

Research Skills Scope and Sequence

For Primary, Elementary, and Middle School

These standards and benchmarks for research skills were specifically developed by members of EISLA (Elementary Independent School Library Association). This document is an adaptation and abridgement of the American Association of School Librarians' (AASL) *Standards for the 21st Century Learner* and the Massachusetts School Library Association's (MSLA) *Massachusetts Recommended PreK-12 Information Literacy Standards*. This document is not intended to be a sequential guide to the research process; the skills can be taught at any time during the research process regardless of order.

Standard 1: Define Task

Students will define problems competently and identify information needs.

The skills in each level continue into the next level.

Beginner	<ul style="list-style-type: none">1.1 Rephrase the research assignment: What am I supposed to do?1.2 Ask "I wonder" questions about the research topic1.3 Identify prior knowledge and information needed with guidance (e.g. KWL chart)1.4 Brainstorm additional questions with assistance
Intermediate	<ul style="list-style-type: none">1.5 List the expectations for the research assignment1.6 Identify prior knowledge and information needed1.7 Draft essential question or thesis statement with guidance1.8 Brainstorm and formulate additional questions1.9 Assess questions to determine which can be answered by simple facts and which cannot be answered, and which would lead to an interesting inquiry
Advanced	<ul style="list-style-type: none">1.10 Understand the expectations for the research assignment1.11 Evaluate prior knowledge1.12 Draft essential question or thesis statement1.13 Refine questions that lead to gathering of different types of information (overview, big-idea, specific detail, cause and effect, comparison, etc.)1.14 Plan inquiry to answer questions

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Standard 2: Locate and Access Information	
Students will develop strategies to find and use sources relevant to their question.	
<i>The skills in each level continue into the next level.</i>	
Beginner	<ul style="list-style-type: none"> 2.1 Identify and locate the different collections in the library 2.2 Distinguish between fiction and nonfiction books 2.3 Identify and use elements of fiction and nonfiction books (table of contents, index, copyright date, etc.) with guidance 2.4 Identify the type of source which will answer question(s) 2.5 Find factual answers to specific questions
Intermediate	<ul style="list-style-type: none"> 2.6 Understand the 10 major Dewey areas and what main topics are included in each 2.7 Distinguish, use and navigate a variety of sources to locate information which will answer question(s) 2.8 Understand the correlation between index terms in books and keyword terms for online searches with guidance 2.9 Use text features and illustrations to decide which resources are best to use and why 2.10 Skim/scan to locate information that is appropriate to age and ability level 2.11 Independently identify and use the elements of fiction and nonfiction books (context, genre, point of view, etc.)
Advanced	<ul style="list-style-type: none"> 2.12 Independently develop a search strategy using keywords and subject headings 2.13 Understand hierarchical concepts (narrow terms, broad terms, etc.) 2.14 Independently distinguish, use and navigate a variety of sources to locate information which will answer question(s) 2.15 Independently evaluate sources based on usefulness, currency, accuracy, authority, and point of view

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Standard 3: Understand Information	
Students will read, view, and listen for information presented in any format (e.g. textual, visual, media, digital) in order to make inferences and gather meaning.	
<i>The skills in each level continue into the next level.</i>	
Beginner	<ul style="list-style-type: none"> 3.1 Use simple note-taking strategies as demonstrated by teacher and librarian 3.2 Recognize keywords and concepts relevant to information need 3.3 Recognize facts 3.4 Note similarities and differences in information from different sources 3.5 Write, draw, or verbalize the main idea and supporting details 3.6 Interpret information represented in pictures, illustrations, and simple charts
Intermediate	<ul style="list-style-type: none"> 3.7 Use various note-taking strategies 3.8 Recognize related keywords and concepts relevant to information need 3.9 Question conflicting information between sources and seek additional sources to resolve differences 3.10 Distinguish between fact and opinion and detect bias with guidance 3.11 Identify facts and details that support main ideas 3.12 Evaluate facts for accuracy with guidance 3.13 Paraphrase or summarize information 3.14 Demonstrate understanding of plagiarism 3.15 Refine information to that which relates specifically to the question or problem with guidance 3.16 Draw conclusions based on facts and premises
Advanced	<ul style="list-style-type: none"> 3.17 Analyze different points of view discovered in multiple sources 3.18 Use both facts and opinions responsibly by identifying and verifying them 3.19 Evaluate, paraphrase, and summarize information 3.20 Demonstrate ability to use information ethically (fair use, copyright, plagiarism, etc.) 3.21 Refine information to that which relates specifically to the question or problem with minimal guidance

