CONNEAUT AREA SCHOOL DISTRICT MATHEMATICS – MODULE TWO				
UNIT OF STUDY: Multiplication and Division with Factors of 2, 3, 4, 5, and 10	COURSE/GRADE: 3		# WEEKS: 4	
Focus (emphasis) Standards/EC CC.2.2.3.A.1 Represent and solve problems involving multiplication and division. CC.2.2.3.A.2 Understand properties of multiplication and the relationship between multiplication and division. CC.2.2.3.A.3 Demonstrate multiplication and division fluency.		Technology/manipulatives Study Island; ixl.com; firstinmath.com; youtube.com; multiplication.com; counters; multiplication tables		
Important (reinforced) Standards/EC CC.2.1.3.B.1 Apply place value understanding and properties of operations to perform multi-digit arithmetic. CC.2.2.3.A.4 Solve problems involving the four operations, and identify and explain patterns in arithmetic.		Journaling; wri	out a story problem;	

Vocabulary

- Division
- Multiplication
- Associative Property of Multiplication
- Quotient
- Commutative Property of Multiplication
- Factor
- Multiple
- Product
- Array
- repeated addition
- Distributive Property of Multiplication
- repeated subtraction
- multiplication table
- Identity Property of Multiplication
- Divisor
- dividend

Questioning and discussion techniques

- How would you describe the problem in your own words?
- How would you describe what you are trying to find?
- What do you notice about...?
- What information is given in the problem?
- Describe the relationship between the quantities.
- Describe what you have already tried. What might you change?
- Talk me through the steps you've used to this point.
- What steps in the process are you the most confident about?

- What are some other strategies you might try?
- What are some other problems that are similar to this one?
- How might you use one of your previous problems to help you begin?
- How else might you organize... represent...show..?

Real life application

Create a story to a given combination of symbols and numbers; represent two-step word problems using equations with a symbol standing for the unknown quantity; solve two-step word problems involving real-life situations (ie. Grocery store, dividing supplies, etc.) using the four operations; describe a context in which a total number of objects can be expressed as $b \times c$; describe a context in which a number of shares or a number of groups can be expressed as 36 divided by 4

Performance assessment examples:

Formative assessments can be taken from *Crosswalk Coach* Lessons 9, 10, 11, 12, 13, 15, 16, 17 and 18 *Buckle Down* Lessons 7, 8, 9, 10, 12, 13, 14, and 15

Computation

- Use multiplication (up to and including 10 x 10) and/or division (limit dividends through 50 and divisors and quotients through 10) to solve word problems in situations involving equal groups, arrays, and/or measurement quantities.
- Determine the unknown whole number in a multiplication (up to and including 10 x 10) or division (dividends through 50 and divisors and quotients through 10) equation relating three whole numbers.
- Apply the commutative property of multiplication (not identification or definition of the property).
- Apply the associative property of multiplication (not identification or definition of the property).
- Interpret and/or model division as a multiplication equation with an unknown factor. EX. Find 32 divided by 8 by solving 8 times? =32

Accommodations/adaptations

Word problems read aloud; Study Island 3-tiered lessons for reinforcement; availability of manipulatives as needed; word bank with pictures

SAS Module Resources

The Doorbell Rang by, Pat Hutchins; a division story: www.pdesas.org/module/content/resources/1744/view.ashx	
Printable flashcard creator : <u>www.aplusmath.com</u>	