

Information and Communications Technology Literacy Course Expectations

The Information and Communications Technology Literacy Course-Level Expectations document began as an update of the former Information Literacy strand of Communication Arts Grade-Level and Course-Level Expectations. Early in the work it became apparent that the knowledge and skills required for proficiency in this area are not limited to one content area. Furthermore, several factors influenced the proposal to elevate this area to a separate content area. Some of those factors are:

1. The marked increase in the influence of technology in the lives of students and the world of work
2. Growing demands for an awareness of the utility—and the risks—of various uses of technology
3. The relevance of this content to all areas of study, rather than the one area of Communication Arts

This document is the result of collaboration between the Department of Elementary and Secondary Education Curriculum and Assessment section, the section of School Support Services, and Missouri educators from across the state. The working group ranged from educators at the primary grades to college level instructors, and met numerous times to carefully examine the current Information Literacy Course Expectations, as well as current research in the areas of communications and media. Those educators included classroom teachers, media specialists, directors of technology, and professors in related areas, and they are listed below.

This document is the result of their discussion and study.

Standards Alignment and Depth of Knowledge documentation is in process.

Sources:

- AASL Learning Standards 2007, <http://ala.org/ala/mgrps/divs/aasl/guidelinesandstandards/learningstandards/standards.cfm>
Information Literacy Standards for Student Learning (AASL and AECT standards),
http://www.ala.org/ala/mgrps/divs/aasl/aaslproftools/informationpower/InformationLiteracyStandards_final.pdf
Colorado Information Literacy Standards (based on ALA standards), <http://www.cde.state.co.us/litstandards/litstandards.htm>
ISTE National Educational Technology Standards for Students,
http://www.iste.org/Content/NavigationMenu/NETS/ForStudents/2007Standards/NETS_for_Students_2007_Standards.pdf
MDHE's Curriculum Alignment Initiative - Appendix C: Draft Cross-Disciplinary Competencies, <http://www.dhe.mo.gov/casinitiative.shtml>
Massachusetts Technology Literacy Standards and Expectations, <http://www.doe.mass.edu/edtech/standards.html>
Ohio Academic Content Standards for K-12 Technology,
<http://education.ohio.gov/GD/Templates/Pages/ODE/ODEPrimary.aspx?page=2&TopicID=1696&TopicRelationID=1707>

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Information and Communications Technology Literacy

1 Follow an inquiry process to construct new understandings, draw conclusions, and create new knowledge				
	Grade 9	Grade 10	Grade 11	Grade 12
A	Follow, monitor, and evaluate inquiry process: a. Identify an information need b. Access prior knowledge relevant to the needed information c. Identify additional information to meet the need d. Locate relevant sources and select information appropriate to the problem or question e. Seek feedback from others f. Exchange knowledge and ideas in appropriate formats g. Evaluate the results h. Use critical thinking skills to adapt process, as necessary, to fulfill purpose	Follow, monitor, and evaluate inquiry process: a. Identify an information need b. Access prior knowledge relevant to the needed information c. Identify additional information to meet the need d. Locate relevant sources and select information appropriate to the problem or question e. Seek feedback from others f. Exchange knowledge and ideas in appropriate formats g. Evaluate the results h. Use critical thinking skills to adapt process, as necessary, to fulfill purpose	Follow, monitor, and evaluate inquiry process: a. Identify an information need b. Access prior knowledge relevant to the needed information c. Identify additional information to meet the need d. Locate relevant sources and select information appropriate to the problem or question e. Seek feedback from others f. Exchange knowledge and ideas in appropriate formats g. Evaluate the results h. Use critical thinking skills to adapt process, as necessary, to fulfill purpose	Follow, monitor, and evaluate inquiry process: a. Identify an information need b. Access prior knowledge relevant to the needed information c. Identify additional information to meet the need d. Locate relevant sources and select information appropriate to the problem or question e. Seek feedback from others f. Exchange knowledge and ideas in appropriate formats g. Evaluate the results h. Use critical thinking skills to adapt process, as necessary, to fulfill purpose
ST	1.2, 1.5, 1.6, 1.8, 2.1, 3.4, 3.5	1.2, 1.5, 1.6, 1.8, 2.1, 3.4, 3.5	1.2, 1.5, 1.6, 1.8, 2.1, 3.4, 3.5	1.2, 1.5, 1.6, 1.8, 2.1, 3.4, 3.5
B	Contribute to the construction and exchange of ideas through independent, cooperative, and/or collaborative work	Contribute to the construction and exchange of ideas through independent, cooperative, and/or collaborative work	Contribute to the construction and exchange of ideas through independent, cooperative, and/or collaborative work	Contribute to the construction and exchange of ideas through independent, cooperative, and/or collaborative work
Process Approach				
ST	2.3, 2.4, 2.7, 4.6	2.3, 2.4, 2.7, 4.6	2.3, 2.4, 2.7, 4.6	2.3, 2.4, 2.7, 4.6

