li>Identify key words to search for information. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Identify major components of a topic and redefine the topic to meet the needs of assignments and personal interests. (1.1)</li> <li>Get an overview of a topic from a variety of reference resources. (1.1)</li> <li>Formulate questions to guide research. (1.1)</li> <li>Create mind maps, subject webs prior to search. (1.1)</li> <li>Identify existing knowledge and list areas where more information is needed. (1.1)</li> <li>Brainstorm to define and refine the research question. (1.1)</li> <li>Develop subtopics to successfully research a topic. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Clearly restate the scope and criteria of an assignment. (1.1)</li> <li>Distinguish different kinds of and purposes for questions. (1.1)</li> <li>Build a knowledge base from a variety of resources and determine what he/she knows and what he/she needs to know. (1.1)</li> <li>Broaden and narrow topic, identify key words and develop subtopics to successfully research a topic. (1.2)</li> <li>Structure search strategies within set timelines. (1.2)</li> </ul>

<b>Standard 1. Students define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal needs.</b>			
<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>1.1 Students will develop increasingly more complex essential questions related to a topic and pose additional sub-questions to guide their research.</p> <p>1.2 Students will determine an appropriate course of action for completing a research project.</p> <p>For a sample of a Research Process Model see Addendum A.</p>	<ul style="list-style-type: none"> <li>Independently analyze assignments to determine specific information requirements. (1.1)</li> <li>Determine what they already know about a topic and list areas where more information is needed. (1.1)</li> <li>Develop a range of questions to guide research. (1.1)</li> <li>Work in a team to develop a project outline. (1.2)</li> <li>Explore the advantages and disadvantages of different presentation methods. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Learn to independently prepare guiding questions in advance of research. (1.1)</li> <li>Formulate questions to guide research that synthesize varying points of view. (1.1)</li> <li>Structure a project strategy with a timeline for completion. (1.2)</li> <li>Consider the purpose and audience when selecting a product or presentation mode. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Determine existing knowledge in relation to a topic and with prompting explore general information sources to increase familiarity with the topic. (1.1)</li> <li>Form increasingly complex questions based upon an identified information need. (1.1)</li> <li>Develop a research idea with a statement of purpose. (1.1)</li> <li>Articulate the stages of the research process and develop a plan for completion of project. (1.2)</li> <li>Match presentation method with audience and purpose. (1.2)</li> </ul>

<b>Standard 1. Students define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal needs.</b>				
<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<p>1.1 Students will develop complex questions related to a topic and formulate a statement of purpose or thesis statement to guide research.</p> <p>1.2 Students will independently develop a research plan, including a timeline, which demonstrates the selection of appropriate strategies and resources for completing a project.</p> <p>For a sample of a Research Process Model see Addendum A.</p>	<ul style="list-style-type: none"> <li>Prioritize research questions for significance, relevance and practicality. (1.1)</li> <li>Integrate varied forms of and approaches to information into presentations. (1.2)</li> <li>Use research planners or pathfinders independently. (1.2) (See Addendum B)</li> </ul>	<ul style="list-style-type: none"> <li>Independently explore general information sources to further define a topic. (1.1)</li> <li>Critique own guiding questions as essential or non-essential. (1.1)</li> <li>Develop questions that define a focus for research and reflect on appropriateness of focus. (1.1)</li> <li>Chooses a communication medium and format that best supports the purposes of the product. (1.2)</li> <li>Develop a detailed research strategy with timeline for completion. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Prioritize research questions for significance, relevance and practicality. (1.1)</li> <li>Form questions into a thesis and reflect on appropriateness of thesis. (1.1)</li> <li>Develop a research plan which demonstrates reliable research strategies and contains a working bibliography. (1.2)</li> <li>Determine an appropriate and effective format for an end product considering audience, topic and availability of production resources. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Independently develop a topic that solves a problem or explores an issue. (1.1)</li> <li>Independently determine an appropriate and effective format for an end product considering audience, topic and availability of production resources. (1.2)</li> <li>Extend presentation to a variety of communities for authentic performance. (1.2)</li> </ul>

<b>Standard 2. Students will demonstrate a command of information skills and strategies to locate and effectively use print, non-print and or digital resources to solve problems, conduct research and pursue personal needs.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark will be assessed at Grade 2.	<ul style="list-style-type: none"> <li>Identify the storytelling area of the library. (2.1)</li> <li>Know how to check out a book. (2.2)</li> <li>Demonstrate library routines. (2.2)</li> </ul>	<ul style="list-style-type: none"> <li>Recognize the storybooks area as a place from which to borrow books. (2.1)</li> <li>Know library routines. (2.2)</li> <li>Become familiar with circulation procedures. (2.2)</li> <li>Understand good book care practices. (2.2)</li> </ul>	<ul style="list-style-type: none"> <li>Recognize the easy fiction and non-fiction areas of the library as a place to find books of interest. (2.1)</li> <li>Know circulation procedures. (2.2)</li> <li>Learn how to use a book paddle. (2.2)</li> </ul>

<b>Standard 2. Students will demonstrate a command of information skills and strategies to locate and effectively use print, non-print and or digital resources to solve problems, conduct research and pursue personal needs.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
2.1 Students will locate resources from basic areas of the library media center. 2.2 Students will follow circulation procedures. 2.3 Students will identify the basic parts of nonfiction books. 2.4 Students will use the visual online catalog to select resources. 2.5 With assistance, students will use pre-selected websites, search engine and directories.	<ul style="list-style-type: none"> <li>Identify main area of the library. (2.1)</li> <li>Be familiar with library layout and routines. (2.1)</li> <li>With assistance, find books on a specific topic. (2.1)</li> <li>Know circulation procedures. (2.2)</li> <li>Identify the basic features of non-fiction books. (2.3)</li> </ul>	<ul style="list-style-type: none"> <li>Identify parts of the collection by names i.e. fiction, non-fiction, biography. (2.1)</li> <li>Independently, browse library shelves to select books on a specific topic. (2.1)</li> <li>Use the table of contents and the index to find basic information about a topic. (2.3)</li> <li>Use the visual online catalog to select a book of interest. (2.4)</li> <li>Look for key words in simple interactive software. (2.5)</li> </ul>

**Standard 2. Students will demonstrate a command of information skills and strategies to locate and effectively use print, non-print and or digital resources to solve problems, conduct research and pursue personal needs.**

<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>2.1 Students will use the online catalog to identify materials by author, title, or subject including cross references and locate resources in appropriate areas of the library media center.</p> <p>2.2 With assistance, students will use navigational features, such as table of contents, guide words, indexes, section headings and cross referencing to find information within a source.</p> <p>2.3 With assistance, students will identify and begin using age-appropriate search engines and directories.</p> <p>2.4 With assistance, students will use a range of print, non-print and digital resources within the school.</p> <p>2.5 With assistance, students will use information presented graphically, such as pictures, captions and diagrams.</p> <p>2.6 With assistance, students will identify key words for use in searching for information.</p> <p>2.7 Students will use menus, icons and links to access databases to conduct basic research.</p> <p>2.8 Students will understand that information can be found from nontraditional resources such as individual experts, community and virtual resources.</p>	<ul style="list-style-type: none"> <li>• Understand the basic organization of the library. (2.1)</li> <li>• Use the online catalog to choose materials by author, subject or title. (2.1)</li> <li>• With assistance, identify types and location of materials by call number information. (2.1)</li> <li>• Use titles and subheadings as a guide to find information. (2.2)</li> <li>• Use preselected websites for a research project. (2.3)</li> <li>• With assistance, use a basic encyclopedia to locate information. (2.4)</li> <li>• Locate non-fiction books to complete a simple research project. (2.4)</li> <li>• Use the elements of charts, diagrams and graphs to collect information. (2.5)</li> <li>• With assistance, identify keywords for use in searching for information. (2.6)</li> <li>• Explore electronic reference information such as simple encyclopedias. (2.7)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently use the online catalog to select appropriate resources by author, subject and title. (2.1)</li> <li>• Understand that non-fiction books are grouped by subject according to the Dewey Decimal system. (2.1)</li> <li>• Understand the organization of books and use features such as table of contents and the index of a book and of multi-volume works. (2.2)</li> <li>• Explore specific websites on the internet. (2.3)</li> <li>• Use general and specialized print and non-print reference sources such as encyclopedias, almanacs and atlases. (2.4)</li> <li>• Use non-fiction books to complete a research project. (2.4)</li> <li>• Recognize the purposes of different parts of a graph. (2.5)</li> <li>• Determine and use keywords to search in a general or a specialized reference source to locate and access information. (2.6)</li> <li>• With assistance, use the online search engines to seek information. (2.7)</li> <li>• Conduct interviews and surveys. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently and competently use the online catalog to select materials of interest by author, title or subject. (2.1)</li> <li>• Request materials of interest and navigate the online catalog of the lower and upper library. (2.1)</li> <li>• Locate materials in the library using the call number information and know their sub-location. (2.1)</li> <li>• Independently determine and use keywords to locate information in a reference tool. (2.2)</li> <li>• Competently use the index of an encyclopedia, almanac, atlas and other print sources. (2.2)</li> <li>• Bookmark and use internet sites relevant to research. (2.3)</li> <li>• Use general and specialized print and non-print reference sources such as encyclopedias, almanacs and atlases. (2.4)</li> <li>• Use multiple non-fiction sources to complete research. (2.4)</li> <li>• Identify the features of a variety of media. (2.4)</li> <li>• Recognize the purposes of different parts of a graph. (2.5)</li> <li>• Search the internet using keywords in single search engines. (2.6)</li> <li>• Select information from a variety of electronic reference materials. (2.7)</li> <li>• Interview an individual to seek information for a research project. (2.8)</li> </ul>

**Standard 2. Students will demonstrate a command of information skills and strategies to locate and effectively use print, non-print and or digital resources to solve problems, conduct research and pursue personal needs.**

<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>2.1 Students use additional features of online catalog records and demonstrate the ability to locate information from all areas of the library media center.</p> <p>2.2 Students will use navigational features, such as guide words, indexes, section headings, and cross-referencing strategies to find information within a source.</p> <p>2.3 With assistance, students will select and use an appropriate search engine or directory related to a specific task.</p> <p>2.4 Students will identify and use the full range print, non-print and digital sources available in the school.</p> <p>2.5 Students will use the full range of graphically presented information and be able to draw inferences for information purposes.</p> <p>2.6 Students will identify keywords for searching information sources and know how to apply specific features of different search engines to expand their searching techniques.</p> <p>2.7 Students will demonstrate the ability to navigate through a variety of online databases to access information for research.</p> <p>2.8 Students will access selected nontraditional resources such as corresponding with an expert or visiting a community or virtual site.</p>	<ul style="list-style-type: none"> <li>● Use Dewey order and call numbers to locate information within the library. (2.1)</li> <li>● Browse the appropriate sections of the library to expand approaches to a topic. (2.1)</li> <li>● Use the OPAC to locate an increasingly wide variety of formats as information sources. (2.1)</li> <li>● Use headings, captions and other internal organizational features of print and electronic sources. (2.2)</li> <li>● Use the Internet concentrating on the features of single search engines. (2.3)</li> <li>● Use standard reference sources. (2.4)</li> <li>● Distinguish between general and specific reference materials. (2.4)</li> <li>● Identify conventional symbols, titles and labels that organize data. (2.5)</li> <li>● Extract information from graphs, charts and other visually presented quantitative information. (2.5)</li> <li>● Use basic search language appropriate to intended research. (2.6)</li> <li>● Explore subject directories to help retrieve information from online databases. (2.7)</li> <li>● Select and use a variety of periodicals. (2.7)</li> <li>● Use personal interviews to obtain information. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>● Use Dewey to browse the collection. (2.1)</li> <li>● Use the OPAC to locate and use an increasingly wide variety of formats as information sources. (2.1)</li> <li>● Explain the purpose of catalog record elements. (2.1)</li> <li>● Use cross-referencing to expand approaches to a topic. (2.1)</li> <li>● Use headings, captions and other internal organizational features of print and electronic sources. (2.2)</li> <li>● Search the Internet using a variety of features in a single search engine. (2.3)</li> <li>● Use subject specific reference sources. (2.4)</li> <li>● Extract information from graphs, charts and other visually presented quantitative information. (2.5)</li> <li>● Use basic search language appropriate to intended research. (2.6)</li> <li>● Begin to use online indexes to periodicals. (2.7)</li> <li>● Select information from relevant field study. (2.8)</li> <li>● Use basic surveys to collect information. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>● Independently browse the collection using call number and Dewey numbering as guides. (2.1)</li> <li>● Use the OPAC to locate and use an increasingly wide variety of formats as information sources. (2.1)</li> <li>● Independently use headings, captions and other internal organizational features of print and electronic sources. (2.2)</li> <li>● Search the Internet using a range of strategies available in a variety of single search engines. (2.3)</li> <li>● Use bibliographies and suggested readings in reference materials to investigate further sources. (2.4)</li> <li>● Describe the features and conventions of a variety of reference materials. (2.4)</li> <li>● Independently extract information from graphs, charts and other visually presented quantitative information. (2.5)</li> <li>● Use basic search language appropriate to intended research and include Boolean language. (2.6)</li> <li>● Select online databases as a source of information. (2.7)</li> <li>● Begin to use community resources and organizations for information. (2.8)</li> </ul>

**Standard 2. Students will demonstrate a command of information skills and strategies to locate and effectively use print, non-print and or digital resources to solve problems, conduct research and pursue personal needs.**

<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<p>2.1 Students will apply principles of information organization to a variety of additional sites outside of the library media center.</p> <p>2.2 Students will use internal organizers to evaluate appropriateness and to locate additional resources.</p> <p>2.3 Students will select and use, independently, an appropriate search engine or directory related to a specific task.</p> <p>2.4 Students will independently use the full range of print, non-print and digital resources within the school.</p> <p>2.5 Students will demonstrate the ability to solve problems by collecting, analyzing and interpreting data.</p> <p>2.6 Students will independently use key word descriptors, Boolean logic, truncation, pearling and apply specific advance search features of different search engines to perform advanced searches.</p> <p>2.7 Students will routinely and efficiently, use online information resources to meet the needs for research.</p> <p>2.8 Students will routinely access the full range of resources offered in their community and area.</p>	<ul style="list-style-type: none"> <li>• Use additional libraries, local and virtual, for information. (2.1)</li> <li>• Skim introductions, prefaces, chapter headings, etc., to identify the contents and usefulness of information sources. (2.2)</li> <li>• Search the Internet using a range of strategies available in a variety of search engines. (2.3)</li> <li>• Use a variety of reference sources to locate appropriate information. (2.4)</li> <li>• Select reference materials to access statistical information. (2.5)</li> <li>• Use advanced searching techniques and apply Boolean logic to their searches. (2.6)</li> <li>• Select a variety of online databases. (2.7)</li> <li>• Use community resources and organizations for information. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>• Use additional libraries, local and virtual, for information. (2.1)</li> <li>• Begin to use published print and electronic bibliographies to extend searches. (2.2)</li> <li>• Search the Internet using a range of strategies available in a variety of meta-search engines. (2.3)</li> <li>• Compare the organizational structures of similar reference materials and choose the most appropriate. (2.4)</li> <li>• Interpret statistical information in varied media such as handbooks, yearbooks, almanacs and reports. (2.5)</li> <li>• Use advanced searching techniques and apply Boolean logic and truncation to their searches. (2.6)</li> <li>• Select a variety of online databases. (2.7)</li> <li>• Use advanced online indexes to periodicals. (2.7)</li> <li>• Use community resources and organizations for information. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>• Use specialized libraries, local and virtual, for information. (2.1)</li> <li>• Describe different classification systems. (2.1)</li> <li>• Select bibliographies to find sources. (2.2)</li> <li>• Search the Internet using a range of strategies available in a variety of meta-search engines. (2.3)</li> <li>• Select and use specialized reference material. (2.4)</li> <li>• Construct and conduct surveys. (2.5)</li> <li>• Use advanced searching techniques and apply Boolean logic, pearling and truncation to their searches. (2.6)</li> <li>• Use abstracts in online databases to guide their research. (2.7)</li> <li>• Independently use community resources and organizations for information. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>• Identify how resources are classified within different classification systems. (2.1)</li> <li>• Independently select bibliographies to find sources. (2.2)</li> <li>• Search the Internet using more scholarly and subject specific search engines. (2.3)</li> <li>• Select and use appropriate specialized reference material independently. (2.4)</li> <li>• Construct and conduct surveys and other data collection techniques. (2.5)</li> <li>• Independently use advanced searching techniques and apply Boolean logic, pearling and truncation to their searches. (2.6)</li> <li>• Choose controlled vocabulary or free text subject searching as appropriate for their information source. (2.6)</li> <li>• Use specialized indexes such as newspaper, journal, and trade indexes. (2.7)</li> <li>• Conduct an electronic conference to collect ideas from a wide variety of student and expert participants. (2.8)</li> </ul>

<b>Standard 3. Students will select, evaluate, synthesize and organize information from a variety of sources and formats.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark not applicable.			

