I AM Performance Level Descriptors (PLDs)
Grade 7 Mathematics

	Content Connector	Below Proficiency	Approaching Proficiency	At Proficiency
Algebra and Functions				
MA.7.AF.1.a.1	Use properties of operations to produce equivalent linear expressions.	Identifies a linear expression.	Identifies the properties of operations to produce equivalent linear expressions.	Uses properties of operations to produce equivalent liner expressions.
MA.7.AF.2.a.1	Solve equations with up to two steps based on real-world problems.	Sets up an equation based on real-world problems.	Solves a step of a two step equation based on real-world problems.	Solves equations with up to two steps based on real-world problems.
MA.7.AF.2.a.2	Use variables to represent quantities in a real-world or mathematical problem to solve linear equations.	Uses variables to represent quantities.	Uses variables to solve mathematical problems.	Uses variables to represent quantities in a real-world or mathematical problem to solve linear equations.
MA.7.AF.3.a.1	Solve inequalities with up to two variables based on real-world problems.	Identifies a step of a two step inequality in a real-world problem.	Solves a step of a two step inequality based on real-world problems.	Solves inequalities with up to two steps based on real-world problems.
MA.7.AF.3.a.2	Use variables to represent quantities in a real-world or mathematical problem to solve linear inequalities.	Identifies variables in a mathematical problem.	Uses variables to represent mathematical problems to solve linear inequalities.	Uses variables to represent quantities in a real-world or mathematical problem to solve linear inequalities.
MA.7.AF.3.a.3	Determine the graph of an inequality.	Identifies the graph of a simple inequality on a numberline.	Identifies the graph of an inequality on coordinate plane.	Determines the graph of an inequality.
MA.7.AF.4.a.1	Relate slope to rate of change between two variables.	Identifies the slope of a given graph.	Identifies the rate of change between two variables.	Relates slope to rate of change between two variables.

I AM Performance Level Descriptors (PLDs)
Grade 7 Mathematics

	Content Connector	Below Proficiency	Approaching Proficiency	At Proficiency
MA.7.AF.4.a.2	Using real-world examples, recognize the graph that shows the correct slope between two variables.	Recognizes a slope between two variables on a given graph.	Recognizes the graph that shows the correct slope between two variables when given variables of real-world examples.	Uses real-world examples, recognize the graph that shows the correct slope between two variables.
MA.7.AF.5.a.1	Graph a line using slope and a point on the line.	Plots the coordinate point on a graph.	Plots a point and attempt to apply the slope.	Graphs a line using slope and a point on the line.
MA.7.AF.5.a.2	Understand how to calculate the slope of a line.	Understands how to count the rise and/or run.	Understands how to count the rise and/or run and write as a ratio.	Understands how to calculate the slope of a line.
MA.7.AF.6.a.1	Identify if the relationship is proportional between two quantities in a table.	Identifies two quantities in a table.	Identifies if the relationship is proportions of 2 or 10 between two quantities in a given table.	Identifies if the relationship is proportional between two quantities in a table.
MA.7.AF.6.a.2	Determine if two quantities are in a proportional relationship using points graphed on a coordinate plane.	Identifies two coordinates.	Identifies if two quantities are in a proportional relationship using points graphed on a coordinate plane when one of those points is the origin.	Determines if two quantities are in a proportional relationship using points graphed on a coordinate plane.
MA.7.AF.7.a.1	Given a table or a graph of a line, identify the unit rate.	Recognizes the unit rate when given a table.	Identifies the unit rate when given a table.	When given a table or graph line, students can identify the unit rate.
MA.7.AF.8.a.1	Given a proportional relationship, explain the meaning of the coordinates on the graph.	Understands the meaning of the coordinate (0,0).	Identifies the missing coordinate when given an *x*- or *y*-coordinate.	Explains the meaning of the coordinates on the graph when given a proportional relationship.
MA.7.AF.9.a.1	Represent proportional relationships as an equation and as a graph.	Recognizes a relationship as a graph.	Represents the proportional relationship as a graph.	Represents the proportional relationship as an equation and as a graph.

