

The background of the entire image is a repeating pattern of US one hundred dollar bills. The bills are arranged in a grid, showing the portrait of Benjamin Franklin and the number '100'. Overlaid on this background are three instances of the word 'Money' in large, bold, green 3D block letters. The letters have a slight shadow and a textured green surface. The first instance is at the top, the second in the middle, and the third at the bottom. The text 'By Nancy Wilkinson' is located at the bottom center of the image, enclosed in a white rectangular box with a thin black border.

Money

Money

Money!

By Nancy Wilkinson

Lesson Three The Money Cycle

Objectives:

- 1) The students will learn about how money is taken out and placed in circulation.
- 2) The students will find the probability of the minting location of a penny.

Materials Needed:

50 pennies per group

Opening Activity:

Have students read, as a class or silently, the reading portion of lesson three. Be sure to answer the questions.

Activity:

- 1) Pass out the pennies to each group.
- 2) Count how many pennies have the Lincoln Memorial on the back and how many have the picture of the wheat.
- 3) Have the students create a tally sheet of where each coin was minted.
- 4) Create a chart on the chalkboard showing the statistics for each group:

Group	D - Denver	S - San Francisco	P or No Mark - Philadelphia
1			
2			

- 5) What fraction of coins came from each of the three mints?
- 6) What percent of coins came from each of the three mints?
- 7) What is the probability that a coin would be from Denver? San Francisco? Philadelphia?

Closure:

Students can create a chart showing how money circulates.



Lesson Three Reading

Money in Circulation

The U.S. mint is constantly producing money. However, it is not making new money. It is replacing old, worn out money. Dollar bills wear out the quickest. They last only 13 to 18 months. Why do you think that is so? The cost for producing new money is \$120 million dollars per year. Can you think of some ways that we could reduce this cost of having to replace worn out bills? ATM machines use a lot of new \$20 bills. Why do you think the ATMs only give new bills?

The first U.S. coin with a portrait of a president was the 1909-penny honoring Abraham Lincoln. The face of the penny is still the same today. The back of the penny was changed from a wheat penny to the Lincoln Memorial.

Activity 1:

Look at the pennies in your group. How many are wheat pennies? How many have the Lincoln Memorial on it. Do you think there are more wheat pennies or Lincoln Memorial pennies in existence?

The Money Cycle

Once the money is printed at the United States Mints, the Treasury ships the new money to the Federal Reserve Banks. The Federal branches then sends the new money to the banks in their region in exchange for old bills and coins the banks turn in. The banks distribute the new money to their customers. Once the money circulates through the economy and becomes worn, the banks collect it and ship it back to their Federal branch. The old money is shredded and burned into mulch. Coins are sent back to the Mint for melting and recasting.

The coins are minted in three different places. They are Denver, San Francisco and Philadelphia. So that it is known where the coins come from, a letter is placed on each coin. The letters are: D for Denver, S for San Francisco and P for Philadelphia. Sometimes there is no mark on the coin. Which tells us the coin was made in Philadelphia.

Activity 2:

- 1) Look at the coins in your group. Create a tally sheet showing the location of where each coin was minted.

Location	Tally Count
Denver (D)	
San Francisco (S)	
Philadelphia (P or no mark)	

- 2) What fraction of coins came from each of the three mints?
- 3) What percent of coins came from each of the three mints?
- 4) What is the probability that a coin would be from Denver?
- 5) What is the probability that a coin would be from San Francisco?
- 6) What is the probability that a coin would be from Philadelphia?
- 7) Your teacher will create a chart on the chalkboard showing the statistics for each group:

Group	D - Denver	S - San Francisco	P or No Mark - Philadelphia
1			
2			

- 8) What fraction of coins came from each of the three mints?
- 9) What percent of coins came from each of the three mints?
- 10) What is the probability that a coin would be from Denver?
- 11) What is the probability that a coin would be from San Francisco?
- 12) What is the probability that a coin would be from Philadelphia?
- 13) How do the class statistics differ from your group's statistics?