

NBHS School-Wide Rubric Employ Problem Solving Draft #2.0, updated 11/21/11

Each student will employ problem solving skills. To that end students will:

- Identify, define and understand all aspects of the problem.
- Identify & locate the appropriate resources needed to solve the problem.
- Develop a logical approach leading to a valid conclusion and/or solution.
- Acquire and analyze relevant data to solve the problem
- Clearly communicate the results

	Define	Acquire Resources	Develop	Do	Communicate
6	<ul style="list-style-type: none"> • Accurately and insightfully define all aspects of the problem. 	<ul style="list-style-type: none"> • Identify & locate a variety of appropriate resources to solve the problem. 	<ul style="list-style-type: none"> • Develop an insightful approach leading to an exemplary conclusion and/or solution. 	<ul style="list-style-type: none"> • Analysis shows insight and exceeds expectations for thoroughness in solving the problem. 	<ul style="list-style-type: none"> • Clearly, thoroughly and effectively communicates results.
5					
4	<ul style="list-style-type: none"> • Accurately identify, define showing adequate understanding of the problem. 	<ul style="list-style-type: none"> • Identify & locate resources needed to solve the problem. 	<ul style="list-style-type: none"> • Develop a logical approach leading to a valid conclusion and/or solution. 	<ul style="list-style-type: none"> • Acquire and analyze relevant data to solve the problem. 	<ul style="list-style-type: none"> • Clearly communicates results.
3	<ul style="list-style-type: none"> • Only partly identify and define the problem, neglecting some important issues. 	<ul style="list-style-type: none"> • Demonstrate limited awareness of appropriate resources to solve the problem. 	<ul style="list-style-type: none"> • Has difficulty with developing a logical approach that would lead to a valid conclusion and/or solution. 	<ul style="list-style-type: none"> • Superficially analyze or lack relevant data. 	<ul style="list-style-type: none"> • Poor communication of results (give incomplete or confused explanations of both process and results).
2					
1	<ul style="list-style-type: none"> • Misunderstood the problem. 	<ul style="list-style-type: none"> • Demonstrate no awareness of appropriate resources needed to solve the problem. 	<ul style="list-style-type: none"> • Fails to demonstrate a logical approach leading to a valid conclusion and/or solution. 	<ul style="list-style-type: none"> • Ignore, misinterpret or misuse data. 	<ul style="list-style-type: none"> • Did not communicate results.

Teacher's Score and Comment:

Student's Score and Comment:

**NBHS School-Wide Rubric
Employ Problem Solving in Math Draft #1.4**

	Define	Develop	Do	Defend
6	<ul style="list-style-type: none"> Recognizes the main concepts Insightfully recognizes all aspects of the problem; Understands relationships and connection with/between concepts; <p>Can answer what are you solving and why?</p>	<ul style="list-style-type: none"> Independently selects an efficient and effective method to solve the problem; Locates relevant and credible information from a variety of sources; Locates information from a variety of sources; <p>Creative strategy or plan clearly communicated</p>	<ul style="list-style-type: none"> Elaborate execution of plan; Consideration of all variables; May include more than one outcome; Work has a relationship to plan with steps shown; Appropriate use of tools (e.g., graphing calculator, lab equipment) Shows precise application of concepts/terminology/reasoning/calculations in solving problem; <p>Accurate and clearly representations in analysis of data (e.g., units, labels); Mathematical process (algorithms) accurately and completely executed.</p>	<ul style="list-style-type: none"> Draws logical conclusions; Justifications are well documented; Communicates a clear, thoughtful, logical, insightful solution supported with evidence; Interprets and makes connections with analysis of data; Reflects process/ strategy/ reasonableness of solution
5	•	•	•	
4	<ul style="list-style-type: none"> Recognizes the main concepts Some aspects of the problem are missing; Some elaboration of big idea; Understands scope of problem; <p>Connections present</p>	<ul style="list-style-type: none"> Able to identify a satisfactory plan or strategy with limited assistance; <p>Selects some sufficient or relevant information or data</p>	<ul style="list-style-type: none"> Independently implements relevant strategies/concepts in plan; Uses tools to enhance implementation of problem (e.g., graphing calculator, lab equipment) May contain minor errors when applying plan; Representations in analysis of data is clear; <p>Mathematical process (algorithm) is used accurately.</p>	<ul style="list-style-type: none"> Limited ability to interpret abstract information; Justification is proficient; Communicates logical solution supported with sufficient evidence; Makes connections to definition, plan and solution
3	<ul style="list-style-type: none"> Some understanding of main concepts Beginning stages of comprehension demonstrated 	<ul style="list-style-type: none"> Able to identify a plan or strategy with assistance May use inappropriate information; in plan 	<ul style="list-style-type: none"> Need assistance implementing plan Needs limited assistance with use of tools Some incomplete work in mathematical process (algorithm) 	<ul style="list-style-type: none"> Incomplete conclusion Difficulty interpreting abstract information Proof (check) has some connection to mathematical process and solution Justification is weak
2	•	•	•	•
1	<ul style="list-style-type: none"> No understanding of main concepts. Minimal comprehension demonstrated 	<ul style="list-style-type: none"> Unable to identify a plan or strategy with assistance Uses inappropriate information in plan 	<ul style="list-style-type: none"> Unable to implement No connections to plan Struggles with use of tools Incomplete work in mathematical process (algorithm) 	<ul style="list-style-type: none"> Incorrect conclusion Cannot interpret abstract information Proof (check) has no connection to mathematical process No justification

