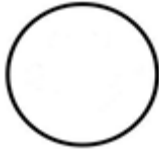





An effective **critical thinker** analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns or solve problems











Critical Thinking: Kindergarten -2nd Grade


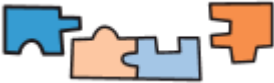

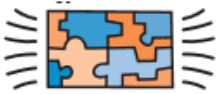
Learning Goal	Novice – 1 	Emerging – 2 	Proficient - 3 	Exemplary - 4 
I can explain in my own words the problem or question in front of me.	<ul style="list-style-type: none"> • Student struggles to describe the problem or question • Student needs significant assistance to make sense of the assignment 	<ul style="list-style-type: none"> • Explains the general idea of the problem or question • Needs some assistance either to get started or help along the way 	<ul style="list-style-type: none"> • Explains the problem or the question and has a concrete plan or idea of how to pursue it • Needs minimal assistance along the way 	<ul style="list-style-type: none"> • Explains the problem, has a plan or idea, and is able to work through challenges along the way • Works independently to complete the assignment
I can use pictures, numbers, and words to show my thinking.	<ul style="list-style-type: none"> • Student needs significant assistance in how to represent their thinking 	<ul style="list-style-type: none"> • Communicates some information/ideas but needs assistance to make sure that their thinking lines up with representations 	<ul style="list-style-type: none"> • Represents information/ideas to demonstrate thinking 	<ul style="list-style-type: none"> • Represents information/ideas as well as adding in illustrative and relevant details

Critical Thinking Rubric- Grades 3-5



An effective critical thinker analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.


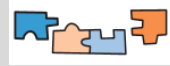
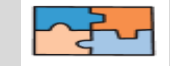

Learning Goal	Novice – 1	Emerging - 2	Proficient - 3	Exemplary – 4
<p>I can decipher information and ask meaningful questions.</p> <p>Information and Discovery</p>	<p>Student shows an inability to explain the problem, investigation, or challenge in his/her own words; creates a small number of questions; and questions are unclear.</p> 	<p>Defines the problem, investigation, or challenge in his/her own words, but explanation is a little unclear; creates a small number of related questions; and questions are sometimes clear.</p> 	<p>Clearly explains the problem, investigation, or challenge in his/her own words; creates an acceptable number of questions; and questions are usually clear.</p> 	<p>Provides a thorough description of the problem, investigation, or challenge, including important details, in his/her own words. Creates a large number of clear, powerful, open, thought-provoking questions.</p> 
<p>I can go through the steps to solve a problem.</p> <p>Problem Solving/ Solution Finding</p>	<p>Student is beginning to show understanding of how to formulate ideas regarding how to solve a problem, meet a challenge, or answer an inquiry question; is building the foundation to develop solutions and explain ideas.</p> 	<p>Explains ideas about how to best solve the problem, meet the challenge, or answer the inquiry question, but the explanation is a little unclear. Describes why their ideas make sense, but description could be more convincing.</p> 	<p>Explains ideas about how to best solve the problem, meet the challenge, or answer the inquiry question. Clearly describes why their ideas make sense.</p> 	<p>Offers a very clear and convincing description of how to best solve the problem, meet the challenge, or answer the inquiry question. Tests ideas, assesses the outcome, and decides if a new solution is necessary</p> 

<p>I can justify my thoughts and opinions.</p> <p>Constructing Arguments</p>	<p>Student is beginning to gather proof from resources to support opinion.</p> 	<p>Explains ideas about how to best solve the problem, meet the challenge, or answer the inquiry question, but the explanation is a little unclear. Describes why their ideas make sense, but description could be more convincing.</p> 	<p>Explains ideas about how to best solve the problem, meet the challenge, or answer the inquiry question. Clearly describes why their ideas make sense.</p> 	<p>Offers a very clear and convincing description of how to best solve the problem, meet the challenge, or answer the inquiry question. Tests ideas, assesses the outcome, and decides if a new solution is necessary</p> 
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Critical Thinking Rubric - 6-8

An effective critical thinker analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.




