Appendix B

Performance Level Descriptors

Performance Level Descriptors for ELA and Mathematics

MSAA developed Performance Level Descriptors (PLDs) for mathematics and English language arts (ELA) at grades 3-8 and 11 through an iterative process involving multiple stakeholder groups. The MSAA partnership developed grade-level PLDs to summarize the knowledge, skills, and abilities (KSAs) prioritized for the MSAA that students need to attain at each level of achievement (Level 1- Level 4). Each performance level is understood to include the knowledge, skills and abilities of the preceding performance levels

The performance descriptors included in Appendix B provide a detailed description for teachers, parents, and the public to see not only what grade-level content a student should know and be able to do in order to meet high expectations, but also the depth, breadth, and complexity of that content.

By using the PLDs, test results become multi-dimensional. Test results in the form of scale scores are one way educators, parents, and guardians find out where a student's performance is in relation to other students. The PLDs provide another dimension that completes the description of how a student interacts with the standards the test measures. Both of the scale score and the PLDs provide information that help teachers, schools, parents and guardians build a path to student learning.

Grade 3 ELA Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low text complexity -	Low text complexity -	Moderate text complexity -	High text complexity -
Brief text with straightforward ideas	Brief text with straightforward ideas and relationships; short,	Text with clear, complex ideas and relationships and simple;	Text with detailed and implied
and relationships; short, simple	simple sentences.	compound sentences.	complex ideas and
sentences.			relationships; a variety of
			sentence types including
			phrases and transition words.
In reading, he/she is able to:	In reading, he/she is able to:	In reading, he/she is able to:	In reading, he/she is able to:
identify the topic of a literary	determine the central idea and supporting details in literary	determine the central idea and supporting details in	determine the central idea
text	text	literary text	and supporting details in
identify a detail from a literary	determine the main idea and identify supporting details in	determine the main idea and identify supporting details in	literary text
text	informational text	informational text	determine the main idea
identify a character or setting in	determine the main idea of visually presented information	determine the main idea of visually presented information	and identify supporting
a literary text	• identify the purpose of text features in informational text	identify the purpose of text features in informational text	details in informational text
 identify the topic of an informational text 	use information from charts, graphs, diagrams, or timelines in informational toxt to answer questions.	 use information from charts, graphs, diagrams, or timelines in informational text to answer questions 	 determine the main idea of visually presented
identify a title, caption, or	informational text to answer questions	·	information
heading in an informational text	 use context to identify the meaning of multiple meaning words 	 use context to identify the meaning of multiple meaning words 	 identify the purpose of text
• identify an illustration related to	AND with Moderate text complexity -	AND with High text complexity -	features in informational
a given topic	Text with clear, complex ideas and relationships and simple;	Text with detailed and implied complex ideas and	text
 identify a topic presented by an 	compound sentences.	relationships; a variety of sentence types including phrases and	use information from
illustration	compound serices.	transition words.	charts, graphs, diagrams, or
 identify the meaning of words 	use details from a literary text to answer specific questions	use details from a literary text to answer specific questions	timelines in informational
(i.e., nouns)	 describe the relationship between characters, and character 	describe the relationship between characters, and	text to answer questions
	and setting in literary text	character and setting in literary text	 use context to identify the
	AND with accuracy, he/she is able to:	AND with accuracy, he/she is able to:	meaning of multiple
	identify simple words (i.e., words with a consonant at the	identify grade level words	meaning words
	beginning, a consonant at the end, and a short vowel in the	, 8,	
	middle)		
AND in writing, he/she is able to:	AND in writing, he/she is able to:	AND in writing, he/she is able to:	
• identify a statement related to	identify elements of a narrative text to include beginning,	• identify a text feature (e.g., captions, graphs or diagrams)	
an everyday topic	middle, and end	to present information in explanatory text	
	identify the category related to a set of facts		

