

Yorktown Elementary MST Magnet School

4th Grade Math Lesson Plan – Rounding

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Context: This lesson is designed for a 4th grade class at Yorktown Elementary Mathematics, Science, and Technology Magnet School. This inclusion class contains 24 students, 10 of which have learning disabilities. It is co-taught by a 4th grade teacher and a special education teacher. This is the initial lesson on rounding.

Objective: Students will round three digit whole numbers to the nearest 10 and 100.

SOL: SOL 4.1 The student will round whole numbers expressed through millions to the nearest thousand, ten thousand, and hundred thousand.

Materials/

Resources: Sheets of paper numbered from 0 – 100 by tens, placed across the room
Rounding Mountain with marble
Post-it Notes or Erasable Overhead Marker
File cards or slips of paper with two digit numerals

Content and Instructional Strategies:

1. Introduce the need for rounding using some scenario familiar to students such estimating totals. We will start rounding to 10s and 100s and then move larger.
2. Demonstrate how the “Math Rounding Mountain” works when rounding to the nearest hundred. Label places on the mountain 0, 10, 20, 30, etc. Assign “50” just off the peak of the mountain. Ask the students to locate about where 37 would be on the mountain and predict whether a marble placed there would roll to the 0 or to the 100. Try it. Discuss which way does the marble roll? And why?
3. Select random students to round a two-digit number which they draw from the pack of file cards to the closest 100. Check student’s answer with the help of a marble on the math mountain.
4. Practice: Call the students’ attention to the numerals displayed along one wall and how they are similar to the numerals on the rounding mountain. Tell them that we are going to practice rounding to the nearest 10 and the nearest 100. Divide the class into teams of two. Have a team draw a card with a two-digit number on it, discuss which two numbers on the wall that number is between, stand between those two numbers, and then move to the nearest 10. After explaining why they chose that number to round to, have them move to the nearest 100 and explain. Repeat with several teams.
5. The student will complete a worksheet where several numbers are given. The student will write the two numbers that the given number is between and lastly circle the number that the number would be rounded to. The student will work with a partner to discuss why he/she chose the number that they thought their number should be rounded. The teacher will rotate as this discussion is taking place and listen to the students’ responses.
Ex: 20 26 30 (Then circle the numeral 30.)
6. The teacher will lead a whole group discussion, asking the students to tell what they learned about rounding and to create a rule to describe what they had been doing.
Step one: Find the digit in the place to which you are rounding.
Step two: Look at the digit to the right. Round down, if the digit to the right is less than 5.
Round up, if the digit to the right is 5 or greater.

7. Sample summary questions

1. When you stood between your two numbers how did you decide they were correct?
2. How did you decide which number you should round to?
3. What is the most important thing you learned today about rounding?
4. What rule can you use?

Evaluation: Exit Card

Same directions as practice

_____ 52 _____

Differentiation and Adaptations: Having the students work in teams of two with one special education student and one non-special education student will provide support for the special education student. If necessary, the partner could be the teacher.

The amount of practice can be adjusted depending on the needs of the students.

Reflection: Instead of starting with the rule for rounding, the rule is developed as a result of experience. Note that the “5” on the Rounding Mountain is offset so that the marble will roll to the larger number.

Using the Rounding Mountain

Rounding to the Nearest Ten:

Write the tens that the number is between. Then circle the number that the number would round to if you are rounding to the nearest ten.

Example: _____ 26 _____

20 26 30 Then circle the numeral 30.

_____ 114 _____ _____ 22 _____ _____ 85 _____

_____ 9 _____ _____ 55 _____ _____ 141 _____

_____ 326 _____ _____ 73 _____ _____ 920 _____

_____ 458 _____ _____ 84 _____ _____ 452 _____

Rounding to the Nearest Hundred:

Write the hundreds that the number is between. Then circle the number that the number would round to if you are rounding to the nearest hundred.

_____ 114 _____ _____ 22 _____ _____ 85 _____

_____ 9 _____ _____ 55 _____ _____ 141 _____

_____ 326 _____ _____ 73 _____ _____ 920 _____

_____ 458 _____ _____ 84 _____ _____ 452 _____