

LESSON PLANS: ONTARIO

Grade 3: Number Sense and Numeration Multiplication and Division

 45 MINS

powered by

 Mathletics

Overall Curriculum Expectations:

- Solve problems involving the addition and subtraction of single- and multi-digit whole numbers, using a variety of strategies, and demonstrate an understanding of multiplication and division.

Specific Curriculum Expectations:

- Multiply to 7×7 and divide to $49 \div 7$ using a variety of mental strategies.
- Relate multiplication of one-digit numbers and division by one-digit divisors to real-life situations, using a variety of tools and strategies (e.g., place objects in equal groups, use arrays, write repeated addition and subtraction sentences).

Introduction to Lesson

 10 MINS

Teacher Background:

Review the teacher notes located in

[Teacher Console > eBooks > Grade 3 > Build a Number.](#)

Click on the book—options will show up on the far right. Click on Teacher Notes.

Play video from “Build a Number” on the interactive whiteboard for the class. This is located in the Mathletics Teacher Console under eBooks. During the video, pause and discuss the key words, which are underlined in red. If students are not aware of the fraction $\frac{1}{4}$, please clarify. Discussion of the video is not meant to solve the question. Students will have the opportunity to solve the question during the lesson.

Ask students for further extension to get them to start thinking how they can solve the problem:

- Were you free to choose the number of flats?
- How about the number of rods?
- Why did the number of rods have to be even?
- What did you notice about the number of unit blocks?

ITEMS NEEDED

- ✓ Interactive whiteboard
- ✓ Mathletics teacher and student logins
- ✓ Teacher notes from “Build a Number”
- ✓ Base ten blocks
- ✓ Student handout for “Build a Number”
- ✓ Math journals
- ✓ Computers/mobile devices

ASSESSMENTS

- ✓ Observation and participation
- ✓ Reviewing completed “Build a Number” student worksheet.
- ✓ Reporting results within the Teacher Console of Mathletics for curriculum.

ACCOMMODATIONS/ MODIFICATIONS

- ✓ Provide manipulatives.
- ✓ Encourage students to click on “Something Easier” and “Something Harder” within the curriculum activities of Mathletics.
- ✓ Teacher can work with a small group of students.

EXTENSION OF LEARNING

- ✓ “Rainforest Maths,” Grade 3, Number
- ✓ Curriculum activities
- ✓ Live Mathletics levels 3 and 4.

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The Lesson

 20 MINS

Marion Small's "Build a Number" eBook

- Provide students with the "Build a Number" student handout. Teachers can provide students with the base ten blocks sets as well. Have the students come up with many possible solutions. If students need help with ways to solve this problem, teachers can review the Problem Solving booklets within eBooks. The strategies discussed in the Problem Solving eBook are; Read, Plan, Work and Check; Draw a diagram; Look for patterns; Act it out; Trial and error; Make a list; Estimation; Work backwards; and Open Ended.
- Within the Teacher Console and the "Build a Number" eBook, click on "Build a Number" under Interactive on the far right. This can be displayed on the interactive whiteboard. Double clicking on a flat, rod, or unit block on the left will add it to the centre of the screen. Have the students come up and share some of the solutions they found, along with a strategy they used to solve this problem. As each group comes up and shares, click the **Store** button, which will store the solutions on the right side. After all the groups have shared, review all the solutions.
- **Reinforcement:** Using computers or mobile devices. Students complete curriculum activities in the Student Console. Suggested activities: any activities in the Multiplication/Division strand. Or, for review, students can try activities in the Addition/Subtraction strand before trying Multiplication Arrays.
- **Extra-time activity/cross-curriculum activity:** Number Cubes—Students can play a game using 2 or 3 dice. Students roll the dice and then decide whether to use the multiplication or addition symbol. They will display the answer using the base ten blocks and have the partner figure out what symbol they used. For example, a student rolls three dice and gets the numbers 3, 4, 2. Students can add or multiply the numbers and display the answer using the base ten blocks.



Consolidating the lesson

 15 MINS

- Have students reflect in their journals about the lesson. What strategies did they use? Which ones did they find to be helpful to solve this problem? Or create a "What stuck with you today?" board. Students write their responses on sticky notes and place them on this board. You can review these at the end of the week and share the process/thoughts with your students.



For more information contact our friendly team...

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