Level 1	Level 2	Level 3	Level 4
Low text complexity - Brief text with straightforward ideas and relationships; short, simple sentences.	Low text complexity - Brief text with straightforward ideas and relationships; short, simple sentences.	Moderate text complexity - Text with clear, complex ideas and relationships and simple; compound sentences.	High text complexity - Text with detailed and implied complex ideas and relationships; a variety of sentence types including phrases and transition words.
 In reading, he/she is able to: identify a topic of a literary text identify a detail from a literary text identify a character in a literary text identify charts, graphs, diagrams, or timelines in an informational text identify a topic of an informational text use context to identify the meaning of multiple meaning words identify general academic words 	 In reading, he/she is able to: determine the theme of literary text and identify supportive details describe character traits using text-based details in literary text determine the main idea of informational text locate information in charts, graphs, diagrams, or timelines use information from charts, graphs, diagrams, or timelines in informational text to answer questions use general academic words AND with Moderate text complexity - Text with clear, complex ideas and relationships and simple; compound sentences. use details from a literary text to answer specific questions use context to identify the meaning of multiple meaning words 	 In reading, he/she is able to: determine the theme of literary text and identify supportive details determine the main idea of informational text explain how the information provided in charts, graphs, diagrams, or timelines contributes to an understanding of informational text use information from charts, graphs, diagrams, or timelines in informational text to answer questions use general academic words AND with High text complexity - Text with detailed and implied complex ideas and relationships; a variety of sentence types including phrases and transition words. use details from a literary text to answer specific questions describe character traits using text-based details in literary text use context to identify the meaning of multiple meaning 	In reading, he/she is able to: determine the theme of literary text and identify supportive details determine the main idea of informational text explain how the information provided in charts, graphs, diagrams, or timelines contributes to an understanding of informational text use information from charts, graphs, diagrams, or timelines in informational text to answer questions use general academic words
 AND in writing, he/she is able to: identify the concluding sentence in a short explanatory text 	 AND with accuracy, he/she is able to: identify simple words (i.e., words with a consonant at the beginning, a consonant at the end, and a short vowel in the middle) AND in writing, he/she is able to: identify elements of a narrative text to include beginning, middle, and end identify a concluding sentence related to information in explanatory text 	AND with accuracy, he/she is able to: • identify grade level words AND in writing, he/she is able to: • identify a text feature (e.g., headings, charts, or diagrams) to present information in explanatory text	

Grade 5 ELA Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low text complexity -	Low text complexity -	Moderate text complexity -	High text complexity -
Brief text with straightforward ideas and	Brief text with straightforward ideas and	Text with clear, complex ideas and	Text with detailed and implied complex ideas
relationships; short, simple sentences.	relationships; short, simple sentences.	relationships and simple; compound sentences.	and relationships; a variety of sentence types
		_	including phrases and transition words.
In reading, he/she is able to:	In reading, he/she is able to:	In reading, he/she is able to:	In reading, he/she is able to:
identify an event from the beginning of a	compare characters, settings, and events	compare characters, settings, and events	compare characters, settings, and events
literary text	in literary text	in literary text	in literary text
identify a detail from a literary text	determine the main idea and identify	determine the main idea and identify	determine the main idea and identify
identify a character, setting and event in a	supporting details in informational text	supporting details in informational text	supporting details in informational text
literary text	use details from the text to support an author's point in informational text.	 use details from the text to support an author's point in informational text 	 use details from the text to support an author's point in informational text
• identify the topic of an informational text	author's point in informational textcompare and contrast how information	compare and contrast how information	compare and contrast how information
 identify the main idea of an informational text 	and events are presented in two	and events are presented in two	and events are presented in two
 identify the difference in how information 	informational texts	informational texts	informational texts
is presented in two sentences	use context to identify the meaning of	 use context to identify the meaning of 	use context to identify the meaning of
is presented in two sentences	multiple meaning words	multiple meaning words	multiple meaning words
	AND with Moderate text complexity -	AND with High text complexity -	6 1 11
	Text with clear, complex ideas and	Text with detailed and implied complex ideas	
	relationships and simple; compound sentences.	and relationships; a variety of sentence types	
		including phrases and transition words.	
	summarize a literary text from beginning	summarize a literary text from beginning	
	to end	to end	
	use details from a literary text to answer	use details from a literary text to answer	
	specific questions	specific questions	
AND in writing, he/she is able to:	AND in writing, he/she is able to:	AND in writing, he/she is able to:	
identify the category related to a set of	identify elements of a narrative text to	support an explanatory text topic with	
common nouns	include beginning, middle, and end	relevant information	
	identify a sentence that is organized for a		
	text structure such as		
	comparison/contrast		

