BIRMINGHAM CITY SCHOOLS

## DEPARTMENT OF CURRICULUM, INSTRUCTION AND ASSESSMENT

 MIDDLE SCHOOL PACING GUIDE Pre-AP MATHEMATICS GRADE 7FALL SEMESTER 2016-2017

| ACOS/CCRS Standard | Resource Materials Websites Lesson/Activities | Week | Student Outcome/Vocabulary <br> First Nine Weeks (August 8 - October 4, 2016) | Date(s) <br> Taught | Date(s) <br> Tested |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 6 \\ \text { [7-NS3] } \\ \\ \text { [7-NS1] } \\ \text { [7-NS3] } \\ \\ \text { 4, 6, } 9 \\ \text { [7-NS1] } \\ \text { [7-NS1a] } \\ \text { [7-NS1b] } \\ \text { [7-NS1c] } \\ \text { [7-NS1d] } \\ \text { [7-NS3] } \\ \text { [7-EE3] } \end{gathered}$ | Course 2 Mathematics <br> Chapter 3: Integers <br> Get to Know Your Students Activity <br> Essential Question: WHAT happens when you add, subtract, multiply, and divide integers? <br> Are You Ready? (p. 190) <br> Lesson 1: Integers \& Absolute Values (pp. 191-198) <br> Inquiry Lab <br> Adding Integers (p. 199) <br> Lesson 2: Adding Integers (pp. 203-210) <br> Inquiry Lab <br> Subtracting Integers (p. 211) <br> Website: https:/www.engageny.org engageNY Module 2 Integers Grade 7 | $\begin{gathered} \hline \text { Week } 1 \\ \text { Aug } \\ 8-12 \end{gathered}$ | First Semester Begins <br> (First Day for Students) <br> Rules and Procedures <br> Discuss: course description, expectations (classroom norms and grading), materials and supplies (pencils, loose-leaf paper, graph paper, folders, etc.), and notebook organization <br> Universal Screener <br> (Renaissance Learning) <br> District Screener 1- August 8-24, 2016 <br> - I can read and write integers, and find the absolute value of an integer. <br> - I can model addition of integers. <br> - I can add integers. <br> - I can model subtraction of integers. <br> - Vocabulary: Lesson 1- Integer, negative integer, positive integer, graph, absolute value, zero pair <br> - Vocabulary: Lesson 2-Opposites, additive inverse |  |  |

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| :---: | :---: | :---: | :---: | :---: | :---: |
| 4, 6 <br> [7-NS1] <br> [7-NS1c] <br> [7-NS1d] <br> [7-NS3] <br> [7-EE3] <br> 4 [7-NS1] | Course 2 Mathematics <br> Chapter 3: Integers <br> Lesson 3: Subtracting Integers (pp. 215-222) <br> Inquiry Lab <br> Distance on Number Line (p. 223) <br> Problem -Solving Investigation Look for a Pattern (p. 225) <br> Assessment: <br> Mid-Chapter Check (p. 228) <br> Course 2 Mathematics <br> Chapter 4: Rational Numbers <br> Essential Question: WHAT happens when you add, subtract, multiply, and divide fractions? <br> Are You Ready? (p. 260) <br> Inquiry Lab <br> Rational Numbers on the Number Line (p. 261) <br> engageNY Module 2 Integers Grade 7 | Week 1 (Continue) Aug 8-12 | - I can subtract integers. <br> - I can find the distance between two rational numbers on a number line. <br> - I can graph rational numbers on the number line. |  |  |

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| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 5,9 \\ {[7-\mathrm{NS} 2]} \\ \text { [7-NS2d] } \\ \text { [7-EE3] } \\ \\ 5,9 \\ \text { [7-NS2] } \\ \text { [7-NS2b] } \\ \text { [7-EE3] } \\ \\ \\ \text { 4, } 6 \\ \text { [7-NS1] } \\ \text { [7-NS1b] } \\ \text { [7-NS3] } \\ \\ \text { 4, 6, } 9 \\ \text { [7-NS1] } \\ \text { [7-NS1c] } \\ \text { [7-NS1d] } \\ \text { [7-NS3] } \\ \text { [7-EE3 } \end{gathered}$ | Course 2 Mathematics Chapter 4: Rational Numbers <br> Lesson 1: Terminating and Repeating Decimals (pp. 263-270) <br> Lesson 2: Compare \& Order Rational Numbers (pp. 271-278) <br> Inquiry Lab <br> Add \& Subtract on the number line (p. 279) <br> Lesson 3: Add and Subtract Like Fractions (pp. 283-290) <br> engageNY Module 2 IntegersGrade 7 | $\begin{gathered} \hline \text { Week } 2 \\ \text { Aug } \\ \text { 15-19 } \end{gathered}$ | - I can write fractions as terminating or repeating decimals and write decimals as fractions. <br> - I can compare and order rational numbers. <br> - I can add and subtract like fractions on a number line. <br> - I can add and subtract fractions with like denominators. <br> - Vocabulary: Lesson 1-Repeating decimal, bar notation, terminating decimal <br> - Vocabulary: Lesson 2-Rational number, common denominator, least common denominator <br> - Vocabulary: Lesson 3-Like fractions |  |  |