<b>Standard 3. Students will select, evaluate, synthesize and organize information from a variety of sources and formats.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
<p>3.1 Students, when given a limited amount of items, will identify the most appropriate sources of information for a specific purpose.</p> <p>3.2 Students will make basic judgments on the quality of print, non-print and digital information.</p> <p>3.3 Students will use basic techniques to extract, record and organize minimal relevant information.</p> <p>3.4 Students will assess whether the process was efficient and information gathered was both relevant and complete in response to the assigned task according to set criteria.</p>	<ul style="list-style-type: none"> <li>• Predict content from the cover of the book. (3.1)</li> <li>• Determine whether fiction or non-fiction is appropriate. (3.1)</li> <li>• Understand the difference between facts and opinions. (3.2)</li> <li>• Skim through informational books and use visuals to answer questions. (3.2)</li> <li>• Write simple notes. (3.3)</li> <li>• Organize information on concrete graphs and pictographs. (3.3)</li> <li>• Relate details of the topic in a sentence or a paragraph. (3.3)</li> <li>• Comment on the ease and difficulty of the information task. (3.4)</li> <li>• Complete a simple self-evaluation chart. (3.4)</li> </ul>	<ul style="list-style-type: none"> <li>• Select materials for a specific purpose. (3.1)</li> <li>• Determine if the reading level of the selected material is appropriate. (3.1)</li> <li>• Evaluate different forms of information such as storybooks and informational texts. (3.2)</li> <li>• Distinguish facts from opinions. (3.2)</li> <li>• Distinguish between real-life and media depictions. (3.2)</li> <li>• Read, view or listen for relevant information. (3.2)</li> <li>• Use pre-selected sources to find specific information. (3.3)</li> <li>• Extract relevant details, organize and relate them in a paragraph. (3.3)</li> <li>• Create a simple research folder. (3.3)</li> <li>• Express feelings and ideas about the completed information task. (3.4)</li> <li>• Evaluate the learning and share own reflection on the process. (3.4)</li> </ul>

<b>Standard 3. Students will select, evaluate, synthesize and organize information from a variety of sources and formats.</b>			
<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>3.1 Students will identify the most appropriate sources of information for a specific purpose.</p> <p>3.2 Students will use criteria to judge the relevance, credibility and completeness of print, non-print and digital information.</p> <p>3.3 Students will use basic techniques to extract and record relevant information from several sources.</p> <p>3.4 Students will organize, analyze and synthesize information into related categories, with assistance.</p> <p>3.5 Students will assess whether the process was efficient and information gathered was both relevant and complete in response to the assigned task.</p> <p>For CARRDSS approach to source evaluation, print or electronic, see Addendum C.</p>	<ul style="list-style-type: none"> <li>• With assistance, select books for classroom assignments. (3.1)</li> <li>• Evaluate print and non-print resources for individual skills, level, purpose and to solve information problems. (3.1) (3.2)</li> <li>• Skim and scan to identify important information. (3.2)</li> <li>• Extract and record needed information in own words. (3.3)</li> <li>• Group and organize information in broad categories to answer research questions. (3.4)</li> <li>• With assistance, create a research folder in order to organize information in predetermined categories. (3.4)</li> <li>• Review and evaluate the research process by completing a survey. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently select books for classroom assignments. (3.1)</li> <li>• Identify bias in information. (3.2)</li> <li>• Distinguish between facts and opinions. (3.2)</li> <li>• Use print and non-print resources to extract information. (3.3)</li> <li>• Use the index to access information in an encyclopedia. (3.3)</li> <li>• Take notes on index cards. (3.3)</li> <li>• Use a research folder to organize gathered information. (3.4)</li> <li>• Review the research strategies in peer and teacher conferences. (3.5)</li> <li>• Provide a reflection on the research project. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently and competently select print and non-print resources considering topic, individual skills and timeliness. (3.1)</li> <li>• Identify how data was collected. (3.2)</li> <li>• Use copyright information to determine timeliness. (3.2)</li> <li>• Evaluate definitions. (3.2)</li> <li>• Discuss patterns in the data. (3.2)</li> <li>• Gather background information by reading, viewing or listening to a variety of pre-selected and self-selected learning resources. (3.2) (3.3)</li> <li>• Skim general and specialized reference, print and electronic sources. (3.3)</li> <li>• Web, map or diagram a main topic with sub-topics.(3.3)</li> <li>• Interpret information from various and non-print including visuals like maps, graphs, charts, tables and pictures. (3.4)</li> <li>• Use interviews as a primary source of information. (3.4)</li> <li>• Use folders to organize information. (3.4)</li> <li>• Make judgments and draw conclusions to solve problems. (3.4)</li> <li>• Relate research findings to personal knowledge and experience. (3.4)</li> <li>• Complete self-evaluation forms on product and process indentifying strengths and weakness. (3.5)</li> </ul>

<b>Standard 3. Students will select, evaluate, synthesize and organize information from a variety of sources and formats</b>			
<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>3.1 Students will develop and apply more complex criteria for aligning resources with a specific need and presentation.</p> <p>3.2 Apply evaluative criteria to discern stereotype, bias, and propaganda techniques in print, non-print and digital resources.</p> <p>3.3 Students will use multiple techniques to extract and record relevant information from multiple sources.</p> <p>3.4 Students will organize information into related categories and analyze and synthesize information to draw meaningful conclusions with minimal assistance.</p> <p>3.5 Students will assess the efficiency of the research process and determine if information gathered was relevant, complete and accurate in response to the assigned task.</p> <p>For CARRDSS approach to source evaluation, print or electronic, see Addendum C.</p>	<ul style="list-style-type: none"> <li>• Determine the relative value of a variety of resources for meeting information needs. (3.1)</li> <li>• Recognize the advantages and disadvantages of a variety of formats as information sources. (3.1)</li> <li>• Distinguish between primary and secondary sources. (3.1)</li> <li>• Begin to identify criteria used to evaluate information. (3.2)</li> </ul> <p>(See Addendum C)</p> <ul style="list-style-type: none"> <li>• Identify agreement and disagreement among sources. (3.2)</li> <li>• Identify point of view. (3.2)</li> <li>• Use tree diagrams to order information. (3.3)</li> <li>• Take accurate notes in a variety of formats, including graphic organizers and basic note cards. (3.3)</li> <li>• Use paraphrasing techniques. (3.3)</li> <li>• Formulate hypothesis and test validity with peers and teachers. (3.4)</li> <li>• Draw conclusions from research to solve problems. (3.4)</li> <li>• Compare information selected and interpreted with information needs and adjust research strategies if necessary. (3.5)</li> <li>• Judge if research questions have been answered. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritize the usefulness of information sources based on specific information needs. (3.1)</li> <li>• Select the most appropriate format to meet an information need. (3.1)</li> <li>• Verify the adequacy of information selected. (3.1)</li> <li>• Evaluate resources based on the established criteria of point of view, currency, authority and reliability of resources. (3.2)</li> </ul> <p>(See Addendum C)</p> <ul style="list-style-type: none"> <li>• Identify bias in data collection methods. (3.2)</li> <li>• Take accurate notes in a variety of formats, including graphic organizers and basic note cards. (3.3)</li> <li>• Paraphrase information properly. (3.3)</li> <li>• Draw conclusions from research to solve problems. (3.4)</li> <li>• Use detailed outlines in peer and teacher conferencing to check progress and test clarity of ideas. (3.4)</li> <li>• Complete self-evaluation on all research and information problem solving. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Decide what type of information is needed based on presentation mode and audience. (3.1)</li> <li>• Evaluate resources further using authorship, publishing body and validity. (3.2)</li> </ul> <p>(See Addendum C)</p> <ul style="list-style-type: none"> <li>• Compare and verify statements from two or more sources. (3.2)</li> <li>• Examine assumptions and bias in information. (3.2)</li> <li>• Verify the accuracy of examples and quotations from primary sources. (3.2)</li> <li>• Assess bias in data collection methods. (3.2)</li> <li>• Organize collected information independently. (3.3)</li> <li>• Independently paraphrase information. (3.3)</li> <li>• Make inferences and convincing arguments based on research. (3.4)</li> <li>• Independently complete self-evaluation on all research and information problem solving. (3.5)</li> </ul>

**Standard 3. Students will select, evaluate, synthesize and organize information from a variety of sources and formats.**

<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<p>3.1 Students will develop and use personal and established criteria for the selection of materials.</p> <p>3.2 Students will demonstrate ability to identify and compare sources of information and apply multiple evaluative criteria.</p> <p>3.3 Students will determine the most efficient techniques to extract and record relevant information from multiple sources.</p> <p>3.4 Students will organize, analyze and synthesize information to independently draw meaningful conclusions.</p> <p>3.5 Students will assess the efficiency of the research process and determine if information gathered was relevant, complete and accurate in response to the assigned task.</p> <p>For CARRDSS approach to source evaluation, print or electronic, see Addendum C.</p>	<ul style="list-style-type: none"> <li>• Design criteria to evaluate information for appropriateness. (3.1)</li> <li>• Compare comprehensiveness of sources. (3.2)</li> <li>• Analyze bias and suggest alternative sources. (3.2)</li> <li>• Analyze conflicting information among sources. (3.2)</li> <li>• Use multiple techniques to record information from many sources. (3.3)</li> <li>• Group and organize data to make connections. (3.4)</li> <li>• Make judgments and draw conclusions to solve information problems. (3.4)</li> <li>• Use peer and teacher conferencing to check progress and test clarity of ideas. (3.5)</li> <li>• Explain the logic of their argument. (3.5)</li> <li>• Use a journal to track product and process. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Apply self- designed criteria to evaluate information for appropriateness. (3.1)</li> <li>• Verify accuracy of facts and quotations in secondary sources. (3.2)</li> <li>• Analyze inaccuracy and ambiguity in information and their effect on argument. (3.2)</li> <li>• Use multiple techniques to record information from many sources. (3.3)</li> <li>• Discover connections in extracted information and use those relationships to organize their research. (3.4)</li> <li>• Make judgments and draw conclusions to solve problems. (3.4)</li> <li>• Use informal meetings to share ideas and check progress during research. (3.5)</li> <li>• Judge if conclusion follows the argument. (3.5)</li> <li>• Use a journal to track product and process. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Apply self- designed criteria to evaluate information independently. (3.1)</li> <li>• Examine currency of resources and modify choices in light of new findings. (3.2)</li> <li>• Analyze the validity of a resource by examining its bibliography. (3.2)</li> <li>• Construct logic statements to test the validity of an argument within a source. (3.2)</li> <li>• Use multiple techniques to independently record information from many sources. (3.3)</li> <li>• Use outlining and flowchart software to organize data. (3.3)</li> <li>• Make judgments and draw conclusions to solve problems. (3.4)</li> <li>• Combine existing information with original thought, experimentation or analysis to produce new information. (3.4)</li> <li>• Use formal meetings to share ideas and check progress during research. (3.5)</li> <li>• Examine published hypotheses for similarities and differences with own hypothesis. (3.5)</li> <li>• Set goals for improvement in next research activity. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze both inductive and deductive arguments and evaluate the logic of the conclusions of a source. (3.2)</li> <li>• Transfer conclusion reached in one context to another context e.g. from the arts to the sciences. (3.4)</li> <li>• Use a variety of strategies to explore ideas during research process. (3.4)</li> <li>• Use summaries and abstracts in peer and teacher conferencing to check progress. (3.5)</li> <li>• Set goals for improvement in next research activity. (3.5)</li> </ul>

<b>Standard 4. Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark not applicable.			

<b>Standard 4. Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
<p>4.1 Students know how to use common software to illustrate concepts and convey ideas.</p> <p>4.2 Students illustrate and communicate original ideas and stories using media rich resources and other formats.</p> <p>4.3 Students will assess whether their products meet a short list of established standards for product and presentation with assistance.</p>	<ul style="list-style-type: none"> <li>• Create a graphic organizer document to communicate understanding of a content area. (4.1) (4.2)</li> <li>• Open a document, type their name, copy and paste, change font and size, and print document. (4.1)</li> <li>• Illustrate the setting of an original story. (4.2)</li> <li>• Evaluate their work by using a rubric of two criteria designed by the teacher for each product. (4.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Create a mind map that includes at least five images of basic technology. (4.1) (4.2)</li> <li>• Open a document, type their name, copy and paste, change font and size, and print document. (4.1)</li> <li>• Illustrate the setting of an original story and import a sound file. (4.2)</li> <li>• Create a short video clip to “tell” a story. (4.2)</li> <li>• Evaluate their work by using a teacher-designed rubric for each product. (4.3)</li> </ul>

<b>Standard 4. Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions.</b>			
<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>4.1 Students use a variety of features of common software to plan, create, and edit documents.</p> <p>4.2 Students use a variety of media and formats to create and edit products for multiple audiences.</p> <p>4.3 Students use digital imaging software to modify or create works of art for use in a presentation.</p> <p>4.4 Students will assess whether their products meet established standards for product and presentation with assistance.</p>	<ul style="list-style-type: none"> <li>• Create mind maps. (4.1)</li> <li>• Create documents based on teacher assignments and manipulate the font style, size and edit their work using a spell checker. (4.1) (4.2)</li> <li>• Create a multimedia presentation inserting graphics, text, and transitions. (4.2)</li> <li>• Create audio files. (4.2)</li> <li>• Create an avatar, including voice, as a welcome to an individual blog. (4.2)</li> <li>• Create graphics using a drawing program and save as jpg. (4.3)</li> <li>• Evaluate their work by using a rubric designed by the teacher for each product. (4.4)</li> </ul>	<ul style="list-style-type: none"> <li>• Create mind maps. (4.1)</li> <li>• Create documents based on teacher assignments, and include clip art and text boxes. (4.1)</li> <li>• Create two projects, inserting graphics, text, transitions and sound. (4.2)</li> <li>• Create an avatar using own voice sound, for placement on the blog. (4.2)</li> <li>• Create graphics using drawing programs, to insert in presentations. (4.3)</li> <li>• Evaluate their work by using a teacher-designed rubric for each product. (4.4)</li> </ul>	<ul style="list-style-type: none"> <li>• Create documents, based on the teacher assignment that includes inserting pictures, text alignment and text wrapping. (4.1)</li> <li>• Gather data and use a spreadsheet to present content information. (4.1)</li> <li>• Create a presentation to explain curriculum content and insert narration. (4.2)</li> <li>• Create avatars using own sound and own background, for placement on the blog. (4.2)</li> <li>• Create a video project. (4.2)</li> <li>• Use digital cameras to collect images for a collaborative project. (4.3)</li> <li>• Use photo editing to create and modify images for use in presentations. (4.3)</li> <li>• Evaluate their work by using a teacher-designed rubric for each product. (4.4)</li> </ul>

<b>Standard 4. Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions.</b>			
<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>4.1 Students will describe and illustrate a content-related concept or process using common software.</p> <p>4.2 Students know how to use a variety of media and formats to design, develop, publish, and present products that effectively communicate information and ideas to multiple audiences.</p> <p>4.3 Students will independently select and use the appropriate hardware equipment to produce multimedia projects.</p> <p>4.4 Students know how to plan, design, and develop a multimedia product using data to present content information.</p> <p>4.5 Students will assess whether their products meet established standards for product and presentation.</p>	<ul style="list-style-type: none"> <li>• Create a mind map integrating a variety of options from the software. (4.1)</li> <li>• Prepare a one page newsletter with text boxes and images with effective visual design. (4.2)</li> <li>• Create a presentation with text, images and sound files. (4.2)</li> <li>• Draw digital images. (4.2)</li> <li>• Import and edit video in the simplest form. (4.2)</li> <li>• Create audio files. (4.2)</li> <li>• Use digital cameras to take pictures for class projects. (4.3)</li> <li>• Gather data and use a spreadsheet to present content information. (4.4)</li> <li>• Use technology to explore math patterns and formulas. (4.4)</li> <li>• Use a teacher created rubric to assess presentation. (4.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Create a diagram describing a process. (4.1)</li> <li>• Prepare a double-sided brochure with columns to communicate ideas to classmates. (4.2)</li> <li>• Create a presentation with text, images, shapes, and recorded narrations. (4.2)</li> <li>• Use photo editor to alter images. (4.2)</li> <li>• Import pictures, video, and edit video. (4.2)</li> <li>• Insert audio files in common software. (4.2)</li> <li>• Use digital cameras and camcorders to gather media for projects. (4.3)</li> <li>• Gather data in content area then choose a graph in a spreadsheet document. (4.4)</li> <li>• Collaborate with teacher to create a rubric to assess product. (4.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Select software and create content related diagrams to present an idea. (4.1)</li> <li>• Design a magazine with proper layout design for school wide community. (4.2)</li> <li>• Create a presentation incorporating charts, shapes, hyperlinks, audio, and video files. (4.2)</li> <li>• Use photo editor to manipulate images. (4.2)</li> <li>• Publish video clips with pictures, footage, imported video, audio files, and music. (4.2)</li> <li>• Use a digital recorder to create podcasts. (4.3)</li> <li>• Independently select the appropriate hardware to produce multimedia projects. (4.3)</li> <li>• Independently determine the type of graph to present information. (4.4)</li> <li>• Create a rubric and use it to assess if their product meets the standards. (4.5)</li> </ul>

<b>Standard 4. Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions.</b>				
<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
4.1 Students will create media-rich presentations.	<ul style="list-style-type: none"> <li>• Incorporate graphics, audio and video from a variety of sources in presentations. (4.1)</li> <li>• Develop multimedia presentation incorporating audio and visual files for sharing with classmates to communicate course content. (4.2)</li> <li>• List the steps for completing projects, and develop timeline for implementation with the teacher. (4.3)</li> <li>• Use advanced feature of photo editing and graphic creation programs. (4.4)</li> <li>• Create list of established criteria. (4.5)</li> <li>• Self assess projects. (4.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Create audio and video files to incorporate in presentations. (4.1)</li> <li>• Develop multimedia presentation including audio, video and graphics. (4.2)</li> <li>• Develop plan for creating project including timeline, steps, and resources. (4.3)</li> <li>• Use advanced functions of word processor programs to increase productivity. (4.4)</li> <li>• Create list of established criteria. (4.5)</li> <li>• Self assess projects. (4.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Use advanced features of video and audio creation programs. (4.1) (4.2)</li> <li>• Select appropriate software for creating multimedia projects. (4.3) (4.4)</li> <li>• Create list of established criteria for assessing a project. (4.5)</li> <li>• Self assess projects. (4.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions. (4.1) (4.2) (4.3)</li> <li>• Create list of established criteria for assessing a project. (4.5)</li> <li>• Self assess projects. (4.5)</li> </ul>
4.2 Students know how to use a variety of media and formats to design, develop, publish and present products that communicate original ideas to multiple audiences.				
4.3 Students analyze and plan procedures for development of a multimedia product.				
4.4 Students understand and apply advanced software features to provide evidence of learning, productivity, and creativity.				
4.5 Students will assess, independently, whether their products meet established standards for product and presentation.				

<b>Standard 5. Students will use digital media environments to collaborate, including at a distance, to support individual learning and contribute to the learning of others.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark not applicable.			