Grade 6 ELA Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low text complexity -	Low text complexity -	Moderate text complexity -	High text complexity -
Brief text with straightforward ideas and	Brief text with straightforward ideas and	Text with clear, complex ideas and	Text with detailed and implied complex ideas
relationships; short, simple sentences.	relationships; short, simple sentences.	relationships and simple; compound	and relationships; a variety of sentence types
		sentences.	including phrases and transition words.
 In reading, he/she is able to: identify an event from the beginning or end of a literary text identify a detail from a literary text identify a character in a literary text identify the topic of an informational text identify the main idea of an informational text identify a fact from an informational text identify a description of an individual or event in an informational text 	 In reading, he/she is able to: summarize a literary text from beginning to end without including personal opinions support inferences about characters using details in literary text use details from the text to elaborate a key idea in informational text 	 In reading, he/she is able to: summarize a literary text from beginning to end without including personal opinions support inferences about characters using details in literary text summarize an informational text without including personal opinions use details from the text to elaborate a key idea in informational text use evidence from the text to support an author's claim in informational text 	 In reading, he/she is able to: summarize a literary text from beginning to end without including personal opinions use details from a literary text to answer specific questions support inferences about characters using details in literary text use details from the text to elaborate a key idea in an informational text use evidence from the text to support an author's claim in informational text
 use context to identify the meaning of multiple meaning words identify the meaning of general academic words 	AND with Moderate text complexity - Text with clear, complex ideas and	 summarize information presented in two informational texts use domain specific words accurately AND with High text complexity - Text with detailed and implied complex ideas 	use domain specific words accurately
	relationships and simple; compound sentences.	and relationships; a variety of sentence types including phrases and transition words.	
	 use details from a literary text to answer specific questions use context to identify the meaning of multiple meaning words 	 use details from a literary text to answer specific questions use context to identify the meaning of multiple meaning words 	
AND in writing, he/she is able to:	AND in writing, he/she is able to:	AND in writing, he/she is able to:	
identify an everyday order of events	 identify elements of an explanatory text to include introduction, body, and conclusion identify the next event in a brief narrative 	 identify transition words and phrases to convey a sequence of events in narrative text 	

Grade 7 ELA Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low text complexity - Brief text with straightforward ideas and relationships; short, simple sentences.	Low text complexity - Brief text with straightforward ideas and relationships; short, simple sentences.	Moderate text complexity - Text with clear, complex ideas and relationships and simple; compound sentences.	High text complexity - Text with detailed and implied complex ideas and relationships; a variety of sentence types including phrases and transition words.
 In reading, he/she is able to: identify a theme from a literary text identify an inference from a literary text identify a conclusion from an informational text identify a claim the author makes in an informational text compare and contrast two statements related to the same topic use context to identify the meaning of words 	 In reading, he/she is able to: identify the relationship between individuals or events in an informational text use evidence from the text to support an author's claim in informational text in informational text 	 In reading, he/she is able to: use details to support a conclusion from informational text use details to explain how the interactions between individuals, events or ideas in informational texts are influenced by each other use evidence from the text to support an author's claim in informational text compare and contrast how two authors write about the same topic in informational texts use context to identify the meaning of grade-level phrases 	 In reading, he/she is able to: use details to support a conclusion from informational text use details to explain how the interactions between individuals, events or ideas in informational texts are influenced by each other use evidence from the text to support an author's claim in informational text compare and contrast how two authors write about the same topic in informational texts use context to identify the meaning of grade-level phrases
	AND with Moderate text complexity - Text with clear, complex ideas and relationships and simple; compound sentences. use details to support themes from literary text use details to support inferences from literary text	AND with High text complexity - Text with detailed and implied complex ideas and relationships; a variety of sentence types including phrases and transition words. use details to support themes from literary text use details to support inferences from literary text	
 AND in writing, he/she is able to: identify a graphic that includes an event as described in a text 	 AND in writing, he/she is able to: identify elements of an explanatory text to include introduction, body, and conclusion identify the next event in a brief narrative 	 AND in writing, he/she is able to: identify a sentence that provides a conclusion in narrative text 	

