

 PRINCETON <small>INDEPENDENT SCHOOL DISTRICT</small>		Campus: Harper/Smith/Lacy/Godwin/Lowe	
Author(s): Stovall, Warren, Garlington, Elsbury, Venters, Eaton		Date Created / Revised: July 30, 2020	
Six Weeks Period: 2nd		Grade Level & Course: 5 th grade math	
Timeline: 5 days		Unit Title: Order of Operations	Week 3
Stated Objectives: TEK # and SE	<p style="text-align: center;">Problem Solving/Processing Standards</p> <p>5.1 (A) apply mathematics to problems arising in everyday life, society, and the workplace; 5.1(B) use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution; 5.1(C) select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems; 5.1(D) communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate; 5.1(E) create and use representations to organize, record, and communicate mathematical ideas; 5.1(F) analyze mathematical relationships to connect and communicate mathematical ideas; and 5.1(G) display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</p> <p style="text-align: center;">Skills</p> <p>5.3(B) Multiply with fluency a three-digit number by a two-digit number using the standard algorithm.</p> <p style="text-align: center;">Review</p> <p>5.3(B) Multiply with fluency a three-digit number by a two-digit number using the standard algorithm. 5.3(C) Solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm. 5.3(K) add and subtract positive rational numbers fluently</p> <p style="text-align: center;">Concept</p> <p>5.4 (E) Describe the meaning of parentheses and brackets in a numeric expression 5.4 (F) Simplify numerical expressions that do not involve exponents, including up to two levels of grouping</p>		
See Instructional Focus Document (IFD) for TEK Specificity			
Key Understandings	<p>**There is a specific order of operations to simplify numerical expressions in problem situations.</p> <p>** Verbal expressions can be translated into mathematical expressions and evaluated for given values of the variables.</p>		
Misconceptions	<p>**Some students may simplify an expression or solve an equation from left to right rather than using to the order of operations or grouping symbols to simplify.</p>		

	**Some students may simplify an expression or solve an equation by performing all like operations first rather than using the grouping symbols to simplify.	
Key Vocabulary	Operations, Expression, Equation, Parenthesis (), Brackets [], Numerical Expressions, Product, Quotient, Sum, Difference	
Suggested Day 5E Model	Instructional Procedures (Engage, Explore, Explain, Extend/Elaborate, Evaluate)	Materials, Resources, Notes
Day 1- Engage/ Explore	Warm-Up (2 problem solving problems) Skills: Unit 7 Day 1 Multiply 3-Digit X 2-Digit Review: Unit 7 Day 1 Computation Mixed Practice Concept: Order of Operations: Introduce solving expressions using the universal rules. Two Operations: Multiply/Divide 1st: Left to right Add/Subtract 2nd:Left to Right	From Sharon Wells Curriculum <ul style="list-style-type: none"> • Skills p.5 • Review p.5 • Concept: Order of Operations 1
Day 2 – Explain/ Extend	Warm-Up (2 problem solving problems) Skills: Unit 7 Day 2 Multiply 3-Digit X 2-Digit with Zeros Review: Unit 7 Day 2 Computation Mixed Practice Concept: Order of Operations: Introduce solving expressions using the universal rules. Three Operations: Multiply/Divide 1st: Left to right Add/Subtract 2nd:Left to Right Mnemonic Device: My Dear Aunt Sally	From Sharon Wells Curriculum <ul style="list-style-type: none"> • Skills p.6 • Review p.6 • Concept: Order of Operations 2 • If time allows: Order of Operation BINGO
Day 3 - Extend	Warm-Up (2 problem solving problems) Skills: Unit 7 Day 3 Multiply 3-Digit X 2-Digit with Zeros Review: Unit 7 Day 3 Computation Mixed Practice Concept: : Order of Operations: Grouping Symbols to Simplify Expressions: Introduce parentheses Mnemonic Device: Greeting, My Dear Aunt Sally	From Sharon Wells Curriculum <ul style="list-style-type: none"> • Skills p.7 • Review p.7 • Concept: Order of Operation 3 • Simplifying Expression Word Cards
Day 4 –Extend	Warm-Up (2 problem solving problems) Skills: Unit 7 Day 4 Multiplication Story Problems Review: Unit 7 Day 4 Computation Mixed Practice Concept: Grouping Symbols to Simplify Expressions: Introduce Brackets (Parenthesis first/brackets second)	From Sharon Wells Curriculum <ul style="list-style-type: none"> • Skills p.8 • Review p.8 • Concept: Order of Operations 4
Day 5 - Evaluate	The teacher and students will go over the Week Two test taking skills questions with students and answer any student's questions. The students will then be given an assessment to complete independently to check their mastery of the skills taught throughout the week.	<ul style="list-style-type: none"> • Week 2 Assessment

Accommodations for Special Populations	Accommodations for instruction will be provided as stated on each student's (IEP) Individual Education Plan for special education, 504, at risk, and ESL/Bilingual.
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