<b>Standard 5. Students will use digital media environments to collaborate, including at a distance, to support individual learning and contribute to the learning of others.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
<p>5.1 Students know how to work together to collect and create pictures for word processed reports and electronic presentations to communicate ideas relevant to the curriculum to their classmates, families, and others.</p> <p>5.2 Students engage in learning activities with learners from multiple cultures through electronic means.</p>	<ul style="list-style-type: none"> <li>• Work in pairs to create a project, and then share with classmates. (5.1)</li> <li>• Access a variety of online learning activities for all subject areas. (5.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Work together in small groups to create a project and then share with classmates and families. (5.1)</li> <li>• Engage in online learning activities and contribute to a variety of projects. (5.2)</li> </ul>

<b>Standard 5. Students will use digital media environments to collaborate, including at a distance, to support individual learning and contribute to the learning of others.</b>			
<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>5.1 Students know how to work collaboratively to create content related products.</p> <p>5.2 Students use a variety of media and formats to create and edit products that communicate syntheses of information and ideas from the curriculum to multiple audiences.</p> <p>5.3 Students use information and communication technology tools and resources to collect, organize, and evaluate information relevant to a real-world problem.</p>	<ul style="list-style-type: none"> <li>• Work in groups to create a slide show that shares learned content. (5.1) (5.2)</li> <li>• Publish content related writing on their individual blog. (5.2)</li> <li>• Collect data and organize information regarding a real-world problem. (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Work in small groups to create a slide presentation that shares learned content. (5.1) (5.2)</li> <li>• Publish work from a variety of content areas on their individual blog. (5.2)</li> <li>• Collect data and organize information using an online survey regarding a real-world problem. (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Work in groups to create a short video to share with others. (5.1) (5.2)</li> <li>• Publish work from a variety of content areas on their individual blog including images. (5.2)</li> <li>• Create a survey, collect data and organize information using an online survey regarding a real-world problem. (5.3)</li> </ul>

<b>Standard 5. Students will use digital media environments to collaborate, including at a distance, to support individual learning and contribute to the learning of others.</b>			
<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
5.1 Students know how to work collaboratively to design, develop content related products. 5.2 Students know how to use telecommunications tools to exchange data collected and learn curricular concepts by communicating with peers, experts, and other audiences. 5.3 Students participate in a cooperative learning project with students from other cultures in an online learning community.	<ul style="list-style-type: none"> <li>• Develop a group project with the assistance of the teacher to present content related products. (5.1)</li> <li>• Use e-mail to exchange data collected. (5.2)</li> <li>• Use teacher selected website to participate in an online project. (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Work in groups to present content related products. (5.1)</li> <li>• Use different telecommunications tools to exchange data with other audiences. (5.2)</li> <li>• Participate in an online project sharing scientific data. (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently collaborate to present content related products. (5.1)</li> <li>• Exchange ideas with peers through use of blogs and wikis. (5.2)</li> <li>• Publish online a piece of writing or video to exchange ideas with students from other cultures. (5.3)</li> </ul>

<b>Standard 5. Students will use digital media environments to collaborate, including at a distance, to support individual learning and contribute to the learning of others.</b>				
<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
5.1 Students interact, collaborate and publish with peers, experts and others by employing a variety of digital environments and media. 5.2 Students develop cultural understanding and global awareness by engaging with learners of other cultures. 5.3 Students contribute to project teams to produce original works or solve problems.	<ul style="list-style-type: none"> <li>• Read and comment on blogs related to specific class content. (5.1) (5.2)</li> <li>• Use email to communicate with peers and others to gather information or opinions for a class project. (5.1) (5.2)</li> <li>• Participate in an online project with students from one or more international schools. (5.2) (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Select and participate in an online project with global impact for a class project. (5.1) (5.2) (5.3)</li> <li>• Build a wiki to collaborate with classmates on a group project related to a real world problem. (5.1) (5.2) (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Use a variety of digital collaboration tools to gather and publish information for a research project. (5.1)</li> <li>• Develop and online project and invite international participants. (5.2) (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently build collaborative environments (groups, wikis etc) to collaborate with a variety of experts and publish for a variety of audiences. (5.1)</li> <li>• Plan, develop and facilitate an online project that has global impact and collaborate with a variety of audiences. (5.2) (5.3)</li> </ul>

<b>Standard 6. Students understand the human, cultural and societal issues related to information literacy and practice legal and ethical behavior.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark not applicable.			

<b>Standard 6. Students understand the human, cultural and societal issues related to information literacy and practice legal and ethical behavior.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
<p>6.1 Students identify common uses of information and communication technology in daily life.</p> <p>6.2 Students describe acceptable and unacceptable computer etiquette and how to work cooperatively with peers, family members and others when using technology in school or at home.</p> <p>6.3 Students will give credit to the creator when using his/her work.</p>	<ul style="list-style-type: none"> <li>• Create a mind map showing uses of information and communication technology. (6.1)</li> <li>• Give examples of acceptable and unacceptable computer use. (6.2)</li> <li>• Give credit when using someone else’s work, by following the grade level bibliographic format. See Addendum D. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Explain how technology helps in daily life. (6.1)</li> <li>• Give examples of acceptable and unacceptable computer use and complete an online quiz. (6.2)</li> <li>• Give credit when using someone else’s work, by following the grade level bibliographic format. See Addendum D. (6.3)</li> </ul>

<b>Standard 6. Students understand the human, cultural and societal issues related to information literacy and practice legal and ethical behavior.</b>			
<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>6.1 Students identify legal and ethical issues related to use of information and communication technology, and recognize consequences of its misuse.</p> <p>6.2 Students identify issues related to how information and communication technology assists individuals with disabilities, and supports collaboration, personal productivity and lifelong learning.</p> <p>6.3 Students will give citation credit, in the form of a basic bibliography, to original sources when using or transmitting information.</p>	<ul style="list-style-type: none"> <li>• Discuss with their teachers, read with their parents and understand the school’s AUP. (6.1)</li> <li>• Be assigned an individual user-name and set their password for ACS networked computer log-in. (6.1)</li> <li>• Discuss online safety and reinforce through game playing. (6.1)</li> <li>• Discuss what is legal and not legal for copying. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and access teacher assigned web sites for independent learning. (6.2)</li> <li>• Give credit when using someone else’s work, by following the grade level bibliographic format. See Addendum D. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss with their teachers, read with their parents and understand the school’s AUP. (6.1)</li> <li>• Use their individual user-name and password, never sharing that information. (6.1)</li> <li>• Discuss online safety and reinforce through game playing. (6.1)</li> <li>• Discuss what is legal and not legal for copying. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and access teacher assigned web sites for independent learning. (6.2)</li> <li>• Give credit when using someone else’s work, by following the grade level bibliographic format. See Addendum D. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss with their teachers, read with their parents and understand the school’s AUP. (6.1)</li> <li>• Keep their individual user-name and password private. (6.1)</li> <li>• Discuss online safety and reinforce through game playing. (6.1)</li> <li>• Discuss what is legal and not legal for copying. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and access teacher assigned web sites for independent learning. (6.2)</li> <li>• Give credit when using someone else’s work, by following the grade level bibliographic format. See Addendum D. (6.3)</li> </ul>

**Standard 6. Students understand the human, cultural and societal issues related to information literacy and practice legal and ethical behavior.**

<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>6.1 Students identify legal and ethical issues related to use of information and communication technology, and recognize consequences of its misuse.</p> <p>6.2 Students examine issues related to how information and communication technology encourages productivity, independent lifelong learning and assistance for individuals with special needs.</p> <p>6.3 Students will apply established citation styles for giving credit for information or ideas used.</p>	<ul style="list-style-type: none"> <li>• Read with their parents, understand the school’s acceptable use policy and sign the form. (6.1)</li> <li>• Do not share passwords with other students. (6.1)</li> <li>• Understand why it is not safe to post personal information on social networking sites. (6.1)</li> <li>• Define plagiarism and copyright by understanding when citation is necessary and what can be copied without violating copyright law. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and use teacher assigned web sites for independent learning. (6.2)</li> <li>• Understand the concept of “in-text” citation. (6.3)</li> <li>• Construct a works cited page. (6.3)</li> <li>• Use simple bibliographic conventions to cite commonly used print, non-print and online items. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Apply the school’s acceptable use policy. (6.1)</li> <li>• Don’t copy software or songs. (6.1)</li> <li>• Know it is illegal to violate the terms of use on social networking sites such as misrepresentation of age. (6.1)</li> <li>• Achieve a fuller understanding of plagiarism and copyright and be able to use both principles with assistance. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and use teacher assigned web sites for independent learning. (6.2)</li> <li>• Use in-text citation when completing projects. (6.3)</li> <li>• Construct a works cited page to include multiple works by one author. (6.3)</li> <li>• Use MLA bibliographic conventions to cite a wider variety of print, non-print and online sources. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate acceptable use policy and understand the consequences of unethical use. (6.1)</li> <li>• Identify legal use of songs and videos on sites. (6.1)</li> <li>• Know how to adjust security settings and block users on social networking sites such as Facebook. (6.1)</li> <li>• Understand plagiarism and copyright and be able to use both principles. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and use teacher assigned web sites for independent learning. (6.2)</li> <li>• Use in-text citation independently when completing projects. (6.3)</li> <li>• Construct a works cited page to include multiple works by one author. (6.3)</li> <li>• Use MLA bibliographic conventions independently to cite most kinds of print, non-print and online sources. (6.3)</li> </ul>

**Standard 6. Students understand the human, cultural and societal issues related to information literacy and practice legal and ethical behavior.**

<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<p>6.1 Students analyze the consequences and costs of unethical use of information and technology and identify how individuals can protect their intellectual property rights and technology systems from unethical users.</p> <p>6.2 Students explore how emerging technologies enhance personal productivity, meet diverse needs of learners and promote opportunities for lifelong learning.</p> <p>6.3 Students will apply established citation styles for a wide variety of information sources and formats.</p>	<ul style="list-style-type: none"> <li>• Review and follow the school’s acceptable use policy. (6.1)</li> <li>• Understand appropriate behavior for social networking sites. (6.1)</li> <li>• Understand the importance of antivirus software, firewalls, phishing filters and other system protection. (6.1)</li> <li>• Understand plagiarism and copyright and be able to adhere to both principles. (6.1)</li> <li>• Identify ways in which technology supports personal learning style. (6.2)</li> <li>• Use parenthetical citation as needed. (6.3)</li> <li>• Regularly construct a works cited page as part of all projects that require any information use. (6.3)</li> <li>• Use MLA bibliographic conventions to cite most print, non-print and online sources regularly referring to the latest edition of the MLA style book as needed. (6.3)</li> <li>• Experiment with online citation sites. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Follow the school’s acceptable use policy. (6.1)</li> <li>• Adjust security settings on social networking sites and online collaborative groups. (6.1)</li> <li>• Understand plagiarism and copyright and be able to adhere to both principles fluently. (6.1)</li> <li>• Identify ways in which technology meets the needs of diverse learners. (6.2)</li> <li>• Explore the difference among parenthetical, endnote and footnote citation. (6.3)</li> <li>• Regularly construct a works cited page as part of all projects that require any information use. (6.3)</li> <li>• Use MLA bibliographic conventions to cite most print, non-print and online sources regularly referring to the latest edition of the MLA style book as needed. (6.3)</li> <li>• Continue to use online citation sites understanding that they need to be checked against style guides. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Follow the school’s acceptable use policy. (6.1)</li> <li>• Understand and follow school e-mail policy. (6.1)</li> <li>• Structure secure passwords for personal accounts. (6.1)</li> <li>• Understand plagiarism and copyright and be able to adhere to both principles fluently. (6.1)</li> <li>• Use varying technologies that address their individual needs. (6.2)</li> <li>• Use parenthetical, endnote and footnote citations as needed. (6.3)</li> <li>• Regularly construct a works cited page as part of all projects that require any information use. (6.3)</li> <li>• Use MLA bibliographic conventions independently to cite any item as needed and to understand where to find the information in order to cite more unusual items. (6.3)</li> <li>• Explore APA format as required for certain subject areas such as science. (6.3)</li> <li>• Use online citation sites independently when dealing with MLA citations continuing to check against style guides for accuracy. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Practice legal and ethical behavior when using technology. (6.1)</li> <li>• Understand plagiarism and copyright and be able to adhere to both principles fluently. (6.1)</li> <li>• Use parenthetical, endnote and footnote citations as needed. (6.3)</li> <li>• Regularly construct a works cited page as part of all projects that require any information use. (6.3)</li> <li>• Use both MLA and APA styles as needed and understand where to find information on both in order to cite more unusual items. (6.3)</li> <li>• Use online citation sites independently when dealing with MLA and APA citations continuing to check against style guides for accuracy. (6.3)</li> </ul>

<b>Standard 7. Students demonstrate a sound understanding of technology concepts, systems and operations.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark not applicable.			

<b>Standard 7. Students demonstrate a sound understanding of technology concepts, systems and operations.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
7.1 Students use basic input and output devices. 7.2 Students know correct posture. 7.3 Students use basic file menu commands. 7.4 Students communicate about technology using developmentally appropriate and accurate terminology. 7.5 Students independently access installed software programs.	<ul style="list-style-type: none"> <li>• Successfully log-in and log-off the computers, using mouse and keyboard functions. (7.1)</li> <li>• Sit at the computer, with correct body and keyboard positioning and posture. (7.2)</li> <li>• Print their work by using File/Print or clicking on the printer icon. (7.3)</li> <li>• Access the Internet and software primarily through desktop icons. (7.3) (7.5)</li> <li>• Begin to communicate about technology using accurate terminology. (7.4)</li> </ul>	<ul style="list-style-type: none"> <li>• Successfully log-in and log-off the networked computers, using mouse and keyboard functions. (7.1)</li> <li>• Demonstrate the correct body and keyboard positioning and posture. (7.2)</li> <li>• Use a variety of menu options when accessing a document. (7.3)</li> <li>• Access specific software programs by icon or through Start/Programs. (7.3) (7.5)</li> <li>• Communicate about technology using accurate terminology. (7.4)</li> </ul>

<b>Standard 7. Students demonstrate a sound understanding of technology concepts, systems and operations.</b>			
<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
7.1 Students will access, connect, and use a variety of hardware and software components and network resources. 7.2 Students know proper keyboarding position and technique to touch type, using the correct hands for most keys. 7.3 Students know how to use a word processor to compose, type, proofread and edit a document. 7.4 Students use correct terminology. 7.5 Students recognize files on a network and know a how to share files with others.	<ul style="list-style-type: none"> <li>• Use input and output devices to access networked resources and common peripherals. (7.1)</li> <li>• Keyboard with home row keys, using correct posture and finger placement. (7.2)</li> <li>• Write assignments using a word processor, adding name, date, and information, using spell-check to edit. (7.3)</li> <li>• Compose blog entries using a word processor and spell-check prior to uploading. (7.3)</li> <li>• Learn correct computer terminology when introduced to new hardware, software, networking functions and procedures. (7.4)</li> <li>• Map the network drive and access the Grade 3 shared folder. (7.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Use input and output devices to access networked resources and common peripherals. (7.1)</li> <li>• Keyboard at 15 wpm using correct posture and finger placement. (7.2)</li> <li>• Write assignments using a word processor, change font size and style, edit using spell check and set margins. (7.3)</li> <li>• Submit teacher assignments on blog after using word processing software to edit. (7.3)</li> <li>• Learn correct computer terminology when introduced to new hardware, software, networking functions and procedures. (7.4)</li> <li>• Map the network drive and access the Grade 4 shared folder. (7.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Use input and output devices to access networked resources and common peripherals. (7.1)</li> <li>• Type at a speed of 15 wpm, with proper keyboarding technique. (7.2)</li> <li>• Write assignments using word processor, changing font size and style, alignment, adding text boxes, and using spell check. (7.3)</li> <li>• Learn correct computer terminology when introduced to new hardware, software, networking functions and procedures. (7.4)</li> <li>• Map the network drive and access the shared Grade 5 Class folder. (7.5)</li> </ul>

<b>Standard 7. Students demonstrate a sound understanding of technology concepts, systems and operations.</b>			
<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>7.1 Students will access, connect, and control a variety of hardware and software components and network resources.</p> <p>7.2 Students continue touch typing techniques, increasing speed and accuracy.</p> <p>7.3 Students independently use a variety of advanced menu options in software applications.</p> <p>7.4 Students know how to identify file formats for a variety of applications and apply utility programs to convert formats when needed.</p> <p>7.5 Students manage and maintain files on a network and know a variety of ways to share files with others.</p> <p>7.6 Students independently develop and apply strategies for identifying and solving routine hardware and software problems.</p>	<ul style="list-style-type: none"> <li>• Select hardware, software and network devices with the guidance of the teacher. (7.1)</li> <li>• Keyboard at least 25wpm using proper technique. (7.2)</li> <li>• Use standard and formatting menu options. (7.3)</li> <li>• List and identify file formats with the help of the teacher. (7.4)</li> <li>• With the help of a teacher, connect to a network folder and share files. (7.5)</li> <li>• Know how to attach a file to an e-mail. (7.5)</li> <li>• Apply simple strategies for solving hardware and software problems with the help of the teacher. (7.6)</li> </ul>	<ul style="list-style-type: none"> <li>• Distinguish between hardware, software and network devices. (7.1)</li> <li>• Keyboard at least 30 wpm using proper technique. (7.2)</li> <li>• Use formatting and page layout menu options. (7.3)</li> <li>• Recognize file formats and understand the need to convert files. (7.4)</li> <li>• Connect to a network folder and share files with peers and teachers. (7.5)</li> <li>• Identify hardware and software problems. (7.6)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently determine which hardware, software and network devices to use. (7.1)</li> <li>• Keyboard at least 35 wpm using proper technique. (7.2)</li> <li>• Independently use advanced menu options. (7.3)</li> <li>• Independently distinguish between file formats and use utility programs to convert files. (7.4)</li> <li>• Independently map the network drive to share files with peers and teachers. (7.5)</li> <li>• Independently identify and solve routine hardware and software problems. (7.6)</li> </ul>

<b>Standard 7. Students demonstrate a sound understanding of technology concepts, systems and operations.</b>				
<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<p>7.1 Students describe new and/or advanced technology resources and technology career opportunities.</p> <p>7.2 Students know how to use advanced utilities with computer files in a variety of different media formats.</p> <p>7.3 Students know how to identify, assess and solve hardware, software and network problems by using online help and other user documentation and support.</p> <p>7.4 Students will access NESAVirtual School.</p>	<ul style="list-style-type: none"> <li>• Use general knowledge of software to predict how a new piece of software will function. (7.1)</li> <li>• Know how to change the file type to fit a media format. (7.2)</li> <li>• Troubleshoot technical problems by seeking help from peers and teachers. (7.3)</li> <li>• Access teachers' unit plans and assignments and link to online resources. (7.4)</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate knowledge of various advanced features of a productivity application (e.g., macros, add-ons, master document and track changes). (7.1)</li> <li>• Understand how to convert a variety of file formats. (7.2)</li> <li>• Accurately describe a technical problem and seek technical help from a variety of sources, including online support. (7.3)</li> <li>• Access teachers' unit plans and assignments and link to online resources. (7.4)</li> </ul>	<ul style="list-style-type: none"> <li>• Describe a wide variety of technology career opportunities. (7.1)</li> <li>• Select and effectively use format options for a variety of situations. (7.2)</li> <li>• Recognize when a technical problem requires IT support for help. (7.3)</li> <li>• Access teachers' unit plans and assignments and link to online resources. (7.4)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently solve technical problems. (7.3)</li> <li>• Access teachers' unit plans and assignments and link to online resources. (7.4)</li> </ul>

