## inside $+x=\div$ mathematics

## Inside

Problem Solving

## Courtney's Collection

## PreK

Materials: A set of coins (pennies, nickels, dimes-several of each kind) in a container for each pair of students, paper and pencil, crayons, or markers

Discussion on the rug: "What is a piggy bank?" Teacher asks the students questions about where there might be a collection of coins. If a bank is not familiar, then maybe introduce a jar of coins. Teacher holds a collection of coins in a container. "Suppose I pick three coins from my bank/jar. Name the coins I might pick." The teacher encourages the students to find answers for different selections of three coins.

In small groups: Each group has a set of coins in a container. Teacher asks the following questions. Go on to the next question when students have success.

1. "Name the three coins you picked out of your bank/jar. How much money do you have in all? Show how you know."
2. "Now name three more coins you can pick from your bank/jar. How much money do you have in all?"

At the end of the investigation, have students either draw a picture or dictate to you to represent their solutions.