Teacher Score and Comment:

Student Score and Comment:

**NBHS School-Wide Rubric
Speaking Effectively and Clearly Draft #1.4**

	<u>Organization</u>	<u>Presentation</u>	<u>Vocal Expression</u>	<u>Knowledge of Subject</u>
6	<ul style="list-style-type: none"> All elements connect to a central idea; Elements are appropriately sequenced; Must include a compelling introduction, body and conclusion. Incorporates exemplary supplements when appropriate (handouts, PowerPoint, posters etc.) 	<ul style="list-style-type: none"> Confidence and enthusiasm are displayed through physical expression (eye contact, gesture, posture, facial expression) Uses supplements masterfully and fluidly. 	<ul style="list-style-type: none"> Exhibits exceptional awareness of pace, volume and intonation; An advanced level of target vocabulary and grammar is used. Speech is always fluid and clear. 	<ul style="list-style-type: none"> Clearly and accurately demonstrates advanced knowledge of subject matter. Demonstrates insight and analysis when applicable. Provides several well connected and relevant examples when appropriate.
5		Variety of 4 & 6 elements are evident.		
4	<ul style="list-style-type: none"> Most elements connect to a central idea; Most elements are appropriately sequenced. Must include a clear beginning, middle and end. Incorporates effective supplements when appropriate (handouts, Power Point, posters etc.) 	<ul style="list-style-type: none"> Confidence and enthusiasm are displayed through most aspects of physical expression (eye contact, gesture, posture, facial expression). Uses supplements satisfactorily. 	<ul style="list-style-type: none"> Exhibits acceptable awareness of pace, volume and intonation; An appropriate level of target vocabulary and grammar is used. Speech is usually fluid and clear. 	<ul style="list-style-type: none"> Clearly and accurately demonstrates knowledge of subject matter. There is relevant evidence of insight and analysis when applicable. Provides several relevant examples when appropriate.
3	<ul style="list-style-type: none"> Some connections to a central idea; Sequence is flawed. There is a developing sense of a beginning, middle and end. Minimal incorporation of supplements when appropriate (handouts, Power Point, posters) 	<ul style="list-style-type: none"> Confidence and enthusiasm are inconsistently displayed through few aspects of physical expression (eye contact, gesture, posture, facial expression) Inconsistent use of supplements. 	<ul style="list-style-type: none"> Exhibits inconsistent awareness of pace, volume and intonation; Inconsistent level of target vocabulary and grammar is used; Speech is sometimes fluid and clear. 	<ul style="list-style-type: none"> Basic knowledge of subject matter; Some evidence of insight and/or analysis if applicable; Provides few examples or examples that are not fully developed when appropriate.
2		Variety of 1 & 3 elements are evident.		
1	<ul style="list-style-type: none"> Lack of connection to a central idea; No apparent sequence; Missing an introduction, body and/or conclusion; Lacks required supplements (handouts, Power Point, posters, etc.) 	<ul style="list-style-type: none"> Shows lack of confidence and/or physical expression (eye contact, gesture, posture, facial expression) 	<ul style="list-style-type: none"> Unaware of pace, volume and intonation; Beginning level of target vocabulary and grammar is used; Speech lacks fluidity and clarity. 	<ul style="list-style-type: none"> Lack of knowledge of subject matter; No evident of insight or analysis if applicable; Provides no examples or irrelevant examples when appropriate.
	Comments: (to demonstrate growth & risk factors)			