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Standard 4: Organize Information	
Students will organize knowledge so that it is useful.	
<i>The skills in each level continue into the next level.</i>	
Beginner	<p>4.1 Sort, classify and sequence pieces of information (place events along a timeline, sort families of animals, etc.)</p> <p>4.2 Write basic citations for text and images using a provided format</p>
Intermediate	<p>4.3 Sort, classify and sequence information from multiple sources</p> <p>4.4 Use graphic organizers and/or outline with guidance to arrange information logically</p> <p>4.5 Choose appropriate order for information (chronological, alphabetical, topical, etc.)</p> <p>4.6 Organize information logically so that main points are evident</p> <p>4.7 Write citations for text and images using a provided format with guidance</p>
Advanced	<p>4.8 Sort, classify and sequence information from multiple sources independently</p> <p>4.9 Use graphic organizers and/or outline independently to arrange information logically</p> <p>4.10 Choose appropriate order for information independently</p> <p>4.11 Organize information logically so that main points are evident</p> <p>4.12 Write complete citations for all sources</p> <p>4.13 Provide internal citations (parenthetical references, footnotes, etc.)</p>

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Standard 5: Synthesize and Create	
Students will draw conclusions, make informed decisions, apply knowledge to new situations, and create new understanding(s).	
<i>The skills in each level continue into the next level.</i>	
Beginner	<ul style="list-style-type: none"> 5.1 Revisit and complete KWL or other graphic organizer using the new ideas that were learned from inquiry experience 5.2 Use new words, sentences, or pictures to describe understanding 5.3 Draw conclusions about the main idea with guidance 5.4 Share new understanding(s) in a variety of ways (teacher chooses format) 5.5 Apply new knowledge and understanding to real-world issues and problems with much guidance
Intermediate	<ul style="list-style-type: none"> 5.6 Review ideas held at beginning of inquiry and reflections captured during note-taking 5.7 Draw conclusions about the main idea 5.8 Consider the purpose and audience for the product and/or presentation with guidance 5.9 Share new understanding(s) in a variety of ways (student chooses appropriate format with guidance) 5.10 Apply new knowledge and understanding to real-world issues and problems with minimal guidance
Advanced	<ul style="list-style-type: none"> 5.11 Review ideas held at beginning of inquiry and reflections captured during note-taking 5.12 Analyze and make inferences from data 5.13 Draw conclusions based on explicit and implied information 5.14 Consider the purpose and audience for the product and/or presentation independently 5.15 Share new understanding(s) in a variety of ways (student chooses appropriate format) 5.16 Apply new knowledge and understanding to real-world issues and problems independently

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Standard 6: Reflect, Assess and Evaluate	
Students will evaluate both the research process and the final product which may include both self and peer evaluation.	
<i>The skills in each level continue into the next level.</i>	
Beginner	<p>6.1 Identify own strengths and set goals for improvement with much guidance</p> <p>6.2 Reflect at the end of an inquiry experience about new ideas to wonder about and investigate</p> <p>6.3 Assess how new knowledge and understanding relates to real-world issues and problems with much guidance</p>
Intermediate	<p>6.4 Identify own strengths and set goals for improvement with guidance</p> <p>6.5 Use simple assessment tools to evaluate work (self or peer)</p> <p>6.6 Apply new knowledge and understanding to real-world issues and problems with guidance</p> <p>6.7 Reflect at the end of an inquiry experience about what ideas would still be interesting to pursue</p> <p>6.8 Assess how new knowledge and understanding relates to real world issues and problems with minimal guidance</p>
Advanced	<p>6.9 Identify skills that require practice and refinement</p> <p>6.10 Modify and revise own work based on feedback from others</p> <p>6.11 Apply new knowledge and understanding to real-world issues and problems</p> <p>6.12 Reflect at the end of an inquiry process to identify additional areas of personal interest for pursuit in the future</p> <p>6.13 Assess how new knowledge and understanding relates to real world issues and problems independently</p>

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