

Detailed Lesson Plans

Lesson I: Interactive Number Lines

Materials:

- Sidewalk Chalk
- KWL Chart

Materials

Standard: 3.NBT.1

Use place value understanding to round whole numbers to the nearest 10 or 100.

Standard

Mini-Lesson

To introduce the concept of rounding, I like to begin by deepening students' number sense with an interactive number line activity that students typically love. Since this is a mini-lesson, it will only loosely fit within the workshop model. I will distribute a rounding KWL chart and have students write what they know and want to know about rounding. The KWL chart can be written on notebook paper, part of students' math portfolio, as an entry in students' interactive math notebook, or as a simple printable.

Mini Lesson

Work Time

Use sidewalk chalk to create a number line. I typically begin with numbers 1 through 50. Have students circle the multiples of ten: 10, 20, 30, 40, and 50. Try to keep the space between intervals of each number the same distance apart. Randomly give a number and have them determine which multiple it is closest to. Gradually add to the number line to begin working with larger numbers. If you feel that students are ready, extend the number line to three digit numbers. To keep students engaged, have students work in groups to create multiple number lines, so that everyone is able to participate at the same time.

Work Time

Closing

Lead the class in a discussion on how the number line activity relates to rounding. Explain that when you round, you find the closest multiple of ten or even hundred or thousand. Have students add to the L section of their KWL booklet.

Closing

Intervention

Intervention

Students primarily work with the original 1-50 number line.

Extension

Extension

- Have students create a number line of 0-1,000 with writing multiples of 100.

Essential Questions

Essential Questions

What does it mean to round?
How do we round in the real world?

Technology

- http://www.abcteach.com/worksheets/g_numbers.htm

Formative Assessment

9 Conceptual Lessons


Name _____

Rounding KWL Chart

Know	Want to know	Learned

Roll & Round

Player 2 _____



Smallest Number		Largest Number		Estimate
Smallest Number	Nearest Multiple of Ten	Largest Number	Nearest Multiple of Ten	Sum of Multiples of Ten

ROUNDING RIDDLES

Date _____

I am a number that rounds to 30. What number could I be? Could I be a different number? Explain your thinking.

I am a number that rounds to 90. What number could I be? Could I be a different number? Explain your thinking.

I am a number that rounds to 40. One of my digits is 8. What number am I? Could I be a different number? Explain your thinking.

I am a number that rounds to 90. One of my digits is 8. What number am I? Could I be a different number? Explain your thinking.

Name _____ Date _____

ROUNDING PROBLEM SOLVING

- How many different numbers will round to 400 when rounding to the nearest hundred? Prove your thinking.
- How many different numbers will round to 400 when rounding to the nearest ten? Prove your thinking.
- How can rounding help you solve addition and subtraction problems?
- What is the largest number that will round to 500? Explain your thinking.
- What is the smallest number that will round to 500? Explain your thinking.

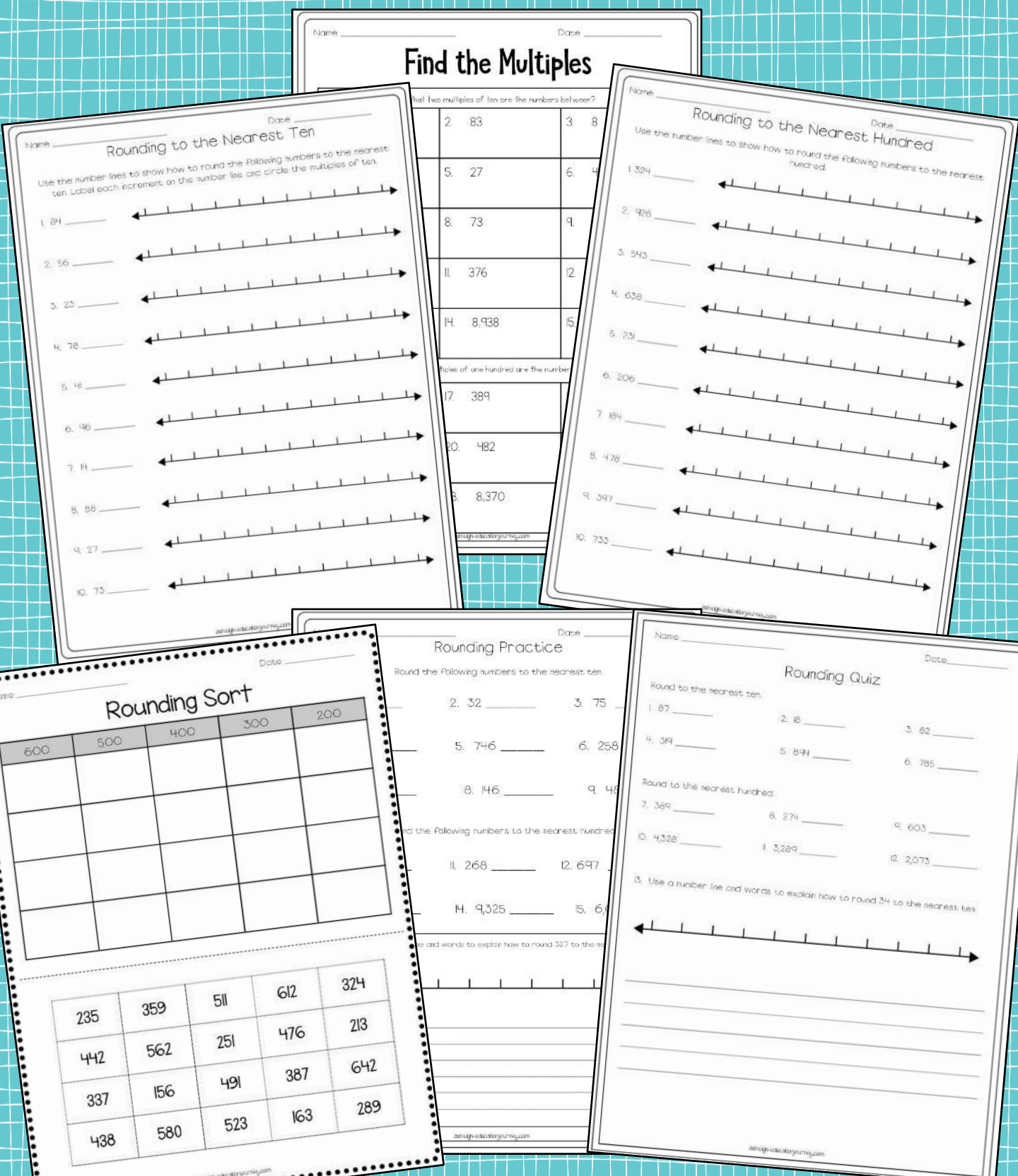
What two multiples of ten is 143 between? Show the missing numbers on the number line.

