

PERFORMANCE DESCRIPTORS FOR MASTERY

10TH GRADE ENGLISH LANGUAGE ARTS

Reading:

Performance Descriptors
Mastery
<p>Tenth grade students at mastery level in reading:</p> <p>objectively summarize and cite strong, thorough evidence to support analysis of connections and inferences; how the theme and central ideas emerge, are shaped and are refined by the order in which points are made; how complex characters are developed and interact with other characters to advance the plot or develop the theme in literary and informational texts;</p> <p>read and analyze cumulative impact of how author's ideas or claims are developed and refined by particular sentences, paragraphs or larger portions of text, how word choice affects meaning and tone and how rhetoric, structure order of events, point of view and cultural experience are used to create various effects in literary and informational texts;</p> <p>analyze and defend the representation of literary and informational text in two different artistic mediums, determining which details are emphasized in each account; analyze how an author draws on and transforms source material in literary work; evaluate specific claims and assess validity, relevancy and sufficiency of evidence in informational texts; analyze seminal U.S. documents of historical and literary significance;</p> <p>read and comprehend literary and informational texts in the grades 9-10 text complexity band independently and proficiently.</p>

Writing:

Performance Descriptors
Mastery
<p>Tenth grade students at mastery level in writing:</p> <p>compose logical arguments and informative/explanatory texts in a tone that conveys ideas clearly and shows clear relationships among claims, counterclaims, reasons and relevant evidence; write narratives that include well-chosen details to outline a problem, situation or observation; and establish one or more points of view while creating a smooth well-structured progression of experiences or events using a variety of words to link sections of the text;</p> <p>use technology to develop and strengthen writing by rewriting and trying new approaches; publish and update individual and shared projects using technology's capacity to link to other information and to display information flexibly and dynamically in response to ongoing feedback;</p> <p>effectively use advanced searches and narrow or broaden inquiry to conduct short as well as more sustained research projects or to solve a problem; explore multiple avenues, including informational and literary texts to support a research topic, analysis and reflection; assess the authority and synthesize multiple print and digital sources in terms of task, purpose and audience; integrate information into the text selectively to maintain the flow of ideas; avoid plagiarism; and use standard citation;</p> <p>write over extended time frames for research-based projects and shorter time frames for specific tasks, purposes and audiences.</p>

Speaking and Listening:

Performance Descriptors
Mastery
<p>Tenth grade students at mastery level in speaking and listening:</p> <p>initiate and participate in collaborative discussions on topics, texts and issues, building on the ideas of others; set deadlines; stimulate thoughtful exchange of ideas by posing and responding to questions from diverse perspectives; integrate multiple sources of information and verify or challenge ideas or conclusions in order to make decisions and solve problems; evaluate a speaker's reasoning; qualify or justify their own views and make new connections based on the evidence and reasoning presented;</p> <p>present information, findings and supporting evidence conveying clear and distinct perspective with substance and style appropriate to purpose, audience and task so listeners can follow the line of reasoning; make strategic use of digital media to enhance reasoning, understanding and interest; and adapt speech to a variety of contexts and tasks.</p>

Language:

Performance Descriptors
Mastery
<p>Tenth grade students at mastery level in language:</p> <p>use colons to introduce quotations, semi-colons and parallel structure; incorporate a variety of phrases and clauses for sentence variety and interest;</p> <p>apply knowledge of language to write and edit work appropriate for the discipline and writing type, understand how language functions in different contexts to make effective choices for meaning or style; conform to the guidelines of a style manual;</p> <p>clarify etymology and interpret figures of speech such as euphemism and oxymoron in context and analyze their roles in the text independently and proficiently.</p>

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10TH GRADE MATHEMATICS

Quadratic Functions and Modeling:

Performance Descriptors
Mastery
<p>Mathematics II students at the mastery level in mathematics:</p> <p>sketch and interpret features of graphs and tables representing quantitative relationships;</p> <p>analyze various representations of functions to compare and contrast relationships between two functions;</p> <p>write a function describing the relationship between two quantities;</p> <p>determine the inverse of a function and the effect of various transformations of a function;</p> <p>construct models to demonstrate that a quantity increasing exponentially eventually exceeds any quantity increasing as a polynomial function.</p>

Circles with and without Coordinates:

Performance Descriptors
Mastery
<p>Mathematics II students at the mastery level in mathematics:</p> <p>use definitions and theorems to prove properties of circles and identify and describe relationships between and among components of circles;</p> <p>derive the relationship of the length of the arc intercepted by an angle to the radius and the formula for the area of a sector;</p> <p>derive the equations given specific components of the circle and parabola (other conics are addressed in future math classes);</p> <p>use coordinates to prove simple geometric theorems algebraically;</p> <p>construct informal arguments for formulas relating to circles, cylinders, pyramids and cones and solve problems.</p>

Mathematical Practices:

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Similarity, Right Triangle Trigonometry, and Proof:

Performance Descriptors
Mastery
<p>Mathematics II students at the mastery level in mathematics:</p> <p>verify properties of dilations and use transformations to conjecture, develop and explain properties of similar triangles;</p> <p>understand and use stated assumptions, definitions, and previously established results in proving geometric theorems;</p> <p>understand and use stated assumptions, definitions, and previously established results in proving geometric theorems involving similarity in proving relationships in geometric figures;</p> <p>determine the point on segment that partitions the segment in a given ratio;</p> <p>solve for missing parts of right triangles;</p> <p>prove the Pythagorean Identity and use it to determine values of other trigonometric functions.</p>

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Expressions and Equations:

Performance Descriptors
Mastery
<p>Mathematics II students at the mastery level in mathematics:</p> <p>deconstruct, identify and interpret parts of an algebraic expression in order to rewrite the expression;</p> <p>produce equivalent forms of quadratic expressions in order to identify and make sense of expression properties;</p> <p>create equations and inequalities to solve problems and to represent relationships between quantities;</p> <p>plan, develop and apply a solution pathway to quadratic equations that may have complex solutions;</p> <p>demonstrate that polynomial identities extend analogously to include the complex number system;</p> <p>solve special systems of equations in two variables.</p>

Applications of Probability:

Performance Descriptors
Mastery
<p>Mathematics II students at the mastery level in mathematics:</p> <p>analyze sets of data to draw conclusions about the probability type indicated;</p> <p>apply the rules of probability to compute probability for compound events;</p> <p>analyze situations and use knowledge of probability to make fair decisions.</p>

Text-dependent Questions:

- Can only be answered with evidence from the text.
- Can be literal (checking for understanding) but must also involve analysis, synthesis, evaluation.
- Focus on word, sentence, and paragraph, as well as larger ideas, themes, or events.
- Focus on difficult portions of text in order to enhance reading proficiency.
- Can also include prompts for writing and discussion questions.

Literacy Shifts in Mathematics:

1. Focus: Focus strongly where the Standards focus.
2. Coherence: Think across grades, and link to major topics within grades.
3. Rigor: In major topics pursue conceptual understanding, procedural skill and fluency, and application with equal intensity.

Literacy Shifts in All Content Areas:

1. Regular practice with complex text and its academic language.
2. Reading, writing and speaking grounded in evidence from text, both literary and informational.
3. Building knowledge through content-rich nonfiction.