

New York Performance Standards Consortium  
 Science Experiment/Project  
 Extended Project or original experiment

Performance indicator	Outstanding	Good	Competent	Needs Revision
Problem to be Investigated	Hypothesis or thesis is testable and thoughtful and/or original Background information is researched in several sources, including at least one scientific journal Hypothesis reflects a synthesis of primary background research	Hypothesis or thesis is testable and thoughtful. Background information is researched in several sources, including at least one scientific journal Hypothesis or thesis reflects an understanding of the background research	Hypothesis or thesis is testable Background information is researched in several popular sources Hypothesis or thesis reflects basic understanding of the background research	Does not have a hypothesis or thesis Background information is researched in one source Hypothesis or thesis does not reflect an understanding of the background research
Experimental Design/ Project Design	Appropriately identified and describes all variables in the experiment or project Uses accepted or appropriate technology and tools to gather and analyze data and recognizes bias in data collection	Appropriately identifies and describes most of the variables in the experiment or project Uses accepted or appropriate technology and tools to gather and analyze data	Appropriately identifies and describes some of the variables in the experiment or project Uses technology and tools to gather and analyze data	Appropriately identifies and describes one of the variables in the experiment or project Does not use appropriate technology and tools to gather and analyze data
Results	Number of trials or depth of research is extremely thorough Uses basic algebraic functions and more than one statistical test for data analysis Creates graphs and charts which reflect the use of basic algebraic functions and multiple statistical tests Makes clear and meticulous observations	Number of trials or depth of research is thorough Uses basic algebraic functions and a statistical test for data analysis Creates graphs and charts which reflect the use of basic algebraic functions and a statistical test Makes clear observations	Number of trials or depth of research is adequate Uses basic algebraic functions for data analysis Creates graphs and charts which reflect the use of basic algebraic functions Makes adequate observations	Number of trials or depth of research is not adequate Does not use mathematical procedures during data analysis Creates graphs and charts which do not reflect the proper use of mathematical procedures Does not make adequate observations
Analysis of Results	Creatively interprets hypothesis in light of results Poses creative questions to explore further Recognizes the moral, social, aesthetic and/or Environmental implications of the experiment	Thoughtfully interprets hypothesis in light of results Poses thoughtful questions to explore further Recognizes more than one connection of the experiment to a larger context	Adequately interprets hypothesis in light of results Poses adequate questions to explore further Recognizes a connection of the experiment to a larger context	Does not interpret hypothesis as related to results Does not pose questions to explore further Does not recognize a connection of the experiment to a higher context
Presentation	Thoroughly answers questions relevant to the experiment and related topics Makes imaginative use of multimedia to display and represent the experiment (e.g., computer models, poster board, slide show, videos, artwork, music, etc.)	Adequately answers questions relevant to the experiment and related topics Uses multimedia to display and represent the experiment (e.g., computer models, poster board, slide show, videos, artwork, music, etc.)	Adequately answers questions relevant to the experiment Uses one type of media to display and represent the experiment (e.g., computer models, poster board, slide show, videos, artwork, music, etc.)	Does not adequately answer questions relevant to the experiment Does not use multimedia to display and represent the experiment

