**6th Grade Math – Resource**

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| **Teacher** | Tammy Gaffney  | **Subject:** | Math resource |
| **Date:** | **Beginning: 05/07/18 Ending: 05/11/18**   | **Grades:** | 6 |
| **Parent/Student WEEKLY AGENDA:** | \*\*PLEASE NOTE: lesson plans are subject to change based on student understanding of the concepts presented. Students receive various methodology of instruction based upon knowledge retained / mastered. Group activities, individual learning paths, technology support/remediation occurs long term and short term to assure progress while rigorously rehearsing the standards. **DAILY HOMEWORK WILL BE ASSIGNED THIS WEEK****STUDENTS MUST BRING COLORED COMMUNICATION FOLDER TO CLASS** JAMN NOTEBOOKS MUST REMAIN IN THE CLASSROOM AT ALL TIME – PERMISSION NECESSARY TO REMOVE FROM CLASS**Key Concepts:** Percent of numbers: word problems, Percent - calculate tax, tip, mark-up, and more and, convert between customary and metric systems,**IXL Assignments for Practice:** D.1, D.2, O.3, Y.3 – Expressions and Equations**Quizlet Unit 3 Vocabulary**Tuesday – Thursday: Math Centers Include Several Remediation and Grade level lessons, projects, activities *This week we will incorporate geometry standards into expressions and equations. Students will solve for area and unknown variables utilizing known formulas or provided formulas/equations.* **Monday**G.1 Calculate areas from scale drawings and compute lengths reproducing lengths at different scaleEE.1Exponents EE.2c Evaluate Expressions with Exponents & Use Order of Operations**Tuesday**G.2 Apply the formulas V = (length) x (width) x (height) and V= (area of base) x (height) to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.EE.2b Parts of an ExpressionDetermine difference between expressions, equations and inequalities**Wednesday**EE.2a Write Expressions (words to math and math to words)- EE.3 Write equivalent expressions using order of operations**Thursday** Cont. EE.3 Write equivalent expressions using order of operations EE.4 Evaluate equal expressions **Friday** G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems. |
| **Learning Targets:** |

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| MGSE6.EE.1I can write and understand numerical expressions involving whole number exponents. MGSE6.EE.2aI can write expressions using numbers and letters (with the letters standing for numbers.) MGSE6.EE.2bI can identify the parts of an expression using mathematical words (sum, term, product, factor, quotient, coefficient.)I can understand that in 2(8 + 7), (8 + 7) can be thought of as two separate numbers or as 15. MGSE6.EE.2cI can determine the answer to expressions when given the specific value of a variable. MGSE6.EE.3 I can use my knowledge of the order of operations to create equivalent expressions. MGSE6.EE.4 I can identify when two expressions are equivalent.MGSE7.G.1 I can solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.MGSE6.G.2 I can determine the volume of a right rectangular prism with fractional edge lengths. I can use my knowledge to show that the volume is the same as would be found by multiplying the edge lengths of the prism. I can apply the formulas V = (length) x (width) x (height) and V= (area of base) x (height) to find volumes of right rectangular prisms with fractional edge lengths. MGSE6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems. |

