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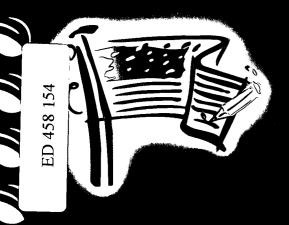
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ABSTRACT

This teaching guide for grades 4-6 focuses on the 1999-2000 United States Mint 50 State Quarters Program, which includes new quarter designs for the following states: Delaware, Pennsylvania, New Jersey, Georgia, Connecticut, Massachusetts, Maryland, South Carolina, New Hampshire, and Virginia. The guide includes six lesson plans that fit easily into the curriculum, reproducible student worksheets that coincide with each lesson, state facts and information on the new quarter designs, a U.S. map template with state outlines, and the 50 State Quarters Program 1999-2000 quarter board. (BT)





This teaching guide includes:

- 6 teacher-friendly lesson plans that fit easily into your curriculum
- Reproducible student worksheets that coincide with each lesson
- Fun state facts and information on the new quarter designs
- USA map template with state outlines
- 50 State Quarters™ Program 1999-2000 quarter board

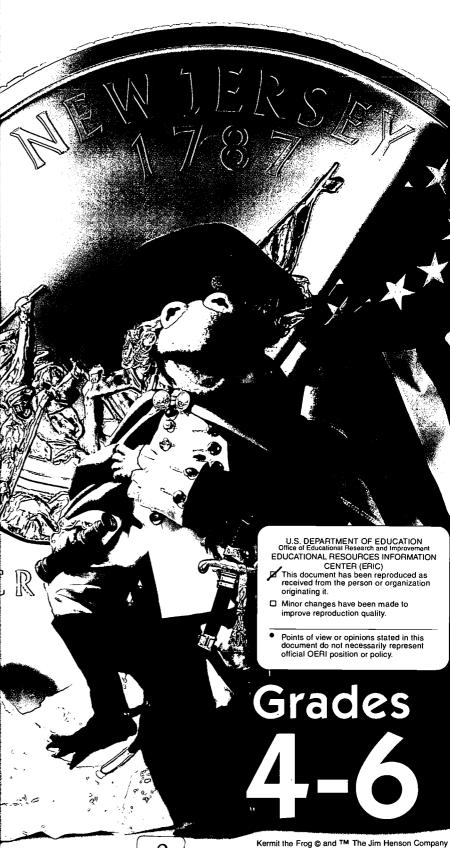
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UNITED STATES MIN

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The Greatest
Educational Change
America Has
Ever Seen





Lesson Plans for Grades 4-6

Table of Contents











OBJECTIVE:

CURRICULUM CONNECTIONS: **GROUPINGS:**

CLASS TIME:

PAGES:

Start with a Chart -

Using information gathered from a chart.

Mathematics

• Language Arts

Individual • U.S. History

1 class period

2-5

I Have, Who Has?

Identifying states and their capitals. U.S. Geography

• Language Arts

• U.S. History

Whole group Small groups 1 class period

6-9

In the News! -

Conducting research and writing a

mini-report.

U.S. Geography

• U.S. History

• Language Arts

Art

Individual

3 class periods

10-13

Worth the Weight

Problem solving with metric measurement.

 Mathematics Science

Small groups Individual

1-2 class periods

2 class periods

14-17

Using a Coordinate Grid

Plotting points on a coordinate grid.

 Mathematics • U.S. History

• Art

Small groups Individual

Partner

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Take a Chance -

Determining the probability of a given event.

 Mathematics • U.S. History

Language Arts

Whole group

Small groups

Individual

1 class period

22-25

ADDITIONAL RESOURCES -

State Information Pages:

50 State Quarters™ Released in 1999—Delaware, Pennsylvania, New Jersey, Georgia, Connecticut 50 State Quarters™ Released in 2000—Massachusetts, Maryland, South Carolina, New Hampshire, Virginia 28-29 United States of America Map Template

> Lesson plans and other related 50 State Quarters™ Program materials are provided solely for teaching purposes. They may not be commercially distributed or distributed as a premium.





1: Start with a Chart



OBJECTIVE:

The student will synthesize information gathered from a chart. The student will choose a mathematical technique to answer questions involving addition, subtraction, and ordering of dates.



MATERIALS:

- Copies of the "Start with a Chart" worksheet (page 4), one per student
- Copies of the "States and Quarters Questions" worksheet (page 5), one per student
- Paper
- Pencil



PREPARATIONS:

- Review lesson.
- Review chart and worksheet.