PERFORMANCE BASED ASSESSMENT TASKS THAT MEET AND EXCEED NYS REGENTS STANDARDS

*Literacy Paper*

TASK: Analytic Paper

Performance Indicators	Outstanding	Good	Competent	Needs Revision
Critical Lens	Efficiently organizes assertions and analysis around a central idea; uses convincing evidence to support the analysis; develops essay coherently and persuasively	Organizes assertions and analysis around a central idea; uses relevant evidence to support the analysis; develops essay coherently	Has central controlling idea; uses relevant evidence throughout the essay; analyzes rather than summarizes	Summarizes or uses faulty analysis; lacks controlling idea; little or no evidence used
Connections	Makes insightful connections between two or more literary works and other issues; historical setting, genre, contemporary concerns	Makes appropriate connections between two or more literary works and other issues; historical settings, genre, contemporary concerns	Makes appropriate connections between two or more literary works	Makes inappropriate or no connection between texts
Literary Technique	Demonstrates sophisticated understanding of complex literary techniques (e.g. irony and allusion)	Demonstrates understanding of a variety of literary techniques (e.g. point of view and metaphor)	Demonstrates understanding of basic literary techniques (e.g. theme and character development)	Demonstrates little understanding of literary techniques
Style	Uses confident writing style: evidence of distinctive student voice; may use literary techniques (e.g. style and metaphor)	Writing is clear and focused; evidence of student voice emerging	Writing communicates ideas clearly	Writing lacks clarity
Conventions	Mechanical errors are rare or non-existent; follows accepted conventions of quotations and citations	Few mechanical errors; follows accepted conventions of quotations and citations	Some mechanical errors but communication is not impaired; demonstrates knowledge of accepted conventions of quotations and citations	Communication is impaired by errors; little or no use of conventions of quotation and citation
External Assessment and Validation	Communicates clear message in appropriate, sophisticated, and original way to audience  Present complex, accurate, substantive information and ideas in an organized way	Communicates clear message in appropriate, and original way to audience  Present substantive accurate information and ideas in organized way	Communicates clear message in appropriate way to audience  Present some substantive, accurate information and ideas in an organized way	Message not clear or appropriate to audience  Does not present accurate or substantive information or ideas not organized

## RESEARCH PAPER: WRITE, REVISE, AND PRESENT AN ORIGINAL RESEARCH PAPER

Performance Indicators	Outstanding	Good	Competent	Needs Revision
Effective and appropriate use of evidence	Detailed evidence drawn mainly from primary sources Evaluation of substantial number of opposing/varied sources Effective analysis of all sources	Some evidence drawn from primary sources Evaluation of some opposing or varied sources	Adequate use of primary sources Adequate use of opposing/varied sources Refers to and analyzes several available sources	Inadequate use/absence of primary sources No variation in types, opinions, or perspectives of resources
Effective organization	Has clearly defined organizing idea, thesis, or question Complex argument clearly presented and supported by specific and relevant evidence Explanation of why opposing arguments are less valid Clear, compelling introduction, and conclusion that effectively synthesizes the strands of its main argument All aspects of the paper support the overall structure Clear, effective transition in which ideas flow logically from each other	Has clearly defined organizing idea, thesis, or questions Clear introduction and well constructed thoughtful conclusion Most aspects of the paper support the overall structure Clear transitions Presentation of clear argument Supported by reasonable evidence Some opposing arguments	Organizing idea may be too broad or ill -defined, but present. Transitions may be abrupt or minimal but reader generally follows argument. Evidence not clearly connected to the organizing idea but the reader is able to make the connection	No stated organizing idea Paper disjointed, unfocused No discernable introduction or conclusion Evidence may be present but does not support any particular idea
Understanding of Connections	Demonstrate relation between main idea and larger context Analysis of issues yield well developed, original ideas and new understanding	Recognizes patterns and can make accurate generalizations Explains and applies the relationship between concepts and issues beyond the work	Ideas are presented clearly and logically Connections to a larger context are not explicit but there are implications that such connections could be made	No connections made to a larger context Shows no understanding of student knowledge or development of new ideas
Strong, well expressed viewpoint (student voice)	Confident writing style: student voice is evident: writes with lively engaging language Paper has a distinct, individual identity	Writing is clear and focused: style is straight-forward but not original Student voice is present but inconsistent	Writing is generally clear	Writing is unclear with no particular style, individuality, or student voice
Conventions	Grammar and punctuation are nearly flawless: appropriate documentation of sources (bibliography and citations) Use quotations and paraphrasing to sustain an argument	Some grammar and punctuation Errors but writing is solid overall: appropriate documentation of sources Uses quotations and paraphrasing to sustain an argument	Some grammar and punctuation errors but does not impact understanding of content Sources are correctly documented though occasional errors in paraphrasing and quotations	Grammar and punctuation errors Interfere with understanding of content Sources used not documented consistently or documented incorrectly
External Assessment and Validation	Communicates clear message in appropriate, sophisticated. And original way to audience Present complex, accurate, substantive information and ideas in organized way Answers questions accurately, thoughtfully, and effectively and makes larger connections	Communicates clear message in appropriate and knowledgeable way to audience Presents substantive, accurate information in an organized way Answers questions accurately, thoughtfully, and effectively	Communicates clear message in appropriate way to audience Presents some substantive, accurate information in an organized way Answers questions accurately and effectively	Message is not clear or appropriate to audience Does not present accurate or substantive information or ideas are not organized Unable to answer questions accurately or effectively