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| **Vocabulary:** | Percent• Proportion• Rate • Ratio• Rational number• Tape diagram • Unit Ratio • Quantity / • Associative Property of Addition• Associative Property of Multiplication • Coefficient• Commutative Property of Addition • Commutative Property of Multiplication• Constant• Distributive Property• Exponent • Like Terms• Order of Operations• Term• Variable •Equation • Solution •Inequality •Substitute • Inverse operations •Rational number •Dependent variable •Independent variable •Function •Input •Output |
| **Standard(s):** | MGSE6.EE.1 - Write and evaluate expressions involving whole-number exponents.MGSE6.EE.2a - Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation “Subtract y from 5” as 5-y.MGSE6.EE.2b - Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression 2(8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.MGSE6.EE.2c - Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas 𝑉 = 𝑠3 and 𝐴 = 6𝑠2 to find the volume and surface area of a cube with sides of length 𝑠 = 1 2.MGSE6.EE.3 - Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression 3(2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6(4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y. MGSE6.EE.4 - Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them.) For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.MGSE7.G.1 - Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.MGSE6.G.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths (1/2 u), and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas V = (length) x (width) x (height) and V= (area of base) x (height) to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems. MGSE6.G.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems. |
| **DOK Level** | **Activities / Assignments / Questions** | **Assessment** |
| Remediation | Warm-up based on mastery of standards / Small group based on scores • Weekly Homework – review various 5th grade standards / spiral review of 6th grade standards • Multiplication chart as needed • Review properties • Review how to use order of operations including parentheses and other grouping symbols to simplify numerical expressions. • Review ways to indicate multiplication, standard algorithms for each decimal operation, fraction operations, Integer rules / combining like terms | [x]  Formative[ ]  Summative | [x] Selected Response[ ] Constructed Response[x] Verbal[ ] Rubric[x] Other  |
| **2** | Simplify numerical expressions that may contain exponents – Indep. Practice • Describe the effect of operations on size and order of numbers – Indep. Practice • Carnegie Skills Lesson 7.1 / 7.4 • How can you identify and write equivalent expressions (numerical expressions) – Indep. Practice 20 – 36 even | [x]  Formative[ ]  Summative | [x] Selected Response[ ] Constructed Response[x] Verbal[ ] Rubric[x] Other –  |
| **3** | -Performance COACH real world examples • Better Lesson Partner Practice • Carnegie Skills Lesson 8.2 / 8.3• Use rules of exponents to simplify numeric and algebraic expressions – P/PS • Evaluate algebraic expressions in number and word problems – P/PSHow can you identify and write equivalent expressions (numerical and algebraic expressions) – P&PS 37 – 44 all •Expanding Expressions using the distributive property •Factoring Expressions / Rewriting Expressions by combining like terms • Simplifying Expressions using the distributive property and combining like terms | [x]  Formative[ ]  Summative | [x] Selected Response[x] Constructed Response[ ] Essay[x] Verbal[ ] Rubric[ ] Other –  |
| **4** | Estimate and calculate using numbers expressed in scientific notation • How do you translate between words and math – Science Link pg. 157 • Focus on Math. Practices – 41 – 43 all | [x]  Formative[ ]  Summative | [x] Selected Response[ ] Constructed Response[ ] Essay[x] Verbal[ ] Rubric[x] Other – |
| **Summarizing****Activity:** | Class Anchor Charts / white boards (indivdual and class) • Carnegie Lessons / DOE TasksIPad, personal devices and chrome books to practice and check algorithmsStudy Guides / Notes / Examples / Foldable / Handouts – CHECK STUDENT JAMN (Just About Math Notebook) |
| **Resources** | USA Test Prep – students utilize guided practice questions with support learning in class – no assigned work via teacher modulesHolt online textbook http://myhrw.com (username – jmsgaffney / password – dragons) Georgia Standards - [www.Georgiastandards.org](http://www.Georgiastandards.org) Khan Academy Videos - <https://www.khanacademy.org/math> Study Jam Videos - <http://studyjams.scholastic.com/studyjams/jams/math/index.htm> Virtual Nerd Videos - http://www.virtualnerd.com/ |