<b>Standard 8. Students will select materials in multiple formats that support their interests and abilities and lead to an appreciation of literature and other creative expressions of information.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark will be assessed at Grade 2.	<ul style="list-style-type: none"> <li>Associate storytelling with pleasure. (8.1)</li> <li>Select books based on personal preference. (8.1)</li> <li>Recognize and identify illustrations, rhythm and repetition in stories. (8.3)</li> </ul>	<ul style="list-style-type: none"> <li>Associate reading with pleasure and request books for enjoyment. (8.1)</li> <li>Request specific books based on book characters, i.e. Clifford books. (8.2)</li> <li>Use illustrations as clues to understand story plot. (8.3)</li> <li>Draw inferences from illustrations. (8.3)</li> </ul>	<ul style="list-style-type: none"> <li>Associate reading with pleasure and request books for enjoyment. (8.1)</li> <li>Identify books by multiple authors and illustrators. (8.2)</li> <li>Use illustrations as clues to understand story plot. (8.3)</li> <li>Draw inferences from illustrations. (8.3)</li> <li>Understand the role of authors and illustrators in creating books. (8.3)</li> </ul>

<b>Standard 8. Students will select materials in multiple formats that support their interests and abilities and lead to an appreciation of literature and other creative expressions of information.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
<p>8.1 Students are self-motivated readers and with assistance choose “just right” books and other appropriate materials.</p> <p>8.2 Students recommend materials to others and read books that are recommended by friends and teachers.</p> <p>8.3 Students understand the relationship between words and illustration and how each enhances the other.</p>	<ul style="list-style-type: none"> <li>Select and read a wide variety of books for pleasure. (8.1)</li> <li>Read a variety of literary genres such as nursery rhymes, poetry and non-fiction. (8.1)</li> <li>Request materials by authors they encounter in class or through friends. (8.2)</li> <li>Understand that wordless picture books convey stories and explore how the illustrations in a picture book support the story. (8.3)</li> <li>Examine various retellings and illustrated versions of the same story and talk about how different illustrators interpret the same story. (8.3)</li> </ul>	<ul style="list-style-type: none"> <li>Read an increasing variety of materials independently for pleasure and information. (8.1)</li> <li>Read a variety of literary genres including, but not limited to, poetry, fairytales, fables and animal fiction in addition to a wider selection of non-fiction titles. (8.1)</li> <li>Recommend favorite books to friends and teachers. (8.2)</li> <li>Examine various retellings and illustrated versions of the same story and discuss how different illustrators interpret the same story. (8.3)</li> </ul>

**Standard 8. Students will select materials in multiple formats that support their interests and abilities and lead to an appreciation of literature and other creative expressions of information.**

<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>8.1 Students are self-motivated readers and regularly choose “just right” materials encompassing a wide variety of literary genres.</p> <p>8.2 Students begin to develop criteria for selecting materials based on own and others’ experiences.</p>	<ul style="list-style-type: none"> <li>• Ask for materials by favorite authors and illustrators. (8.1)</li> <li>• Read a variety the characteristics of literary genres including, but not limited to, realistic fiction, mystery, tricksters tales, legends and poetry in addition to a wider selection of non-fiction titles. (8.1)</li> <li>• Make recommendations and choose to read based on given recommendations. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Read widely and fluently to make connection with self, the world and previous reading. (8.1)</li> <li>• Read a variety of literary genres including, but not limited to, folktales, realistic fiction, adventure, American tall tales and poetry in addition to a wider selection of non-fiction titles. (8.1)</li> <li>• Begin to make recommendations and choose to read, view and listen based on given recommendations. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Select materials that reflect personal interests to include favorite authors, genres and styles. (8.1)</li> <li>• Try a variety of formats and genres and display a willingness to go beyond academic requirements. (8.1)</li> <li>• Read a variety of literary genres including, but not limited to, fantasy, science fiction, myths, historical fiction and poetry in addition to a wider selection of non-fiction titles. (8.1)</li> <li>• Exhibit openness to new ideas and a willingness to explore differing views that are encountered when reading. (8.1), (8.2)</li> <li>• Seek information about new ideas encountered through academic and personal experiences. (8.2)</li> <li>• Recommend, effectively and creatively, a wide variety of literary expressions to an audience. (8.2)</li> </ul>

**Standard 8. Students will select materials in multiple formats that support their interests and abilities and lead to an appreciation of literature and other creative expressions of information.**

<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>8.1 Students select a wide variety of media and read for pleasure on a regular basis.</p> <p>8.2 Students compare and evaluate professional and non-professional reviews to select materials using personal criteria.</p>	<ul style="list-style-type: none"> <li>• In addition to fiction, select nonfiction titles in print and audio formats to develop their interests. (8.1)</li> <li>• Accurately identify the major criteria representative of literary genres including but not limited to mystery, realistic fiction, historical fiction, animal stories, and short story. (8.1)</li> <li>• Use a variety of selection strategies, such as pre-reading and skimming to select items that match their reading ability. (8.1)</li> <li>• Use a variety of selection tools such as personal interest, peer reviews and summaries to make literature selections. (8.2)</li> <li>• Use the labeling systems on fiction material to help them find books of interest. (8.2)</li> <li>• Share literary experiences with peers. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Expand their selection of fiction and nonfiction titles in varying formats to include visual as well as print and audio. (8.1)</li> <li>• Accurately identify the major criteria representative of literary genres including but not limited to fantasy, science fiction, problem fiction, historical fiction, adventure and folklore. (8.1)</li> <li>• Independently use a variety of selection strategies to match titles to their reading ability. (8.1)</li> <li>• Read summaries, annotations, jacket blurbs, chapter headings and table of contents when available to choose a book. (8.2)</li> <li>• Learn search techniques specific to the OPAC to identify books to fit their interests. (8.1) (8.2)</li> <li>• Recommend and review literature for peers. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently select a variety of fiction and nonfiction titles in multiple formats to extend their interests. (8.1)</li> <li>• Continue to explore literary genres and be able to identify them by giving specific examples of each. (8.1)</li> <li>• Actively seek literary recommendations from peers, teachers and other adults. (8.2)</li> <li>• Use the OPAC independently to access books of quality and interest. (8.1) (8.2)</li> <li>• Share literary experiences by performing book talks. (8.2)</li> </ul>

**Standard 8. Students will select materials in multiple formats that support their interests and abilities and lead to an appreciation of literature and other creative expressions of information.**

<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<p>8.1 Students choose to read, view and listen to creative expression of information for pleasure on a regular basis.</p> <p>8.2 Students use evaluative criteria to choose from recommended materials and express opinions and support for personal selection.</p>	<ul style="list-style-type: none"> <li>• Critique the quality of differing media productions. (8.1)</li> <li>• Identify the features of various genres based on personal choice. (8.1)</li> <li>• Continue to perform book talks increasing their ability to “hook” the audience. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Select materials from multiple formats based on quality of production. (8.1)</li> <li>• Identify the features of literary genres by selecting some of the recognized bests in each genre. (8.1)</li> <li>• Access book reviews to improve personal book selection. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Recognize literary genres as reflections of the cultures that produced them. (8.1)</li> <li>• Use professional reviews to develop aesthetic criteria and enhance personal choice. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently select media of high caliber. (8.1)</li> <li>• Will continually use various strategies to independently find books of high literary quality and high personal appeal. (8.2)</li> </ul>

## Standard, benchmark and learner outcome arranged by Band

### Nursery – KG2

<b>Standard 1. Students define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal needs.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark will be assessed at Grade 2.	<ul style="list-style-type: none"> <li>Recognize a topic of interest when presented with a resource. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Ask the librarian for a book on a specific topic. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>Ask for a resource to answer a curiosity or to further knowledge. (1.1)</li> <li>Know that non-fiction books provide real information. (1.2)</li> </ul>

<b>Standard 2. Students will demonstrate a command of information skills and strategies to locate and effectively use print, non-print and or digital resources to solve problems, conduct research and pursue personal needs.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark will be assessed at Grade 2.	<ul style="list-style-type: none"> <li>Identify the storytelling area of the library. (2.1)</li> <li>Know how to check out a book. (2.2)</li> <li>Demonstrate library routines. (2.2)</li> </ul>	<ul style="list-style-type: none"> <li>Recognize the storybooks area as a place from which to borrow books. (2.1)</li> <li>Know library routines. (2.2)</li> <li>Become familiar with circulation procedures. (2.2)</li> <li>Understand good book care practices. (2.2)</li> </ul>	<ul style="list-style-type: none"> <li>Recognize the easy fiction and non-fiction areas of the library as a place to find books of interest. (2.1)</li> <li>Know circulation procedures. (2.2)</li> <li>Learn how to use a book paddle. (2.2)</li> </ul>

<b>Standard 3. Students will select, evaluate, synthesize and organize information from a variety of sources and formats.</b>			
<b>Standard 4. Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions.</b>			
<b>Standard 5. Students will use digital media environments to collaborate, including at a distance, to support individual learning and contribute to the learning of others.</b>			
<b>Standard 6. Students understand the human, cultural and societal issues related to information literacy and practice legal and ethical behavior.</b>			
<b>Standard 7. Students demonstrate a sound understanding of technology concepts, systems and operations.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmarks not applicable.			

<b>Standard 8. Students will select materials in multiple formats that support their interests and abilities and lead to an appreciation of literature and other creative expressions of information.</b>			
<b>Benchmark</b>	<b>Nursery</b>	<b>KG1</b>	<b>KG2</b>
Benchmark will be assessed at Grade 2.	<ul style="list-style-type: none"> <li>Associate storytelling with pleasure. (8.1)</li> <li>Select books based on personal preference. (8.1)</li> <li>Recognize and identify illustrations, rhythm and repetition in stories. (8.3)</li> </ul>	<ul style="list-style-type: none"> <li>Associate reading with pleasure and request books for enjoyment. (8.1)</li> <li>Request specific books based on book characters, i.e. Clifford books. (8.2)</li> <li>Use illustrations as clues to understand story plot. (8.3)</li> <li>Draw inferences from illustrations. (8.3)</li> </ul>	<ul style="list-style-type: none"> <li>Associate reading with pleasure and request books for enjoyment. (8.1)</li> <li>Identify books by multiple authors and illustrators. (8.2)</li> <li>Use illustrations as clues to understand story plot. (8.3)</li> <li>Draw inferences from illustrations. (8.3)</li> <li>Understand the role of authors and illustrators in creating books. (8.3)</li> </ul>

## Grades 1-2

<b>1. Students define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal needs.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
1.1 With assistance, students will state simple informational needs. 1.2 Students will understand that the library media center and the technology lab is a place where they can pursue information needs.	<ul style="list-style-type: none"> <li>• Select a topic of interest for further investigation. (1.1)</li> <li>• Rephrase the classroom assignment: What am I supposed to do? (1.1)</li> <li>• Create charts that distinguish what they know and what they need to know. (1.1)</li> <li>• Ask the librarian for books on a specific topic. (1.2)</li> <li>• Recognize non-fiction as a source for factual information. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Express curiosity about a topic through questioning. (1.1)</li> <li>• Examine assigned questions to identify information needs. (1.1)</li> <li>• Cluster ideas to develop additional questions to guide research efforts. (1.1)</li> </ul>

<b>Standard 2. Students will demonstrate a command of information skills and strategies to locate and effectively use print, non-print and or digital resources to solve problems, conduct research and pursue personal needs.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
2.1 Students will locate resources from basic areas of the library media center. 2.2 Students will follow circulation procedures. 2.3 Students will identify the basic parts of nonfiction books. 2.4 Students will use the visual online catalog to select resources. 2.5 With assistance, students will use pre-selected websites, search engine and directories.	<ul style="list-style-type: none"> <li>• Identify main area of the library. (2.1)</li> <li>• Be familiar with library layout and routines. (2.1)</li> <li>• With assistance, find books on a specific topic. (2.1)</li> <li>• Know circulation procedures. (2.2)</li> <li>• Identify the basic features of non-fiction books. (2.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Identify parts of the collection by names i.e. fiction, non-fiction, biography. (2.1)</li> <li>• Independently, browse library shelves to select books on a specific topic. (2.1)</li> <li>• Use the table of contents and the index to find basic information about a topic. (2.3)</li> <li>• Use the visual online catalog to select a book of interest. (2.4)</li> <li>• Look for key words in simple interactive software. (2.5)</li> </ul>

<b>Standard 3. Students will select, evaluate, synthesize and organize information from a variety of sources and formats.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
3.1 Students, when given a limited amount of items, will identify the most appropriate sources of information for a specific purpose. 3.2 Students will make basic judgments on the quality of print, non-print and digital information. 3.3 Students will use basic techniques to extract, record and organize minimal relevant information. 3.4 Students will assess whether the process was efficient and information gathered was both relevant and complete in response to the assigned task according to set criteria.	3.1 Students, when given a limited amount of items, will identify the most appropriate sources of information for a specific purpose. 3.2 Students will make basic judgments on the quality of print, non-print and digital information. 3.3 Students will use basic techniques to extract, record and organize minimal relevant information. 3.5 Students will assess whether the process was efficient and information gathered was both relevant and complete in response to the assigned task according to set criteria.	3.4 Students, when given a limited amount of items, will identify the most appropriate sources of information for a specific purpose. 3.5 Students will make basic judgments on the quality of print, non-print and digital information. 3.6 Students will use basic techniques to extract, record and organize minimal relevant information. 3.6 Students will assess whether the process was efficient and information gathered was both relevant and complete in response to the assigned task according to set criteria.

<b>Standard 4. Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
4.1 Students know how to use common software to illustrate concepts and convey ideas. 4.2 Students illustrate and communicate original ideas and stories using media rich resources and other formats. 4.3 Students will assess whether their products meet a short list of established standards for product and presentation with assistance.	<ul style="list-style-type: none"> <li>• Create a graphic organizer document to communicate understanding of a content area. (4.1) (4.2)</li> <li>• Open a document, type their name, copy and paste, change font and size, and print document. (4.1)</li> <li>• Illustrate the setting of an original story. (4.2)</li> <li>• Evaluate their work by using a rubric of two criteria designed by the teacher for each product. (4.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Create a mind map that includes at least five images of basic technology. (4.1) (4.2)</li> <li>• Open a document, type their name, copy and paste, change font and size, and print document. (4.1)</li> <li>• Illustrate the setting of an original story and import a sound file. (4.2)</li> <li>• Create a short video clip to “tell” a story. (4.2)</li> <li>• Evaluate their work by using a teacher-designed rubric for each product. (4.3)</li> </ul>

<b>Standard 5. Students will use digital media environments to collaborate, including at a distance, to support individual learning and contribute to the learning of others.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
5.1 Students know how to work together to collect and create pictures for word processed reports and electronic presentations to communicate ideas relevant to the curriculum to their classmates, families, and others. 5.2 Students engage in learning activities with learners from multiple cultures through electronic means.	<ul style="list-style-type: none"> <li>• Work in pairs to create a project, and then share with classmates. (5.1)</li> <li>• Access a variety of online learning activities for all subject areas. (5.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Work together in small groups to create a project and then share with classmates and families. (5.1)</li> <li>• Engage in online learning activities and contribute to a variety of projects. (5.2)</li> </ul>

<b>Standard 6. Students understand the human, cultural and societal issues related to information literacy and practice legal and ethical behavior.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
6.1 Students identify common uses of information and communication technology in daily life. 6.2 Students describe acceptable and unacceptable computer etiquette and how to work cooperatively with peers, family members and others when using technology in school or at home. 6.3 Students will give credit to the creator when using his/her work.	<ul style="list-style-type: none"> <li>• Create a mind map showing uses of information and communication technology. (6.1)</li> <li>• Give examples of acceptable and unacceptable computer use. (6.2)</li> <li>• Give credit when using someone else’s work, by following the grade level bibliographic format. See Addendum D. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Explain how technology helps in daily life. (6.1)</li> <li>• Give examples of acceptable and unacceptable computer use and complete an online quiz. (6.2)</li> <li>• Give credit when using someone else’s work, by following the grade level bibliographic format. See Addendum D. (6.3)</li> </ul>

<b>Standard 7. Students demonstrate a sound understanding of technology concepts, systems and operations.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
7.1 Students use basic input and output devices. 7.2 Students know correct posture. 7.3 Students use basic file menu commands. 7.4 Students communicate about technology using developmentally appropriate and accurate terminology. 7.5 Students independently access installed software programs.	<ul style="list-style-type: none"> <li>• Successfully log-in and log-off the computers, using mouse and keyboard functions. (7.1)</li> <li>• Sit at the computer, with correct body and keyboard positioning and posture. (7.2)</li> <li>• Print their work by using File/Print or clicking on the printer icon. (7.3)</li> <li>• Access the Internet and software primarily through desktop icons. (7.3) (7.5)</li> <li>• Begin to communicate about technology using accurate terminology. (7.4)</li> </ul>	<ul style="list-style-type: none"> <li>• Successfully log-in and log-off the networked computers, using mouse and keyboard functions. (7.1)</li> <li>• Demonstrate the correct body and keyboard positioning and posture. (7.2)</li> <li>• Use a variety of menu options when accessing a document. (7.3)</li> <li>• Access specific software programs by icon or through Start/Programs. (7.3) (7.5)</li> <li>• Communicate about technology using accurate terminology. (7.4)</li> </ul>

<b>Standard 8. Students will select materials in multiple formats that support their interests and abilities and lead to an appreciation of literature and other creative expressions of information.</b>		
<b>Benchmark</b>	<b>Grade 1</b>	<b>Grade 2</b>
8.1 Students are self-motivated readers and with assistance choose “just right” books and other appropriate materials. 8.2 Students recommend materials to others and read books that are recommended by friends and teachers. 8.3 Students understand the relationship between words and illustration and how each enhances the other.	<ul style="list-style-type: none"> <li>• Select and read a wide variety of books for pleasure. (8.1)</li> <li>• Read a variety of literary genres such as nursery rhymes, poetry and non-fiction. (8.1)</li> <li>• Request materials by authors they encounter in class or through friends. (8.2)</li> <li>• Understand that wordless picture books convey stories and explore how the illustrations in a picture book support the story. (8.3)</li> <li>• Examine various retellings and illustrated versions of the same story and talk about how different illustrators interpret the same story. (8.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Read an increasing variety of materials independently for pleasure and information. (8.1)</li> <li>• Read a variety of literary genres including, but not limited to, poetry, fairytales, fables and animal fiction in addition to a wider selection of non-fiction titles. (8.1)</li> <li>• Recommend favorite books to friends and teachers. (8.2)</li> <li>• Examine various retellings and illustrated versions of the same story and discuss how different illustrators interpret the same story. (8.3)</li> </ul>

