Description of I AM Blueprints
Grade 6 Mathematics
(Beginning 2019–20 School Year)

Reporting Category	Content Connector (CC)	Content Connector	CC Item Range	
			Min	Max
Algebra and Functions	MA.6.AF.1.a.1	Given a real-world problem, evaluate the expressions for specific values of their variables.	0	2
	MA.6.AF.2.a.1	Use properties of operations to produce equivalent expressions.	0	1
	MA.6.AF.3.a.1	Write and evaluate variable expressions.	0	2
	MA.6.AF.4.a.1	Use substitution to determine validity of an equation or inequality.	1	2
	MA.6.AF.5.a.1	Solve real-world one-step linear equations.	1	3
	MA.6.AF.6.a.1	Given a real-world problem, write an inequality.	0	2
	MA.6.AF.7.a.1	Graph a point on a coordinate plane.	1	2
	MA.6.AF.8.a.1	Given a coordinate plane, plot and find the distance between two points with the same first coordinate or the same second coordinate.	0	2
	MA.6.AF.9.a.1	Analyze a table to find missing values of ordered pairs.	0	1
	MA.6.AF.9.a.2	Plot pairs of values from a table onto a coordinate plane.	0	2
	MA.6.AF.10.a.1	Given a real-world problem representing a proportional relationship, analyze the relationships between the dependent and independent variables.	0	1
Computation	MA.6.C.1.a.1	Divide multi-digit whole numbers.	0	3
	MA.6.C.2.a.1	Solve one-step addition or subtraction problems with decimals.	1	2
	MA.6.C.2.a.2	Solve one-step addition or subtraction problems with fractions.	1	2
	MA.6.C.3.a.1	Solve one-step real-world addition or subtraction problems with decimals or fractions.	0	2
	MA.6.C.4.a.1	Solve one-step division problems with fractions.	0	1
	MA.6.C.5.a.1	Demonstrate what an exponent represents (e.g., $8^3 = 8 \times 8 \times 8$) and evaluate.	1	2
	MA.6.C.6.a.1	Apply the order of operations.	0	1
Geometry and Measurement, Data Analysis, and Statistics	MA.6.DS.1.a.1	Identify statistical questions and the data that corresponds.	0	1
	MA.6.DS.2.a.1	Name different graphical representations of data.	0	2
	MA.6.DS.3.a.1	Collect and graph data using bar graphs and line plots.	1	2
	MA.6.DS.4.a.1	Select a statement that matches mean, mode, and spread of data for 1 measure of central tendency for a given data set.	1	3

	MA.6.GM.1.a.1	Convert between English and metric measurement systems.	0	1
	MA.6.GM.2.a.1	Given a real-world situation, use the sum of the interior angles of a triangle which totals 180 degrees.	0	1
	MA.6.GM.3.a.1	Given a polygon in a coordinate plane, find the length of each side.	0	1
	MA.6.GM.4.a.1	Find area of quadrilaterals.	1	2
	MA.6.GM.5.a.1	Find the volume of right rectangular prisms.	1	2
	MA.6.GM.5.a.2	Understand the concept of volume and how it fills space.	0	2
	MA.6.GM.6.a.1	Identify the net of a three-dimensional shape.	0	2
Number Sense	MA.6.NS.1.a.1	Understand the difference between a positive or negative number.	1	2
	MA.6.NS.2.a.1	Locate positive and negative numbers on a number line.	1	2
	MA.6.NS.3.a.1	Plot positive and negative integers on a number line.	1	2
	MA.6.NS.3.a.2	Compare and order a given set of integers.	0	2
	MA.6.NS.4.a.1	Find the absolute value of a number using the distance from zero on a number line.	0	1
	MA.6.NS.5.a.1	Identify the decimal and percent equivalents for halves, fourths, fifths, and tenths.	1	2
	MA.6.NS.6.a.1	Identify a prime and composite number.	0	1
	MA.6.NS.7.a.1	Find the least common multiple.	0	2
	MA.6.NS.7.a.2	Find the greatest common factor of two whole numbers.	0	2
	MA.6.NS.8.a.1	Describe the ratio relationship between two quantities.	0	2
	MA.6.NS.9.a.1	Understand the concept of a unit rate.	0	3
	MA.6.NS.10.a.1	Solve one-step real-world problems involving unit rates with ratios of whole numbers when given the unit rate (e.g., 3 inches of snow falls per hour, how much in 6 hours).	1	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	0	2

		sense?” and "Is 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	0	1

		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.		
	*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	0	2

		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 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): 16 Total Medium Priority (Blue):19 Total Lesser Priority (Gray): 14 *- Indicates standard not on Vertical Alignment			