CONNECTICUT'S TECHNOLOGY BENCHMARKS

Draft Grades 9 – 12

Student's Name _____

Team _____

Grade _____

Benchmark		Level 4	Level 3	Level 2	Level 1	Score
		Exceeds the Standard	Meets the Standard	Emerging	Attempt Made	
1	Basic Operations and Concepts	Demonstrates a mastery of the operation of technology systems.	Demonstrates a sound understanding of the operation of technology systems.	Understands the basic concepts of the operation of technology systems.	Uses, but does not thoroughly understand the operation of technology systems.	
2	Social, Ethical and Human Issues	Practices the ethical, cultural, and societal issues related to technology	Identifies the ethical, cultural, and societal issues related to information technology.	Demonstrates awareness of the ethical, cultural, and societal issues related to technology.	Overlooks the ethical, cultural, and societal issues related to technology.	
3	Technology Productivity Tools	Thoroughly understands and implements software application programs to create, edit, and present materials with precision and accuracy	Appropriate use of software application programs to create, edit, and present materials	Fundamental use of software application programs to create, edit, and present materials.	Attempts to use software application programs to create, edit, and present materials	
4	Technology Communication Tools	Uses a variety of media to communicate information effectively in a unique and imaginative approach	Uses media to communicate information effectively	Limited use of media to communicate information	Uses media improperly to communicate information	
5	Technology Research Tools	Accesses, evaluates and cites appropriate internet sources to research topics	Accesses appropriate Internet sources to research topics	Accesses few Internet sources to research topic	Accesses a single Internet source to research topic	
6	Technology Problem-Solving and Decision Making Tools	Uses technology to provide comprehensive analysis of data and applies problem solving and decision making skills to formulate logical conclusions through the use of technology.	Uses technology to analyze data and develop problem solving and decision making skills.	Presents data with few connections.	Omits important details, facts, and/or concepts.	

NBHS School-Wide Rubric Technology

Score	Basic Operations and Concepts	Social, Ethical and Human Issues	Technology Productivity Tools	Technology Communication Tools	Technology Research Tools	Technology Problem-Solving and Decision Making Tools
6	Demonstrates a mastery of the operation of technology systems.	Practices the ethical, cultural, and societal issues related to technology.	Thoroughly understands and implements software application programs to create, edit, and present materials with precision and accuracy	Uses a variety of media to communicate information effectively in a unique and imaginative approach	Accesses, evaluates and cites appropriate Internet sources to research topics	Uses technology to provide comprehensive analysis of data and applies problem solving and decision making skills to formulate logical conclusions through the use of technology
5						
4	Demonstrates a sound understanding of the operation of technology systems.	Identifies the ethical, cultural, and societal issues related to information technology.	Appropriate uses of software application programs to create, edit, and present materials.	Uses media to communicate information effectively	Accesses appropriate Internet sources to research topics	Uses technology to analyze data, develop problem solving, and decision-making skills.
3	Understands the basic concepts of the operation of technology systems.	Demonstrates awareness of the ethical, cultural, and societal issues related to technology.	Fundamental use of software application programs to create, edit, and present materials	Limited use of media to communicate information	Accesses few Internet sources to research topics	Presents data with few connections.
2						
1	Uses, but does not thoroughly understand the operation of technology systems.	Overlooks the ethical, cultural, and societal issues related to technology	Attempts to use software application programs to create, edit, and present materials	Uses media improperly to communicate information	Accesses a single Internet source to research topic	Omits important details, facts, and/or concepts
Teacher's Score and Comment				Student's Score and Comment		

**NBHS SCHOOL-WIDE RUBRIC
WRITING EFFECTIVELY, DRAFT 1.4**

	POINT OF VIEW OR THESIS	ORGANIZATION	INSIGHT AND ANALYSIS	FLUENCY AND MECHANICS
6	Establishes a clear and insightful point of view or thesis, maintains a clear focus, and provides a perceptive conclusion that supports the point of view or thesis	Ideas are organized logically and progress smoothly, thoroughly addressing all areas required by the assignment in unified and coherent paragraphs	Develops ideas thoroughly and insightfully, explores multiple meanings, and uses relevant examples	Uses varied, accurate, and sophisticated vocabulary and sentence structure; paper is free of most errors in grammar, mechanics, and usage
5	The paper meets the criteria of a 4 but is particularly well-written or insightful			
4	Establishes a clear point of view or thesis, generally maintains a focus, and provides an appropriate conclusion that summarizes the point of view or thesis	Ideas are generally organized, addressing all or most areas required by the assignment in logically structured paragraphs	Ideas and examples are generally sound and appropriate to the assignment but may lack depth, clear support, or full development	Uses appropriate vocabulary and sentence structure; paper has some errors in grammar, mechanics, and usage
3	Develops an unclear point of view or has a weak thesis, strays from the main idea, and conclusion is unsupported or missing	Progression of ideas is difficult to follow, ignores some areas required by the assignment, and paragraphs lack logical structure	Weak or uneven development of ideas; or examples are unrelated or inadequate	Uses inappropriate vocabulary, and demonstrates problems with sentence structure; paper has many errors in grammar, mechanics, and usage
2	The paper approaches the criteria of a 3 but is particularly poorly-written or superficial			
1	Develops no point of view or thesis, and lacks focus	Does not address any areas required by the assignment	Provides no evidence or support	Widespread errors in grammar, mechanics, and usage

Students must achieve all elements within a rubric point to earn that rubric point.