## Grades 3-5

<b>Standard 1. Students define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal needs.</b>			
<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>1.1 Students will develop essential questions to guide their research.</p> <p>1.2 Students will describe a course of action to complete a research task, with prompting.</p> <p>For a sample of a Research Process Model see Addendum A.</p>	<ul style="list-style-type: none"> <li>• Understand the criteria for the research assignment. (1.1)</li> <li>• Ask questions to clarify meaning and to determine specific informational needs. (1.1)</li> <li>• Develop and articulate questions about the topic. (1.1)</li> <li>• Narrow and broaden focus of a given assignment. (1.1)</li> <li>• Identify key words to search for information. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Identify major components of a topic and redefine the topic to meet the needs of assignments and personal interests. (1.1)</li> <li>• Get an overview of a topic from a variety of reference resources. (1.1)</li> <li>• Formulate questions to guide research. (1.1)</li> <li>• Create mind maps, subject webs prior to search. (1.1)</li> <li>• Identify existing knowledge and list areas where more information is needed. (1.1)</li> <li>• Brainstorm to define and refine the research question. (1.1)</li> <li>• Develop subtopics to successfully research a topic. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Clearly restate the scope and criteria of an assignment. (1.1)</li> <li>• Distinguish different kinds of and purposes for questions. (1.1)</li> <li>• Build a knowledge base from a variety of resources and determine what he/she knows and what he/she needs to know. (1.1)</li> <li>• Broaden and narrow topic, identify key words and develop subtopics to successfully research a topic. (1.2)</li> <li>• Structure search strategies within set timelines. (1.2)</li> </ul>

**Standard 2. Students will demonstrate a command of information skills and strategies to locate and effectively use print, non-print and or digital resources to solve problems, conduct research and pursue personal needs.**

<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>2.1 Students will use the online catalog to identify materials by author, title, or subject including cross references and locate resources in appropriate areas of the library media center.</p> <p>2.2 With assistance, students will use navigational features, such as table of contents, guide words, indexes, section headings and cross referencing to find information within a source.</p> <p>2.3 With assistance, students will identify and begin using age-appropriate search engines and directories.</p> <p>2.4 With assistance, students will use a range of print, non-print and digital resources within the school.</p> <p>2.5 With assistance, students will use information presented graphically, such as pictures, captions and diagrams.</p> <p>2.6 With assistance, students will identify key words for use in searching for information.</p> <p>2.7 Students will use menus, icons and links to access databases to conduct basic research.</p> <p>2.8 Students will understand that information can be found from nontraditional resources such as individual experts, community and virtual resources.</p>	<ul style="list-style-type: none"> <li>• Understand the basic organization of the library. (2.1)</li> <li>• Use the online catalog to choose materials by author, subject or title. (2.1)</li> <li>• With assistance, identify types and location of materials by call number information. (2.1)</li> <li>• Use titles and subheadings as a guide to find information. (2.2)</li> <li>• Use preselected websites for a research project. (2.3)</li> <li>• With assistance, use a basic encyclopedia to locate information. (2.4)</li> <li>• Locate non-fiction books to complete a simple research project. (2.4)</li> <li>• Use the elements of charts, diagrams and graphs to collect information. (2.5)</li> <li>• With assistance, identify keywords for use in searching for information. (2.6)</li> <li>• Explore electronic reference information such as simple encyclopedias. (2.7)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently use the online catalog to select appropriate resources by author, subject and title. (2.1)</li> <li>• Understand that non-fiction books are grouped by subject according to the Dewey Decimal system. (2.1)</li> <li>• Understand the organization of books and use features such as table of contents and the index of a book and of multi-volume works. (2.2)</li> <li>• Explore specific websites on the internet. (2.3)</li> <li>• Use general and specialized print and non-print reference sources such as encyclopedias, almanacs and atlases. (2.4)</li> <li>• Use non-fiction books to complete a research project. (2.4)</li> <li>• Recognize the purposes of different parts of a graph. (2.5)</li> <li>• Determine and use keywords to search in a general or a specialized reference source to locate and access information. (2.6)</li> <li>• With assistance, use the online search engines to seek information. (2.7)</li> <li>• Conduct interviews and surveys. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently and competently use the online catalog to select materials of interest by author, title or subject. (2.1)</li> <li>• Request materials of interest and navigate the online catalog of the lower and upper library. (2.1)</li> <li>• Locate materials in the library using the call number information and know their sub-location. (2.1)</li> <li>• Independently determine and use keywords to locate information in a reference tool. (2.2)</li> <li>• Competently use the index of an encyclopedia, almanac, atlas and other print sources. (2.2)</li> <li>• Bookmark and use internet sites relevant to research. (2.3)</li> <li>• Use general and specialized print and non-print reference sources such as encyclopedias, almanacs and atlases. (2.4)</li> <li>• Use multiple non-fiction sources to complete research. (2.4)</li> <li>• Identify the features of a variety of media. (2.4)</li> <li>• Recognize the purposes of different parts of a graph. (2.5)</li> <li>• Search the internet using keywords in single search engines. (2.6)</li> <li>• Select information from a variety of electronic reference materials. (2.7)</li> <li>• Interview an individual to seek information for a research project. (2.8)</li> </ul>

<b>Standard 3. Students will select, evaluate, synthesize and organize information from a variety of sources and formats.</b>			
<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>3.1 Students will identify the most appropriate sources of information for a specific purpose.</p> <p>3.2 Students will use criteria to judge the relevance, credibility and completeness of print, non-print and digital information.</p> <p>3.3 Students will use basic techniques to extract and record relevant information from several sources.</p> <p>3.4 Students will organize, analyze and synthesize information into related categories, with assistance.</p> <p>3.5 Students will assess whether the process was efficient and information gathered was both relevant and complete in response to the assigned task.</p> <p>For CARRDSS approach to source evaluation, print or electronic, see Addendum C.</p>	<ul style="list-style-type: none"> <li>• With assistance, select books for classroom assignments. (3.1)</li> <li>• Evaluate print and non-print resources for individual skills, level, purpose and to solve information problems. (3.1) (3.2)</li> <li>• Skim and scan to identify important information. (3.2)</li> <li>• Extract and record needed information in own words. (3.3)</li> <li>• Group and organize information in broad categories to answer research questions. (3.4)</li> <li>• With assistance, create a research folder in order to organize information in predetermined categories. (3.4)</li> <li>• Review and evaluate the research process by completing a survey. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently select books for classroom assignments. (3.1)</li> <li>• Identify bias in information. (3.2)</li> <li>• Distinguish between facts and opinions. (3.2)</li> <li>• Use print and non-print resources to extract information. (3.3)</li> <li>• Use the index to access information in an encyclopedia. (3.3)</li> <li>• Take notes on index cards. (3.3)</li> <li>• Use a research folder to organize gathered information. (3.4)</li> <li>• Review the research strategies in peer and teacher conferences. (3.5)</li> <li>• Provide a reflection on the research project. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently and competently select print and non-print resources considering topic, individual skills and timeliness. (3.1)</li> <li>• Identify how data was collected. (3.2)</li> <li>• Use copyright information to determine timeliness. (3.2)</li> <li>• Evaluate definitions. (3.2)</li> <li>• Discuss patterns in the data. (3.2)</li> <li>• Gather background information by reading, viewing or listening to a variety of pre-selected and self-selected learning resources. (3.2) (3.3)</li> <li>• Skim general and specialized reference, print and electronic sources. (3.3)</li> <li>• Web, map or diagram a main topic with sub-topics.(3.3)</li> <li>• Interpret information from various and non-print including visuals like maps, graphs, charts, tables and pictures. (3.4)</li> <li>• Use interviews as a primary source of information. (3.4)</li> <li>• Use folders to organize information. (3.4)</li> <li>• Make judgments and draw conclusions to solve problems. (3.4)</li> <li>• Relate research findings to personal knowledge and experience. (3.4)</li> <li>• Complete self-evaluation forms on product and process indentifying strengths and weakness. (3.5)</li> </ul>

<b>Standard 4. Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions.</b>			
<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>4.1 Students use a variety of features of common software to plan, create, and edit documents.</p> <p>4.2 Students use a variety of media and formats to create and edit products for multiple audiences.</p> <p>4.3 Students use digital imaging software to modify or create works of art for use in a presentation.</p> <p>4.4 Students will assess whether their products meet established standards for product and presentation with assistance.</p>	<ul style="list-style-type: none"> <li>• Create mind maps. (4.1)</li> <li>• Create documents based on teacher assignments and manipulate the font style, size and edit their work using a spell checker. (4.1) (4.2)</li> <li>• Create a multimedia presentation inserting graphics, text, and transitions. (4.2)</li> <li>• Create audio files. (4.2)</li> <li>• Create an avatar, including voice, as a welcome to an individual blog. (4.2)</li> <li>• Create graphics using a drawing program and save as jpg. (4.3)</li> <li>• Evaluate their work by using a rubric designed by the teacher for each product. (4.4)</li> </ul>	<ul style="list-style-type: none"> <li>• Create mind maps. (4.1)</li> <li>• Create documents based on teacher assignments, and include clip art and text boxes. (4.1)</li> <li>• Create two projects, inserting graphics, text, transitions and sound. (4.2)</li> <li>• Create an avatar using own voice sound, for placement on the blog. (4.2)</li> <li>• Create graphics using drawing programs, to insert in presentations. (4.3)</li> <li>• Evaluate their work by using a teacher-designed rubric for each product. (4.4)</li> </ul>	<ul style="list-style-type: none"> <li>• Create documents, based on the teacher assignment that includes inserting pictures, text alignment and text wrapping. (4.1)</li> <li>• Gather data and use a spreadsheet to present content information. (4.1)</li> <li>• Create a presentation to explain curriculum content and insert narration. (4.2)</li> <li>• Create avatars using own sound and own background, for placement on the blog. (4.2)</li> <li>• Create a video project. (4.2)</li> <li>• Use digital cameras to collect images for a collaborative project. (4.3)</li> <li>• Use photo editing to create and modify images for use in presentations. (4.3)</li> <li>• Evaluate their work by using a teacher-designed rubric for each product. (4.4)</li> </ul>

<b>Standard 5. Students will use digital media environments to collaborate, including at a distance, to support individual learning and contribute to the learning of others.</b>			
<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>5.1 Students know how to work collaboratively to create content related products.</p> <p>5.2 Students use a variety of media and formats to create and edit products that communicate syntheses of information and ideas from the curriculum to multiple audiences.</p> <p>5.3 Students use information and communication technology tools and resources to collect, organize, and evaluate information relevant to a real-world problem.</p>	<ul style="list-style-type: none"> <li>• Work in groups to create a slide show that shares learned content. (5.1) (5.2)</li> <li>• Publish content related writing on their individual blog. (5.2)</li> <li>• Collect data and organize information regarding a real-world problem. (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Work in small groups to create a slide presentation that shares learned content. (5.1) (5.2)</li> <li>• Publish work from a variety of content areas on their individual blog. (5.2)</li> <li>• Collect data and organize information using an online survey regarding a real-world problem. (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Work in groups to create a short video to share with others. (5.1) (5.2)</li> <li>• Publish work from a variety of content areas on their individual blog including images. (5.2)</li> <li>• Create a survey, collect data and organize information using an online survey regarding a real-world problem. (5.3)</li> </ul>

**Standard 6. Students understand the human, cultural and societal issues related to information literacy and practice legal and ethical behavior.**

<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>6.1 Students identify legal and ethical issues related to use of information and communication technology, and recognize consequences of its misuse.</p> <p>6.2 Students identify issues related to how information and communication technology assists individuals with disabilities, and supports collaboration, personal productivity and lifelong learning.</p> <p>6.3 Students will give citation credit, in the form of a basic bibliography, to original sources when using or transmitting information.</p>	<ul style="list-style-type: none"> <li>• Discuss with their teachers, read with their parents and understand the school’s AUP. (6.1)</li> <li>• Be assigned an individual user-name and set their password for ACS networked computer log-in. (6.1)</li> <li>• Discuss online safety and reinforce through game playing. (6.1)</li> <li>• Discuss what is legal and not legal for copying. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and access teacher assigned web sites for independent learning. (6.2)</li> <li>• Give credit when using someone else’s work, by following the grade level bibliographic format. See Addendum D. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss with their teachers, read with their parents and understand the school’s AUP. (6.1)</li> <li>• Use their individual user-name and password, never sharing that information. (6.1)</li> <li>• Discuss online safety and reinforce through game playing. (6.1)</li> <li>• Discuss what is legal and not legal for copying. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and access teacher assigned web sites for independent learning. (6.2)</li> <li>• Give credit when using someone else’s work, by following the grade level bibliographic format. See Addendum D. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss with their teachers, read with their parents and understand the school’s AUP. (6.1)</li> <li>• Keep their individual user-name and password private. (6.1)</li> <li>• Discuss online safety and reinforce through game playing. (6.1)</li> <li>• Discuss what is legal and not legal for copying. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and access teacher assigned web sites for independent learning. (6.2)</li> <li>• Give credit when using someone else’s work, by following the grade level bibliographic format. See Addendum D. (6.3)</li> </ul>

**Standard 7. Students demonstrate a sound understanding of technology concepts, systems and operations.**

<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>7.1 Students will access, connect, and use a variety of hardware and software components and network resources.</p> <p>7.2 Students know proper keyboarding position and technique to touch type, using the correct hands for most keys.</p> <p>7.3 Students know how to use a word processor to compose, type, proofread and edit a document.</p> <p>7.4 Students use correct terminology.</p> <p>7.5 Students recognize files on a network and know a how to share files with others.</p>	<ul style="list-style-type: none"> <li>• Use input and output devices to access networked resources and common peripherals. (7.1)</li> <li>• Keyboard with home-row keys, using correct posture and finger placement. (7.2)</li> <li>• Write assignments using a word processor, adding name, date, and information, using spell-check to edit. (7.3)</li> <li>• Compose blog entries using a word processor and spell-check prior to uploading. (7.3)</li> <li>• Learn correct computer terminology when introduced to new hardware, software, networking functions and procedures. (7.4)</li> <li>• Map the network drive and access the Grade 3 shared folder. (7.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Use input and output devices to access networked resources and common peripherals. (7.1)</li> <li>• Keyboard at 15 wpm using correct posture and finger placement. (7.2)</li> <li>• Write assignments using a word processor, change font size and style, edit using spell check and set margins. (7.3)</li> <li>• Submit teacher assignments on blog after using word processing software to edit. (7.3)</li> <li>• Learn correct computer terminology when introduced to new hardware, software, networking functions and procedures. (7.4)</li> <li>• Map the network drive and access the Grade 4 shared folder. (7.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Use input and output devices to access networked resources and common peripherals. (7.1)</li> <li>• Type at a speed of 20 wpm, with proper keyboarding technique. (7.2)</li> <li>• Write assignments using word processor, changing font size and style, alignment, adding text boxes, and using spell check. (7.3)</li> <li>• Learn correct computer terminology when introduced to new hardware, software, networking functions and procedures. (7.4)</li> <li>• Map the network drive and access the shared Grade 5 Class folder. (7.5)</li> </ul>

**Standard 8. Students will select materials in multiple formats that support their interests and abilities and lead to an appreciation of literature and other creative expressions of information.**

<b>Benchmark</b>	<b>Grade 3</b>	<b>Grade 4</b>	<b>Grade 5</b>
<p>8.1 Students are self-motivated readers and regularly choose “just right” materials encompassing a wide variety of literary genres.</p> <p>8.2 Students begin to develop criteria for selecting materials based on own and others’ experiences.</p>	<ul style="list-style-type: none"> <li>• Ask for materials by favorite authors and illustrators. (8.1)</li> <li>• Read a variety the characteristics of literary genres including, but not limited to, realistic fiction, mystery, tricksters tales, legends and poetry in addition to a wider selection of non-fiction titles. (8.1)</li> <li>• Make recommendations and choose to read based on given recommendations. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Read widely and fluently to make connection with self, the world and previous reading. (8.1)</li> <li>• Read a variety of literary genres including, but not limited to, folktales, realistic fiction, adventure, American tall tales and poetry in addition to a wider selection of non-fiction titles. (8.1)</li> <li>• Begin to make recommendations and choose to read, view and listen based on given recommendations. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Select materials that reflect personal interests to include favorite authors, genres and styles. (8.1)</li> <li>• Try a variety of formats and genres and display a willingness to go beyond academic requirements. (8.1)</li> <li>• Read a variety of literary genres including, but not limited to, fantasy, science fiction, myths, historical fiction and poetry in addition to a wider selection of non-fiction titles. (8.1)</li> <li>• Exhibit openness to new ideas and a willingness to explore differing views that are encountered when reading. (8.1), (8.2)</li> <li>• Seek information about new ideas encountered through academic and personal experiences. (8.2)</li> <li>• Recommend, effectively and creatively, a wide variety of literary expressions to an audience. (8.2)</li> </ul>

## Grades 6-8

<b>Standard 1. Students define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal needs.</b>			
<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>1.1 Students will develop increasingly more complex essential questions related to a topic and pose additional sub-questions to guide their research.</p> <p>1.2 Students will determine an appropriate course of action for completing a research project.</p> <p>For a sample of a Research Process Model see Addendum A.</p>	<ul style="list-style-type: none"> <li>• Independently analyze assignments to determine specific information requirements. (1.1)</li> <li>• Determine what they already know about a topic and list areas where more information is needed. (1.1)</li> <li>• Develop a range of questions to guide research. (1.1)</li> <li>• Work in a team to develop a project outline. (1.2)</li> <li>• Explore the advantages and disadvantages of different presentation methods. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Learn to independently prepare guiding questions in advance of research. (1.1)</li> <li>• Formulate questions to guide research that synthesize varying points of view. (1.1)</li> <li>• Structure a project strategy with a timeline for completion. (1.2)</li> <li>• Consider the purpose and audience when selecting a product or presentation mode. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Determine existing knowledge in relation to a topic and with prompting explore general information sources to increase familiarity with the topic. (1.1)</li> <li>• Form increasingly complex questions based upon an identified information need. (1.1)</li> <li>• Develop a research idea with a statement of purpose. (1.1)</li> <li>• Articulate the stages of the research process and develop a plan for completion of project. (1.2)</li> <li>• Match presentation method with audience and purpose. (1.2)</li> </ul>

**Standard 2. Students will demonstrate a command of information skills and strategies to locate and effectively use print, non-print and or digital resources to solve problems, conduct research and pursue personal needs.**