## APPLICATION HIGHEST LEVEL OF MATH ATTAINMENT

Performance Indicators	Outstanding	Good	Competent	Needs Revision
Fluency in basic and advanced skills	Efficiently and effectively carries out advanced and mathematical procedures including several selections from advanced algebra, advanced geometry, calculus, logic probability, statistics, and trigonometry Effectively uses technological aids such as tools for measurement, computers, and calculators	Effectively carries out advanced mathematical procedures including some selections from advanced algebra, advanced geometry, calculus, logic, probability, statistics and trigonometry Effectively uses technological aids such as tools of measurement, computers, and calculators	Carries out advanced mathematical procedures with minor inaccuracies Or Effectively and efficiently carries out basic algebraic and geometric procedures Effectively uses technological aids such as tools of measurement, computers, and calculators	Unable to effectively carry out basic algebraic and geometric procedures Does not use technological aids effectively
Mathematical modeling and data analysis	Explains the context of the problem/ situation being modeled and formulates the problem or task Develops relevant theories and assumptions for each model Develops multiple models using geometric or graphical representations algebraic tools and /or tables and explains the theory behind each model Analyzes each model using clear criteria and modifies accordingly Demonstrates how the model can be applied to make predictions and discusses possible errors	Formulates the problem or task and demonstrates an understanding of the problems States relevant assumptions for each model Designs at least two models using graphical representations, algebraic tools and/or tables, and explains the theory behind each model Analyzes each model and modifies the work accordingly Demonstrates how the model can be applied to make predictions	Formulates the problem or task Develops one reasonable model using graphical representations, algebraic tools and/or tables and explains the mathematics behind each Explains how the model relates to the problem or situation being Demonstrates how the model can be applied to make predictions	Unable to accurately formulate the problem or task Unable to develop reasonable model Does not explain how the model relates to the problem or situation Does not show how the model can be used to make predictions
Problem Solving and Reasoning	Plans, implements and solves non-routine problems through the use of multiple strategies Evaluates solutions critically Shows sophisticated, elegant, and direct mathematical reasoning and draws valid conclusions through analysis Constructs, interprets, and uses one or more generalizations	Plans, implements, and solves non-routine problems through the use of two strategies Evaluates solutions critically Shows substantial mathematical reasoning and draws valid conclusions through analysis Constructs and interprets a generalization	Plans, implements, and solves non-routine problems through the use of one strategy Evaluates solution Uses appropriate mathematical reasoning to draw a valid conclusion Constructs a generalization	Unable to plan and solve non-routine problem Does not evaluate solutions Does not use mathematical reasoning to draw conclusions Does not construct a generalization
Communication	Analyzes methodology Uses mathematical terminology appropriately Clearly communicates process and solution using multiple representations Explains the relationships between multiple representations	Thoroughly reflects on methodology Uses mathematical terminology appropriately Clearly communicates process and solution using multiple representations	Reflects on methodology Uses mathematical terminology appropriately Explains process and solution	Does not reflect on methodology Does not use mathematical terminology appropriately does not explain process and solution
Oral Presentation	Communicates clear message in appropriate ,sophisticated, and original way Presents complex, accurate, substantive information and ideas in an organized way Answers questions thoughtfully and effectively and makes larger connections	Communicates clear message in an appropriate and knowledgeable way to audience Presents substantive, accurate information in an organized way Answers questions accurately and effectively	Communicates a clear message in appropriate way to audience Presents some substantive, accurate information in an organized way Answers questions accurately and effectively	Message is not clear or appropriate to audience Does not present accurate or substantive information or ideas are not organized Unable to answer questions accurately or effectively

Rubrics for the  
Performance- Based  
Assessment Tasks