Grade 8 ELA Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low text complexity -	Low text complexity -	Moderate text complexity -	High text complexity -
Brief text with straightforward ideas and	Brief text with straightforward ideas and	Text with clear, complex ideas and	Text with detailed and implied complex ideas
relationships; short, simple sentences.	relationships; short, simple sentences.	relationships and simple; compound	and relationships; a variety of sentence types
		sentences.	including phrases and transition words.
In reading, he/she is able to:	In reading, he/she is able to:	In reading, he/she is able to:	In reading, he/she is able to:
 identify a theme from a literary text 	use details to support a conclusion from	use details to support a conclusion from	use details to support a conclusion from
identify an inference from a literary text	literary text	literary text	literary text
 identify a fact related to a presented 	identify an inference drawn from an	use details to support an inference from	use details to support an inference from
argument in informational text	informational text	informational text	informational text
identify a similar topic in two	• identify the portion of text which contains	identify the information (e.g., facts or	identify the information (e.g., facts or
informational texts	specific information	quotes) in a section of text that	quotes) in a section of text that
use context to identify the meaning of worlding meaning worlds	identify an argument the author makes in informational text	contributes to the development of an idea	contributes to the development of an idea identify an argument the author makes in
multiple meaning words	examine parts of two informational texts	 identify an argument the author makes in informational text 	identify an argument the author makes in informational text
 identify the meaning of general academic words 	to identify where the texts disagree on	examine parts of two informational texts	examine parts of two informational texts
words	matters of fact or interpretation	to identify where the texts disagree on	to identify where the texts disagree on
	 use domain specific words or phrases 	matters of fact or interpretation	matters of fact or interpretation
	accurately	 use domain specific words and phrases 	 use domain specific words and phrases
		accurately	accurately
	AND with Moderate text complexity -	AND with High text complexity -	,
	Text with clear, complex ideas and	Text with detailed and implied complex ideas	
	relationships and simple; compound	and relationships; a variety of sentence types	
	sentences.	including phrases and transition words.	
	analyze the development of a theme	analyze the development of a theme	
	including the relationship between a	including the relationship between a	
	character and an event in literary text	character and an event in literary text	
	use context to identify the meaning of	use context to identify the meaning of	
	grade-level words and phrases	grade-level words and phrases	
AND in writing, he/she is able to:	AND in writing, he/she is able to:	AND in writing, he/she is able to:	
identify a writer's opinion	identify elements of an explanatory text to	identify relevant information to support a	
	include introduction, body, and conclusion	claim	
	identify an idea relevant to a claim		