<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>2.1 Students use additional features of online catalog records and demonstrate the ability to locate information from all areas of the library media center.</p> <p>2.2 Students will use navigational features, such as guide words, indexes, section headings, and cross-referencing strategies to find information within a source.</p> <p>2.3 With assistance, students will select and use an appropriate search engine or directory related to a specific task.</p> <p>2.4 Students will identify and use the full range print, non-print and digital sources available in the school.</p> <p>2.5 Students will use the full range of graphically presented information and be able to draw inferences for information purposes.</p> <p>2.6 Students will identify keywords for searching information sources and know how to apply specific features of different search engines to expand their searching techniques.</p> <p>2.7 Students will demonstrate the ability to navigate through a variety of online databases to access information for research.</p> <p>2.8 Students will access selected nontraditional resources such as corresponding with an expert or visiting a community or virtual site.</p>	<ul style="list-style-type: none"> <li>● Use Dewey order and call numbers to locate information within the library. (2.1)</li> <li>● Browse the appropriate sections of the library to expand approaches to a topic. (2.1)</li> <li>● Use the OPAC to locate an increasingly wide variety of formats as information sources. (2.1)</li> <li>● Use headings, captions and other internal organizational features of print and electronic sources. (2.2)</li> <li>● Use the Internet concentrating on the features of single search engines. (2.3)</li> <li>● Use standard reference sources. (2.4)</li> <li>● Distinguish between general and specific reference materials. (2.4)</li> <li>● Identify conventional symbols, titles and labels that organize data. (2.5)</li> <li>● Extract information from graphs, charts and other visually presented quantitative information. (2.5)</li> <li>● Use basic search language appropriate to intended research. (2.6)</li> <li>● Explore subject directories to help retrieve information from online databases. (2.7)</li> <li>● Select and use a variety of periodicals. (2.7)</li> <li>● Use personal interviews to obtain information. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>● Use Dewey to browse the collection. (2.1)</li> <li>● Use the OPAC to locate and use an increasingly wide variety of formats as information sources. (2.1)</li> <li>● Explain the purpose of catalog record elements. (2.1)</li> <li>● Use cross-referencing to expand approaches to a topic. (2.1)</li> <li>● Use headings, captions and other internal organizational features of print and electronic sources. (2.2)</li> <li>● Search the Internet using a variety of features in a single search engine. (2.3)</li> <li>● Use subject specific reference sources. (2.4)</li> <li>● Extract information from graphs, charts and other visually presented quantitative information. (2.5)</li> <li>● Use basic search language appropriate to intended research. (2.6)</li> <li>● Begin to use online indexes to periodicals. (2.7)</li> <li>● Select information from relevant field study. (2.8)</li> <li>● Use basic surveys to collect information. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>● Independently browse the collection using call number and Dewey numbering as guides. (2.1)</li> <li>● Use the OPAC to locate and use an increasingly wide variety of formats as information sources. (2.1)</li> <li>● Independently use headings, captions and other internal organizational features of print and electronic sources. (2.2)</li> <li>● Search the Internet using a range of strategies available in a variety of single search engines. (2.3)</li> <li>● Use bibliographies and suggested readings in reference materials to investigate further sources. (2.4)</li> <li>● Describe the features and conventions of a variety of reference materials. (2.4)</li> <li>● Independently extract information from graphs, charts and other visually presented quantitative information. (2.5)</li> <li>● Use basic search language appropriate to intended research and include Boolean language. (2.6)</li> <li>● Select online databases as a source of information. (2.7)</li> <li>● Begin to use community resources and organizations for information. (2.8)</li> </ul>

<b>Standard 3. Students will select, evaluate, synthesize and organize information from a variety of sources and formats</b>			
<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>3.1 Students will develop and apply more complex criteria for aligning resources with a specific need and presentation.</p> <p>3.2 Apply evaluative criteria to discern stereotype, bias, and propaganda techniques in print, non-print and digital resources.</p> <p>3.3 Students will use multiple techniques to extract and record relevant information from multiple sources.</p> <p>3.4 Students will organize information into related categories and analyze and synthesize information to draw meaningful conclusions with minimal assistance.</p> <p>3.5 Students will assess the efficiency of the research process and determine if information gathered was relevant, complete and accurate in response to the assigned task.</p> <p>For CARRDSS approach to source evaluation, print or electronic, see Addendum C.</p>	<ul style="list-style-type: none"> <li>• Determine the relative value of a variety of resources for meeting information needs. (3.1)</li> <li>• Recognize the advantages and disadvantages of a variety of formats as information sources. (3.1)</li> <li>• Distinguish between primary and secondary sources. (3.1)</li> <li>• Begin to identify criteria used to evaluate information. (3.2)</li> </ul> <p>(See Addendum C)</p> <ul style="list-style-type: none"> <li>• Identify agreement and disagreement among sources. (3.2)</li> <li>• Identify point of view. (3.2)</li> <li>• Use tree diagrams to order information. (3.3)</li> <li>• Take accurate notes in a variety of formats, including graphic organizers and basic note cards. (3.3)</li> <li>• Use paraphrasing techniques. (3.3)</li> <li>• Formulate hypothesis and test validity with peers and teachers. (3.4)</li> <li>• Draw conclusions from research to solve problems. (3.4)</li> <li>• Compare information selected and interpreted with information needs and adjust research strategies if necessary. (3.5)</li> <li>• Judge if research questions have been answered. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritize the usefulness of information sources based on specific information needs. (3.1)</li> <li>• Select the most appropriate format to meet an information need. (3.1)</li> <li>• Verify the adequacy of information selected. (3.1)</li> <li>• Evaluate resources based on the established criteria of point of view, currency, authority and reliability of resources. (3.2)</li> </ul> <p>(See Addendum C)</p> <ul style="list-style-type: none"> <li>• Identify bias in data collection methods. (3.2)</li> <li>• Take accurate notes in a variety of formats, including graphic organizers and basic note cards. (3.3)</li> <li>• Paraphrase information properly. (3.3)</li> <li>• Draw conclusions from research to solve problems. (3.4)</li> <li>• Use detailed outlines in peer and teacher conferencing to check progress and test clarity of ideas. (3.4)</li> <li>• Complete self-evaluation on all research and information problem solving. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Decide what type of information is needed based on presentation mode and audience. (3.1)</li> <li>• Evaluate resources further using authorship, publishing body and validity. (3.2)</li> </ul> <p>(See Addendum C)</p> <ul style="list-style-type: none"> <li>• Compare and verify statements from two or more sources. (3.2)</li> <li>• Examine assumptions and bias in information. (3.2)</li> <li>• Verify the accuracy of examples and quotations from primary sources. (3.2)</li> <li>• Assess bias in data collection methods. (3.2)</li> <li>• Organize collected information independently. (3.3)</li> <li>• Independently paraphrase information. (3.3)</li> <li>• Make inferences and convincing arguments based on research. (3.4)</li> <li>• Independently complete self-evaluation on all research and information problem solving. (3.5)</li> </ul>

<b>Standard 4. Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions.</b>			
<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>4.6 Students will describe and illustrate a content-related concept or process using common software.</p> <p>4.1 Students know how to use a variety of media and formats to design, develop, publish, and present products that effectively communicate information and ideas to multiple audiences.</p> <p>4.2 Students will independently select and use the appropriate hardware equipment to produce multimedia projects.</p> <p>4.3 Students know how to plan, design, and develop a multimedia product using data to present content information.</p> <p>4.4 Students will assess whether their products meet established standards for product and presentation.</p>	<ul style="list-style-type: none"> <li>• Create a mind map integrating a variety of options from the software. (4.1)</li> <li>• Prepare a one page newsletter with text boxes and images with effective visual design. (4.2)</li> <li>• Create a presentation with text, images and sound files. (4.2)</li> <li>• Draw digital images. (4.2)</li> <li>• Import and edit video in the simplest form. (4.2)</li> <li>• Create audio files. (4.2)</li> <li>• Use digital cameras to take pictures for class projects. (4.3)</li> <li>• Gather data and use a spreadsheet to present content information. (4.4)</li> <li>• Use technology to explore math patterns and formulas. (4.4)</li> <li>• Use a teacher created rubric to assess presentation. (4.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Create a diagram describing a process. (4.1)</li> <li>• Prepare a double-sided brochure with columns to communicate ideas to classmates. (4.2)</li> <li>• Create a presentation with text, images, shapes, and recorded narrations. (4.2)</li> <li>• Use photo editor to alter images. (4.2)</li> <li>• Import pictures, video, and edit video. (4.2)</li> <li>• Insert audio files in common software. (4.2)</li> <li>• Use digital cameras and camcorders to gather media for projects. (4.3)</li> <li>• Gather data in content area then choose a graph in a spreadsheet document. (4.4)</li> <li>• Collaborate with teacher to create a rubric to assess product. (4.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Select software and create content related diagrams to present an idea. (4.1)</li> <li>• Design a magazine with proper layout design for school wide community. (4.2)</li> <li>• Create a presentation incorporating charts, shapes, hyperlinks, audio, and video files. (4.2)</li> <li>• Use photo editor to manipulate images. (4.2)</li> <li>• Publish video clips with pictures, footage, imported video, audio files, and music. (4.2)</li> <li>• Use a digital recorder to create podcasts. (4.3)</li> <li>• Independently select the appropriate hardware to produce multimedia projects. (4.3)</li> <li>• Independently determine the type of graph to present information. (4.4)</li> <li>• Create a rubric and use it to assess if their product meets the standards. (4.5)</li> </ul>

<b>Standard 5. Students will use digital media environments to collaborate, including at a distance, to support individual learning and contribute to the learning of others.</b>			
<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>5.1 Students know how to work collaboratively to design, develop content related products.</p> <p>5.2 Students know how to use telecommunications tools to exchange data collected and learn curricular concepts by communicating with peers, experts, and other audiences.</p> <p>5.3 Students participate in a cooperative learning project with students from other cultures in an online learning community.</p>	<ul style="list-style-type: none"> <li>• Develop a group project with the assistance of the teacher to present content related products. (5.1)</li> <li>• Use e-mail to exchange data collected. (5.2)</li> <li>• Use teacher selected website to participate in an online project. (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Work in groups to present content related products. (5.1)</li> <li>• Use different telecommunications tools to exchange data with other audiences. (5.2)</li> <li>• Participate in an online project sharing scientific data. (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently collaborate to present content related products. (5.1)</li> <li>• Exchange ideas with peers through use of blogs and wikis. (5.2)</li> <li>• Publish online a piece of writing or video to exchange ideas with students from other cultures. (5.3)</li> </ul>

**Standard 6. Students understand the human, cultural and societal issues related to information literacy and practice legal and ethical behavior.**

<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>6.1 Students identify legal and ethical issues related to use of information and communication technology, and recognize consequences of its misuse.</p> <p>6.2 Students examine issues related to how information and communication technology encourages productivity, independent lifelong learning and assistance for individuals with special needs.</p> <p>6.3 Students will apply established citation styles for giving credit for information or ideas used.</p>	<ul style="list-style-type: none"> <li>• Read with their parents, understand the school’s acceptable use policy and sign the form. (6.1)</li> <li>• Do not share passwords with other students. (6.1)</li> <li>• Understand why it is not safe to post personal information on social networking sites. (6.1)</li> <li>• Define plagiarism and copyright by understanding when citation is necessary and what can be copied without violating copyright law. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and use teacher assigned web sites for independent learning. (6.2)</li> <li>• Understand the concept of “in-text” citation. (6.3)</li> <li>• Construct a works cited page. (6.3)</li> <li>• Use simple bibliographic conventions to cite commonly used print, non-print and online items. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Apply the school’s acceptable use policy. (6.1)</li> <li>• Don’t copy software or songs. (6.1)</li> <li>• Know it is illegal to violate the terms of use on social networking sites such as misrepresentation of age. (6.1)</li> <li>• Achieve a fuller understanding of plagiarism and copyright and be able to use both principles with assistance. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and use teacher assigned web sites for independent learning. (6.2)</li> <li>• Use in-text citation when completing projects. (6.3)</li> <li>• Construct a works cited page to include multiple works by one author. (6.3)</li> <li>• Use MLA bibliographic conventions to cite a wider variety of print, non-print and online sources. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate acceptable use policy and understand the consequences of unethical use. (6.1)</li> <li>• Identify legal use of songs and videos on sites. (6.1)</li> <li>• Know how to adjust security settings and block users on social networking sites such as Facebook. (6.1)</li> <li>• Understand plagiarism and copyright and be able to use both principles. (6.1)</li> <li>• Use adaptive technology to support their individual needs, such as Alpha Smarts, increased text feature, text to speech feature and use teacher assigned web sites for independent learning. (6.2)</li> <li>• Use in-text citation independently when completing projects. (6.3)</li> <li>• Construct a works cited page to include multiple works by one author. (6.3)</li> <li>• Use MLA bibliographic conventions independently to cite most kinds of print, non-print and online sources. (6.3)</li> </ul>

<b>Standard 7. Students demonstrate a sound understanding of technology concepts, systems and operations.</b>			
<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>7.1 Students will access, connect, and control a variety of hardware and software components and network resources.</p> <p>7.2 Students continue touch typing techniques, increasing speed and accuracy.</p> <p>7.3 Students independently use a variety of advanced menu options in software applications.</p> <p>7.4 Students know how to identify file formats for a variety of applications and apply utility programs to convert formats when needed.</p> <p>7.5 Students manage and maintain files on a network and know a variety of ways to share files with others.</p> <p>7.6 Students independently develop and apply strategies for identifying and solving routine hardware and software problems.</p>	<ul style="list-style-type: none"> <li>• Select hardware, software and network devices with the guidance of the teacher. (7.1)</li> <li>• Keyboard at least 25 wpm using proper technique. (7.2)</li> <li>• Use standard and formatting menu options. (7.3)</li> <li>• List and identify file formats with the help of the teacher. (7.4)</li> <li>• With the help of a teacher, connect to a network folder and share files. (7.5)</li> <li>• Know how to attach a file to an e-mail. (7.5)</li> <li>• Apply simple strategies for solving hardware and software problems with the help of the teacher. (7.6)</li> </ul>	<ul style="list-style-type: none"> <li>• Distinguish between hardware, software and network devices. (7.1)</li> <li>• Keyboard at least 30 wpm using proper technique. (7.2)</li> <li>• Use formatting and page layout menu options. (7.3)</li> <li>• Recognize file formats and understand the need to convert files. (7.4)</li> <li>• Connect to a network folder and share files with peers and teachers. (7.5)</li> <li>• Identify hardware and software problems. (7.6)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently determine which hardware, software and network devices to use. (7.1)</li> <li>• Keyboard at least 35 wpm using proper technique. (7.2)</li> <li>• Independently use advanced menu options. (7.3)</li> <li>• Independently distinguish between file formats and use utility programs to convert files. (7.4)</li> <li>• Independently map the network drive to share files with peers and teachers. (7.5)</li> <li>• Independently identify and solve routine hardware and software problems. (7.6)</li> </ul>

**Standard 8. Students will select materials in multiple formats that support their interests and abilities and lead to an appreciation of literature and other creative expressions of information.**

<b>Benchmark</b>	<b>Grade 6</b>	<b>Grade 7</b>	<b>Grade 8</b>
<p>8.1 Students select a wide variety of media and read for pleasure on a regular basis.</p> <p>8.2 Students compare and evaluate professional and non-professional reviews to select materials using personal criteria.</p>	<ul style="list-style-type: none"> <li>• In addition to fiction, select nonfiction titles in print and audio formats to develop their interests. (8.1)</li> <li>• Accurately identify the major criteria representative of literary genres including but not limited to mystery, realistic fiction, historical fiction, animal stories, and short story. (8.1)</li> <li>• Use a variety of selection strategies, such as pre-reading and skimming to select items that match their reading ability. (8.1)</li> <li>• Use a variety of selection tools such as personal interest, peer reviews and summaries to make literature selections. (8.2)</li> <li>• Use the labeling systems on fiction material to help them find books of interest. (8.2)</li> <li>• Share literary experiences with peers. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Expand their selection of fiction and nonfiction titles in varying formats to include visual as well as print and audio. (8.1)</li> <li>• Accurately identify the major criteria representative of literary genres including but not limited to fantasy, science fiction, problem fiction, historical fiction, adventure and folklore. (8.1)</li> <li>• Independently use a variety of selection strategies to match titles to their reading ability. (8.1)</li> <li>• Read summaries, annotations, jacket blurbs, chapter headings and table of contents when available to choose a book. (8.2)</li> <li>• Learn search techniques specific to the OPAC to identify books to fit their interests. (8.1) (8.2)</li> <li>• Recommend and review literature for peers. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently select a variety of fiction and nonfiction titles in multiple formats to extend their interests. (8.1)</li> <li>• Continue to explore literary genres and be able to identify them by giving specific examples of each. (8.1)</li> <li>• Actively seek literary recommendations from peers, teachers and other adults. (8.2)</li> <li>• Use the OPAC independently to access books of quality and interest. (8.1) (8.2)</li> <li>• Share literary experiences by performing book talks. (8.2)</li> </ul>

## Grades 9-12

<b>Standard 1. Students define their information needs and identify effective courses of action to conduct research, solve complex problems and pursue personal needs.</b>				
<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<p>1.1 Students will develop complex questions related to a topic and formulate a statement of purpose or thesis statement to guide research.</p> <p>1.2 Students will independently develop a research plan, including a timeline, which demonstrates the selection of appropriate strategies and resources for completing a project.</p> <p>For a sample of a Research Process Model see Addendum A.</p>	<ul style="list-style-type: none"> <li>• Prioritize research questions for significance, relevance and practicality. (1.1)</li> <li>• Integrate varied forms of and approaches to information into presentations. (1.2)</li> <li>• Use research planners or pathfinders independently. (1.2) (See Addendum B)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently explore general information sources to further define a topic. (1.1)</li> <li>• Critique own guiding questions as essential or non-essential. (1.1)</li> <li>• Develop questions that define a focus for research and reflect on appropriateness of focus. (1.1)</li> <li>• Chooses a communication medium and format that best supports the purposes of the product. (1.2)</li> <li>• Develop a detailed research strategy with timeline for completion. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Prioritize research questions for significance, relevance and practicality. (1.1)</li> <li>• Form questions into a thesis and reflect on appropriateness of thesis. (1.1)</li> <li>• Develop a research plan which demonstrates reliable research strategies and contains a working bibliography. (1.2)</li> <li>• Determine an appropriate and effective format for an end product considering audience, topic and availability of production resources. (1.2)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently develop a topic that solves a problem or explores an issue. (1.1)</li> <li>• Independently determine an appropriate and effective format for an end product considering audience, topic and availability of production resources. (1.2)</li> <li>• Extend presentation to a variety of communities for authentic performance. (1.2)</li> </ul>

