5: Riddle Me Cents!

OBJECTIVE:
Students will use logic, as well as their knowledge of coin values and history, to solve riddles.

MATERIALS:
- Cents, nickels, dimes, quarters, half-dollars, and Golden Dollars (real coins, play money, or paper coins copied from the reproducible coin sheets (pages 29-32))
- "Riddle Me Cents!" work page (page 20)
- "Use Your Quarters Sense" work page (page 21)
- Chart paper

PREPARATIONS:
- If you are using paper coins, you will need to copy the reproducible coin sheets (pages 29-32), cut out coins, and laminate if possible.
- Copy the "Riddle Me Cents!" (page 20) and "Use Your Quarters Sense" (page 21) work pages.
- Copy the following riddles onto chart paper:

    I am 3 coins.
    I have only 1 president.
    I am worth less than 30 and more than 3 cents.
    What am I? [ANSWER: 3 NICKELS]

    I am a quarter from one of the first 5 states in the Union.
    There is a horse galloping across me!
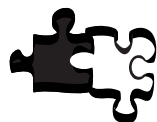   **Who am I?** [ANSWER: DELAWARE]

GROUPING:
- Whole group
- Pairs

CLASS TIME:
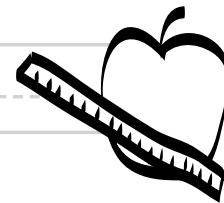- 1 class period

CONNECTIONS:
- Math
- Language Arts

ANSWER KEY

"Riddle Me Cents!" (page 20)

1. 1 quarter, 2 dimes, 1 nickel
2. Answer varies: combination of dimes, nickels, and cents.
3. 1 Golden Dollar, 1 quarter, 1 dime, 1 nickel, and 3 cents.
4. 1 nickel and 2 cents

"Use Your Quarters Sense!" (page 21)
1. Vermont
2. Kentucky
3. New Jersey
4. Virginia

Using Logic to Solve Riddles

TERMS and CONCEPTS:
- Logic
- Strategy

STEPS:

1. Gather students in a group and explain that they will solve riddles. Each riddle provides hints about a specific group of coins or about a state quarter.

2. Introduce students to the riddle concept with the following oral practice riddles:

I am 2 coins and I equal 10 cents. **What am I?** [ANSWER: 2 NICKELS]
I am 1 coin and I equal more than 75 cents. **What am I?** [ANSWER: GOLDEN DOLLAR]
I am the first state. **Who am I?** [ANSWER: DELAWARE]

3. Display the two riddles on chart paper and invite volunteers to read them aloud.

4. Prompt students to come up with ideas for solving the riddles by asking: "What could you use to help you figure out the answer?" "Will you need paper and pencil?" "Would coins be helpful?" As these items are discussed, place them in front of the group where students will have access to them during independent work time.

5. Allow students to work with a partner and utilize whatever materials they wish to solve the two riddles. *NOTE: Depending on skill level, students could work independently.*

6. As students work, visit each pair and invite them to share their strategies. The teacher's role is not to show students how to solve the riddle, but rather to facilitate their thinking about how to solve the problem.

7. When at least two students have finished, invite the students who have solved the riddles to share their strategies and show the group how they figured out the answer. Help clarify these strategies for the whole group, and invite others to share their methods, even if they have not completed their work.

8. Distribute the "Riddle Me Cents" (page 20) and "Use Your Quarters Sense" (page 21) work pages and allow students time to work. Circulate and, when helpful, remind students of various strategies they could use to solve the problems.

9. Bring the group back together and invite volunteers to share their strategies.

ENRICHMENT/EXTENSIONS:
Students can write their own riddles, exchange them with classmates, and challenge one another to solve them.

Riddle Me Cents!

DIRECTIONS:
Use your sense about cents and other coins to solve the riddles below.
Write or draw your solution below each riddle. *Possible coins include
cents, nickels, dimes, quarters, half-dollars, and Golden Dollars.*

1. • I am 4 coins.
    • I have 3 different presidents.
    • I am worth 50 cents.

    What combination am I?

2. • I am worth $2.00.
    • I have 1 more coin than the number
      of cents there are in a quarter.
    • I have 3 different presidents.

    What combination am I?

3. • I am seven coins.
    • I am worth $1.43.
    • I have at least one of each coin.

    What combination am I?

4. • I am 3 coins.
    • I am worth less than 10 cents.
    • I have 2 presidents.

    What combination am I?

Name _____   Date _____

Use Your Quarters Sense

DIRECTIONS:
Use your knowledge of the 1999, 2000, and 2001 quarters (please refer to the United States Mint website at www.USMINT.gov to learn about all the quarters) to solve the following riddles. Write or draw your solution below each riddle.

1. • I feature a food source.
  • Skiers like to visit my state.
  • My state was the first to ratify the Constitution after the 13 colonies.

Who am I?

2. • I feature an animal.
  • Tourists visit my state to attend a special racing event.
  • My state was the first western frontier state to join the Union.

Who am I?

3. • I feature a boat.
  • My state is the Garden State.
  • I am the only quarter to feature the same famous American on both sides!

Who am I?

4. • Boats sail across me.
  • I feature the first permanent English settlement.
  • My state is adjacent to our nation's capital.

Who Am I?