**Math 7 and Math 7 Accelerated Year-At-A-Glance**

**Big Ideas Correlated with Common Core and NAD Standards**

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| **Pacing** | **Mathematical Essential**  **Questions** | **Spiritual Essential**  **Questions** | **Common**  **Core**  **Standards** | **NAD**  **Standards** | **Topics** | **Textbook**  **Reference** | **Connect**  **To**  **Previous** | **Resources with links** |
| Q-1a | How are mathematical principles useful in problem solving? | How are spiritual principles useful in problem solving? | 5, 6 all |  | Basic Skills,  Solving Problems  and Test Preparation | ITBS Practice (Proportions, Percent, Solving Problems) Workbook & ixl.com | BIGR: Skills Review Handbook, Basic Skills Handbook | Placement Tests  <http://184.168.83.81/Diagnostic/PreAlgebra.pdf>  <http://184.168.83.81/Diagnostic/Algebra1.pdf>  BIGR: Game Closet, Review  BIGR: Intensive Intervention Activities  BIGR: Additional Support for the CC Standards- (grades 6 ) |
| Q-1a | How can you apply properties of operations to generate equivalent expressions with integers? | How do properties of operations help us order and compare things in God’s world? | 7.EE.3  7.NS.1b,c,d  7.NS.2a,b,c  7.NS.3 | 7.NO.1  7.NO.2 | Operation with Integers | BIM-Ch.1 | 6.NS.6c  5.G.1  6.EE.1 | Absolute value and Opposites  <http://www.youtube.com/watch?v=-AQFWV0AdLE>  Subtracting Integers <http://www.youtube.com/watch?v=iD3wA3OXHsw>  BIGR: Game Closet, Integers, Right on Target |
| Q-1b | How do you represent, analyze, construct, and solve problems related to linear equations? | How can objects be represented to help us understand the variety of God’s creation? | 7.EE.1,2,3,4a-b  7.NS.1a,b,c,d  7.NS.2a,b,c,d  7.NS.3  \*8.EE.7a-b | 7.OAT.1  7.OAT.2 | Rational Numbers and Equations | BIM-Ch.2 | 4.NF.6  5.NF.1  6.NS.1 | Fractions & Decimals  <http://pinterest.com/pin/174725660514121182/>  Equations - <http://pinterest.com/pin/174725660513660736/> |
| Q-2a | How do you analyze and apply proportional relationship to solve problems? | How does the consistency of proportional principles continue to demonstrate the orderliness and precision of God? | 7.RP.1  7.RP.2a,b,c,d  7.RP.3  \*8.EE.5 | 7.NO.4  7.OAT.3  7.M.1 | Proportions and Variation;  Converting Units of Measure, and  Comparing Rates | BIM-Ch.3  BIM-Topic 3-4 | 6.NS.4  6.RP.3d | Metric System and Customary  <http://www.youtube.com/watch?v=DQPQ_q59xyw>  http://www.mathplayground.com/howto\_Metric.html |
| Q-2a | How do you solve problems using percent? | How do relationships and their parts help us understand the world and appreciate God’s creation? | 7.EE.2,3  7.RP.3 | 7.OAT.1  7.NO.4 | Percent | BIM-Ch.4 | 6.RP.3c | Fractions, Decimals, Percent  <http://msmathmadness.blogspot.com/2012/07/made-4-math-monday-2.htm>  BIGR: Game Closet, Percent, Match Them Up |
| Q-2b | How do you solve problems using transformations and properties of similarity? | How is God revealed when describing the effects of transformation on the physical world? | 7.G.1,2  \*8.G.1a,b,c  \*8.G.2,3,4 | 7.GEO.1 | Similarity and Transformation | BIM-Ch.5  BIM-Additional Topic 5 | 6.EE.2c  7RP.3a  6.G.3 | Similarity and Transformations  <http://illuminations.nctm.org/LessonDetail.aspx?id=L720> |
