

**RESEARCH PROCESS SCOPE AND SEQUENCE  
GRADES 3-5**

1/5/07

GRADE	STRAND	STANDARD	BENCHMARKS	ISTE, AASL, BIG 6	MN CONTENT STANDARDS	RESOURCES
3-5	<b>RESEARCH PROCESS</b>	Students will follow a systematic research process that involves formulating a question, gathering, evaluating, and organizing information, drawing conclusions, presenting results to an audience, and evaluating both the product and the process	<p><i>Question:</i></p> <ol style="list-style-type: none"> <li>1. Students recognize that accurate and comprehensive information is the basis for informed decision making.</li> <li>2. Students generate questions based on needs and interests.</li> <li>3. Students broaden or narrow question to meet requirements.</li> <li>4. Students revise, add, or delete questions as information needs change.</li> </ol>	<p>ISTE Profile3-5: 7, 8</p> <p>AASL 1:1,2,3; 4: 1,2</p>		
			<p><i>Gather:</i></p> <ol style="list-style-type: none"> <li>1. Students identify a wide range of potential resources to answer a question.               <ol style="list-style-type: none"> <li>a. Students distinguish between primary and secondary sources.</li> <li>b. Students understand differences between materials selected for the library media center, information selected for a database and information available in a free Internet search.</li> </ol> </li> <li>2. Students find information in print, non-print, and digital resources.</li> </ol>	<p>ISTE Profile3-5: 7, 8,10</p> <p>AASL 1:2,4,5; 2: 1,2,3,4; 4: 1,2</p>		

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			<ul style="list-style-type: none"> <li>a. Students locate non-fiction books by Dewey Decimal system.</li> <li>b. Students locate fiction books by alphabetical order.</li> <li>c. Students locate special reference books: thesaurus, atlases, subject encyclopedias and dictionaries, etc.</li> <li>d. Students use keyword, author, title, and subject searches in an online catalog.</li> <li>e. Students use table of contents and guide words.</li> <li>f. Students understand the function of Boolean AND in a search.</li> <li>g. Students use children’s online database and search engines and directories (For example: <i>InfoBits, Yahoooligans</i>)</li> <li>h. Students by 5<sup>th</sup> grade use general search engines (for example: <i>Google, Yahoo.</i>)             <ul style="list-style-type: none"> <li>-Search by keyword or phrase</li> <li>-Understand page ranking and sponsored links</li> <li>-Understand the basic structure of a URL (including major domains: .edu, .com, .net, .org. ~ in a URL often indicates that a page is not a part of a</li> </ul> </li> </ul>			
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			<p>an official web site.</p> <p>3. Students evaluate information sources, considering currency, accuracy, validity, relevance, completeness, bias, intended audience, fact/opinion and purpose.</p> <p>4. Students read, listen, and view to identify important ideas and supporting evidence in information sources.</p> <p>5. Students record and summarize information using a variety of methods (Examples: note cards, charts, graphs on paper or in electronic format--word processor, database, spreadsheet, etc.)</p> <p>6. Students record bibliographic information about sources in a standard format.</p>			
			<p><b>Conclude</b></p> <p>1. Students identify categories and patterns of information across multiple sources.</p> <p>2. Students match information found with questions and predictions.</p> <p>3. Students draw a conclusion and use facts and details to support the conclusion.</p> <p>4. Students organize and outline information following a pattern.</p>	<p>ISTE Profile3-5: 7,8</p> <p>AASL 2: 4; 3: 1,2,3</p>		
			<p><b>Communicate:</b></p> <p>1. Students identify and use the best</p>	<p>ISTE Profile3-</p>		

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			<p>medium to communicate the conclusion to an audience.</p> <p>2. Students use conventions of different media to convey meaning</p> <ul style="list-style-type: none"> <li>-Word processed document (effective use of font styles and integration of graphics)</li> <li>-Hand or computer-generated drawing or poster (effective use of design elements)</li> <li>-Digital presentation (effective layout, animations and transitions)</li> <li>-Audio recording (effective use of narration, music and sound effects)</li> <li>-Video (effective use of visuals, audio, and effects)</li> </ul>	<p>5: 6,7, 8</p> <p>AASL 3: 4</p>		
			<p><b><i>Evaluate</i></b></p> <p>1. Students seek review through self-reflection, peer review, and teacher feedback.</p> <p>2. Students compare individual findings with group or previous findings.</p> <p>3. Students identify questions and ideas for further investigation.</p>	<p>AASL 6:1,2</p>		