

2: Lots of Lakes

Based on the Minnesota quarter reverse



OBJECTIVE

Students will learn the concept of “greater than” and “less than” through 1 to 1 correspondence. They will manipulate counters to determine which number is larger than the other.



MATERIALS

- 1 overhead projector (optional)
- “Minnesota Quarter Reverse” page
- 1 class map of the United States
- Counters
- Sticky note pads
- Marker
- Small plastic bags or other containers (1 per person)
- “More, More, More!” worksheets
- “Minnesota Quarter Reverse” page
- Crayons



PREPARATIONS

- Make copies of the following:
 - “More, More More!” worksheets (1 set per student)
 - “Minnesota Quarter Reverse” page (1 per student)
- Make an overhead transparency (or photocopy) of the “Minnesota Quarter Reverse” page.



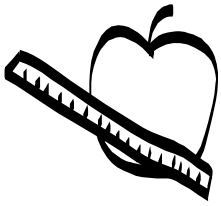
GROUPINGS

- Whole group
- Individual work

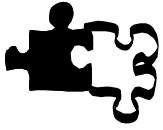


CLASS TIME

One 20- to 30-minute session



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CONNECTIONS

- Mathematics
- Social Studies



TERMS AND CONCEPTS

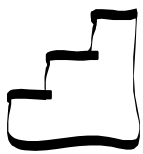
- Quarter
- Reverse (back)
- More than
- Less than
- Greater than



BACKGROUND KNOWLEDGE

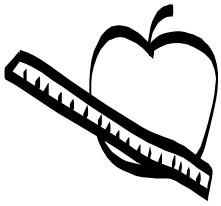
The students should have a basic knowledge of:

- Numerals as representations of numbers
- Basic counting skills
- More/greater
- Less/fewer



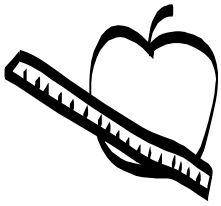
STEPS

1. Describe the 50 State Quarters® Program for background information, if necessary, using the example of your own state, if available. Then display the transparency or photocopy of the Minnesota quarter reverse. Locate Minnesota on a classroom map. Note its position in relation to your school's location.
2. With the students, examine the coin design. Have the students identify the images in this coin design, including the outline of the state of Minnesota, the pine trees, the water, the bird, the individuals fishing, and also the words "Land of 10,000 Lakes."
3. Ask the students whether they think that 10,000 lakes is a lot of lakes or just a few. Ask the students to explain their views. You might point out that the state has a picture of a lake on the quarter, so lakes must be important to Minnesota. Since Minnesota has 10,000 lakes, that might be more than other states have.
4. Tell the students that they will determine whether ten thousand is a lot. Write the numerals "1" and "10,000" on the board. Ask the students which is more, one or ten thousand. The students should be able to see that the number 10,000 is more than 1. Place a sticky note labeled "More/Greater" next to the numeral "10,000." Ask the students which is less, one or ten thousand. Place another sticky note labeled "Less" next to the "1."



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5. Explain that the class will be looking more closely at the idea of “more” and “less.”
6. Write the numeral “5” on the board and say it aloud. Have the students repeat the word aloud.
7. To model the next activity, count out five counters and place them in a row on a table in front of the students.
8. Write the numeral “2” on the board. Say it aloud and have the students repeat the word aloud.
9. Model counting out two counters on the table in front of them. Place the two counters underneath the first row.
10. Direct the students to look at the two rows. Ask which row contains more counters. The students should see that the row with five units has more than the row with two units. Place an adhesive note labeled “More/Greater” next to the numeral on the board that students say is more. Students should respond that 5 is more/greater than 2.
11. Ask the students which row has fewer units. Place an adhesive note labeled “Less” next to the numeral that the students say is less.
12. Repeat steps 6 through 10, using the numbers “seven” and “three.” Model this activity for your students at each step. The students should arrive at the conclusions that 7 is greater than 3 and that 3 is less than 7.
13. Repeat this activity three more times as a class using different sets of numbers.
14. Distribute a “More, More, More!” worksheet to each student. Direct the students to write their names at the top of the worksheet.
15. Read through the directions for the first section with the students. Using the example in each section, model the activity. In section 1, the students will circle the group that shows more pictures of quarters.
16. Allow the students to work independently to complete this section of the worksheet.
17. Read through the directions for the second section with your students. Model how they should go about completing this section. In section 2, the students will draw pictures to match the given amounts and draw a circle around the group that has more quarters.
18. Allow the students to work independently to complete this section of the worksheet.
19. Read through the directions for the third section with your students. Model how they should go about completing this section. In section 3, the students will use their counters to determine and circle the higher number.
20. Allow the students to work independently to complete this section of the worksheet.
21. Collect the worksheets from your students.
22. Display a copy of the “Minnesota Quarter Reverse” page.
23. Have the students look closely at the picture and show with their counters how many people are sitting in the boat.



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24. Also with their counters, ask the students to show you how many birds are on the coin.
25. Ask the students which group has more, the people or the birds? The students should respond that there are more people. Color in red the group that shows more and in blue the group that shows less.



ENRICHMENT/EXTENSION

Let the students show you examples of a specific number more or less than the number you start with (Ex: “Show me a number that is greater than 6.” “Show me a number that is less than 4.”).



DIFFERENTIATED LEARNING OPTIONS

Begin this activity by reading a student participation book about counting such as:

- *How Much Is a Million?* by David M. Schwartz
- *If You Made a Million* by David M. Schwartz
- *One Hundred Hungry Ants* by Elinor J. Pinczes



CONNECTION TO WWW.USMINT.GOV/KIDS

Visit the math lesson plan section in the Teachers section to locate additional ways to use coins to discuss basic mathematical concepts. (www.usmint.gov/kids/index.cfm?FileContents=/kids/teachers/msummary.cfm)

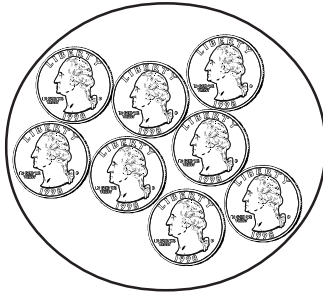


NAME _____

More, More, More! (1)

Directions: Which group of quarters is greater? Circle the **larger** group.

Example:



1.



2.



3.



4.



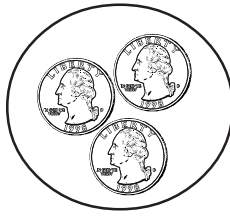
NAME _____



More, More, More! (2)

Directions: Draw a picture to show how many quarters there are in each group. Then, draw a circle around the group that shows the greater number of quarters.

Example:



1.

8 quarters

2 quarters

2.

4 quarters

3 quarters

3.

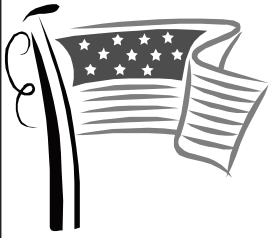
5 quarters

7 quarters

4.

6 quarters

1 quarter



NAME _____

More, More, More! (3)

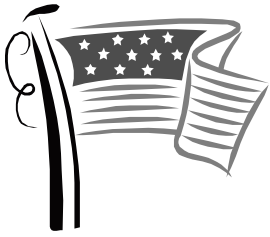
Directions: Use your counters to show the number of quarters in the groups. Then draw a circle around the number that is greater.

Example:

6

2

| | |
|---|----|
| 9 | 4 |
| 3 | 1 |
| 5 | 8 |
| 2 | 10 |



Minnesota Quarter Reverse