| Q-2b | How do you solve real-life mathematical problems involving surface area of 2-D and 3-D figures? | How do the attributes of measurement reveal God’s accuracy, dependability, and precision? | 7.G.3,4,6 | 7.GEO.1  7.GEO.2 | Surface Areas of Solids | BIM-Ch.6 | 6.EE.2c | Area of Rectangle, Parallelogram, and Triangle  <http://www.youtube.com/watch?v=vQC10PPmuoA>  Area of the Circle <http://www.youtube.com/watch?v=YokKp3pwVFc> |
| Q-3a | How do you solve real-life mathematical problems involving the volume of 3-D objects? | How do the attributes of measurement reveal our Master Designer? | 7.G.2,3,4,5,6,9 | 7.GEO.1  7.GEO.2 | Volume of Solids | BIM-Ch.7  BIM-Additional Topic 6 | 7.G.1 | Volume of a cylinder  <http://math.rice.edu/~lanius/Geom/cyls.html> |
| Q-3b | How can we quantify and interpret the world around us using visual representations? | How is the Master Designer revealed when attributes of the physical world are described? | 7.SP.1,2,3,4 | 7.DSP.1  7.DSP.2 | Data Analysis and Samples | BIM-Ch.8 | 6.SP.5c | <http://www.learner.org/courses/learningmath/data/session3/part_a/ordering.html>  BIGR: Game Closet, M and M and M |
| Q-3b | How do you develop, use, and evaluate probability models? | How did God predict the future through prophecies demonstrating the orderliness and precision of His messages? | 7.SP.5,6,7,8 | 7.DSP.3 | Probability | BIM-Ch.9 | 6.NS.4  7.RP.1 | Probability using picture books  <http://www.k-state.edu/smartbooks/Lesson004.html>  BIGR: Game Closet, Probability, Take Your Chances |
| Q-4a | How do you define, evaluate, compare, and use functions to model relationships between quantities? | How do the mathematical principles continue to demonstrate the orderliness and precision of God? | 7.RP.2b, 3  \*8.EE.5,6  \*8.EE.7a,b | 7.OAT.3 | Linear Equations and Functions | BIM-Ch.10  BIM-Additional Topic 1-2 | 6.EE.7  6.NS.6c  4.MD.6  4.G.1 | Equations- group activity  <http://mindfull.files.wordpress.com/2008/02/acrobats.pdf> |
| Q-4a | What relationships exist between angles, triangles, and properties of parallel lines? | How do relationships and their parts help us appreciate God’s creation? | \*8.G.5 | 8.GEO.1 | Angles and Similarity | BIM-Ch.11 | 7.G.1 | Create a photo journal of geometry terms found in the real world around us. |
| Q-4b | How do you apply rational and irrational numbers and the Pythagorean theorem in problem solving? | How is the complexity of God’s creation revealed when study the results of the geometrical principles? | 7.G.3,5,9  \*8.G.3,4  \*8.NS.1,2,3 | 7.NO.3  7.GEO.1  7.GEO.2 | Radicals and the Pythagorean Theorem | BIM-Ch.12  BIM-Additional Topic 7 | 5.NBT.3b  6.EE.1 | <http://illuminations.nctm.org/LessonDetail.aspx?ID=L833>  Pythagorean Theorem  <http://www.mathsisfun.com/pythagoras.html> |
| Q-4b | How can very large and very small numbers be represented? | How can numbers be represented an amount that help us order and compare things in God’s word? | \*8.EE.1,3,4 | 7.NO.3 | Exponents and  Scientific Notation | BIM13 | 6.NS.3 | <http://ieer.org/resource/classroom/scientific-notation/> |

\*Math 7 Accelerated Revised 7/18/13

Websites: Khan Academy.com, IXL.com, mathplayground.com,

Apps: Educreations, Showme, My Dear Aunt Sally, Hands-On Equations, YourTeacher (Math),