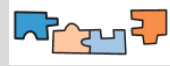
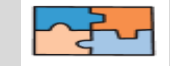

Learning Goal	Novice – 1	Emerging – 2	Proficient - 3	Exemplary - 4
				

Information and Discovery	<p>Shows an inability to grasp the problem, investigation, or challenge; rarely seeks clarity and understanding.</p> <p>Creates a small number of questions connected to the problem, investigation, or challenge, but questions are unclear. Student is building the foundation to refine and improve questions and to identify a key question or prioritized set of questions on which to focus.</p> <p>Uses provided resources and/or conducts research, but information is very limited or is not relevant to the inquiry questions.</p>	<p>Defines the problem, investigation, or challenge, but explanation lacks clarity; seeks clarity and understanding at times, but sometimes moves forward without sufficient understanding.</p> <p>Is beginning to formulate clear questions, but questions are limited and are sometimes not closely related to the problem, investigation, or challenge. Somewhat effectively, refines and improves questions and identifies a key question or a prioritized set of questions on which to focus.</p> <p>Uses resources and/or conducts research to gather information from a limited number of sources; somewhat effectively selects relevant, trustworthy information.</p>	<p>Clearly defines the problem, investigation, or challenge; continuously seeks clarity and understanding.</p> <p>Creates additional questions related to the problem, investigation, or challenge. Effectively refines and improves questions and identifies a key question or set of questions to investigate.</p> <p>Uses appropriate resources and/or conducts research to gather relevant information from multiple sources; effectively assesses the credibility and accuracy of each source.</p>	<p>Provides a thorough description of the problem, investigation, or challenge; explains why the inquiry is relevant and necessary.</p> <p>Generates powerful questions closely related to the problem, investigation, or challenge (i.e., open-ended; requiring deep thought).</p> <p>Uses advanced searches effectively. Gathers relevant information from multiple trustworthy sources.</p>
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Critical Thinking Rubric - 6-8



An effective critical thinker analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.


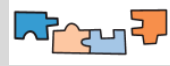
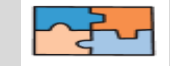

Learning Goal	Novice – 1 	Emerging – 2 	Proficient - 3 	Exemplary - 4 
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Interpretation and Analysis	<p>Builds background knowledge from a single or very limited number of sources.</p> <p>Shows an understanding of the concept of point of view; is building a foundation to describe sources' points of view.</p> <p>Explains point of view; is building a foundation to explain the difference between their point of view and that of sources.</p>	<p>With support, integrates information from a limited number of sources on the inquiry topic to build background knowledge.</p> <p>Is beginning to describe sources' points of view, but struggles to analyze how the sources address conflicting viewpoints.</p> <p>Provides a basic assessment of the argument and claims presented by sources, but is unable to assess whether the reasoning is sound, if the evidence is helpful to the argument, or if a sufficient amount of evidence is provided.</p>	<p>Integrates information from multiple sources on the inquiry topic to build background knowledge, with independence.</p> <p>Accurately determines sources' points of view and analyzes how the sources address conflicting viewpoints.</p> <p>Is laying the foundation to thoroughly and accurately assess and describe arguments and claims provided by sources. Assesses whether the reasoning is sound, if the evidence is helpful to the argument, and if a sufficient amount of evidence is provided.</p>	<p>Integrates information from a large number of sources on the inquiry topic to build background knowledge.</p> <p>Thoroughly evaluates sources' points of view and detects bias, when present; clearly analyzes how sources address conflicting viewpoints.</p> <p>Shows openness or ability to look at information from different viewpoints, even viewpoints that challenge his/her point of view.</p>
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Critical Thinking Rubric - 6-8







An effective critical thinker analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.

Learning Goal	Novice – 1	Emerging – 2	Proficient - 3	Exemplary - 4
				

Problem Solving/Solution Finding	Shows an inability to test ideas, assess the outcome, and decide if a new solution is necessary.	Tests ideas. With assistance, assesses the outcome, but the explanation may be unclear. Is beginning to show ability to assess results and decide if a new solution is necessary.	Tests ideas. With little assistance, assesses and clearly describes the outcome and decides if a new solution is necessary.	Tests ideas with patience, precision, and accuracy; Carefully assesses outcome and draws logical conclusions about next steps.
Constructing Arguments	<p>Defines “proof”; is building a foundation to gather proof from sources to support opinion.</p> <p>Defines “reason,” “evidence,” and “opposing claim”; is building a foundation to organize reasons and evidence to support opinion and recognize opposing claims.</p>	<p>With assistance, gathers proof (evidence) from sources to support opinion, but proof is somewhat weak; sources are at times inaccurate or not trustworthy.</p> <p>Is beginning to show ability to organize reasons and evidence and recognize opposing claims, with support.</p>	<p>With little assistance, gathers proof (evidence) from sources to support opinion; uses accurate, correct, credible, and trustworthy sources to support opinion.</p> <p>With minimal support, clearly organizes reasons and evidence and recognizes opposing claims.</p>	<p>Independently gathers proof (evidence) from sources to support opinion; gathers accurate, correct, credible, and trustworthy sources.</p> <p>Organizes reasons and evidence in a logical and convincing order.</p>





Critical Thinking Rubric - Grades 9-12

An effective critical thinker analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.

