5th Grade BIE Essential Math Standards		
Interim 1 Standards		
1.	M.BIES.4.NBT.B.04	The Highly Proficient student can fluently add and subtract multi-digit whole numbers using the standard algorithm. (8-10 days)
2.	M.BIES.5.NBT.A.01	The Highly Proficient student can apply concepts of place value, multiplication, and division to understand that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. (4-6 days)
3.	M.BIES.5.NBT.A.02	The Highly Proficient student can explain patterns in the number of zeros of the product when multiplying a number by powers of 10 and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. (6-8 days)
4.	M.BIES.5.NBT.B.05	The Highly Proficient student can fluently multiply multi-digit whole numbers using a standard algorithm. The Highly Proficient student can explain how to use a standard algorithm to multiply multi-digit whole numbers. (6-8 days)
5.	M.BIES.5.NBT.B.06	The Highly Proficient student can apply and extend understanding of division to find whole-number quotients of whole numbers with more than four-digit dividends and two-digit divisors. (6-8 days)
6.	M.BIES.5.OA.A.01	Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. (4-6 days)
7.	M.BIES.5.OA.A.02	Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product. (6-8 days)
Interim 2 Standards		
1.	M.BIES.5.NBT.A.01	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.
2.	M.BIES.5.NBT.A.02	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.
3.	M.BIES.5.NBT.A.03.a	Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).
4.	M.BIES.5.NBT.A.03.b	Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
5.	M.BIES.5.NBT.A.04	Use place value understanding to round decimals to any place.
6.	M.BIES.5.NBT.B.05	Fluently multiply multi-digit whole numbers using the standard algorithm.
7.	M.BIES.5.NBT.B.06	Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

8.	M.BIES.5.NBT.B.07	Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
Interim 3 Standards		
1.	M.BIES.5.MD.B.02	The Highly Proficient student can create a line plot to display data and solve word problems involving line plots to interpret the solution as data.
2.	M,BIES.5.NF.A.01	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, 2/3 + 5/4 = 8/12 + 15/12 = 23/12. (In general, a/b + c/d = (ad + bc)/bd.)
3.	M.BIES.5.NF.A.02	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2.
4.	M.BIES.5.NF.B.3	Interpret a fraction as division of the numerator by the denominator (a/b = a ÷ b). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?
5.	M.BIES.5.NF.B.4.A	Interpret the product (a/b) × q as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a × q ÷ b. For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = (ac)/(bd).
6.	M.BIES.5.NF.B.4.B	Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
7.	M.BIES.5.NF.B.5.a	Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
8.	M.BIES.5.NF.B.6	Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
9.	M.BIES.5.NF.B.7.a	Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.
10.	M.BIES.5.NF.B.7.b	Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.

11. M.BIES.5.NF.B.7.c	Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins?
Suggested Standards:	
12. M.BIES.5.G.A.01	The Highly Proficient student can understand and describe a coordinate system as perpendicular number lines, called axes, that intersect at the origin (0 , 0). Identify a given point in the first quadrant of the coordinate plane using an ordered pair of numbers, called coordinates. Understand that the first number (x) indicates the distance traveled on the horizontal axis, and the second number (y) indicates the distance traveled on the vertical axis.
13. M.BIES.5.G.A.02	The Highly Proficient student can use real-world data to create a representation and draw conclusions based on the data presented.
14. M.BIES.5.G.B.03	The Highly Proficient student can draw or construct specific two-dimensional figures according to its definitions, attributes, or categories. The Highly Proficient student can explain why attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.
15. M.BIES.5.G.B.04	The Highly Proficient student can classify and draw or construct two-dimensional figures in the hierarchy based on properties.
16. M.BIES.5.MD.C.03	The Highly Proficient student can recognize volume as an attribute of solid figures and understand concepts of volume measurement. a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.
17. M.BIES.5MD.C.04	The Highly Proficient student can measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.
18. M.BIES.5.MD.C.05	The Highly Proficient student can compare the volumes of different rectangular prisms and create real world mathematical situations involving volume.
19. M.BIES.5.NF.B.04c	The Highly Proficient student can find the area of a rectangle with fractional side lengths by tiling it with unit squares and explain the process.
20. M.BIES.5OA.B.03	The Highly Proficient student can generate two numerical patterns using two multi-step rules and explain their relationships between corresponding terms.
21. M.BIES.5MD.A.01	The Highly Proficient student can create and solve real world word problems and choose the appropriate measurement.