**Standard 2. Students will demonstrate a command of information skills and strategies to locate and effectively use print, non-print and or digital resources to solve problems, conduct research and pursue personal needs.**

<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<p>2.1 Students will apply principles of information organization to a variety of additional sites outside of the library media center.</p> <p>2.2 Students will use internal organizers to evaluate appropriateness and to locate additional resources.</p> <p>2.3 Students will select and use, independently, an appropriate search engine or directory related to a specific task.</p> <p>2.4 Students will independently use the full range of print, non-print and digital resources within the school.</p> <p>2.5 Students will demonstrate the ability to solve problems by collecting, analyzing and interpreting data.</p> <p>2.6 Students will independently use key word descriptors, Boolean logic, truncation, pearling and apply specific advance search features of different search engines to perform advanced searches.</p> <p>2.7 Students will routinely and efficiently, use online information resources to meet the needs for research.</p> <p>2.8 Students will routinely access the full range of resources offered in their community and area.</p>	<ul style="list-style-type: none"> <li>• Use additional libraries, local and virtual, for information. (2.1)</li> <li>• Skim introductions, prefaces, chapter headings, etc., to identify the contents and usefulness of information sources. (2.2)</li> <li>• Search the Internet using a range of strategies available in a variety of search engines. (2.3)</li> <li>• Use a variety of reference sources to locate appropriate information. (2.4)</li> <li>• Select reference materials to access statistical information. (2.5)</li> <li>• Use advanced searching techniques and apply Boolean logic to their searches. (2.6)</li> <li>• Select a variety of online databases. (2.7)</li> <li>• Use community resources and organizations for information. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>• Use additional libraries, local and virtual, for information. (2.1)</li> <li>• Begin to use published print and electronic bibliographies to extend searches. (2.2)</li> <li>• Search the Internet using a range of strategies available in a variety of meta-search engines. (2.3)</li> <li>• Compare the organizational structures of similar reference materials and choose the most appropriate. (2.4)</li> <li>• Interpret statistical information in varied media such as handbooks, yearbooks, almanacs and reports. (2.5)</li> <li>• Use advanced searching techniques and apply Boolean logic and truncation to their searches. (2.6)</li> <li>• Select a variety of online databases. (2.7)</li> <li>• Use advanced online indexes to periodicals. (2.7)</li> <li>• Use community resources and organizations for information. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>• Use specialized libraries, local and virtual, for information. (2.1)</li> <li>• Describe different classification systems. (2.1)</li> <li>• Select bibliographies to find sources. (2.2)</li> <li>• Search the Internet using a range of strategies available in a variety of meta-search engines. (2.3)</li> <li>• Select and use specialized reference material. (2.4)</li> <li>• Construct and conduct surveys. (2.5)</li> <li>• Use advanced searching techniques and apply Boolean logic, pearling and truncation to their searches. (2.6)</li> <li>• Use abstracts in online databases to guide their research. (2.7)</li> <li>• Independently use community resources and organizations for information. (2.8)</li> </ul>	<ul style="list-style-type: none"> <li>• Identify how resources are classified within different classification systems. (2.1)</li> <li>• Independently select bibliographies to find sources. (2.2)</li> <li>• Search the Internet using more scholarly and subject specific search engines. (2.3)</li> <li>• Select and use appropriate specialized reference material independently. (2.4)</li> <li>• Construct and conduct surveys and other data collection techniques. (2.5)</li> <li>• Independently use advanced searching techniques and apply Boolean logic, pearling and truncation to their searches. (2.6)</li> <li>• Choose controlled vocabulary or free text subject searching as appropriate for their information source. (2.6)</li> <li>• Use specialized indexes such as newspaper, journal, and trade indexes. (2.7)</li> <li>• Conduct an electronic conference to collect ideas from a wide variety of student and expert participants. (2.8)</li> </ul>

<b>Standard 3. Students will select, evaluate, synthesize and organize information from a variety of sources and formats.</b>				
<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<p>3.1 Students will develop and use personal and established criteria for the selection of materials.</p> <p>3.2 Students will demonstrate ability to identify and compare sources of information and apply multiple evaluative criteria.</p> <p>3.3 Students will determine the most efficient techniques to extract and record relevant information from multiple sources.</p> <p>3.4 Students will organize, analyze and synthesize information to independently draw meaningful conclusions.</p> <p>3.5 Students will assess the efficiency of the research process and determine if information gathered was relevant, complete and accurate in response to the assigned task.</p> <p>For CARRDSS approach to source evaluation, print or electronic, see Addendum C.</p>	<ul style="list-style-type: none"> <li>• Design criteria to evaluate information for appropriateness. (3.1)</li> <li>• Compare comprehensiveness of sources. (3.2)</li> <li>• Analyze bias and suggest alternative sources. (3.2)</li> <li>• Analyze conflicting information among sources. (3.2)</li> <li>• Use multiple techniques to record information from many sources. (3.3)</li> <li>• Group and organize data to make connections. (3.4)</li> <li>• Make judgments and draw conclusions to solve information problems. (3.4)</li> <li>• Use peer and teacher conferencing to check progress and test clarity of ideas. (3.5)</li> <li>• Explain the logic of their argument. (3.5)</li> <li>• Use a journal to track product and process. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Apply self- designed criteria to evaluate information for appropriateness. (3.1)</li> <li>• Verify accuracy of facts and quotations in secondary sources. (3.2)</li> <li>• Analyze inaccuracy and ambiguity in information and their effect on argument. (3.2)</li> <li>• Use multiple techniques to record information from many sources. (3.3)</li> <li>• Discover connections in extracted information and use those relationships to organize their research. (3.4)</li> <li>• Make judgments and draw conclusions to solve problems. (3.4)</li> <li>• Use informal meetings to share ideas and check progress during research. (3.5)</li> <li>• Judge if conclusion follows the argument. (3.5)</li> <li>• Use a journal to track product and process. (3.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Apply self- designed criteria to evaluate information independently. (3.1)</li> <li>• Examine currency of resources and modify choices in light of new findings. (3.2)</li> <li>• Analyze the validity of a resource by examining its bibliography. (3.2)</li> <li>• Construct logic statements to test the validity of an argument within a source. (3.2)</li> <li>• Use multiple techniques to independently record information from many sources. (3.3)</li> <li>• Use outlining and flowchart software to organize data. (3.3)</li> <li>• Make judgments and draw conclusions to solve problems. (3.4)</li> <li>• Combine existing information with original thought, experimentation or analysis to produce new information. (3.4)</li> <li>• Use formal meetings to share ideas and check progress during research. (3.5)</li> <li>• Examine published hypotheses for similarities and differences with own hypothesis. (3.5)</li> <li>• Set goals for improvement in next research activity. (3.5)</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze both inductive and deductive arguments and evaluate the logic of the conclusions of a source. (3.2)</li> <li>• Transfer conclusion reached in one context to another context e.g. from the arts to the sciences. (3.4)</li> <li>• Use a variety of strategies to explore ideas during research process. (3.4)</li> <li>• Use summaries and abstracts in peer and teacher conferencing to check progress. (3.5)</li> <li>• Set goals for improvement in next research activity. (3.5)</li> </ul>

<b>Standard 4. Students will use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions.</b>				
<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
4.1 Students will create media-rich presentations.	<ul style="list-style-type: none"> <li>• Incorporate graphics, audio and video from a variety of sources in presentations. (4.1)</li> <li>• Develop multimedia presentation incorporating audio and visual files for sharing with classmates to communicate course content. (4.2)</li> <li>• List the steps for completing projects, and develop timeline for implementation with the teacher. (4.3)</li> <li>• Use advanced feature of photo editing and graphic creation programs. (4.4)</li> <li>• Create list of established criteria. (4.5)</li> <li>• Self assess projects. (4.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Create audio and video files to incorporate in presentations. (4.1)</li> <li>• Develop multimedia presentation including audio, video and graphics. (4.2)</li> <li>• Develop plan for creating project including timeline, steps, and resources. (4.3)</li> <li>• Use advanced functions of word processor programs to increase productivity. (4.4)</li> <li>• Create list of established criteria. (4.5)</li> <li>• Self assess projects. (4.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Use advanced features of video and audio creation programs. (4.1) (4.2)</li> <li>• Select appropriate software for creating multimedia projects. (4.3) (4.4)</li> <li>• Create list of established criteria for assessing a project. (4.5)</li> <li>• Self assess projects. (4.5)</li> </ul>	<ul style="list-style-type: none"> <li>• Use appropriate technologies to create written, visual, oral and multimedia products to communicate ideas, information or conclusions. (4.1) (4.2) (4.3)</li> <li>• Create list of established criteria for assessing a project. (4.5)</li> <li>• Self assess projects. (4.5)</li> </ul>
4.2 Students know how to use a variety of media and formats to design, develop, publish and present products that communicate original ideas to multiple audiences.				
4.3 Students analyze and plan procedures for development of a multimedia product.				
4.4 Students understand and apply advanced software features to provide evidence of learning, productivity, and creativity.				
4.5 Students will assess, independently, whether their products meet established standards for product and presentation.				

<b>Standard 5. Students will use digital media environments to collaborate, including at a distance, to support individual learning and contribute to the learning of others.</b>				
<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
5.1 Students interact, collaborate and publish with peers, experts and others by employing a variety of digital environments and media.	<ul style="list-style-type: none"> <li>• Read and comment on blogs related to specific class content. (5.1) (5.2)</li> <li>• Use email to communicate with peers and others to gather information or opinions for a class project. (5.1) (5.2)</li> <li>• Participate in an online project with students from one or more international schools. (5.2) (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Select and participate in an online project with global impact for a class project. (5.1) (5.2) (5.3)</li> <li>• Build a wiki to collaborate with classmates on a group project related to a real world problem. (5.1) (5.2) (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Use a variety of digital collaboration tools to gather and publish information for a research project. (5.1)</li> <li>• Develop and online project and invite international participants. (5.2) (5.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Independently build collaborative environments (groups, wikis etc) to collaborate with a variety of experts and publish for a variety of audiences. (5.1)</li> <li>• Plan, develop and facilitate an online project that has global impact and collaborate with a variety of audiences. (5.2) (5.3)</li> </ul>
5.2 Students develop cultural understanding and global awareness by engaging with learners of other cultures.				
5.3 Students contribute to project teams to produce original works or solve problems.				

**Standard 6. Students understand the human, cultural and societal issues related to information literacy and practice legal and ethical behavior.**

<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
<p>6.1 Students analyze the consequences and costs of unethical use of information and technology and identify how individuals can protect their intellectual property rights and technology systems from unethical users.</p> <p>6.2 Students explore how emerging technologies enhance personal productivity, meet diverse needs of learners and promote opportunities for lifelong learning.</p> <p>6.3 Students will apply established citation styles for a wide variety of information sources and formats.</p>	<ul style="list-style-type: none"> <li>• Review and follow the school’s acceptable use policy. (6.1)</li> <li>• Understand appropriate behavior for social networking sites. (6.1)</li> <li>• Understand the importance of antivirus software, firewalls, phishing filters and other system protection. (6.1)</li> <li>• Understand plagiarism and copyright and be able to adhere to both principles. (6.1)</li> <li>• Identify ways in which technology supports personal learning style. (6.2)</li> <li>• Use parenthetical citation as needed. (6.3)</li> <li>• Regularly construct a works cited page as part of all projects that require any information use. (6.3)</li> <li>• Use MLA bibliographic conventions to cite most print, non-print and online sources regularly referring to the latest edition of the MLA style book as needed. (6.3)</li> <li>• Experiment with online citation sites. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Follow the school’s acceptable use policy. (6.1)</li> <li>• Adjust security settings on social networking sites and online collaborative groups. (6.1)</li> <li>• Understand plagiarism and copyright and be able to adhere to both principles fluently. (6.1)</li> <li>• Identify ways in which technology meets the needs of diverse learners. (6.2)</li> <li>• Explore the difference among parenthetical, endnote and footnote citation. (6.3)</li> <li>• Regularly construct a works cited page as part of all projects that require any information use. (6.3)</li> <li>• Use MLA bibliographic conventions to cite most print, non-print and online sources regularly referring to the latest edition of the MLA style book as needed. (6.3)</li> <li>• Continue to use online citation sites understanding that they need to be checked against style guides. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Follow the school’s acceptable use policy. (6.1)</li> <li>• Understand and follow school e-mail policy. (6.1)</li> <li>• Structure secure passwords for personal accounts. (6.1)</li> <li>• Understand plagiarism and copyright and be able to adhere to both principles fluently. (6.1)</li> <li>• Use varying technologies that address their individual needs. (6.2)</li> <li>• Use parenthetical, endnote and footnote citations as needed. (6.3)</li> <li>• Regularly construct a works cited page as part of all projects that require any information use. (6.3)</li> <li>• Use MLA bibliographic conventions independently to cite any item as needed and to understand where to find the information in order to cite more unusual items. (6.3)</li> <li>• Explore APA format as required for certain subject areas such as science. (6.3)</li> <li>• Use online citation sites independently when dealing with MLA citations continuing to check against style guides for accuracy. (6.3)</li> </ul>	<ul style="list-style-type: none"> <li>• Practice legal and ethical behavior when using technology. (6.1)</li> <li>• Understand plagiarism and copyright and be able to adhere to both principles fluently. (6.1)</li> <li>• Use parenthetical, endnote and footnote citations as needed. (6.3)</li> <li>• Regularly construct a works cited page as part of all projects that require any information use. (6.3)</li> <li>• Use both MLA and APA styles as needed and understand where to find information on both in order to cite more unusual items. (6.3)</li> <li>• Use online citation sites independently when dealing with MLA and APA citations continuing to check against style guides for accuracy. (6.3)</li> </ul>

<b>Standard 7. Students demonstrate a sound understanding of technology concepts, systems and operations.</b>				
<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
7.1 Students describe new and/or advanced technology resources and technology career opportunities.	<ul style="list-style-type: none"> <li>Use general knowledge of software to predict how a new piece of software will function. (7.1)</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate knowledge of various advanced features of a productivity application (e.g., macros, add-ons, master document and track changes). (7.1)</li> </ul>	<ul style="list-style-type: none"> <li>Describe a wide variety of technology career opportunities. (7.1)</li> </ul>	<ul style="list-style-type: none"> <li>Independently solve technical problems. (7.3)</li> </ul>
7.2 Students know how to use advanced utilities with computer files in a variety of different media formats.	<ul style="list-style-type: none"> <li>Know how to change the file type to fit a media format. (7.2)</li> </ul>	<ul style="list-style-type: none"> <li>Understand how to convert a variety of file formats. (7.2)</li> </ul>	<ul style="list-style-type: none"> <li>Select and effectively use format options for a variety of situations. (7.2)</li> </ul>	<ul style="list-style-type: none"> <li>Access teachers' unit plans and assignments and link to online resources. (7.4)</li> </ul>
7.3 Students know how to identify, assess and solve hardware, software and network problems by using online help and other user documentation and support.	<ul style="list-style-type: none"> <li>Troubleshoot technical problems by seeking help from peers and teachers. (7.3)</li> </ul>	<ul style="list-style-type: none"> <li>Accurately describe a technical problem and seek technical help from a variety of sources, including online support. (7.3)</li> </ul>	<ul style="list-style-type: none"> <li>Recognize when a technical problem requires IT support for help. (7.3)</li> </ul>	
7.4 Students will access NESAVirtual School.	<ul style="list-style-type: none"> <li>Access teachers' unit plans and assignments and link to online resources. (7.4)</li> </ul>	<ul style="list-style-type: none"> <li>Access teachers' unit plans and assignments and link to online resources. (7.4)</li> </ul>	<ul style="list-style-type: none"> <li>Access teachers' unit plans and assignments and link to online resources. (7.4)</li> </ul>	

<b>Standard 8. Students will select materials in multiple formats that support their interests and abilities and lead to an appreciation of literature and other creative expressions of information.</b>				
<b>Benchmark</b>	<b>Grade 9</b>	<b>Grade 10</b>	<b>Grade 11</b>	<b>Grade 12</b>
8.1 Students choose to read, view and listen to creative expression of information for pleasure on a regular basis.	<ul style="list-style-type: none"> <li>Critique the quality of differing media productions. (8.1)</li> </ul>	<ul style="list-style-type: none"> <li>Select materials from multiple formats based on quality of production. (8.1)</li> </ul>	<ul style="list-style-type: none"> <li>Recognize literary genres as reflections of the cultures that produced them. (8.1)</li> </ul>	<ul style="list-style-type: none"> <li>Independently select media of high caliber. (8.1)</li> </ul>
8.2 Students use evaluative criteria to choose from recommended materials and express opinions and support for personal selection.	<ul style="list-style-type: none"> <li>Identify the features of various genres based on personal choice. (8.1)</li> <li>Continue to perform book talks increasing their ability to "hook" the audience. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>Identify the features of literary genres by selecting some of the recognized bests in each genre. (8.1)</li> <li>Access book reviews to improve personal book selection. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>Use professional reviews to develop aesthetic criteria and enhance personal choice. (8.2)</li> </ul>	<ul style="list-style-type: none"> <li>Will continually use various strategies to independently find books of high literary quality and high personal appeal. (8.2)</li> </ul>

## Addendum A

In completing a research project the emphasis is on process and, because of this, librarians have worked to design process models. The one below has been very well received but there are many available.