Learning Goal	Novice – 1 	Emerging – 2 	Proficient – 3 	Exemplary – 4 
Information and Discovery	<p>Shows an inability to grasp the problem, investigation, or challenge; rarely seeks clarity and understanding</p> <p>Formulates questions that are unclear and/or easily answered and do not provide a foundation for inquiry</p>	<p>Defines the problem, investigation, or challenge, but explanation lacks clarity; seeks clarity and understanding at times, but sometimes moves forward without sufficient understanding</p> <p>Is beginning to formulate clear inquiry questions, but questions are limited and provide a framework for limited inquiry</p>	<p>Clearly defines the problem, investigation, or challenge; continuously seeks clarity and understanding</p> <p>Identifies inquiry questions clearly and precisely; engages in an open-ended thinking process to develop an initial set of questions related to the problem, investigation, or challenge; refines the initial set of questions; and identifies a key question or prioritized set of questions on which to focus; questions provide a solid foundation for inquiry</p>	<p>Shows an impressive level of depth of understanding of the problem, investigation, or challenge; shows an impressive level of depth of understanding of the audience for the solution to the problem, including expectations for and constraints on the solution</p> <p>Generates thought-provoking inquiry questions; carefully phrases questions in an effort to influence the depth, quality, and value of the information they will obtain through investigation; quality of questions allows for in-depth inquiry</p>





Critical Thinking Rubric - Grades 9-12

An effective critical thinker analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.

Learning Goal	Novice – 1 	Emerging – 2 	Proficient – 3 	Exemplary – 4 
	Attempts to select information to answer inquiry questions, but is unable to find the right information	Is beginning to select information, but needs assistance to find information that is sufficient to answer the scope of inquiry questions	Selects information that is sufficient in terms of its quantity, diversity, and relevance to inquiry questions	
Interpretation and Analysis	<p>Identifies criteria and creates categories for information that attend to trivial aspects of the items, or items that cannot be accurately compared or classified; makes significant errors in identifying similarities, differences and categorization of items</p> <p>Detects arguments rarely; inaccurately evaluates the strength of claims</p>	<p>Is beginning to create simple criteria to compare and classify information; makes limited comparisons that are meaningful</p> <p>Is beginning to evaluate the accuracy and relevance of information; makes limited comments regarding the strengths of arguments</p>	<p>Compares and classifies information accurately; almost always identifies characteristics that create meaningful comparisons</p> <p>Evaluates the accuracy and relevance of information and the strengths of arguments, with no significant errors</p>	<p>Expertly and appropriately selects, categorizes, and classifies a wide variety of information (e.g., significant experiences, situations, data, events, judgments, conventions, beliefs, rules, procedures, and/or criteria) related to the topic</p> <p>Provides a well-developed examination of the evidence and sources of evidence; always questions the accuracy, precision, relevance, and completeness of information</p>





Critical Thinking Rubric - Grades 9-12

An effective critical thinker analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.

Learning Goal	Novice – 1 	Emerging – 2 	Proficient – 3 	Exemplary – 4 
Reasoning	<p>Is unable to show understanding of generalizations related to the problem, investigation, or challenge by articulating examples; makes erroneous generalizations</p> <p>Presents conclusions regarding how to solve the problem, meet the challenge, answer the question, etc., that illustrate serious misconceptions; fails to provide evidence for conclusions drawn</p>	<p>Is beginning to show understanding of generalizations related to the problem, investigation, or challenge by articulating examples, but is unable to create his/her own accurate generalizations</p> <p>Presents conclusions regarding how to solve the problem, meet the challenge, answer the question, etc., that illustrate partial understanding; cites partial evidence for conclusions drawn</p>	<p>Offers generalizations that relate in a significant way to the problem, investigation, or challenge</p> <p>Presents logical conclusions regarding how to solve the problem, meet the challenge, answer the question, etc. that illustrate substantial understanding; cites sufficient evidence for conclusions drawn</p>	<p>Demonstrates complete understanding and appropriate use of inductive and deductive reasoning as appropriate to the situation</p> <p>Draws logical conclusions that are not immediately obvious; explains the rationale for conclusions through sophisticated and often original uses of inductive and/or deductive reasoning</p>





Critical Thinking Rubric - Grades 9-12

An effective critical thinker analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.

