

# LINKING LEARNING

*A K-12 Collaborative Curriculum  
For  
Information Literacy and Technology Skills*

*Revised Edition  
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*Fairfield Public Schools  
Fairfield, CT*

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## A K-12 Collaborative Curriculum for Information Literacy and Technology Skills

### I. Vision Statement K-12

The K-12 Information Literacy and Technology Skills Curriculum is designed to provide a framework for integrated teaching and learning of these skills in all content areas. The need for this document revision is indicated by the permeation of information and technology through every aspect of our society, altering the environment of the workplace, as well as the community and home. These changes require the learner to possess a solid understanding of the information problem-solving process. This includes the ability to formulate appropriate questions, seek out applicable sources, analyze, synthesize, and evaluate the information retrieved, and clearly communicate and defend findings. The learner must accomplish this within the legal and ethical framework of our social order. Increased importance will be placed on the ability to comprehend and disseminate information both within traditional formats and within the non-linear format that the increased volume of information will dictate.

These changes likewise require the learner to possess technological awareness in order to identify and understand the usefulness of technological interventions, to recognize which technologies are best suited for different purposes, to develop confidence in the ability to master technologies and specific applications, to understand the role of technology in career preparation, and to explore technology as a personal productivity/creativity tool.

Current research and effective instructional practices in teaching, learning, and cognitive skill development support this vision. The goals and objectives are carefully aligned with the State Mastery and CAPT tests, Fairfield's curriculum framework document, and state and national standards for information literacy and technology. As with all new and/or revised curricula, the committee recognizes that the implementation will be dependent upon a number of factors, including staffing and resources. This document will continue to be reviewed and revised annually in response to technological developments, new research, and revisions in the Fairfield content curricula, teacher experience, state and national test requirements, and student performance.

## II. Standards

*The Connecticut Framework*

*K-12 Curricular Goals and Standards - 1998*

*Learning Resources and Information Technology Framework*

<http://www.state.ct.us/sde/dtl/curriculum/frlrit.pdf>

*Information Power: Building Partnerships for Learning*

*The Nine Information Literacy Standards for Student Learning*

<http://www.ala.org/aas/Template.cfm?Section=informationpower&Template=/ContentManagement/ContentDisplay.cfm&ContentID=1993>

*Curriculum and Content Area Standards*

*NETS for Students*

*Technology Foundation Standards for All Students*

<http://cnets.iste.org/currstands/cstands-netss.html>

### III. Broad Themes and Concepts K-12

The primary purpose of this curriculum is to ensure that every student has the opportunity to become an independent, effective, responsible, and creative user of ideas and information. The ability to work collaboratively, as well as independently, is an essential component of information literacy. These skills and attributes are critical for personal success and full participation in the society of the 21<sup>st</sup> century.

To achieve this end, students must become critical users of information, develop high standards for their work, learn to analyze their efforts, and create quality products. They must acquire an aesthetic and discriminating appreciation of a wide range of literature, enabling them to respond to a variety of formats in all disciplines.

Students must be able to use technology flexibly, creatively, and purposefully and they must be proficient in the use of the technological tools necessary to access and communicate information. Key to these endeavors is the assurance that every student, regardless of ability or learning style, be guaranteed physical and intellectual access to the ever-expanding network of information.

The responsibility for realizing the goals and objectives of this document resides with the collaborative efforts of the library media staff and technology staff, teachers, support staff, administrators, students, the Board of Education, and the community at large.

## Section 2: Curriculum Description

- IV. Linking Learning: A K-12 Collaborative Curriculum for Information Literacy and Technology Skills.
- V. The Role of the Library Media Program in Information Literacy and Technology Skills – Instruction and Support

Research concludes that information literacy and technology skills are learned most effectively in a totally integrated resource-based environment, with the library media specialist working in partnership with educators in all curricular areas, administrators, and community resources. Research further demonstrates that flexible scheduling is essential in establishing this environment. In this manner, we can best develop information literacy, increased intellectual flexibility, and the informed use of a broad scope of resources that a responsible citizen of the 21<sup>st</sup> century will require.

