

Participant Name:	Amanda Averill
District:	Massena CSD
Grade Level:	4
Subject/Course:	Technology/Math
Cross-curricular Link:	Math
Approximate Time (IN MINUTES):	40

CONTENT AND SKILLS
Learning Objectives: 4-6 CT.4 Decompose a problem into smaller named tasks, some of which can themselves be decomposed into smaller steps. 4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison.
Students' I can statements . . . - I can decompose a problem into smaller named tasks. - I can multiply or divide to solve word problems.
How will you meet the needs of SWD and ELL/MLL students? Students will have larger printed materials, manipulatives, graphic organizers, and pictures to guide their learning.
NYS COMPUTER SCIENCE AND DIGITAL FLUENCY STANDARDS List all standards that authentically align (e.g., K-1.CT.4)
4-6 CT.4 Decompose a problem into smaller named tasks, some of which can themselves be decomposed into smaller steps.
OTHER SPECIFIC STANDARDS (e.g., Content, SEL Benchmarks) List all standards that authentically align https://www.p12.nysed.gov/sss/documents/SELBenchmarks2022.pdf
4.OA.2 Multiply or divide to solve word problems involving multiplicative comparison.

INSTRUCTIONAL PLAN
List the steps of the lesson, including instructions for the students. Add and highlight Standard Indicator next to activity that aligns

Introduction (10 minutes)

- **Hook:** Present a real-world scenario involving multiplicative comparison (e.g., comparing the number of apples in two baskets).
- **Discussion:** Briefly discuss how complex problems can often be solved by breaking them down into smaller parts.

Direct Instruction (15 minutes)

- **Modeling:** Demonstrate solving a word problem by decomposing it into smaller tasks using the interactive whiteboard.
 - Example problem: "A basket has 3 times as many apples as another basket. If the smaller basket has 4 apples, how many apples are in the larger basket?"
 - Decomposition steps:
 1. Identify quantities to compare.
 2. Set up a multiplication equation.
 3. Solve and verify the solution.

Guided Practice (15 minutes)

- **Paired Activity:** Students work in pairs to decompose and solve a given word problem using tablets.
 - Provide a set of problems where students need to decide whether to multiply or divide.
 - Encourage use of online math tools for additional practice and instant feedback.

Independent Practice (10 minutes) 4.OA.2, 4-6 CT.4

- **Worksheet Completion:** Students individually complete a [worksheet](#) with similar word problems, demonstrating their ability to decompose and solve.
- **Focus:** Encourage students to write down the steps they take to solve each problem.

Reflection and Closure (10 minutes)

- **Class Discussion:** Invite students to share their solutions and reasoning with the class.
- **Reflection Questions:**
 - What strategies helped you decompose the problem?
 - How did decomposing the problem make it easier to solve?
- **Exit Ticket:** Have students write down one thing they learned about problem decomposition and solving multiplicative comparison problems

SPECIFIC NEEDS: MATERIALS / RESOURCES / TECHNOLOGY

Add additional resources needed for this lesson such as instructional technology templates, images, videos, etc.

- Interactive whiteboard
- Laptops or tablets
- Word problem [worksheets](#)
- Online math tools (e.g., Khan Academy)