Math Grade 4 Unit 6
Curriculum Unit Planning Template
Canterbury Public Schools

Subject	Math
Grade Level	4
Unit Title	Multiplying and Dividing Multli-digit Numbers
Unit Goals	Students multiply and divide multi-digit whole numbers using partial products and partial quotient strategies, apply this understanding to solve multi-step problems using the four operations Section A Features of Patterns Generate a number or shape pattern that follows a given rule Identify apparent features of a number pattern that were not explicit in the rule itself Section B Multi-digit Multiplication Multiply a whole number of up to four digits by a one -digit number, and 2 two-digit numbers using strategies based on place value and the properties of operations Section C Multi-digit division Divide numbers of up to four digits by one-digit divisors to find whole number quotients and remainders., using strategies based on place value, properties of operations, and the relationship between multiplication and division Section D Let's Put it to Work Problem Solving with Large Numbers Use the four operations to solve problems that involve multi-digit whole numbers and assess the reasonableness of answers
Pacing (# of weeks)	3 - 4 weeks
Standards	4.OA.C.5 4.MD.A.2, 4.NBT.B.4, 4.NBT.B.5, 4.OA.A.3 4.MD.A.#, 4.NBT.B.6, 4.OA.A.3, 4.OA.B.4 4.MD.A.2, 4..MD.A.3, 4.NBT.B.4, 4.NBT.B.5, 4.NBT.B.6, 4.OA.A.2, 4.OA.A.3, 4.OA.C.5
Content/Conceptual Knowledge (know)	It helps to decompose a dividend into smaller numbers and find partial quotients It is productive to decompose a dividend by place value

Skills (be able to do)	Find products and quotients, partial products and partial quotients Solve multi-step problems using the four operations Transition from using diagrams to using algorithms to record partial products Multiply the factors by place value one digit at at time, and then organize the partial products vertically Give a rule for a pattern Predict the values or features of future terms in a pattern sequence. Use a series of equations and vertical recording method to organize partial quotients Construct logical reasoning and critiquing the reasoning of others
Essential Questions	Why does decomposing numbers help solve mathematical problems? How can you show ways to multiply by decomposing a number?
Enduring Understandings	Decomposing factors by place value is a productive way of finding products. When rectangles no longer accurately represent area, the term area diagram is not used.
Vocabulary	Rectangular diagrams, factors, multi-digit, product, quotient, distribute
Common Learning Experiences	Lesson 1, Activity 2, Taller and Taller Lesson 9, Activity 1, An Algorithm for Noah Lesson 15, Activity 1, Elena's Mural Lesson 22, Activity 1, Create a Class Banner
Assessments	students apply their knowledge of operations to solve multistep problems about measurement in various contexts- calendar days, distance and population Check ins and end of unit activities Solve mathematical problems such as 3 x 2,135 complete the diagram that shows how this is done Unit assessments, daily cool downs, check points
Resources	Large base ten paper/diagrams , grid paper, pattern blocks, base ten blocks, inch tiles
Strategies	Base - ten diagrams, arrays, decompose and compose numbers