What two multiples of ten is 238 between? Show the missing numbers on the number line.

What two multiples of ten is 386 between? Show the missing numbers on the number line.

What two multiples of ten is 482 between? Show the missing numbers on the number line.

Practice Sheets



Name _____ Date _____

Find the Multiples

Find two multiples of ten are the numbers between?

2. 83 3. 8

5. 27 6. 4

8. 73 9. 4

11. 376 12. 4

14. 8,938 15. 4

Find two multiples of one hundred are the number

17. 389

20. 482

23. 8,370

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Rounding to the Nearest Ten

Use the number lines to show how to round the following numbers to the nearest ten. Label each increment on the number line and circle the multiples of ten.

1. 84 _____
2. 56 _____
3. 23 _____
4. 78 _____
5. 41 _____
6. 46 _____
7. 14 _____
8. 88 _____
9. 27 _____
10. 73 _____

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Rounding to the Nearest Hundred

Use the number lines to show how to round the following numbers to the nearest hundred.

1. 324 _____
2. 926 _____
3. 543 _____
4. 638 _____
5. 239 _____
6. 206 _____
7. 184 _____
8. 478 _____
9. 347 _____
10. 733 _____

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Rounding Practice

Round the following numbers to the nearest ten.

2. 32 _____ 3. 75 _____

5. 746 _____ 6. 258 _____

8. 146 _____ 9. 48 _____

11. 268 _____ 12. 697 _____

14. 9,325 _____ 15. 6, _____

Use a number line and words to explain how to round 327 to the nearest ten.

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Name _____ Date _____

Rounding Quiz

Round to the nearest ten.

1. 87 _____
2. 18 _____
3. 82 _____
4. 319 _____
5. 894 _____
6. 785 _____

Round to the nearest hundred.

7. 389 _____
8. 274 _____
9. 603 _____
10. 4,328 _____
11. 3,289 _____
12. 2,073 _____

13. Use a number line and words to explain how to round 34 to the nearest ten.

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Rounding Sort

600	500	400	300	200

235	359	511	612	324
442	562	251	476	213
337	156	491	387	642
438	580	523	163	289

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Game

Four in a Row

Materials

- 3 dice for each pair of students
- 1 game board for each pair of students (laminated for durability)
- 2-sided counter or colored marker for each pair of students

Directions

- The goal of the game is to get 4 markers in a row (horizontal, vertical, or diagonal).
- Player 1 rolls the dice and adds the numbers. S/he should round the sum to the nearest ten and place a marker on the corresponding number on the game board.
- If Player 2's marker is on the same number as Player 1's, Player 1 will not be able to place a marker on that number.
- Player 2 repeats the same process.
- The game will continue until one player gets 4 markers in a row.

Round to the Nearest Ten

100	110	120	130	140	150
160	170	180	190	200	210
220	230	240	250	260	270
280	290	300	310	320	330
340	350	360	370	380	390
400	410	420	430	440	450
460	470	480	490	500	510
520	530	540	550	560	570

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340	350	360	370	380	390
400	410	420	430	440	450
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ROUNDING UNIT AT A GLANCE

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Interactive Number Lines Skill: Find the Multiples	Rounding to the Nearest Ten Skill: Rounding to the Nearest Ten	Rounding to the Nearest Hundred Skill: Rounding to the Nearest Hundred	Four in a Row Skill Rounding Sort	Rounding Problem Solving
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Rounding Riddles Skill: Rounding Review	Roll and Round Skill: Rounding Practice	Rounding Scavenger Hunt Skill: Rounding Quiz		