Description of I AM Blueprints
Grade 5 Mathematics
(Beginning 2019–20 School Year)

Reporting Category	Content Connector (CC)	Content Connector	CC Item Range	
			Min	Max
Algebraic Thinking	MA.5.AT.1.a.1	Solve problems or word problems using up to 2-digit multiplication or 3-digit dividend with no remainder.	1	2
	MA.5.AT.2.a.1	Solve word problems involving the addition and subtraction of fractions with unlike denominators of halves, fourths, fifths, tenths.	0	2
	MA.5.AT.3.a.1	Solve real-world problems involving multiplication of a fraction and a whole number.	0	2
	MA.5.AT.4.a.1	Solve real-world problems involving the division of a whole number by one half to find the total parts.	0	2
	MA.5.AT.5.a.1	Solve one-step real-world problems involving addition, subtraction, multiplication, and division with decimals to the hundredths place.	1	4
	MA.5.AT.6.a.1	Locate points on a graph and identify x and y axis.	1	2
	MA.5.AT.7.a.1	Graph ordered pairs in the first quadrant of the coordinate plane.	1	2
	MA.5.AT.8.a.1	Given a real-world problem, evaluate the expressions for the specific values of up to two variables.	0	1
Computation	MA.5.C.1.a.1	Multiply two-digit numbers by two-digit numbers.	1	2
	MA.5.C.2.a.1	Divide multi-digit whole numbers with dividends up to 100 without remainders.	0	1
	MA.5.C.4.a.1	Add and subtract fractions with unlike denominators, limiting denominators to halves, fourths, fifths, and tenths.	0	2
	MA.5.C.5.a.1	Use models to multiply a fraction by a whole number.	0	2
	MA.5.C.6.a.1	Determine whether the product will increase or decrease based on the multiplier.	1	2
	MA.5.C.7.a.1	Use models to divide whole numbers by one half to solve for total number of parts.	0	1
	MA.5.C.8.a.1	Solve one-step problems using decimals.	1	2
	MA.5.C.9.a.1	Evaluate an expression with one set of parentheses.	0	1
Geometry and Measurement,	MA.5.DS.1.a.1	Use data (from a bar graph) to determine questions that could be answered with the graph, or answer a simple question about the graph (e.g., average height among 3 classrooms, # of boys and girls).	1	2
	MA.5.DS.2.a.1	Use a completed line plot to find mode and median.	0	1

Data Analysis, and Statistics	MA.5.G.1.a.1	Categorize angles as right, acute, or obtuse.	1	2
	MA.5.G.1.a.2	Identify the diameter and radius of a circle.	0	2
	MA.5.G.2.a.1	Recognize properties of simple plane figures by counting the number of sides.	1	2
	MA.5.G.2.a.2	Distinguish plane figures by the name of the shape and number of sides.	1	2
	MA.5.M.1.a.1	Convert measurements of time (days in a week, hours in a day, months in a year, minutes in an hour, seconds in a minute).	0	2
	MA.5.M.1.a.2	Solve problems involving time lapse.	0	1
	MA.5.M.2.a.1	Multiply whole numbers to find the area of a rectangle.	1	2
	MA.5.M.3.a.1	Provided the formula, students will insert the correct numbers into the correct location of the formula.	0	2
	MA.5.M.4.a.1	Model volume by counting the number of cubic units that fit into a rectangular prism.	0	1
	MA.5.M.5.a.1	Provided the formula, students will insert the correct numbers into the correct location of the formula.	0	2
	MA.5.M.6.a.1	Provided the formula, solve for volume.	0	1
Number Sense	MA.5.NS.1.a.1	Compare two fractions using symbols <, >,and = symbols and vocabulary.	1	2
	MA.5.NS.1.a.2	Compare two decimals to the hundredths place with a value of less than 1 using symbols , and = symbols and vocabulary.	0	2
	MA.5.NS.2.a.1	Represent fractions as part of a set, whole, or division of whole numbers.	1	2
	MA.5.NS.3.a.1	Compare the value of a digit when it is represented in different place values of 2 three-digit numbers.	1	2
	MA.5.NS.5.a.1	Round decimals to the nearest whole number.	1	2
	MA.5.NS.6.a.1	Use a model to represent percent as part of 100.	0	2
Process Standards (Aggregate Reporting Only)	*PS.1	Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway, rather than simply jumping into a solution attempt. They consider analogous problems and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, “Does this make sense?” and "Is	0	2

		my answer reasonable?" They understand the approaches of others to solving complex problems and identify correspondences between different approaches. Mathematically proficient students understand how mathematical ideas interconnect and build on one another to produce a coherent whole.		
	*PS.2	Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.	0	1
	*PS.3	Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They analyze situations by breaking them into cases and recognize and use counterexamples. They organize their mathematical thinking, justify their conclusions and communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. They justify whether a given statement is true always, sometimes, or never. Mathematically proficient students participate and collaborate in a mathematics community. They listen to or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.	0	1

	*PS.4	Mathematically proficient students apply the mathematics they know to solve problems arising in everyday life, society, and the workplace using a variety of appropriate strategies. They create and use a variety of representations to solve problems and to organize and communicate mathematical ideas. Mathematically proficient students apply what they know and are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.	0	2
	*PS.5	Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Mathematically proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. Mathematically proficient students identify relevant external mathematical resources, such as digital content, and use them to pose or solve problems. They use technological tools to explore and deepen their understanding of concepts and to support the development of learning mathematics. They use technology to contribute to concept development, simulation, representation, reasoning, communication and problem solving.	1	2
	*PS.6	Mathematically proficient students communicate precisely to others. They use clear definitions, including correct mathematical language, in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They express solutions clearly and logically by using the appropriate mathematical terms and	0	2

		notation. They specify units of measure and label axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently and check the validity of their results in the context of the problem. They express numerical answers with a degree of precision appropriate for the problem context.		
	*PS.7	Mathematically proficient students look closely to discern a pattern or structure. They step back for an overview and shift perspective. They recognize and use properties of operations and equality. They organize and classify geometric shapes based on their attributes. They see expressions, equations, and geometric figures as single objects or as being composed of several objects.	0	1
	*PS.8	Mathematically proficient students notice if calculations are repeated and look for general methods and shortcuts. They notice regularity in mathematical problems and their work to create a rule or formula. Mathematically proficient students maintain oversight of the process, while attending to the details as they solve a problem. They continually evaluate the reasonableness of their intermediate results.	0	2
	Link to IDOE's I AM Blueprint Total High Priority (Purple): 17 Total Medium Priority (Blue): 15 Total Lesser Priority (Gray): 11 ***- Indicates standard not on Vertical Alignment**			