CONNEAUT AREA SCHOOL DISTRICT
MATHEMATICS- Unit 3

UNIT OF STUDY: Multiplication and Division of up to a 4-digit number by up to a 1-digit number using place value	**COURSE/GRADE:** 4	**# WEEKS:** 4 week (20 days)

Focus (emphasis) Standards/EC	Technology/manipulatives
CC.2.1.4.B.1-Apply place value concepts to show an understanding of multi-digit whole numbers CC.2.1.4.B.2-Use place value understanding and properties of operations to perform multi-digit arithmetic. CC.2.2.4.A.1-represent and solve problems involving the four operations	www.youtube.com www.studyzone.org (resources and interactive practice) www.studyisland.com www.firstinmath.com www.illuminations.nctm.org www.nlvm.usu.edu http://illustrativemathematics.org/standards/k8 www.commoncoresheets.com counters, calculators, grid paper, games (multiplication/division bingo)
Important (reinforced) Standards/EC CC.2.2.4.A.2 –Develop and/or apply number theory concepts to find factors and multiples CC.2.2.4.A.4-Generate and analyze patterns using one rule. **Eligible Content** **M04.B-O.1.1.1** Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations. *Example 1: Interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5.* *Example 2: Know that the statement 24 is 3 times as many as 8 can be represented by the equation 24 = 3 × 8 or 24 = 8 × 3.* **M04.B-O.1.1.2** Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison. *Example: Know that 3 × 4 can be used to represent that Student A has 4 objects and Student B has 3 times as many objects not just 3 more objects.* **M04.B-O.1.1.3** Solve multi-step word problems posed with whole numbers using the four operations. Answers will be either whole numbers or have remainders that must be interpreted yielding a final answer that is a whole number. Represent these problems using equations with a symbol or letter standing for the unknown quantity. **M04.B-O.1.1.4** Identify the missing symbol (+, –, ×, ÷, =, <, and >) that makes a number sentence true (single-digit divisor only). **M04.B-O.3.1.2** Determine the missing elements in a function table	**Reading, writing, speaking strategies** Journaling, Read Aloud, graphic organizers, reword problems, articulate/explain mathematical concepts, students teach a concept, turn and talk, highlighting key terms, writing multiplication/division stories

(limit to +, –, or × and to whole numbers or money). **M04.B-O.3.1.3** Determine the rule for a function given a table (limit to +, –, or × and to whole numbers).	
Vocabulary Equivalence, digits, whole number, operation, multiply/multiplication, divide/division, place value, estimation, rounding, algorithm, multiplicative comparison, factor, factor pairs, multiple, and product	**Questioning and discussion techniques** Stories, songs, cheers, poems, sayings, etc… Bell ringers/exit slips Drawing pictures or using models to help students understand, analyze key terms in multi step word problems to decipher the operation needed to complete the problem
Real life application Planning, shopping, construction, sewing, gardening, cooking	**Performance assessment** Graduation party www.erikhoover.cmswiki.wikispaces.net (Plan details for an upcoming graduation party by creating a guest list, calculating costs for different kinds of parties, create a budget, make a decision using teacher's suggestions) Gourmet Candy Packaging www.elementarymathematics.org/uploads/gr4-u1-final.rtf (Students create a flyer to advertise their gourmet chocolates. They need to determine the best arrangement for 24 and 48 candies and determine the relationship between the factors of each box.)
Computation *Mental math with basic facts *Demonstrate an understanding that in a multi-digit whole number through 1 million a digit in one place represents 10 times what it represents in the place to its right * Multiply a whole number of up to 4 digits by a 1 digit whole number and multiply 2 two-digit numbers *Divide up to 4 digit dividends by 1 digit divisors with answers written as whole number quotients and remainders *Estimate the answer to multiplication problems using whole numbers through 6 digits (for multiplication no more than 2 digit times 1 digit excluding powers of 10) *interpret a multiplication equation as a comparison. Represent verbal statements of	**Accommodations/adaptations** numbers/multiplication chart, number line, learning contracts, small group, learning centers, scaffolding, agendas, demonstrations, using notes or journals, cooperative learning

multiplicative comparisons as multiplication equations. *Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison *Check answers for reasonableness	
SAS Module Resources www.pdesas.org Login and click teacher tools in top right corner Click Curriculum mapping Or to compare standards/eligible content/CC - Click on standards then click on PA Core and go to PA Core Crosswalks or go to PA Core Eligible content	*Grade 4 Mathematics Assessment Anchors and Eligible Content *Mathematics Glossary *PA Core Mathematics, Grades PreK-12 *PA Standards Instructional Frameworks: Math *Cluster Heading Matrix – Tri-fold Grades 3-4-5