### Basic steps of the Big6 Information Problem Solving model

#### 1. Task Definition (What needs to be done?)

- 1.1 Define the information problem
- 1.2 Identify information needed in order to complete the task (to solve the information problem)

#### 2. Information Seeking Strategies (Which resources can I use?)

- 2.1 Determine the range of possible sources (brainstorm)
- 2.2 Evaluate the different possible sources to determine priorities (select the best sources)

#### 3. Location and Access (Where can I find the resources?)

- 3.1 Locate sources (intellectually and physically)
- 3.2 Find information within sources

#### 4. Use of Information (What information should I use from these resources?)

- 4.1 Engage (e.g., read, hear, view, touch) the information in a source
- 4.2 Extract relevant information from a source

#### 5. Synthesis (How can I share what I learned?)

- 5.1 Organize information from multiple sources
- 5.2 Present the information

#### 6. Evaluation (How will I know I did my job well?)

- 6.1 Judge the product (effectiveness)
- 6.2 Judge the information problem-solving process (efficiency)

*(Big6 is a TM of Bob Berkowitz and Mike Eisenberg)*

# Addendum B

## SEARCH PLANNER

<p><b>Brainstorming Keywords</b></p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Question/Thesis:</div> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <tr> <td style="width: 33%; height: 20px;"></td> <td style="width: 33%; height: 20px;"></td> <td style="width: 33%; height: 20px;"></td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <tr> <td style="width: 33%; height: 20px;"></td> <td style="width: 33%; height: 20px;"></td> <td style="width: 33%; height: 20px;"></td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <tr> <td style="width: 33%; height: 20px;"></td> <td style="width: 33%; height: 20px;"></td> <td style="width: 33%; height: 20px;"></td> </tr> </table>										<p><b>Preliminary/Working Thesis</b></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <tr> <td style="width: 33%; height: 40px; vertical-align: top;">Topic/Argument</td> <td style="width: 33%; height: 40px; vertical-align: top;">Topic/Argument</td> <td style="width: 33%; height: 40px; vertical-align: top;">Topic/Argument</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 5px;"> <tr> <td style="width: 33%; height: 40px; vertical-align: top;">Evidence:</td> <td style="width: 33%; height: 40px; vertical-align: top;">Evidence:</td> <td style="width: 33%; height: 40px; vertical-align: top;">Evidence:</td> </tr> </table> <p style="margin-top: 5px;">Working conclusion:</p>	Topic/Argument	Topic/Argument	Topic/Argument	Evidence:	Evidence:	Evidence:
Topic/Argument	Topic/Argument	Topic/Argument														
Evidence:	Evidence:	Evidence:														
<p>Databases to search:</p>	<p>Promising Dewey call numbers:</p>															
<p>Descriptors found in searching:</p> <p style="margin-left: 20px;">Synonyms:</p> <p style="margin-left: 20px;">Broader/Narrower:</p> <p style="margin-left: 20px;">Proper nouns (names, places, organizations, companies):</p> <p style="margin-left: 20px;">Alternate spellings:</p>	<p>Promising major websites:</p>															

## Addendum C

### Use **CARRDSS** to evaluate your sources



**REDIBILITY** : The level of trust in the author or publisher.

- Who is the author?
- What are his/her credentials, education, experience, affiliations?
- What evidence is offered of the validity of his/her knowledge?



**ACCURACY**: Freedom from mistake or error

- Can facts, statistics or other information be verified through other sources?
- Do there appear to be errors on the page (i.e., spelling, grammar, facts)?



**RELIABILITY**: The extent to which a source gives the same information as other sources.

- Does the source present a particular point of view or bias?
- Is the information affiliated with an organization that has a particular political or social agenda?



**RELEVANCE**: The relationship to the focused topic or question.

- Does the information directly support the thesis or help to answer the questions?
- Can it be eliminated or ignored because it simply does not help?



**DATE**: The time at which an information source is published or produced?

- Does the project need current, up-to-date information?
- When was this web-page created? When was it last updated?



**SOURCES BEHIND THE TEXT**: A primary reference work or point of origin.

- Is the information based on primary or secondary documents?
- Did the author document his/her sources?
- What kinds of links of further reading did the author choose?



**SCOPE**: The range of information on a given topic and the reason behind its selection.

- Does the source address the thesis in a comprehensive or peripheral way?
- Is it material that can easily be read and understood?

Additionally students should be trained to look at URLs. Below are two sources that explain URL suffixes and who are allowed to use them.

<http://www.learnthenet.com/english/html/84domain.htm>

<http://www.sharpened.net/helpcenter/domains.php>

# Addendum D

## Bibliographic Citation Format for Elementary Students

<http://school.discoveryeducation.com/schrockguide/referenc.html>

### Works Cited for Grades 1

#### For a book:

1. Name of the author.
2. Title of the book, italicized.

Joanna Cole. *The Magic Schoolbus, Lost in the Solar System.*

#### For an article from a print encyclopedia:

1. Name of the article you looked up.
2. Name of the encyclopedia, italicized.

Shark. *The World Book Encyclopedia.*

#### For an article from an encyclopedia on CD-ROM:

1. Name of the article you looked up.
2. Name of the encyclopedia, italicized.
3. CD-ROM.

Abraham Lincoln. *Compton's Interactive Encyclopedia.* CD-ROM.

Dinosaur. *First Connections: The Golden Book Encyclopedia.* CD-ROM.

#### For an article from an encyclopedia found online:

1. Name of the article you looked up.
2. Name of the encyclopedia, italicized.
3. Online.

Dinosaur. *World Book Online.*

Turtle. *Compton's Living Encyclopedia.* Online.

## Works Cited for Grades 2

### For a book:

1. Name of the author.
2. Title of the book, italicized.
3. Date book was published.

Neil Ardley. *The Science Book of Magnets*. 1991.

### For an article from a print encyclopedia:

1. Subject of the article you looked up.
2. Title of the encyclopedia, italicized .
3. Year the encyclopedia was published.

Planet. *The World Book Encyclopedia*. 1995

### For an article from an encyclopedia on CD-ROM:

1. Subject of the article you looked up.
2. Title of the encyclopedia, italicized .
3. Date the encyclopedia was published.
4. CD-ROM.

George Washington. *The World Book Multimedia Encyclopedia*. 1995.  
CD-ROM.

Elephant. *First Connections: The Golden Book Encyclopedia*. 1992.  
CD-ROM.

### For an article from an encyclopedia found online:

1. Subject of the article you looked up.
2. Title of the encyclopedia, italicized .
3. Online.

Panda. *World Book Online*. Online.

Tornado. *Grolier Multimedia Encyclopedia*. Online.

## Works Cited for Grades 3

1. Follow the punctuation in the examples exactly.
  2. Be sure to put the author's last name before the first name, with the two names separated by a comma.
  3. If you look up information about a person in an encyclopedia, that person's name should also be written last name first.
  4. If you cannot find some information, such as author, just leave it out.
- 

### For a book:

1. Author's name, last name first.
2. Title of book, italicized .
3. Copyright date.

Landau, Elaine. *Sea Horses*. 1999.

### For an article from a print encyclopedia:

1. The subject you looked up, in quotation marks.
2. Full title of encyclopedia, italicized .
3. Copyright date.

"Jaguar." *International Wildlife Encyclopedia*. 1991

"Washington, George." *The World Book Encyclopedia*. 2000.

### For an article from an encyclopedia on CD-ROM:

1. The subject you looked up, in quotation marks.
2. Full title of encyclopedia, italicized .
3. Copyright date.
4. CD-ROM.

"Earthquake." *Compton's Interactive Encyclopedia*. 1994. CD-ROM.

"Dog." *First Connections: The Golden Book Encyclopedia*. 1995. CD-ROM.

"Tiger." *The San Diego Zoo Presents The Animals!* 1994. CD-ROM.

### For an encyclopedia from an online service:

1. The subject you looked up, in quotation marks.
2. Full title of encyclopedia, italicized .
3. Date you visited (proper format in the example).
4. Online.

"Panda." *Compton's Living Encyclopedia*. 23 Nov. 1999. Online.

**For an article from the World Wide Web:**

1. Name of the author, if you can find it, last name first.
2. Title of the article, in quotes.
3. Title of the home page, if available, italicized.
4. Date you visited (see the examples).
5. First part of the http address (see the examples), in brackets.

Schaller, George B. "Tiger." *World Book Online*. 16 Dec. 1999.  
<<http://www.worldbookonline.com>>.

"Cheetah." *The Cyber Zoomobile*. 23 Nov. 1998.  
<<http://www.primenet.com/>>.

"Factoids: Polar Bears." *Environmental News Network*.  
26 Jan. 1998. <<http://www.enn.com/>>.

Arnett, Bill. "The Moon." *The Nine Planets*. 21 May 1998.  
<<http://seds.lpl.arizona.edu/>>.

## Works Cited for Grades 4

1. For each source listed, begin first line at margin and indent each line that follows.
  2. Follow punctuation of the examples exactly.
  3. If you cannot find some information, such as author or place of publication, just leave it out.
  4. Arrange all sources in one list, alphabetically by first word, which will generally be either the author's last name or the first important word of the title (ignore A, An, The as the first word in the title.)
- 

### PRINT SOURCES

#### *Book with one author:*

1. Author, last name first.
2. *Title of book.* (italicized)
3. City of publication:
4. Publisher, date of publication.

Gibbons, Gail. *Caves and Caverns*. New York: Harcourt Brace, 1993.

#### *Book with two authors:*

1. Authors, in order they are listed on the title page.
2. *Title of book.* (italicized)
3. City of publication:
4. Publisher, date of publication.

Ride, Sally and Tom O'Shaughnessy. *The Third Planet*. New York: Crown Publishers, 1994.

#### *Encyclopedia and other familiar reference books:*

1. Author of article (if available).
2. "Title of article."
3. *Title of book.* (italicized)
4. Date of edition. (Volume and page number not necessary if articles are arranged alphabetically).

Bigg, Michael A. "Whale." *The World Book Encyclopedia*. 1992.

Fehrenbacher, Don E. "Lincoln, Abraham." *The New Book of Knowledge*. 1994.

5. "New Jersey." *Compton's Encyclopedia*. 1992.

### *Article in a periodical (magazines, newspapers):*

1. Author (if available).
2. "Title of article."
3. *Periodical title* (italicized) date: page.

Bonar, Samantha. "Forecast: Hot and Hotter!" *3-2-1 Contact*  
June 1996: 8-10.

Neeley, Dequendre. "Retirement complex proposed in Oradell." *The Record* 21 Aug. 1996: NJ1.

## **ELECTRONIC SOURCES**

### *Encyclopedia and other publications on CD-ROM*

1. Author (if available).
2. "Title of article."
3. *Title of product* (underlined).
4. Edition or version (if relevant)
5. CD-ROM.
6. City of publication: Publisher, date of publication.

Garbarino, Merwyn S. "Delaware Indians." *The World Book Multimedia Encyclopedia*. 1995 ed. CD-ROM. Chicago: World Book Inc., 1995.

Musser, Jay C. "Chocolate." *Grolier MultiMedia Encyclopedia*. 1992 ed. CD-ROM. Danbury, CT: Grolier Electronic Publishing, Inc., 1992.

## **ONLINE SOURCES**

### *Encyclopedia from an online service:*

1. Author, if shown
2. "Title of the article."
3. *Name of encyclopedia* (underlined).
4. Name of publisher, date of publication, if available.
5. Date of your visit.
6. Name of the online subscription service hosting the encyclopedia.

"Planets." *Compton's Living Encyclopedia*.  
Compton's Learning Company, 1996. 29 Aug. 1998 CLAMSnet.

Kelland, Frank. "New Jersey." *Grolier Multimedia Encyclopedia*,  
Grolier  
Interactive Inc. 13 July 1998. America Online.

## World Wide Web:

1. Author, if known
2. "Title of the article."
3. *Title of complete work* (underlined).
4. Date of your visit.
5. <full http address>. (enclosed in angle brackets)

Clemens, Paul and Robert M. Hordon. "New Jersey." *World Book Online*. 12 Dec. 1999 <<http://www.worldbookonline.com/na/ar/fs/ar388680.htm>>.

Sultzman, Lee. "Delaware History." 23 Nov. 1998.  
<<http://www.dickshovel.com/dela.html>>.

Vallis, Glenn. "New Jersey During the Revolution." 13 Sept. 1998.  
<<http://www.eclipse.net/~gvalis/ggv/NJrev/NJrev.html>>.

Arnett, Bill. "Saturn." *The Nine Planets*. 21 May 1998.  
<<http://seds.lpl.arizona.edu/nineplanets/nineplanets/saturn.html>>.

"Discovering Whales." *Welcome to the Watery World of Whales*.  
14 Oct. 1998. <<http://whales.magna.com.au/DISCOVER/index.html>>.

## Works Cited for Grades 5

1. For each source listed, begin first line at margin and indent each line that follows.
  2. Underline or use italics for titles of books, periodicals and software. Titles of articles are enclosed in quotation marks.
  3. Note punctuation and follow exactly.
  4. If required information, such as author or place of publication, is not available, just leave it out.
  5. Arrange all sources in one list, alphabetically by first word, which will generally be either the author's last name or the first important word of the title.
- 

### PRINT SOURCES

#### *Book with one author:*

1. Author.
2. *Title of book.* (italicized)
3. City of publication:
4. Publisher, date of publication.

Cohen, Daniel. *America's Very Own Ghosts*. New York: Doubleday, 1985.

#### *Encyclopedia and other familiar reference books:*

1. Author of article (if available).
2. "Title of article."
3. *Title of book.* (italicized)
4. Date of edition. (Volume and page number not necessary if articles are arranged alphabetically).

Eiselen, Malcolm R. "Franklin, Benjamin." *The World Book Encyclopedia*. 1999.

"France." *Compton's Encyclopedia*. 1998.

#### *Article in a periodical:*

1. Author (if available).
2. "Title of article."
3. *Periodical title* (italicized) date: page.

Haverkamp, Beth. "Bad Women and Bandit Queens." *Cobblestone* May 1996: 20-22.

"N.F.L. Training Camp Report" *The New York Times* 21 Aug. 1996: B12.

## ELECTRONIC SOURCES

### *Encyclopedia and other publications on CD-ROM:*

1. Author (if available).
2. "Title of article."
3. *Title of product* (italicized or in italics).
4. Edition or version (if relevant)
5. CD-ROM.
6. City of publication: Publisher, date of publication.

Cashman, Katharine V. "Volcano." *World Book Multimedia Encyclopedia*. 1999 ed. CD-ROM. Chicago: World Book Inc., 1999.

"Japan." *Cartopedia*. CD-ROM. New York: Dorling Kindersley, 1995.

Solnick, Bruce B. "Columbus, Christopher." *Grolier MultiMedia Encyclopedia*. 1994 ed. CD-ROM. Danbury, CT: Grolier Electronic Publishing, Inc., 1992.

Leicester, Henry M. "Chemistry." *Microsoft Encarta*. 1998 ed. CD-ROM. Redmond, WA: Microsoft Corporation, 1998.

"Engine, Four-Stroke." *David Macauley: The Way Things Work*. CD-ROM. New York: Dorling Kindersley, 1994.

## ONLINE SOURCES

### *Encyclopedia from an online service:*

1. Author, if shown
2. "Title of the article."
3. *Name of encyclopedia* (italicized).
4. Name of publisher, date of publication, if available.
5. Date of your visit.
6. Name of the online subscription service hosting the encyclopedia.

"Animal Rights." *Compton's Living Encyclopedia*. Compton's Learning Company, 1996. 22 Aug. 1998. CLAMSnet.

Ketcham, Ralph. "Franklin, Benjamin." *Grolier Multimedia Encyclopedia*. Grolier Interactive Inc. 17 September 1998. CLAMSnet.

## *World Wide Web:*

1. Author (if known).
2. "Title of article."
3. *Title of complete work.* (if relevant, italicized)
4. Date of visit.
5. <full http address>.(enclosed in angle brackets)

Waring, Richard H. "Tree." *World Book Online*. 12 Dec. 1999.  
<<http://www.worldbookonline.com/na/ar/fs/ar565560.htm>>.

"Biographical Data: Jay Apt." *NASA Astronaut Biographies*.  
10 Jan. 1999. <<http://www.jsc.nasa.gov/Bios/astrobio.html>>.

"Statistical Summary: America's Major Wars." *The U.S. Civil  
War Center*. 17 Aug. 1999 <<http://www.cwc.lsu.edu/other/stats/warcost.htm>>.

Arnett, Bill. "Comets." *The Nine Planets*. 21 May 1999.  
<<http://seds.lpl.arizona.edu/nineplanets/nineplanets/comets.html>>.

## Works Cited

- "ALA | AASL Standards for the 21st-Century Learner." *ALA / Home - American Library Association*. Web. 06 Feb. 2009. <<http://www.ala.org/aasl/standards>>.
- American Library Association. *Information Power Building Partnerships for Learning*. Chicago: American Library Association, 1998. Print.
- Hong Kong International School. "Information Literacy Standards." *HKIS - DragonNet*. Upper Primary Library Media Center, 15 Aug. 2005. Web. 29 May 2008. <<http://dragonnet.hkis.edu.hk/UP/Accents/library/infolit.htm>>.
- Iowa City Community School District. *Developing an Information Literacy Program K-12 a How-To-Do-It Manual and CD-ROM Package*. New York: Neal-Schuman, 1998. Print.
- The ISTE National Educational Technology Standards (NETS?S)*. Eugene, OR: International Society for Technology in Education, 2007. Print.
- "Library-Media Curriculum K-12 Contents." *USD 458 Library-media curriculum*. Web. 05 Mar. 2009. <<http://www.usd458.k12.ks.us:82/curriculum/Library/Library.HTML>>.
- Massachusetts School Library Association - Home*. Web. 05 Feb. 2008. <<http://maschoolibraries.org/dmdocuments/benchmarks.pdf>>.
- Murray, Janet. "Big6 Matrix: Use the Internet with Big6 Skills to Achieve Standards." *Janet R. Murray*. Web. 04 Feb. 2008. <<http://www.janetsinfo.com/big6info.htm>>.
- "Nauset Public Schools - Research and Style Manual - Works Cited for Grades 1-6." *Nauset Public Schools (MA) - Home Page*. 2003. Web. 09 Oct. 2009. <<http://nausetschools.org/research/works2.htm>>.
- "OSLA Information Studies: Kindergarten - Grade 12." *Ontario Library Association*. 1999. Web. 14 May 2009. <[http://www.accessola.com/action/positions/info\\_studies/index.html](http://www.accessola.com/action/positions/info_studies/index.html)>.
- Research Skills for Students: Evaluating Sources*. Prod. Andrew Schlessinger. Perf. Devin Haaq. Schlessinger Media, 2004. DVD.

"SDE: Learning Resources and Information Technology." *Connecticut State Department of Education*. 31 Oct. 2008. Web. 11 Nov. 2008.

<[http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&q=320870&sdenav\\_gid=1757](http://www.sde.ct.gov/sde/cwp/view.asp?a=2618&q=320870&sdenav_gid=1757)>.

Valenza, Joyce Kasman. *Power Research Tools: Learning Activities and Posters*. Chicago: American Library Association, 2003. Print.

*West Irondequoit Central School District*. Winter 2004. Web. 07 Jan. 2009.

<[http://www.westirondequoit.org/Technology/Library\\_Curriculum\\_Documents/Objectives-outcomes.pdf](http://www.westirondequoit.org/Technology/Library_Curriculum_Documents/Objectives-outcomes.pdf)>.