Grade 11 ELA Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low text complexity -	Low text complexity -	Moderate text complexity -	High text complexity -
Brief text with straightforward ideas and	Brief text with straightforward ideas and	Text with clear, complex ideas and	Text with detailed and implied complex ideas
relationships; short, simple sentences.	relationships; short, simple sentences.	relationships and simple; compound	and relationships; a variety of sentence types
		sentences.	including phrases and transition words.
In reading, he/she is able to:	In reading, he/she is able to:	In reading, he/she is able to:	In reading, he/she is able to:
identify a summary of a literary text	use details to support a summary of	use details to support a summary of	use details to support a summary of
identify an event from a literary text	literary text	literary text	literary text
identify the central idea of an	identify a conclusion from an	use details to support a conclusion	use details to support a conclusion
informational text	informational text	presented in informational text	presented in informational text
identify facts from an informational text	identify key details that support the	identify key details that support the	identify key details that support the
identify what an author tells about a topic in informational test.	development of a central idea of an informational text	development of a central idea of an informational text	development of a central idea of an informational text
in informational text	use details presented in two informational	use details presented in two informational	 use details presented in two informational
 use context to identify the meaning of multiple meaning words 	texts to answer a question	texts to answer a question	texts to answer a question
 identify a word used to describe a person, 	explain why an author uses specific word	explain why an author uses specific word	explain why an author uses specific word
place, thing, action or event	choices within texts	choices within texts	choices within texts
place, thing, action of event	AND with Moderate text complexity -	AND with High text complexity -	5.15.1555 11.11.11.1
	Text with clear, complex ideas and	Text with detailed and implied complex ideas	
	relationships and simple; compound	and relationships; a variety of sentence types	
	sentences.	including phrases and transition words.	
	evaluate how the author's use of specific	evaluate how the author's use of specific	
	details in literary text contributes to the	details in literary text contributes to the	
	text	text	
	determine an author's point of view about	determine an author's point of view about	
	a topic in informational text	a topic in informational text	
	use context to identify the meaning of	use context to identify the meaning of	
	grade-level phrases	grade-level phrases	
AND in writing, he/she is able to:	AND in writing, he/she is able to:	AND in writing, he/she is able to:	
• identify information which is unrelated to	identify elements of an argument to	identify relevant information to address a	
a given topic	include introduction, claim, evidence, and	given topic and support the purpose of a	
	conclusion	text	
	identify how to group information for a		
	specific text structure		

Grade 3 Mathematics Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low task complexity - Simple problems using common mathematical terms and symbols He/she is able to:	Low task complexity - Simple problems using common mathematical terms and symbols He/she is able to:	Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols He/she is able to:	High task complexity - Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements He/she is able to:
 solve addition problems identify growing number patterns identify an object showing a specified number of parts shaded identify which object has the greater number of parts shaded identify an object equally divided in two parts identify the number of objects to be represented in a pictograph 	 solve addition and subtraction word problems identify an arrangement of objects which represents factors in a problem solve multiplication equations in which both numbers are equal to or less than five identify multiplication patterns identify a set of objects as nearer to 1 or 10 identify a representation of the area of a rectangle 	 solve addition and subtraction word problems check the correctness of an answer in the context of a scenario solve multiplication equations in which both numbers are equal to or less than five identify multiplication patterns match fraction models to unitary fractions compare fractions with different numerators and the same denominator transfer data from an organized list to a bar graph 	 solve addition and subtraction word problems check the correctness of an answer in the context of a scenario solve multiplication equations in which both numbers are equal to or less than five identify multiplication patterns match fraction models to unitary fractions compare fractions with different numerators and the same denominator transfer data from an organized list to a bar graph
	AND with Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • identify geometric figures which are divided into equal parts	AND with High task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • round numbers to nearest 10 • identify geometric figures which are divided into equal parts • count unit squares to compute the area of a rectangle	

Grade 4 Mathematics Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low task complexity - Simple problems using common mathematical terms and symbols He/she is able to:	Low task complexity - Simple problems using common mathematical terms and symbols He/she is able to:	Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols He/she is able to:	High task complexity - Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements He/she is able to:
 identify an array with the same number of objects in each row identify values rounded to nearest tens place identify equivalent representations of a fraction (e.g., shaded diagram) compare representations of a fraction (e.g., shaded diagram) identify a rectangle with the larger or smaller perimeter identify a given attribute of a shape identify the data drawn in a bar 	 match a model to an multiplication expression using two single digit numbers identify a model of a multiplicative comparison show division of objects into equal groups round numbers to nearest 10, 100 or 1000 differentiate parts and wholes compute the perimeter of a rectangle 	 solve multiplication word problems show division of objects into equal groups round numbers to nearest 10, 100, or 1000 compare two fractions with different denominators sort a set of 2-dimensional shapes compute the perimeter of a rectangle transfer data to a graph 	 solve multiplication word problems show division of objects into equal groups round numbers to nearest 10, 100 or 1000 compare two fractions with different denominators sort a set of 2-dimensional shapes compute the perimeter of a rectangle transfer data to a graph
graph that represents the greatest value	AND with Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols identify equivalent fractions select a 2-dimensional shape with a given attribute	AND with High task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • solve a multiplicative comparison word problem using up to two- digit numbers • check the correctness of an answer in the context of a scenario • identify equivalent fractions	