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| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \hline 4,6,9 \\ {[7-\mathrm{NS} 1]} \\ {[7-\mathrm{NS} 1 \mathrm{~d}]} \\ {[7-\mathrm{NS} 3]} \\ {[7-\mathrm{EE} 3]} \end{gathered}$ | Course 2 Mathematics <br> Chapter 4: Rational Numbers <br> Lesson 4: Add and Subtract Unlike Fractions (pp. 291-298) <br> Lesson 5: Add and Subtract Mixed Numbers (pp. 299-306) <br> Problem-Solving Investigation Draw a Diagram (p. 307) <br> Assessment: <br> Mid-Chapter Check (p. 310) | Week 2 (Continue) Aug $15-19$ | - I can add and subtract fractions with unlike denominators. <br> - I can add and subtract fractions with mixed numbers. <br> - I can solve problems by drawing a diagram. <br> - Vocabulary: Lesson 3-Like fractions <br> - Vocabulary: Lesson 4-Unlike fractions |  |  |
| 9,10 [7-EE3] [7-EE4] 1 $[8-N S 1]$ 2,4 $[8-N S 2]$ $[8-E E 2]$ 9,10 $[7-E E 3]$, $[7-E E 4]$ $1,2,4$ $[8-N S 1]$ $[8-N S 2]$ $[8-E E 2]$ | Course 3 Mathematics <br> Chapter 1: Real Numbers <br> Essential Question: WHY is it helpful to write numbers in different ways? <br> Lesson 1: Rational Numbers (pp. 7-14) <br> Lesson 9: Estimate Roots (pp. 81-88) <br> Lesson 10: Compare Real Numbers (pp. 89-96) <br> Website: https:/www.engageny.org engageNY Module 7-Grade 8 Lessons 6-10 engageNY Module 3-Grade 7 Lessons 1-15 | Week 3 Aug 22-26 | - I can write rational numbers as decimals and decimals as fractions. <br> - I can use roots to estimate solutions. <br> - I can compare mathematical expressions. <br> - Vocabulary: Lesson 1-Rational number, repeating decimal, terminating decimal <br> - Vocabulary: Lesson 10-Irrational number, real number |  |  |

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| ACOS/CCRS Standard | Resource Materials Websites Lesson/Activities | Week | Student Outcome/Vocabulary <br> First Nine Weeks (August 8 - October 4, 2016) | Date(s) <br> Taught | Date(s) <br> Tested |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 3 \\ {[8-E E 1]} \end{gathered}$ | Course 3 Mathematics <br> Chapter 1: Real Numbers <br> Lesson 2: Powers and Exponents (pp. 15-22) <br> Lesson 3: Multiply and Divide <br> Monomials (pp. 23-30) <br> Website: https:/www.engageny.org engageNY Module 7-Grade 8 Lessons 1-5 <br> AMSTI: Growing, Growing, Growing | Week 3 (Continue) Aug 22-26 | - I can use powers and exponents to write large and small numbers. <br> - I can simplify real number expressions by multiplying and dividing monomials. <br> - Vocabulary: Lesson 2:-Power, base, exponent <br> - Vocabulary: Lesson 3-Monomial |  |  |
| $\begin{gathered} \mathbf{3} \\ {[8-E E 1]} \end{gathered}$ | Course 3 Mathematics Chapter 1: Real Numbers <br> Lesson 4: Powers of Monomials (pp. 31-38) <br> Mid-Chapter Check (p. 42) <br> Lesson 5: Negative Exponents (pp. 43-50) | Week 4 <br> Aug 29 <br> Sept 2 | - I can use the laws of exponents to find powers of monomials. <br> - I can write and evaluate expressions using negative exponents. |  |  |

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| ACOS/CCRS Standard | Resource Materials Websites Lesson/Activities | Week | Student Outcome/Vocabulary <br> First Nine Weeks (August 8 - October 4, 2016) | Date(s) <br> Taught | Date(s) <br> Tested |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 6 \\ {[8-E E 4]} \\ \mathbf{4} \\ {[8-E E 2]} \end{gathered}$ | Course 3 Mathematics <br> Chapter 1: Real Numbers <br> Lesson 6: Scientific Notation (pp. 51-58) <br> Lesson 8: Roots (pp. 71-78) <br> Website: https:/www.engageny.org engageNY Module 7-Grade 8 Lessons 1-5 | Week 5 Sept 5-9 | Labor Day-Monday, September $5^{\text {th }}$ <br> - I can use scientific notation to write large and small numbers. <br> - I can find square roots and cube roots. <br> - Vocabulary: Lesson 6-Scientific notation <br> - Vocabulary: Lesson 8-Square root, perfect square, radical sign, cube root, perfect cube <br> Progress Reports Go Home Wednesday, September $7^{\text {th }}$ |  |  |
| $\begin{gathered} 10 \\ {[7-E E 4]} \end{gathered}$ | Course 3 Mathematics <br> Chapter 1: Real Numbers <br> Lesson 7: Compute with Scientific <br> Notation <br> (pp. 59-66) <br> Inquiry Lab <br> Graphing Technology: Scientific <br> Notation Using Technology (p. 67) <br> Chapter Review (p. 99) <br> Assessment: Chapter 1 Test www.connectED.mcgraw-hill.com <br> Website: https:/www.engageny.org engageNY Module 4-Grade 8 Lessons 1-8 | Week 6 Sept 12-16 | - I can compute with numbers written in scientific notation. <br> - I can interpret scientific notation when using technology. |  |  |