To bring this about, a successful library media and technology program contains the following important components:

### Collaborative Planning and Teaching

Curriculum teams consisting of classroom teachers, content teachers, library media specialists, technology resource teachers, other resource faculty, e.g., language arts, special education, etc, and administrators work cooperatively to implement curriculum. Each member of the team has a collaborative as well as a defined role: the classroom teacher/specialist provides the content expertise; the library media specialist and technology resource teacher provide the information and/or technology skills expertise; and the administrator fosters and facilitates the process. Essential to this effort is the provision for common planning time, adequate staffing, appropriate technology, and ongoing professional development for all members of the team.

### Flexible Scheduling

Collaborative lessons are scheduled and taught jointly by teachers and library media specialists based upon the needs of the students and/or the demands of the curriculum. The Library Media Center and computer labs must be adequately staffed and available throughout the school day for individual and group activities such as circulation of materials, reading, writing, use of computer applications, on-line communications, and research.

### Reader Advisory Service

The library media specialist assists students and teachers in meeting their needs and interests and providing them with guidance in the selection and use of media in all formats. Literacy is promoted through a quality collection, promotional activities, and special events.

### Responsive Service

Professional and support staff of the Library Media Center is key to effective library media use. Responsive service to user needs nurtures positive attitudes toward libraries and fosters lifelong learning.

### Availability of Materials

Library media specialists are knowledgeable of the curricula and available resources. They are sensitive to user needs and meet them by drawing from a wide variety of resources.

### A Stimulating, Inviting Atmosphere

Invitations to learning in the Library Media Center are ongoing. The facility is inspiring, functional, and well organized.

### Program Support

Sufficient funding is necessary for the provision of staffing, facilities, equipment, and ongoing collection development. Adequate staffing includes professional, paraprofessional, clerical, and technical personnel.

## VI. Goals and Objectives

### Goals

1. Students will use the Information Problems Solving Process, i.e., The Big 6<sup>™</sup>, as identified in this document, to define their information needs and identify an effective course of action to locate, access, analyze, synthesize, and communicate information. (IL: 1; TS: 3)
2. Students will use the tools of technology to access, create, and communicate ideas and information. (IL:3, 5, 6; TS: 1, 3, 4, 5)
3. Students will enjoy and respond to literature as a lifelong pursuit. (IL: 2, 3, 4)
4. Students will understand the principles of information literacy, i.e., visual literacy and technology literacy, and their importance to working, learning, and living in a pluralistic society. (IL: 1, 2, 4, 5, 6,7; TS: 1, 2, 3,)
5. Students will be responsible users and communicators of information, following Fairfield's acceptable use policies and guidelines, and recognizing the importance of using all resources and technology in a legal and ethical way. (IL: 7; TS: 2)
6. Students will recognize how information is organized into systems, e.g., indices, tables, the Dewey Decimal Classification System, the Internet, and databases. (IL: 2; TS: 5, 6)
7. Students will evaluate the effectiveness and efficiency of their choices and uses of information and technology for problem solving and communication. (IL: 6; TL: 6)
8. Students will demonstrate ongoing application of previously taught information and technology skills by applying them to an increasingly complex variety of setting and circumstances. (IL: 1 – 7, TS: 1 – 6)

## Objectives

### Kindergarten

1. Students will locate, borrow and return a self-selected picture book using established Library Media Center procedures. (2:4)
2. Students will demonstrate proper care in the handling of print and non-print resources. (7:3)
3. Students will identify the parts of a book (title page and spine). (3:3)
4. Students will collaboratively formulate a question to solve an information problem. (1:3)
5. Students will collaboratively self-assess the results of their information problem-solving. (6:3)
6. Students will use drawing/writing to record information from a story the teacher reads aloud or an electronic or print illustration. (5:2,5)
7. Students will practice responsible and ethical behavior by stating a simple citation (author, title) to indicate an information source. (7:1,2)
8. Students will identify parts of a computer and peripherals (monitor, keyboard, mouse, printer, CD-ROM drive, and microphone). (5:4)
9. Students will use a computer mouse to draw illustrations conveying their thoughts and ideas. (5:1,4)