Grade 5 Mathematics Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low task complexity - Simple problems using common mathematical terms and symbols He/she is able to:	Low task complexity - Simple problems using common mathematical terms and symbols He/she is able to:	Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols He/she is able to:	High task complexity - Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements He/she is able to:
 solve one-step subtraction word problems divide sets (no greater than 6) into two equal parts identify values in the tenths place identify a number in the ones, tens or hundreds place identify a given axis of a coordinate plan match the conversion of 3 feet to 1 yard to a model calculate elapsed time (i.e., hours) identify whether the values increase or decrease in a line graph 	 identify if the total will increase or decrease when combining sets perform operations with decimals identify a symbolic representation of the addition of two fractions identify place values to the hundredths place convert standard measurements 	 solve multiplication and division word problems perform operations with decimals solve word problems involving fractions identify place values to the hundredths place locate a given point on a coordinate plane when given an ordered pair convert standard measurements convert between minutes and hours make quantitative comparisons between data sets shown as line graphs 	 solve multiplication and division word problems perform operations with decimals solve word problems involving fractions identify place values to the hundredths place locate a given point on a coordinate plane when given an ordered pair convert standard measurements convert between minutes and hours make quantitative comparisons between data sets shown as line graphs
	AND with Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • compare the values of two products based upon multipliers • round decimals to nearest whole number	AND with High task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • compare the values of two products based upon multipliers • round decimals to nearest whole number	

Grade 6 Mathematics Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low task complexity - Simple problems using common mathematical terms and symbols He/she is able to:	Low task complexity - Simple problems using common mathematical terms and symbols He/she is able to:	Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols He/she is able to:	High task complexity - Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements He/she is able to:
 identify a model of a given percent match a given unit rate to a model identify a representation of two equal sets identify a number less than zero on a number line identify the meaning of an unknown in a modeled equation count the number of grids or tiles inside a rectangle to find the area of a rectangle identify the object that appears most frequently in a set of data (mode) 	 match a given ratio to a model recognize a representation of the sum of two halves solve real world measurement problems involving unit rates identify a representation of a value less than zero identify the median or the equation needed to determine the mean of a set of data 	 perform operations using up to three-digit numbers solve real world measurement problems involving unit rates identify positive and negative values on a number line determine the meaning of a value from a set of positive and negative integers solve word problems with expressions including variables compute the area of a parallelogram identify the median or the equation needed to determine the mean of a set of data 	 solve real world measurement problems involving unit rates identify positive and negative values on a number line solve word problems with expressions including variables compute the area of a parallelogram identify the median or the equation needed to determine the mean of a set of data
identify a representation of a set of data arranged into even groups (mean)	AND with Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • perform one-step operations with two decimal numbers • solve word problems using a percent	AND with High task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • perform one-step operations with two decimal numbers • solve word problems using a percent • solve word problems using ratios and rates	