**6th Grade Math – Co-taught**

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| **Teacher:** | **Tammy Duncan/ Tammy Gaffney** | **Subject:** | **Co-taught** |
| **Date:** | **Beginning: 04/22/18 Ending: 04/26/18**   | **Grades:** | **6th** |
| **Parent/Student WEEKLY****AGENDA:** | PLEASE NOTE: lesson plans are subject to change based on student understanding of the concepts presented. **HW quizzes will now be on Mondays****IXL Assignments (due Monday, April 23) – BB.7, AA.2, AA.3, EE.3, EE.4** **Monday**– Assign Weekly Review / Units 1 and 7 GOFAR Review / IXL – BB.8 and BB.9**Tuesday** – Check and correct Review / EE.9 – Functions (write and using graphs/tables)**Wednesday** – Check and correct Review / EE.8 – Inequalities (writing / graphing)**Thursday**– Check and correct Review / G.4 – Surface Area (nets and solids)**Friday** –Check and correct Review / G.2 – Volume (fractions and decimal edges)**JMS MATH website**[**http://jms6thgrademath.weebly.com**](http://jms6thgrademath.weebly.com/) |
| **Learning****Targets:** | MGSE6.EE.1 ⎫ I can write and understand numerical expressions involving whole number exponents. MGSE6.EE.2a ⎫ I can write expressions using numbers and letters (with the letters standing for numbers.) MGSE6.EE.2b ⎫ I can identify the parts of an expression using mathematical words (sum, term, product, factor, quotient, coefficient.) ⎫ I can understand that in 2(8 + 7), (8 + 7) can be thought of as two separate numbers or as 15. MGSE6.EE.2c ⎫ I can determine the answer to expressions when given the specific value of a variable. MGSE6.EE.3 ⎫ I can use my knowledge of the order of operations to create equivalent expressions. MGSE6.EE.4 ⎫ I can identify when two expressions are equivalent.MGSE6.EE.5 ⎫ I can understand that solving an equation or inequality is like answering a question. MGSE6.EE.6 ⎫ I can use variables to represent numbers and write expressions when solving real-world problems. MGSE6.EE.7 ⎫ I can solve real-world and mathematical problems by writing and solving equations. MGSE6.EE.8 ⎫ I can write an inequality which has many solutions and represent these solutions on a number line (where x>c or xMGSE6.EE.9 ⎫ I can use variables to represent two quantities in a real world problem and write an equation to express the quantities. ⎫ I can use graphs and tables to show the relationship between dependent and independent variables |
| **Unit Vocabulary:** | **bjbbj**Equation, solution, inequality, substitute, inverse operations, rational number, dependent variable, independent variable, function, input, output |
| **Standard(s):** | • MGSE6.EE.1 - Write and evaluate expressions involving whole-number exponents.• MGSE6.EE.2a - Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation “Subtract y from 5” as 5-y. • MGSE6.EE.2b - Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression 2(8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms. • MGSE6.EE.2c - Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas 𝑉 = 𝑠3 and 𝐴 = 6𝑠2 to find the volume and surface area of a cube with sides of length 𝑠 = 1 2. • MGSE6.EE.3 - Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression 3(2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6(4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y. • MGSE6.EE.4 - Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them.) For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for. 7 th GRADE UNIT 3 STANDARDS - ONGOING • MGSE6.EE.5 - Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true. • MGSE6.EE.6 - Use variables to represent numbers and write expressions when solving a real world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set. • MGSE6.EE.7 - Solve real-world and mathematical problems by writing and solving equations of the form 𝑥 + 𝑝 = 𝑞 and 𝑝𝑝 = 𝑞 for cases in which p, q and x are all nonnegative rational numbers. • MGSE6.EE.8 - Write an inequality of the form 𝑥 > 𝑐 or 𝑥 < 𝑐 to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form 𝑥 > 𝑐 or 𝑥 < 𝑐 have infinitely many solutions; represent solutions of such inequalities on number line diagrams. • MGSE6.EE.9a – Write an equation to express one quantity, the dependent variable, in terms of the other quantity, the independent variable. • MGSE6.EE.9b - Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation 𝑑 = 65𝑡 to represent the relationship between distance and time. |
| **DOK Level** | **Activities / Assignments / Questions** | **Assessment** |
| **­­****Remediation** | • Warm-up based on mastery of standards / Small group based on scores • 7 th Grade Spiral Homework • Review properties • Review how to use order of operations including parentheses and other grouping symbols to simplify numerical expressions. • Review ways to indicate multiplication, standard algorithms for each decimal operation, fraction operations, Integer rules / combining like terms | [x]  Formative[ ]  Summative | [x] Selected Response[ ] Constructed Response[x] Verbal[ ] Rubric[x] Other – teacher observ. |
| **2** | • Equations and Their Solutions – 6 th Grade Lesson 9-1 / determining whether a value is a solution to an equation (whole number operations) • One-step equations all operations (whole numbers, decimals and fractions) • Carnegie Skills Lesson 9.2 | [x]  Formative[ ]  Summative | [x] Selected Response[ ] Constructed Response[x] Verbal[ ] Rubric[x] Other – teacher observ. |
| **3** | • One-step equations all operations (integers – positive and negative) • Carnegie Skills Lesson 9.2 • Expanding Expressions using the distributive property • Factoring Expressions / Rewriting Expressions by combining like terms • Simplifying Expressions using the distributive property and combining like terms | [x]  Formative[ ]  Summative | [x] Selected Response[x] Constructed Response[ ] Essay[x] Verbal[ ] Rubric[x] Other – teacher observ. |
| **4** | • Solve two-step equations – 7 th Grade Lesson 5-1 • Solve multi-step equations – 7 th Grade Lesson 5-3 • Solve equations with variables on both sides – 7 th Grade Lesson 5-4 | [x]  Formative[ ]  Summative | [x] Selected Response[ ] Constructed Response[ ] Essay[x] Verbal[ ] Rubric[x] Other – teacher observ. |
| **Summarizing****Activities:** | * Class Anchor Charts / white boards (individual and class)
* Carnegie Lessons / DOE Tasks
* I-pad, personal devices and Chrome books to practice and check algorithms
* Study Guides / Notes / Examples / Foldables / Handouts – **CHECK STUDENT MATH BINDER**
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| **Resources:** | IXL / USA TestPrep (students will be given individual usernames / passwords)Holt online textbook <http://myhrw.com> (username – jmsduncan / password – dragons)Georgia Standards [www.Georgiastandards.org](http://www.Georgiastandards.org)Khan Academy Videos - <https://www.khanacademy.org/math>Study Jam Videos - <http://studyjams.scholastic.com/studyjams/jams/math/index.htm>Virtual Nerd Videos - <http://www.virtualnerd.com/> |