## First Grade

1. Students will know the roles of the people working in the school Library Media Center and/or computer lab who might provide information or assistance. (2:4)
2. Students will locate a teacher-designated fiction book on the Library Media Center shelves. (2:4)
3. Students will identify the parts of an information book (table of contents and index). (3:2,3)
4. Students will identify information contained in a visual image. (3:3; 4:1,5)
5. Students will use their own words or phrases to record (take notes on) information from illustrations, books, interviews, or electronic sources. (5:5)
6. Students will collaboratively develop follow-up questions to solve information problems. (1:2,3)
7. Students will determine if a fiction or non-fiction book is needed to answer a question. (3:1,5)
8. Students will respect others' ideas and information (practice responsible and ethical behavior) by writing and/or stating a simple citation (author, title) to indicate an information source. (7:1)
9. Students will perform basic computer functions, using, the space bar, enter, delete, arrow, shift, and caps lock keys. (5:1,4)
10. Students will demonstrate proper care of CD-ROM discs, correctly inserting and ejecting them from their drives. (5:4)
11. Students will create computer-generated graphics to present information and self-assess their presentation. (5:1,3; 6:2)

## Second Grade

1. Students will determine if an information source is appropriate to answer a question. (3:1)
2. Students will know the roles of the people working in the school Library Media Center and/or the computer lab and the larger community who might provide information or assistance. (3:2)
3. Students will identify keywords and use them in indices to retrieve information from print sources. (1:4)
4. Students will differentiate various types of visual images. (3:3,4)
5. Students will use an automated catalog and the Dewey Decimal Classification System to locate sources (including biography, fiction, non-fiction, reference, and periodicals) through a title, author, subject or keyword search. (1:4, 2:3,5)
6. Students will use a teacher-designated graphic organizer to structure information and/or ideas, e.g., *Kidspiration*, *Graph Club*, *Kid Pix*, etc. (1:6, 3:4, 5:1,4)
7. Students will identify the copyright and title pages in a book and use the information on them to write a citation of a single print resource, following a prescribed pattern. \* (3:2, 7:1)
8. Students will reflect on their learning throughout the Big 6™ research process. (1:6)
9. Students will use a computer to graph information. (3:4,5:1,4)
10. Students will work collaboratively to create a computerized slide show. (5:3)
11. Students will open and close computer applications and programs and save documents to the proper location. (5:5)

### Assured Experience (II) Goals 1,2,3,4, 5, 6,7)

Students will use the Big 6™ research process to produce a short individually written topical report. Students will use a minimum of one print source. This report will include a computer-generated illustration and Works Cited page. Each student's action plan, organized note cards (pre-writing), draft, final copy, illustration and self-assessment are considered part of the final product. (The focus of this project is on *process*. See examples in Appendix.)

\*See Works Cited Guide

### Third Grade

1. Students will use The Big 6<sup>TM</sup> research process to prepare an oral presentation of research. (IL 1- 7:all)
2. Students will develop an individual action plan to solve a teacher-defined essential question. (IL 1:1,6)
3. Students will identify and use information resources within the community, e.g., museum, Mill River, public library, and/or human resources. (IL 1:5; 4:2,5)
4. Students will confer with a "critical friend" during the research process. (IL 1:2,3; 3:2; 4:5; 6:2,3)
5. Students will create and use a graphic organizer to analyze and organize information. (IL 5:4, 6:3)
6. Students will use organizing features of print, non-print, and electronic materials (menus, indices, and hyperlinks) to access information within multimedia resources. (IL 1:5; 2:2; 3:1-5)
7. Students will follow a prescribed pattern\* to write a citation for a variety of print sources and electronic media. (IL 7:1)
8. Students will use proper computer keyboarding techniques to develop proficiency in word-processing. (IL 5:3)
9. Students will modify, align, edit, and indent text in a word-processing document. (IL 5:3)
10. Students will import, export, cut, copy, paste, resize, and reposition computer text, graphics, and art. (IL 5:3)
11. Students will use digital cameras and scanners to enhance presentations. (IL 5:3)
12. Students will communicate by applying the basic principles and concepts of visual design, e.g., color, font, layout, etc. (IL 4:3,4; 5: 3; 7:1,2)
13. Students will use telecommunications to facilitate cooperative activities with others, e.g., groups of students, authors, and field experts. (IL 5:2)

