LESSON PLANS: ONTARIO

Grade 6: Number Sense and Numeration Place Value



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Overall Curriculum Expectations:

 Read, represent, compare, and order whole numbers to 1000 000, decimal numbers to thousandths, proper and improper fractions, and mixed numbers.

Specific Curriculum Expectations:

- Read and print in words whole numbers to one hundred thousand, using meaningful contexts. Demonstrate an understanding of place value in whole numbers and decimal numbers from 0.001 to 1000 000, using a variety of tools.
- Solve problems that arise from real-life situations and that relate to the magnitude of whole numbers up to 1000000.

Introduction to Lesson



10 MINS

Teacher Background:

- Give students base ten blocks and number lines for the activity. Students can create their own number lines for reference as well. Have students represent the numbers 0.5, 100, and 1000 in as many ways as possible.
- Students can use pictures, numbers, words, manipulatives, or examples of where they have seen or heard this number before. Students should think of real-life examples and as many ways as they can to represent that number.

Log on to your

Teacher Console > Demonstrations > Concept Search.

- Type "thousand" in Search bar.
- Show students the place value chart and how to arrange a numerical value in the proper columns.
- Students can make their own place value charts to use for reference when completing the rest of this lesson.
- Using the arrow for the next slide over, students will be able to see a visual of how base ten blocks can make up a whole number.
- Explore with students "Decimal System" in Concept Search to show them how whole numbers become decimal numbers.

III ITEMS NEEDED

- ✓ Interactive whiteboard
- ✓ Mathletics teacher login
- ✓ Student handouts from eBooks
- ✓ Computers/tablets
- ✓ Base ten blocks
- ✓ Place value charts
- ✓ Chart paper
- ✓ Markers
- ✓ Abacus (if used in the classroom)

E ASSESSMENTS

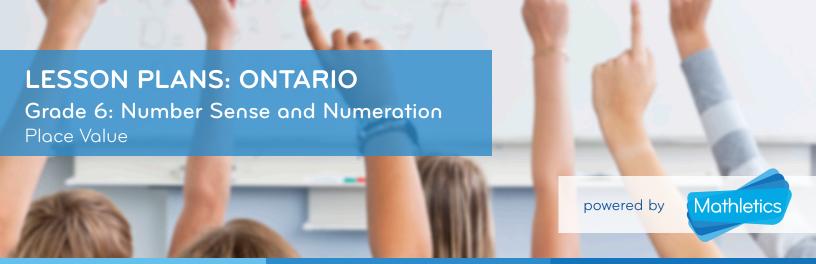
- ✓ Observations
- ✓ Collaborative/group work
- ✓ Oral presentation
- ✓ Collect and assess place value charts.

ACCOMMODATIONS/ MODIFICATIONS

- ✓ Allow students to use their own place value chart and base ten blocks to help read and represent whole numbers.
- ✓ Pair students in ability or leveled groups.

EXTENSION OF LEARNING

- Curriculum activities
- ✓ Grade 6 eBook "Reading and Understanding Whole Numbers,"various sections.
- ✓ Grade 6 "Rainforest Maths," Numbers section.
- ✓ Live Math Level 6
- ✓ Have students look up abacus in the Concept Search section of their Student Console; interact with this concept.



The Lesson



Reading and

Understanding Whole Numbers

Teacher Background:

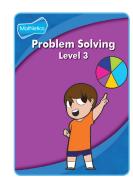
Students should have created their own place value charts prior to this lesson, or should be given a handout of a place value sheet.

eBooks—Read and Understand Numbers (Ordering)

- For this math game, students will each need a printed handout from the eBook > Grade 6 > Reading and Understanding Whole Numbers.
- Go to "Read and Understand Numbers," page 4, question 3. A copy should be made for every student. Students should be placed in or choose a group of four for this activity. Every student will need a set of the digit cards. Students can practice making the largest numbers they can; as an extension to this activity, have students place their numbered cards in their place value charts. Students should say the word aloud to obtain the points.

Open-Ended Problem Solving—Some Really Big Numbers

- Option 1—Display the Problem Solving questions, one at a time, on the interactive whiteboard. Log in to your Teacher Console > eBooks > Problem Solving > Problem Solving Level 3.
- Go to "Open-ended" and to the "Some really big numbers" activity. Have students work collaboratively to determine a solution to the problems. Students should write the number in their place value charts. Students should write the whole number in words. Students can then test the real-life problem and begin determining strategies to find a solution.
- Option 2—Using the same activity as above, print out the handout from the Problem Solving eBook and distribute to partners. Students should work on one of the three open-ended Problem Solving questions. Students should show their work for each problem to their partners and write the whole number in both words and numbers. Have students write their responses on chart paper and share with the class.



Consolidating the lesson



• 3, 2, 1

How It Works: Three things you have learned, two things you have questions about, one thing you want the teacher to know. Students can share their 3, 2, 1 response individually or through discussion, or you can provide exit slips (sticky notes) and have students post them before the class ends.