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| ACOS/CCRS Standard | Resource Materials Websites Lesson/Activities | Week | Student Outcome/Vocabulary <br> First Nine Weeks (August 8 - October 4, 2016) | Date(s) <br> Taught | Date(s) Tested |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 9 \\ {[8-E E 7]} \\ {[8-E E 7 a]} \\ {[8-E E 7 b} \end{gathered}$ | Course 3 Mathematics <br> Chapter 2: Equations in One Variable <br> Essential Question: WHAT is equivalence? <br> Lesson 1: Solve Equations with Rational Coefficients (pp. 111-118) <br> Inquiry Lab <br> Solve Two-Step Equations (p. 119) <br> Lesson 2: Solve Two-Step Equations (pp. 121-128) <br> Website: https:/www.engageny.org engageNY Module 4-Grade 8 Lessons 1-8 <br> AMSTI: Say It With Symbols | ```Week 6 (Continue) Sept 12-16``` | - I can solve equations with rational coefficients. <br> - I can use a bar diagram to write and solve two-step equations. <br> - I can solve two-step equations. <br> - Vocabulary: Lesson 1-Multiplicative inverse, coefficient <br> - Vocabulary: Lesson 2-Properties, twostep equation |  |  |

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| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} 9 \\ {[8-E E 7]} \end{gathered}$ | Course 3 Mathematics <br> Chapter 2: Equations in One Variable <br> Lesson 3: Write Two-Step Equations (pp. 129-136) <br> Website: https:/www.engageny.org engageNY Module 4-Grade 8 Lessons 1-8 <br> Problem-Solving Investigation Work Backward (p. 137) <br> Assessment: <br> Mid-Chapter Check (p. 140) | $\begin{gathered} \hline \text { Week } 7 \\ \text { Sept } \\ 19-23 \end{gathered}$ | - I can write two-step equations that represent real-world situations. <br> - I can solve problems by working backward. <br> Friday, September $23^{\text {rd }}$ No Students |  |  |

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| ACOS/CCRS Standard | Resource Materials Websites Lesson/Activities | Week | Student Outcome/Vocabulary <br> First Nine Weeks (August 8 - October 4, 2016) | Date(s) <br> Taught | Date(s) <br> Tested |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{gathered} \hline 9 \\ {[8-E E 7]} \\ {[8-E E 7 a]} \\ {[8-E E 7 b]} \end{gathered}$ | Course 3 Mathematics <br> Chapter 2: Equations in One Variable <br> Lesson 4: Solve Equations with Variables on Each Side (pp. 145-152) <br> Lesson 5: Solve Multi-Step Equations (pp. 153-160) <br> $21^{\text {st }}$ Century Career in Design (p. 161) <br> Chapter Review (p. 163) <br> Assessment: Chapter 2 Test www.connectED.mcgraw-hill.com | Week 8 <br> Sept 26-30 | - I can solve equations with variables on each side. <br> - I can solve multi-step equations. <br> - Vocabulary: Lesson 5-Null set, identity |  |  |

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DEPARTMENT OF CURRICULUM, INSTRUCTION AND ASSESSMENT MIDDLE SCHOOL PACING GUIDE Pre-AP MATHEMATICS GRADE 7

FALL SEMESTER 2016-2017

| ACOS/CCRS Standard | Resource Materials Websites Lesson/Activities | Week | Student Outcome/Vocabulary <br> First Nine Weeks (August 8 - October 4, 2016) | Date(s) <br> Taught | Date(s) Tested |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Review for Exam <br> Course 2 Mathematics <br> Chapter 3: Integers <br> Course 2 Mathematics <br> Chapter 4: Rational Numbers <br> Course 3 Mathematics <br> Chapter 1: Real Numbers <br> Course 3 Mathematics <br> Chapter 2: Equations in One Variable | $\begin{aligned} & \text { Week } 9 \\ & \text { Oct 3-7 } \end{aligned}$ | ACT Aspire Periodic Assessments Test l- October 3-14, 2016 <br> End of First Nine Weeks (10/4/16) <br> Teacher-Made Assessment |  |  |