I AM Performance Level Descriptors (PLDs)
Grade 7 Mathematics

	Content Connector	Below Proficiency	Approaching Proficiency	At Proficiency
Data Analysis, Statistics and Probability				
MA.7.DSP.1.a.1	Determine sample size to answer a given question.	Identifies an appropriate sample size.	Determines a sample size to answer a simple question.	Determines the sample size to answer a given question.
MA.7.DSP.2.a.1	Interpret data to draw conclusions.	Reads data.	Draws straightforward conclusions from given data.	Identifies data to draw conclusions.
MA.7.DSP.3.a.1	Identify the range, median, mean, or mode of a given data set.	Identifies mean and mode.	Identifies either range, median, mean, or mode of a given data set.	Identifies the range, median, mean, or mode of a given data set.
MA.7.DSP.3.a.2	Compare two similar populations/models to draw a conclusion.	Compares two populations/models.	Compares two similar populations/models.	Compares two similar populations/models to draw a conclusion.
MA.7.DSP.3.a.3	Make or select an appropriate statement based on two unequal data sets using measures of central tendency and shape.	Selects an appropriate statement based upon two unequal data sets.	Selects an appropriate statement based upon two unequal data sets using measures of central tendency.	Makes or selects an appropriate statement based on two unequal data sets using measures of central tendency and shape.
MA.7.DSP.4.a.1	Make or select a statement to compare the distribution of two data sets.	Compares two simple data sets.	Selects a statement to compare two data sets.	Makes or selects a statement to compare the distribution of two data sets.
MA.7.DSP.5.a.1	Describe the probability of events as being certain or impossible.	Describes the probability as certain or impossible when given visual model.	Describes the probability of events as certain or impossible.	Describes the probability of events as being certain or impossible.
MA.7.DSP.6.a.1	Make a prediction regarding the probability of an event occurring; conduct simple probability experiments.	Attempts to conduct a simple probability experiment.	Makes a simple prediction regarding the probability of an event.	Makes a prediction regarding the probability of an event occurring; conduct simple experiments.
MA.7.DSP.7.a.1	Compare actual results of simple experiments with theoretical probabilities.	Attempts to identify the results of a simple experiment.	Compares results of simple experiments with theoretical probabilities.	Compares actual results of simple experiments with theoretical probabilities.

I AM Performance Level Descriptors (PLDs)
Grade 7 Mathematics

	Content Connector	Below Proficiency	Approaching Proficiency	At Proficiency
Geometry and Measurement				
MA.7.GM.2.a.1	Identify similar polygons.	Attempts to identify polygons.	Identifies polygons.	Identifies similar polygons.
MA.7.GM.3.a.1	When given a real-world situation, determine the appropriate scale.	Identifies a scale in a real-world situation.	Determines the appropriate scale given a visual representation in real-world situation.	Determines the appropriate scale when given a real-world situation.
MA.7.GM.4.a.1	Identify various angles in a real-world situation.	Identifies one angle in a real-world situation.	Identifies some angles in a real-world situation.	Identifies various angles in a real-world situation.
MA.7.GM.5.a.1	Understand the formulas to calculate the area and circumference of a circle.	Recognizes radius, diameter, and circumference of a circle.	Substitutes values from a given circle model into a given formula for area or circumference.	Calculates area or circumference of a circle.
MA.7.GM.6.a.1	Given a model and an equation with all variables given, find the volume of a cylinder.	Recognizes radius and height of a cylinder model.	Substitutes values from a given cylinder model into a given cylinder volume formula.	Finds the volume of a cylinder.
MA.7.GM.7.a.1	Understand surface area and identify it in a real-world situation.	Understands surface area or a cube in a real-world situation, given a net.	Understands surface area in a real-world situation, given a net.	Understands surface area and identifies it in a real-world situation.
Number Sense and Computation				
MA.7.C.1.a.1	Add a positive and negative integer.	Adds positive integers.	Adds positive and negative integers, with positive solutions.	Adds positive and negative integers.