\*See Works Cited Guide

#### Fourth Grade

1. Students will collaboratively prepare a research proposal with a rationale for their choice, an essential question and sub-questions to be answered using The Big 6™ research process. . (IL 1- 7: all)
2. Students will confer with peers and/or teacher(s) throughout the research process. (IL 1- 7: all)
3. Students will use an index, table of contents, guidewords, and/or keywords to access information within a variety of print sources. (IL 1:4; 2:all; 3:2-5)
4. Students will organize facts (notes) in a logical order, using a variety of graphic organizers. (1:4; 5:1,4,5)
5. Students will compare and contrast information within a topic. (IL 1:2; 4:2,3)
6. Students will use a computer simulation to enhance learning. (IL 5:1, 4)
7. Students will prepare and use a keyword search strategy to retrieve information in an electronic format, e.g., automated catalog, CD-ROM, Internet. (IL 2:2,5; 3:1; 5:4)
8. Students will follow a prescribed pattern\* to write a citation for a variety of print sources and electronic media. (IL 7:1)
9. Students will use the computer to check spelling when editing and revising work. (5:4)
10. Students will use directions, guides, and manuals to assist with operating computer technology and software programs. (IL 2:1,2)
11. Students will design and conduct a survey and analyze it using technology, e.g., *Inspiration*, spreadsheet, graphing software. (1:all; 4:2; 5:1-5)
12. Student will design storyboards for a multimedia presentation. (IL 1:6; 5:1-4)
13. Students will collaboratively develop a rubric to assess their work. (IL 1:1; 6:2)
14. Students will identify techniques used to convey messages in visual media, e.g., animation, different tones of voice in audio productions, and adjusting messages for different audiences. (IL 3:4; 4:4)
15. Students will collaboratively demonstrate basic videotaping techniques by producing a short video or video clip for a presentation. (IL 5:3,4)

\*See Works Guide

## Fifth Grade

1. Students will select a research topic and state the topic as a clearly focused essential question, e.g., "How did immigration in the early 20<sup>th</sup> century impact American culture?" For criteria and examples, see Implementation Guide. (IL 1:1,4)
2. Students will identify appropriate resources to answer a question. (IL 1:5,6)
3. Students will apply specific criteria for evaluating computerized electronic resources, including Internet sites. (See example in Appendix) (IL 1:6; 3:1,2,4:1)
4. Students will identify differing viewpoints on the same topic. (IL 4:3-6)
5. Students will analyze and interpret visual images and produce visual information. (IL 3:1,4; 2:1,2,5)
6. Students will design and conduct an interview, using open-ended follow-up questions. (IL 1:1, 3;1,5; 4:1,2,5)
7. Students will respect others' ideas and information, observing the ethical restraints imposed by copyright on using and transmitting information. (IL 7:all)
8. Students will use the computer to design a newsletter with headers, margins, line spacing, columns, graphics, text wrap, and footers. (IL 5:1-3)
9. Students will use a computer to create a database. (IL 5:1,2)
10. Students will organize and analyze statistical information from a survey, using a computer spreadsheet application to create a graph. (IL 5:1-3)
11. Students will contribute to the school Web site. (IL 5:all)

### Assured Experience (IL Goals 1,2,3,4, 5, 6,7)

Students will use the Big 6<sup>TM</sup> research process to produce a multimedia research project for a variety of audiences, e.g., peers, adults, the community at large and/or the Internet. Students will use print, non-print, and electronic sources. The students will develop a rubric for self-assessment. This final product will include a title sheet, credits, and full bibliographic citations, with the integration of audio, video, text, and graphics as appropriate. The students' action plans, notes, pre-design activities, storyboards, and self-assessments are part of the final product.

