

Penny, Nickel, Dime

A Don't Break the Bank Variation

Topics: Addition to 100, Multiplication by 5s and 10, Money, Estimation

Materials: One 6-sided dice, pencil and paper, pennies and dimes (optional)

Common Core: 2.MD.C.8, 2.NBT.5, 2.NBT.6, MP1, MP6, MP7

Roll the die 7 times. For every roll, you get to take that many pennies, nickels, or dimes. Whoever gets closest to \$1 without going over wins.

Why We Love Penny, Nickel, Dime

This version of Don't Break the Bank is a hit with students, and also helps give a concrete meaning to place value by linking it to both money, addition, estimation, and multiplying by fives and tens.

It takes very little time, so it can be used as a warmup, station activity, or in those five minutes before class ends. While kids may break the bank their first few games, they'll inevitably start estimating and choosing good strategies for themselves. The deeper thinking is almost inevitable.

How to Play

Whole Class/Group Game: The teacher (or a student) rolls the die. Whatever number it lands on, each player can choose to take that many pennies, that many nickels, or that many dimes. More practiced players can just record the numbers in a T-chart like the one to the right. Repeat for six times total, with each player choosing whether each number goes in the dimes or pennies column as you go.

The winner is the person who comes as close as possible to reaching \$1 without going over.

Partner Game: Same as whole class game, except students take turns rolling the die, and everyone ends up entering different numbers into their grid.

Tips for the Classroom

1. Have students draw a chart (see following page) to track their choices.
2. When playing in stations or with a small group, you can demonstrate how to count your total after the game. Students can also check each other's work in pairs.
3. Let students bust (go over \$1) as they refine their strategies. They'll catch on as they find they end up too high or too low.

4. To keep the game novel, ask students what they'd do differently if there were only 5 rolls per game, or six. Or eight! Try those variations and see what happens.
5. For students who need more help, you can play with physical coins, or have them draw the coins. Other students may only need to count how many of each coin they take on a turn.
6. Downlevel the game by removing nickels as an option. Uplevel the game by adding quarters.

Dimes	Nickels	Pennies