

**ELEMENTARY MATH PROJECT**
**Grade 3**
**Key Number Concept 3:  
Multiplication and Division**
**Sample Week at a Glance**

Before this week of lessons, students have been introduced to the concept of multiplication and division through equal groupings with concrete materials and have been introduced to the multiplication and division symbols and writing multiplication and division equations. Students have confidence with grouping and counting by 2s, 5s and 10s. This week's plan will focus on further developing students' understanding of multiplication.

<b>Monday</b>	<p>Read Amanda Bean's Amazing Dream, pausing throughout to have students notice and describe the arrays and equal groups they notice</p> <p>Invite students to create their own illustrations that include arrays or equal groups and label them with multiplication equations and descriptive sentences.</p> <p>Closing circle: Select a few students to share their illustrations and explain how arrays/equal groups help them think about multiplication.</p>
<b>Tuesday</b>	<p>Number Talk Image: Choose an array image and project on screen and invite students to discuss: "Where do you see multiplication?"</p> <p>Math Workshop</p> <ul style="list-style-type: none"> <li>-multiplication equation cards and colour tiles (and repeat with other materials at another table) to build arrays</li> <li>-Counting Collections to 100 asking students to focus on groupings such as 3 and 4 and connect to multiplication</li> <li>-Teacher led small group instruction: teach the game Circles and Stars and have students share their understanding of equal groups</li> </ul> <p>Closing Circle - students sharing what they did, what they learned and where they want to go next with their learning about multiplication</p>
<b>Wednesday</b>	<p>Table Groups create webs on charts: What do we know about multiplication? What do we wonder?</p> <p>Invite students to use various materials to investigate their own wonders about multiplication. They may further investigate arrays or number patterns or</p>

	<p>another area of interest. Invite students to represent their thinking with materials such as cubes, tiles, drawing, painting, imprinting in clay, etc. Students may document their findings through photographs, mini-books or mini-posters.</p> <p>Closing circle: Invite students to share their projects with a partner and then select a few projects to compare as a class. How did different materials help us show what we know about multiplication?</p>
<b>Thursday</b>	<p>Number Talk: <math>4 \times 12</math> (have students share different strategies for solving)</p> <p>Math Workshop</p> <ul style="list-style-type: none"> <li>-students choose multiplication equation cards and create a drawing of a context connecting to that equation</li> <li>-half-sheet of paper with five multiplication facts to solve using materials, drawings or tallies</li> <li>-Circles and Stars math game</li> <li>-Teacher led small group instruction: Choral Counting choosing multiples based on students' experience, using a small whiteboard to record and notice patterns</li> </ul> <p>Closing Circle - students sharing what they did, what they learned and where they want to go next with their learning about multiplication</p>
<b>Friday</b>	<p>Choral Counting routine: counting by 4s, recording count on whiteboard in an array and having students notice patterns</p> <p>Present a CGI problem to the class to solve using different strategies: <i>Three friends went blackberry picking and each had a small basket. They picked 36 blackberries and shared them equally. How many blackberries did they each get?</i></p> <p>Pause to have some students share their strategies. As some students continue to solve the problem, others may write their own problems to be used in future lessons.</p> <p>Closing Circle - students sharing what strategies and materials are supporting their understanding of multiplication and generate a personal goal for practicing multiplication next week</p>

After this week of lessons, based on formative assessment information, the following week would likely include lessons on connecting concrete, pictorial and symbolic representations for multiplication and some specific time focusing on thinking about equal groups of 3 and 4 with connected counting and multiplication questions. One lesson could use the multiplication problems that students created to present to the class to solve. Some time will be built in during

Math Workshop for students to work towards their own personal goals for multiplication from Friday's closing circle. Through problem-solving and use of materials, the connection between multiplication and division will continue to be developed.