## Sixth Grade

1. Students will use the Big 6™ research process to present their research findings and draw a conclusion.
2. Students will brainstorm to develop a set of subsidiary questions that are carefully aligned and focused on an essential question.
3. Students will demonstrate time-management throughout the research process by using a log, checklist, or comparable tool.
4. Students will use appropriate search strategies with a search engine and/or directory to navigate the Internet and then assess the quality of retrieved information.
5. Students will identify bias in a non-fiction information source.
6. Students will use organizing features of print, non-print and electronic materials (tables of contents, menus, indices, bibliographies, and hyperlinks) to locate and use information.
7. Students will demonstrate the ability to record, in their own words, information from a variety of sources.
8. Students will practice responsible and ethical use of all print, non-print, electronic, and Internet resources according to copyright law by citing the use of all primary and secondary information sources.
9. Students will define a purpose, design a survey, collect and analyze data, and produce a computer-generated chart or graph.
10. Students will practice security measures when using the network.
11. Students will demonstrate basic proficiency in computer productivity tools, i.e., correct keyboarding techniques and manipulation of text, graphics, and numbers in word-processing, databases, and spreadsheets.

## Seventh Grade

1. Students will prepare a research proposal that will identify the topic, the essential question, and the audience. Students will then develop a set of no more than 10 subsidiary questions and submit a plan of action.
2. Students will keep a reflective journal while conducting research.
3. Students will evaluate/analyze information resources in all formats for validity, accuracy, relevance, and comprehensiveness.
4. Students will respect others' ideas and information by documenting all information sources on a properly formatted Works Cited page\*.
5. Students will prepare a computer-generated presentation using audio and/or video.
6. Students will design, develop, and present a document using HTML language or a Web authoring tool.
7. Students will identify and use media that match the purpose of their communication.
8. Students will assess the quality and quantity of retrieved information.

\*See Works Cited Guide

### Eighth Grade

1. Students will develop a thesis statement, based on their essential question.
2. Students will develop subsidiary questions and conduct a feasibility scan.
3. Students will use primary and secondary sources to answer a research question.
4. Students will discern stereotypes, biases and propaganda techniques in print, non-print and electronic resources.
5. Students will use a video camera to identify and demonstrate propaganda/bias techniques used in electronic media (television/movies).
6. Students will recognize copyright and trademark icons and tell what they symbolize.
7. Students will respect others' ideas and information by documenting all information sources on a properly formatted Works Cited page\*.
8. Students will demonstrate the ability to record, in their own words, information from a variety of sources.
9. Students will assess the quality and quantity of retrieved information and, with assistance, assess the credibility of retrieved information against the assigned need.
10. Students will use the research process to develop interview questions and procedures on a designated topic.

### Assured Experience

Students will use the Big 6™ research process to produce an interdisciplinary research project, that demonstrates focused thinking and supports a clear position. Students will use primary and secondary sources that might include print, CD-ROM, an electronic index, interviews, surveys, intranet or Internet. The students' essential questions, subsidiary questions, action plans, notes, thesis statements, pre-writing activities, outlines and/or storyboards, drafts, final copies, Works Cited pages, and written self-evaluations are considered part of the final product. Students will present their research findings and conclusions in a manner that matches the purpose of their communication and utilizes appropriate technology. (e.g. a Web Page, computer-generated brochure, edited video, etc.).

\*See Works Cited Guide



## Appendix

Glossaries

Lesson Examples

Alignment Chart

Assessment Examples

Resources

Works Cited Guide

Words Cited