CONNEAUT AREA SCHOOL DISTRICT MATHEMATICS		
UNIT OF STUDY: operations	COURSE/GRADE: 5	# WEEKS: 6
• MODULE 2	• Multi-Digit Whole Number and Decimal Fraction Operations	

Focus (emphasis) Standards/EC:	Technology/manipulatives:
CC.2.1.5.B.2 – Extend an understanding of operations with whole numbers to perform operations including decimals **-Eligible Content:** * **M05.A-T.2.1.1:** multiply multi-digit whole numbers (not to exceed 3-digit by 3-digit) ***M05.A-T.2.1.2:** find whole-number quotients of whole numbers with up to 4-digit dividends and 2-digit divisors ***M05.A-T.2.1.3:** add, subtract, multiply, and divide decimals to hundredths (no divisors with decimals) **CC.2.2.5.A.1** – Interpret and evaluate numerical expressions using order of operations **-Eligible Content:** * **M05.B-O.1.1.1:** use multiple grouping symbols (parentheses, brackets, or braces) in numerical expressions and evaluate expressions containing these symbols. * **M05.B-O.1.1.2:** write simple expressions that model calculations with numbers and interpret numerical expressions without evaluating them (Express the calculation "add 8 and 7, then multiply by 2" as 2x(8+7) Recognize that 3 x (18,932 + 921) is three times as large as 18,932 + 921 without having to calculate the indicated sum or product)	Calculators; grid paper; white boards and markers; decimal place-value charts (see Grade 5 Module 2 attachment for examples of usage) Frayer Model graphic organizer (note-taking) Dry-erase boards, eno-board National Library of Virtual Manipulatives (base block decimals – add and subtract decimal values using base blocks) Illuminations: Order of Operations BINGO studyzone.org (resources and interactive practice) www.studyisland www.firstinmath.com xpmath.com
Important (reinforced) Standards/EC: There are no standards currently aligned to this resource.	**Reading, writing, speaking strategies:** Journaling, read aloud, lecture, word problems, persuasive/informational/expository writing, graphic organizers, Frayer model, cooperative learning, board work, demonstration, Think-Pair-Share, note-taking, crossword puzzles, , bell-ringers
Vocabulary: Additive identity property of 0; multiplicative identity property of 1; associative/commutative property of addition/multiplication; distributive property; braces; brackets; parentheses; compatible numbers; algorithm; area model; array;	**Questioning and discussion techniques:** Bell-ringers; exit tickets; journals; Frayer Model; highlighting key terms; small group/ whole group; demonstrations; homework review; dry-erase checks

dividend; divisor; quotient; remainder; product; factor; sum; estimate; evaluate; exponent; expression; inverse operations; unit fractions	
Real life application: Career options: http://www.xpmath.com/careers/topicsresult.php?subjectID=3&topicID=14	**Performance assessment:** http://www.sandi.net/Page/62252
Computation: Multiply multi-digit whole numbers, not to exceed 3-digits by 3-digits; find whole numbers quotients of whole numbers with up to 4-digit dividends and 2-digit divisors; add, subtract, multiply and divide decimals to hundredths (no divisors with decimals); use multiple grouping symbols (parentheses, brackets, or braces) in numerical expressions, and evaluate expressions containing these symbols; write simple expressions that model calculations with numbers; interpret numerical expressions without evaluating them	**Accommodations/adaptations:** Grid paper for organization; calculators for checking accuracy; place-value charts Differentiation strategies, small group instruction, cooperative learning, guided practice, peer tutoring, limited problems/choices, manipulatives and models, clarity checks, diagrams and graphs
SAS Module Resources: pdesas.org *Teacher Tools-Curriculum Mapping-Instructional Frameworks Math-PA Standards: Focus and Important Standards * Math Cluster Matrix grades 4,5,6 (prior and future learning)	