I AM Performance Level Descriptors (PLDs)
Grade 7 Mathematics

	Content Connector	Below Proficiency	Approaching Proficiency	At Proficiency
MA.7.C.2.a.1	Subtract positive and negative integers.	Subtracts positive integers with positive solutions.	Subtracts positive integers from negative integers.	Subtracts positive and negative integers.
MA.7.C.2.a.2	Find the distance between two rational numbers on a number line using absolute value.	Locates rational numbers on a number line.	Identifies difference between rational numbers when shown clearly on a given number line.	Finds the distance between two rational numbers on a number line using absolute value.
MA.7.C.3.a.1	Solve multiplication problems with positive and negative integers.	Multiplies one-digit positive integers.	Solves multiplication problems with the same signs.	Solves multiplication problems with positive and negative integers.
MA.7.C.4.a.1	Solve division problems with positive and negative integers.	Divides positive integers representing common multiplication facts.	Solves division problems with the same signs, with no remainder.	Solves division problems with positive and negative integers.
MA.7.C.5.a.1	Determine unit rates given a ratio of lengths, areas, and other quantities measured in like units.	Identifies rates in like units.	Determines unit rates given a ratio of lengths, areas, and other quantities measured in like units.	Determines unit rates given a ratio of lengths, areas, and other quantities measured in like units.
MA.7.C.6.a.1	Use proportions to solve ratio problems.	Identifies ratios and/or proportions.	Completes one step when using proportions to solve ratio problems.	Uses proportions to solve ratio problems.
MA.7.C.6.a.2	Solve word problems involving ratios.	Identifies ratios in word problems.	Completes one step when solving word problems involving ratios.	Solves word problems involving ratios.
MA.7.C.6.a.3	Use proportional relationships to solve multi-step percent problems.	Identifies proportional relationships in a multi-step percent problems.	Uses proportional relationships to solve one step of multi-step percent problems.	Uses proportional relationships to solve multi-step percent problems.
MA.7.C.7.a.1	Compute with rational numbers.	Adds and subtracts decimals to the hundredths place.	Computes with decimal numbers.	Computes with rational numbers.
MA.7.C.8.a.1	Using one operation, solve real-world problems involving rational numbers.	Attempts to use addition to solve real-world problems involving decimals.	Can use addition and subtraction to solve real-world problems involving decimals.	Using one operation, solves real-world problems involving rational numbers.

I AM Performance Level Descriptors (PLDs)
Grade 7 Mathematics

	Content Connector	Below Proficiency	Approaching Proficiency	At Proficiency
MA.7.NS.1.a.1	Determine the prime factorization of whole numbers.	Attempts to complete the factorization of a whole number.	Completes the factorization with prime and composite numbers.	Determines the prime factorization of whole numbers.
MA.7.NS.2.a.1	Identify perfect squares.	Identifies perfect squares up to 25.	Identifies perfect squares up to 100.	Identifies perfect squares.
MA.7.NS.3.a.1	Understand the definition of rational and irrational numbers.	Understands parts of the definition of rational and irrational numbers.	Understands parts of the definition of rational and irrational numbers.	Understands the definition of rational and irrational numbers.
MA.7.NS.3.a.2	Order and compare rational and irrational numbers using a number line.	Compares two rational numbers using a number line.	Orders and compares rational numbers using a number line.	Orders and compares rational and irrational numbers using a number line.
Process Standards				
PS.1	Make sense of problems and persevere in solving them.	Identifies given quantities and unknowns for a given problem.	Identifies what question is asking, relevant or irrelevant information, and can set up solution method.	Makes sense of and solves problems.
PS.2	Reason abstractly and quantitatively.	Represents a problem using numbers and symbols.	Identifies a symbolic expression or equation that represents a problem situation.	Creates symbolic expressions or equations to represent problem situations.
PS.3	Construct viable arguments and critique the reasoning of others.	Identifies clearly invalid arguments, without justification or explanation.	Identifies the flaws in a given argument.	Constructs arguments and justifications for mathematical thinking, and critiques the reasoning of others.
PS.4	Model with mathematics.	Identifies parts of a real-world problem.	Creates a model to represent a real-world problem.	Applies math knowledge to solve real-world problems using a variety of models and representations and reflects to make sure the answer makes sense.

I AM Performance Level Descriptors (PLDs)
Grade 7 Mathematics

	Content Connector	Below Proficiency	Approaching Proficiency	At Proficiency
PS.5	Use appropriate tools strategically.	Recognizes familiar mathematic tools.	Uses familiar tools to aid mathematical process.	Uses relevant mathematical tools and external mathematical resources to communicate mathematical ideas.
PS.6	Attend to precision.	Identifies common mathematical definitions.	Uses common mathematical vocabulary to connect or explain simple mathematical concepts.	Communicates correct mathematical language with appropriate precision and context.
PS.7	Look for and make use of structure.	Identifies simple structures.	Identifies the rules for simple numeric and geometric structures, and uses those rules to extend a pattern.	Applies structural classifications and patterns to answer problems in a variety of ways.
PS.8	Look for and express regularity in repeated reasoning.	Identifies simple examples of repeated reasoning or patterns.	Identifies the rules exhibited in repeated reasoning or patterns.	Applies repeated reasoning to develop general methods, rules, and short-cuts for solving mathematical problems.