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2 Determine nature and intent of information needed				
	Grade 9	Grade 10	Grade 11	Grade 12
A	Identify how intended audience and purpose affect information needed	Identify how intended audience and purpose affect information needed	Identify how intended audience and purpose affect information needed	Identify how intended audience and purpose affect information needed
Purpose and Audience				
ST	1.5, 1.6, 2.3, 3.5	1.5, 1.6, 2.3, 3.5	1.5, 1.6, 2.3, 3.5	1.5, 1.6, 2.3, 3.5
B	a. Evaluate, with minimal assistance, prior knowledge to develop questions and identify key words to focus and guide information seeking b. Revise or clarify focus questions and key words/phrases as information is gathered	a. Evaluate prior knowledge to develop questions and identify key words to focus and guide information seeking b. Evaluate, with assistance, focus questions and/or key words/phrases as information is gathered and revise or clarify as appropriate	a. Evaluate prior knowledge to develop questions and identify key words to focus and guide information seeking b. Evaluate focus questions and/or key words/phrases as information is gathered and revise or clarify as appropriate	a. Evaluate prior knowledge to develop questions and identify key words to focus and guide information seeking b. Evaluate focus questions and/or key words/phrases as information is gathered and revise or clarify as appropriate
Focus Questions/ Keywords				
ST	1.1, 1.4, 2.2	1.1, 1.4, 2.2	1.1, 1.4, 2.2	1.1, 1.4, 2.2

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3 Access information efficiently and effectively				
	Grade 9	Grade 10	Grade 11	Grade 12
A	a. Locate multiple primary and secondary sources of various media using appropriate organizational tools b. Select material appropriate to student's reading ability	a. Locate multiple primary and secondary sources of various media using appropriate organizational tools b. Select material appropriate to student's reading ability	a. Locate multiple primary and secondary sources of various media using appropriate organizational tools b. Select material appropriate to student's reading ability	a. Locate multiple primary and secondary sources of various media using appropriate organizational tools b. Select material appropriate to student's reading ability
Source Selection				
ST	1.2, 1.4, 1.6	1.2, 1.4, 1.6	1.2, 1.4, 1.6	1.2, 1.4, 1.6
B	Use the navigational features of sources to locate appropriate information	Use the navigational features of sources to locate appropriate information	Use the navigational features of sources to locate appropriate information	Use the navigational features of sources to locate appropriate information
Source Navigation				
ST	1.4, 2.7	1.4, 2.7	1.4, 2.7	1.4, 2.7

