In this activity, pirates estimate how much treasure is in a container and then explore ways to accurately count the treasure.

**Teacher Note:** Depending on the knowledge of the pirates, it may be good to discuss the difference between “estimating” and “guessing” before doing this activity. Also, discuss the use of “reasonable” numbers. What does it mean for a number to be reasonable?

For example, since they are counting a number of coins, a very high number (such as 1 thousand dollars) and a very low number (such as 1 dollar) would not be reasonable.

Fill the pencil box with all the play coins in the kit. Pass out journals and pencils to each pirate. Allow the pirates to carefully examine the coins in the filled pencil box. Ask each crew member to estimate how much treasure is in the box and then record their estimates in their journals.

Write the highest and lowest estimates on the board. Have a discussion about different ways to count the treasure. Ask for the swashbucklers to share their ideas. If it is not mentioned, talk about the importance of sorting by type of coin (i.e. penny, nickel, dime, quarter) and then grouping them (i.e. 4 quarters per dollar, 10 dimes per dollar, 20 nickels per dollar or 10 nickels per half-dollar, 100 pennies per dollar or 10 pennies per dime).

Now divide the crew into groups of 3 or 4 and divide the treasure among the groups. Have each group first sort their treasure into pennies, nickels, dimes and quarters.

- Quarters: Stacks of 4
- Dimes: Stacks of 10
- Nickels: Stacks of 10
- Pennies: Stacks of 10

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After grouping the coins this way, give each pirate a chance to change their previous estimate based on the new information. Write the new high and low estimates on the board. Now have each group report the numbers of stacks of each coin and work together to calculate the value of the treasure.

Next have them create the following stacks:

- Quarters: Stacks of 4
- Dimes: Stacks of 10
- Nickels: Stacks of 10
- Pennies: Stacks of 10

After grouping the coins this way, give each pirate a chance to change their previous estimate based on the new information. Write the new high and low estimates on the board. Now have each group report the numbers of stacks of each coin and work together to calculate the value of the treasure.