Rating Scale: Mathematics 9 / 10 Not Yet Within Expectations

	Not Yet Within Expectations	Minimally Meets Expectations	Fully Meets Expectations	Exceeds Expectations
Collecting **selection of technology tools *(webs, clusters, charts, graphs, spreadsheets, databases)*, information sources, and materials**	• selects inappropriate technology tools or may not use technology tools to gather information • requires assistance to develop and conduct a search using a search engine may use overly broad or narrow categories or use inappropriate terms and/or vocabulary when searching for information • relies predominantly on teacher supplied resources and materials	• uses technology tools to gather information, may not be able to discriminate appropriate tool for the task • uses a search engine with some support, may require assistance to narrow or broaden a search to find information related to the task • relies on a single resource or a limited number of resources	• selects technology tools appropriate to the type of information required by the task • uses search engines independently, applies search protocols such as Boolean logic, narrows or broadens search terms to locate appropriate information effectively • gathers information from various primary and secondary sources	• selects and effectively uses appropriate technology tools that enhance information gathering related to the task • uses a variety of information gathering tools intentionally to extend understanding of the task • uses task specific search engines efficiently and applies advanced search protocols • selects a wide range of supporting facts and evidence from a variety of primary and secondary sources to locate information that best meets the task
accuracy and appropriateness of information	• selects a limited amount of information, or does not locate information that is related to the task • gathers information uncritically; selects	• selects information related to the task, information may be incomplete, inaccurate or inappropriate • selects information to illustrate only one	• selects information that is directly related to the task; includes all important content and no unrelated data • includes information to illustrate more than	• selects information that demonstrates an appreciation of the complexity of the task; identifies new questions • includes information to

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	information that is unreliable, inaccurate and/or out of date	perspective; includes some irrelevant and inaccurate details	one perspective, all information is current and accurate	illustrate various perspectives; points out bias, inaccuracies, untruths and propaganda; assesses reliability and relevance
socially constructed knowledge gathering information from others using communication tools *(email, instant messaging and other asynchronous and synchronous tools)*	• works in isolation, does not use communication tools to build understanding	• uses communication tools occasionally to interact with others to expand their understanding and share ideas about the task	• uses communication tools to collaborate with others to build personal understanding and share ideas about the task	• relies on electronic communication tools to collaborate with others to expand or modify personal understanding about the task • directs inquiries to experts electronically
Organizing **sorting and grouping information, storing information so it is searchable and retrievable**	• does not sort or group information • does not create any filing system • information is difficult to locate or access	• attempts to group like information • file management is simplistic and may not relate directly or obviously to the task • data can be searched but it may be time consuming and illogical, student can find the information needed, but others cannot	• sorts and groups information logically • creates a logical file management system that relates to the task • data can be searched and retrieved efficiently	• groups information to support the complexity of the task • file management system enhances understanding of the task • data can be easily searched and retrieved efficiently by others
Interpreting and Analyzing **use of technology tools *(webs,***	• uses technology tools and features that are inappropriate to the task	• uses technology tools and features to convey ideas simplistically to support the task	• uses technology tools and features to reorganize and revise information to support	• uses appropriate technology tools and features to reorganize and revise information

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***clusters, charts, graphs, spreadsheets, databases)* to convey and build ideas, illustrate connections and relationships, and extrapolate or predict to build new understanding**	• does not demonstrate connections among ideas and concepts	• uses technology tools and features to show simple connections, but may show misunderstanding and few supporting details	the task • uses technology tools and features to develop ideas, demonstrate connections among ideas, and show relative importance	to extend understanding of the task • selects technology tools and features to develop and extend ideas in unique ways, illustrate connections among ideas and supporting details, and reveal patterns in the information
Presenting **referencing, including ethical use of information**	• provides no or inaccurate citations of the source of materials used • includes plagiarized text and uses images and other electronic material without acknowledging the source	• lists some sources but citations may not be linked to specific image or information • may include some copied text and materials without reference to the source	• lists all sources and links all citations to specific images or information • uses standardized bibliographic conventions • conveys content in own words	• provides complete, accurate, and linked citation of the sources for all information and materials • uses standardized bibliographic conventions • conveys content in own words
layout and design, including use of technology tools *webs, clusters, charts, graphs, spreadsheets, databases*, media elements *sounds, animations, graphics, video, photos, charts, hyperlinks*, and design elements *colour, proportion, balance, sequence, text and images* to enhance the communication of ideas	• uses visually confusing, misleading, or distracting layout and design elements, media elements may be under utilized or seem purposeless • text elements are unclear or may not be readable	• uses simplistic and/or ineffective layout and design, does not visualize ideas, use of effects may be overdone • some text elements are unclear or may not be readable • presentation can be	• uses layout and design to provide a meaningful representation of thinking, effects are helpful, well balanced, undistorted, smooth transitions • uses visually appealing layout and design elements	• uses layout and design to convey ideas uniquely, moves beyond media conventions to create unique presentations • layout and design elicit a personal response in the audience • merges layout and

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	• presentation is difficult for the user to manipulate or navigate	user driven, but may be cumbersome or difficult to navigate	*(colour, proportion, balance, sequence, text and images)* and formatting conventions, provides readable text elements • presentation can be user driven • selects media elements appropriate to the task, congruent with the message and which enhances understanding of ideas	design elements *colour, proportion, balance, sequence, text and images*, formatting conventions, and text and visual elements in a unique fashion to enhance meaning • presentation can be user driven, intuitive for the user not just the developer
organization of ideas and development of an argument that leads to a resolution	• presentation is disorganized and does not flow logically, content is not broken down into meaningful units • tone and language are inappropriate to the task • argument is unclear and/or difficult for audience to follow, bits of information are isolated or disorganized and irrelevant information is included, may include over or under emphasis of certain aspects • lacks a resolution or provides a conclusion	• presentation has some organization • tone and language are suitable to the topic • argument is evident but may be difficult to follow • provides a resolution that is not fully supported by the evidence or that draws from only part of the evidence provided	• presentation is logical and thoughtful • tone and language are appropriate to the topic • argument is clearly articulated and supported • provides a logical resolution, conclusion is clearly stated and supported by the evidence provided	• presentation challenges the audience's perceptions of the topic, enhances or extends understanding of information; content is purposeful, logical, and / or labeled into easily understood parts • tone and language are engaging and enhance understanding • argument is clearly stated, supported and demonstrates extension of thinking and new knowledge • resolutions are logically stated and fully supported by the

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	with little or no supporting evidence, provides a single or biased perspective			analysis of the evidence