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4 Evaluate information critically and competently				
	Grade 9	Grade 10	Grade 11	Grade 12
A	Analyze and evaluate media techniques used to convey the message	Analyze and evaluate media techniques used to convey the message	Analyze and evaluate media techniques used to convey the message	Analyze and evaluate media techniques used to convey the message
Message				
ST	1.5, 1.7	1.5, 1.7	1.5, 1.7	1.5, 1.7
B	a. Analyze information to determine relevance in relationship to the topic b. Analyze impact of timeliness when selecting sources	a. Analyze information to determine relevance in relationship to the topic b. Analyze impact of timeliness when selecting sources	a. Analyze information to determine relevance in relationship to the topic b. Analyze impact of timeliness when selecting sources	a. Analyze information to determine relevance in relationship to the topic b. Analyze impact of timeliness when selecting sources
Relevance				
ST	1.7, 3.5	1.7, 3.5	1.7, 3.5	1.7, 3.5
C	a. Analyze the source to determine its credibility b. Evaluate accuracy of information by determining whether it contradicts or verifies other sources c. Evaluate for bias, with minimal assistance, by analyzing viewpoint(s) conveyed in source d. Evaluate the copyright date of information to best meet the information need	a. Analyze the source to determine its credibility b. Evaluate accuracy of information by determining whether it contradicts or verifies other sources c. Evaluate for bias by analyzing viewpoint(s) conveyed in source d. Evaluate the copyright date of information to best meet the information need	a. Analyze the source to determine its credibility b. Evaluate accuracy of information by determining whether it contradicts or verifies other sources c. Evaluate for bias by analyzing viewpoint(s) conveyed in source d. Evaluate the copyright date of information to best meet the information need	a. Analyze the source to determine its credibility b. Evaluate accuracy of information by determining whether it contradicts or verifies other sources c. Evaluate for bias by analyzing viewpoint(s) conveyed in source d. Evaluate the copyright date of information to best meet the information need
Reliability				
ST	1.6, 1.7, 2.3	1.6, 1.7, 2.3	1.6, 1.7, 2.3	1.6, 1.7, 2.3
D	a. Analyze and evaluate information to determine usefulness, including ability to read, comprehend and make meaning of the information. b. Analyze and evaluate gathered information for gaps and weaknesses c. Locate additional information as needed	a. Analyze and evaluate information to determine usefulness, including ability to read, comprehend and make meaning of the information b. Analyze and evaluate gathered information for gaps and weaknesses c. Locate additional information as needed	a. Analyze and evaluate information to determine usefulness, including ability to read, comprehend and make meaning of the information b. Analyze and evaluate gathered information for gaps and weaknesses c. Locate additional information as needed	a. Analyze and evaluate information to determine usefulness, including ability to read, comprehend and make meaning of the information b. Analyze and evaluate gathered information for gaps and weaknesses c. Locate additional information as needed
Comprehensiveness				
ST	1.4, 1.6, 3.5	1.4, 1.6, 3.5	1.4, 1.6, 3.5	1.4, 1.6, 3.5

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5 Use information effectively and creatively				
	Grade 9	Grade 10	Grade 11	Grade 12
A	Record relevant information using a self-selected note-taking or organizational strategy	Record relevant information using a self-selected note-taking or organizational strategy	Record relevant information using a self-selected note-taking or organizational strategy	Record relevant information using a self-selected note-taking or organizational strategy
Information Recording				
ST	1.2, 1.4, 1.8, 2.1	1.2, 1.4, 1.8, 2.1	1.2, 1.4, 1.8, 2.1	1.2, 1.4, 1.8, 2.1
B	Synthesize, with minimal assistance, information to make meaning (draw conclusions, formulate hypothesis, make inferences, etc.)	Synthesize information to make meaning (draw conclusions, formulate hypothesis, make inferences, etc.)	Synthesize information to make meaning (draw conclusions, formulate hypothesis, make inferences, etc.)	Synthesize information to make meaning (draw conclusions, formulate hypothesis, make inferences, etc.)
Information Synthesis				
ST	1.2, 1.4, 1.7, 1.10, 3.4, 3.5, 3.6	1.2, 1.4, 1.7, 1.10, 3.4, 3.5, 3.6	1.2, 1.4, 1.7, 1.10, 3.4, 3.5, 3.6	1.2, 1.4, 1.7, 1.10, 3.4, 3.5, 3.6
C	a. Share information with intended audience for intended purpose using an appropriate format b. Organize information in a logical arrangement appropriate to format, audience and purpose	a. Share information with intended audience for intended purpose using an appropriate format b. Organize information in a logical arrangement appropriate to format, audience and purpose	a. Share information with intended audience for intended purpose using an appropriate format b. Organize information in a logical arrangement appropriate to format, audience and purpose	a. Share information with intended audience for intended purpose using an appropriate format b. Organize information in a logical arrangement appropriate to format, audience and purpose
Information Presentation				
ST	1.8, 2.1, 2.4	1.8, 2.1, 2.4	1.8, 2.1, 2.4	1.8, 2.1, 2.4