Grade 7 Mathematics Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low task complexity - Simple problems using common mathematical terms and symbols	Low task complexity - Simple problems using common mathematical terms and symbols	Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols	High task complexity - Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements
 He/she is able to: identify a representation which represents a negative number and its multiplication or division by a positive number identify representations of area and circumference of a circle identify representations of surface area make qualitative comparisons when interpreting a data set presented on a bar graph or in a table 	 He/she is able to: match a given ratio to a model identify the meaning of an unknown in a modeled equation describe a directly proportional relationship (i.e., increases or decreases) find the surface area of three-dimensional right prism 	 He/she is able to: solve division problems with positive/negative whole numbers solve word problems involving ratios use a proportional relationship to solve a percentage problem identify proportional relationships between quantities represented in a table identify unit rate (constant of proportionality) in tables and graphs of proportional relationships compute the area of a circle find the surface area of a three-dimensional right prism 	 He/she is able to: solve division problems with positive/negative whole numbers solve word problems involving ratios identify proportional relationships between quantities represented in a table compute the area of a circle find the surface area of a three-dimensional right prism
	AND with Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • solve multiplication problems with positive/negative whole numbers • interpret graphs to qualitatively contrast data sets	AND with High task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • solve multiplication problems with positive/negative whole numbers • evaluate variable expressions that represent word problems • interpret graphs to qualitatively contrast data sets	

Grade 8 Mathematics Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low task complexity - Simple problems using common mathematical terms and symbols	Low task complexity - Simple problems using common mathematical terms and symbols	Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols	High task complexity - Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements
 He/she is able to: locate a given decimal number on a number line identify the relatively larger data set when given two data sets presented in a graph identify congruent rectangles identify similar rectangles identify an attribute of a cylinder identify a rectangle with the larger or smaller area as compared to another rectangle identify an ordered pair and its point on a graph 	 He/she is able to: identify the solution to an equation which contains a variable identify the y-intercept of a linear graph match a given relationship between two variables to a model identify a data display that represents a given situation interpret data presented in graphs to identify associations between variables AND with Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols identify congruent figures use properties of similarity to identify similar figures interpret data tables to identify the relationship between variables 	 He/she is able to: locate approximate placement of an irrational number on a number line solve a linear equation which contains a variable identify the relationship shown on a linear graph calculate slope of a positive linear graph compute the change in area of a figure when its dimensions are changed solve for the volume of a cylinder plot provided data on a graph AND with High task complexity - Common problems presented in mathematical context using various mathematical terms and symbols interpret data presented in graphs to identify associations between variables interpret data tables to identify the relationship between variables use properties of similarity to identify similar figures identify congruent figures 	 He/she is able to: locate approximate placement of an irrational number on a number line solve a linear equation which contains a variable identify the relationship shown on a linear graph compute the change in area of a figure when its dimensions are changed plot provided data on a graph

Grade 11 Mathematics Performance Level Descriptors

Level 1	Level 2	Level 3	Level 4
Low task complexity - Simple problems using common mathematical terms and symbols He/she is able to:	Low task complexity - Simple problems using common mathematical terms and symbols He/she is able to:	Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols He/she is able to:	High task complexity - Multiple mathematical ideas presented in problems using various mathematical terms and symbolic representations of numbers, variables, and other item elements He/she is able to:
 He/she is able to: arrange a given number of objects into two sets in multiple combinations match an equation with a variable to a provided real world situation determine whether a given point is or is not part of a data set shown on a graph identify an extension of a linear graph use a table to match a unit conversion complete the formula for area of a figure 	 identify the model that represents a square number identify variable expressions which represent word problems identify the hypotenuse of a right triangle identify the greatest or least value in a set of data shown on a number line identify the missing label on a histogram calculate the mean and median of a set of data 	 compute the value of an expression that includes an exponent identify variable expressions which represent word problems solve real world measurement problems that require unit conversions find the missing attribute of a three-dimensional figure determine two similar right triangles when a scale factor is given make predictions from data tables and graphs to solve problems plot data on a histogram calculate the mean and median of a set of data 	 identify variable expressions which represent word problems solve real world measurement problems that require unit conversions determine two similar right triangles when a scale factor is given make predictions from data tables and graphs to solve problems plot data on a histogram calculate the mean and median of a set of data
	AND with Moderate task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • identify the linear representation of a provided real world situation • use an equation or a linear graphical representation to solve a word problem	AND with High task complexity - Common problems presented in mathematical context using various mathematical terms and symbols • identify the linear representation of a provided real world situation • use an equation or a linear graphical representation to solve a word problem • identify a histogram which represents a provided data set	