


ELEMENTARY MATH PROJECT**Grade 4****Key Number Concept 2:****Multiplication and Division of Larger Numbers****Sample Week at a Glance**

Before this week of lessons, grade 4 students will have developed an understanding of and some fluency with their foundational multiplication (and corresponding division) facts (0, 1, 2, 5, 10).

Monday	<p>Exploration: How could you find out how many?</p>  <p>Introduce this as a slide show: first show the 1st ring of candy, then the first two, then all 3, each time asking students, “Now how many”? How do you know? Lead discussion towards how we can solve 18×3 by breaking it up into $10 \times 3 + 8 \times 3$.</p> <p>Lesson and practice with multiplying teen numbers by one digit numbers using 3 possible mental math strategies: distributive property, doubles/halves, or decomposition. For example,</p> $16 \times 5 = 10 \times 5 + 6 \times 5 \text{ OR}$ $16 \times 5 = 16 \times 10/2 = 160/2 \text{ OR}$ $16 \times 5 = 4 \times 4 \times 5 = 4 \times 20$ <p>Students can start by building an array to help them visualize the situation. The Number Frames tool here is great as it creates a fillable array with adjustable dimensions: https://mathigon.org/polypad#number-frames</p> <p>Closing circle - share and discuss strategies used and aha moments</p>
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<p>Tuesday</p>	<p>Number Talk: How could you figure out 12×5? Lead students to the 3 strategies from Monday. $12 \times 5 = 10 \times 5 + 2 \times 5$ OR $12 \times 5 = 12 \times 10/2 = 120/2$ OR $12 \times 5 = 3 \times 4 \times 5 = 3 \times 20$</p> <p>Continue practicing the three strategies from Monday.</p> <p>Closing Circle - Which of these strategies is your favourite? Why? What are the pros/cons of each strategy?</p>
<p>Wednesday</p>	<p>Number string: 10×4 9×4 18×4 19×4 20×3 2×3 2×30</p> <p>Lesson and practice multiplying multiples of 10 by 1-digit numbers</p> <p>Closing circle - have students share what they learned from their practice and how that connects with their learning from Monday and Tuesday.</p>
<p>Thursday</p>	<p>Read Amanda Bean's Amazing Dream and choose at least one page for a number talk. Have students discuss their strategies. https://www.youtube.com/watch?v=g07vteeiz_o</p> <p>Math Workshop:</p> <ul style="list-style-type: none"> - Practice the 3 strategies from Monday. Have teen number x 1-digit number cards (and some larger 2-digit by 1-digit) and students choose a card and try to find the solution using at least two strategies. Use individual whiteboards for this - Multiplication/division facts fluency game/activity: Multiplication Tic-Tac-Toe - Teacher led small group instruction: ways to multiply 2-digit numbers by 1-digit numbers using the three strategies from Monday <p>Closing Circle - students sharing what they did, what they learned and where they want to go next with their learning about multiplication facts</p>
<p>Friday</p>	<p>Number talk: How could you figure out 24×6?</p> <p>Just right practice: students choose between 3 independent practice activities: Multiplying a 1-digit number by a multiple of 10</p>

	<p>Multiplying a 1-digit number by a teen number Multiplying a 1-digit number by any two digit number</p> <p>Closing Circle - what strategies did you learn this week that you did not know before? How will this change the way you multiply going forward?</p>
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Based on formative assessment information from this week, next week's planning would include extending multiplication strategies to two-digit by one-digit multiplication, as well as more practice with single digit multiplication, and division within 100.