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6 Practice ethical, legal, and safe use of information and technology				
	Grade 9	Grade 10	Grade 11	Grade 12
A	a. Demonstrate ethical behaviors (personal and social) when using information and technology b. Develop strategies to avoid cyber-bullying	a. Demonstrate ethical behaviors (personal and social) when using information and technology b. Develop strategies to avoid cyber-bullying	a. Demonstrate ethical behaviors (personal and social) when using information and technology b. Develop strategies to avoid cyber-bullying	a. Demonstrate ethical behaviors (personal and social) when using information and technology b. Develop strategies to avoid cyber-bullying
Digital Citizenship				
ST	2.7, 3.2, 3.3, 3.4, 4.1, 4.4, 4.7	2.7, 3.2, 3.3, 3.4, 4.1, 4.4, 4.7	2.7, 3.2, 3.3, 3.4, 4.1, 4.4, 4.7	2.7, 3.2, 3.3, 3.4, 4.1, 4.4, 4.7
B	a. Follow copyright laws, school district policies and other regulations while accessing and using sources, including print and digital b. Practice strategies to avoid plagiarism c. Document each source using appropriate citation format (e.g., author, title, copyright, URL, publisher, and place of publication)	a. Follow copyright laws, school district policies and other regulations while accessing and using sources, including print and digital b. Practice strategies to avoid plagiarism c. Document each source using appropriate citation format (e.g., author, title, copyright, URL, publisher, and place of publication)	a. Follow copyright laws, school district policies and other regulations while accessing and using sources, including print and digital b. Practice strategies to avoid plagiarism c. Document each source using appropriate citation format (e.g., author, title, copyright, URL, publisher, and place of publication)	a. Follow copyright laws, school district policies and other regulations while accessing and using sources, including print and digital b. Practice strategies to avoid plagiarism c. Document each source using appropriate citation format (e.g., author, title, copyright, URL, publisher, and place of publication)
Academic Honesty				
ST	1.4, 1.8, 2.3, 2.7, 4.4, 4.7	1.4, 1.8, 2.3, 2.7, 4.4, 4.7	1.4, 1.8, 2.3, 2.7, 4.4, 4.7	1.4, 1.8, 2.3, 2.7, 4.4, 4.7
C	a. Analyze consequences of online behavior, such as cyber-bullying; sharing personal information, pictures, video; ongoing subscriptions; etc. b. Practice safe, legal and ethical behaviors in personal electronic communication and interaction	a. Analyze consequences of online behavior (such as cyber-bullying; sharing personal information, pictures, and video, etc.) on employment opportunities b. Practice safe, legal and ethical behaviors in personal electronic communication and interaction	a. Analyze consequences of online behavior on scholarships, future education, and employment opportunities b. Practice safe, legal and ethical behaviors in personal electronic communication and interaction	a. Analyze consequences of online behavior on scholarships, future education, and employment opportunities b. Practice safe, legal and ethical behaviors in personal electronic communication and interaction
Cyber Safety				
ST	3.1, 4.3, 4.4, 4.7	3.1, 4.3, 4.4, 4.7	3.1, 4.3, 4.4, 4.7	3.1, 4.3, 4.4, 4.7