Learning Goal	Novice – 1 	Emerging – 2 	Proficient – 3 	Exemplary – 4 
Problem Solving/Solution Finding	<p>Describes systems inaccurately or in overly simplified, obvious terms that inhibit understanding of the problem or task; demonstrates limited understanding of how and when to use tools of systems thinking to organize or make connections between pieces of information</p> <p>Often presents solutions, answers, or approaches that do not address the problem, question, or challenge directly</p>	<p>Describes how parts of a whole interact with each other to produce overall outcomes in systems, and how systems effectively interact with each other, but explanation indicates a minimal understanding</p> <p>Is learning how to identify plausible solutions to the problem, answers to the question, or approaches to meet the challenge, but provides limited options that show minimal understanding</p>	<p>Accurately and clearly analyzes and describes how parts of a whole interact with each other to produce overall outcomes in complex systems, and how systems effectively interact with each other</p> <p>Identifies a sufficient number of plausible solutions to the problem, answers to the question, or approaches to meet the challenge</p>	<p>Applies tools of systems thinking (e.g., iceberg, ladder of inference, systems archetypes, reinforcing/balancing feedback loops, systems archetypes, or behavior-over-time graphs) to understand complexity, interdependence, change, and leverage that are appropriate for the task</p> <p>Almost always identifies a variety of unique solutions to the problem, often by using both convergent and divergent thinking</p>

Critical Thinking Rubric - Grades 9-12


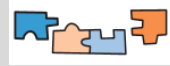
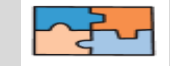

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Learning Goal	Novice – 1 	Emerging – 2 	Proficient – 3 	Exemplary – 4 
	<p>Uses illogical methods for determining relative value of alternatives; solutions or approaches are presented with little to no consideration of their strengths and weaknesses</p> <p>Identifies few or no criteria that are relevant to the selection of a solution or approach</p>	<p>Analyzes the relative effectiveness of proposed solutions or approaches, but the process is not sufficiently thorough and shows minimal insight</p> <p>Uses criteria to eliminate ineffective solutions or approaches, but criteria are a little vague and produce some options that are not plausible</p>	<p>Analyzes, with precision and accuracy, the relative effectiveness of proposed solutions or approaches</p> <p>Uses relevant criteria to eliminate ineffective solutions or approaches and select those that are plausible</p>	<p>Engages in effective, thorough trials of a wide variety of proposed solutions to develop and demonstrate an in-depth understanding of the problem and ways to address it</p> <p>Clearly identifies criteria by which solutions will be assessed; provides a thorough, fully developed assessment of each solution based upon the criteria</p>
Self-Reflection/ Agency	<p>Rarely analyzes and questions one's own thinking, reasoning, and critical thinking dispositions with accuracy</p>	<p>Sometimes analyzes and questions one's own thinking, reasoning, and critical thinking dispositions with accuracy</p>	<p>Often analyzes and questions one's own thinking, reasoning, and critical thinking dispositions with accuracy</p>	<p>Always analyzes and evaluates one's own cognitive skills with a view toward questioning and/or validating one's reasoning and results</p>

Critical Thinking Rubric - 6-8



An effective critical thinker analyzes ideas, data, textual evidence, and/or objects to make inferences, draw conclusions, establish patterns, or solve problems.

Learning Goal	Novice – 1	Emerging – 2	Proficient - 3	Exemplary - 4
				

Self-Reflection/ Agency	<p>Rarely assesses one's own critical thinking dispositions with accuracy. (Does the student continuously seek clarity and understanding? Use accuracy and detail? Dedicate enough time and effort to thinking? Reflect on the amount of support needed during the critical thinking process?)</p>	<p>Sometimes assesses one's own critical thinking dispositions with accuracy. (Does the student continuously seek clarity and understanding? Use accuracy and detail? Dedicate enough time and effort to thinking? Reflect on the amount of support needed during the critical thinking process?)</p>	<p>Often assesses one's own critical thinking dispositions with accuracy. (Does the student continuously seek clarity and understanding? Use accuracy and detail? Dedicate enough time and effort to thinking? Reflect on the amount of support needed during the critical thinking process?)</p>	<p>Consistently monitors his/her thought process and clearly articulates strengths and weaknesses in thinking during the inquiry experience.</p>
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