GROUPING:

• Individual work



CLASS TIME:

• 1 class period



CONNECTIONS:

- Mathematics
- U.S. History
- Language Arts



TERMS and CONCEPTS:

- Statehood
- Issuance
- 50 State Quarters™ Program



Using a Chart to Gather Information





STEPS:

- 1. Discuss the new 50 State Quarters™ Program with students, a new coin program by the U.S. Mint. Approximately every 10 weeks, the U.S. Mint is releasing a special quarter for each state, in the order the states were admitted into the United States. Each new quarter possesses a unique design that celebrates that state's heritage and special contribution to the United States.
- 2. Provide students with necessary materials (paper, pencil, etc.).
- **3.** Pass out the "Start with a Chart" worksheet (page 4) and the "States and Quarters Questions" worksheet (page 5).
- **4.** Have students use paper and pencil to answer the questions on the worksheet while referring to the chart for their answers.
- **5.** Evaluation can take place as the teacher checks students' work for understanding.



ANSWER KEY:

- 1. 2008
- 2. 5
- 3. In the same sequence as they were granted statehood
- 4. Varies
- 5. Varies
- 6. 1788 (8)
- 7. 47 years (between

- 1912 and 1959)
- 8. Alaska and Hawaii in 1959
- 9. a. Delaware
 - b. Virginia
 - c. Arkansas
 - d. Nebraska
 - e. Idaho
- 10. Varies

- 11. 1959–1787=172 years
- 12. Oregon and Arizona
- 13. a. No
 - b. A year and 6 months
- 14. Varies



ENRICHMENT/EXTENSIONS:

Students can create their own list of questions in reference to the chart and exchange with another student.

Students can design a quarter for their home state.

Name ______ Date _____



Start with a Chart

DIRECTIONS:

Review the chart below to answer the questions on the "States and Quarters Questions" worksheet.

| Statehood Date 1999 | Statehood Date |
|---|--|
| Delaware December 7, 1787 Pennsylvania December 12, 1787 New Jersey December 18, 1787 Georgia January 2, 1788 Connecticut January 9, 1788 | Michigan January 26, 1837 Florida March 3, 1845 Texas December 29, 1845 Iowa December 28, 1846 Wisconsin May 29, 1848 |
| 2000 | 2005 California September 9, 1850 Minnesota May 11, 1858 Oregon February 14, 1859 Kansas January 29, 1861 West Virginia June 20, 1863 |
| 2001 | 2006 Nevada October 31, 1864 Nebraska March 1, 1867 Colorado August 1, 1876 North Dakota November 2, 1889 South Dakota |
| 2002 June 1, 1796 Tennessee June 1, 1796 Ohio March 1, 1803 Louisiana April 30, 1812 Indiana December 11, 1816 Mississippi December 10, 1817 | 2007 Montana November 8, 1889 Washington Idaho July 3, 1890 Wyoming July 10, 1890 Utah January 4, 1896 |
| 2003 Illinois Alabama December 14, 1819 Maine Missouri Arkansas June 15, 1836 | 2008 Oklahoma November 16, 1907 New Mexico January 6, 1912 Arizona February 14, 1912 Alaska January 3, 1959 Hawaii August 21, 1959 |

| Name | Date |
|------|------|
| | Daic |



States and Quarters Questions

DIRECTIONS:

Answer the questions below referring to the "Start with a Chart" sheet.

| 1. In what year will the 50 State Quarters™ Program be complete, with all the quarters in circulation? | 2. How many quarters are issued each year? | 3. In what order are the quarters being issued? | 4. How old will you be when the 50 State Quarters™ Program is complete? |
|--|---|--|--|
| 5. What grade will you be in when the program is complete? | 6. In what year were the most states admitted to the United States? How many states were admitted that year? | 7. What was the longest period of time when there were no states added to the country? | 8. What were the last two states to be added to the United States? What year were they added? |
| 10th state | | 10. In what year was your home state admitted into the United States? | 11. How many years did it take for all 50 states to become the United States of America? |
| 12. Which states were admitted to the United States on Valentine's Day? | 13. Did North Carolina and South Carolina become states at the same time? | If not, how many years apart were they admitted to the United States? | 14. How long after the first state was your state admitted to the United States? |



2: I Have, Who Has?



OBJECTIVE:

The students will learn states and their capitals, improving their knowledge of geography.



MATERIALS:

- Copies of reproducible "I Have, Who Has?" cards (pages 8 and 9), one set of 12 cards per group (12 students or fewer)
- Copies of the "United States of America Map Template" study sheet (page 30), one per student



PREPARATIONS:

- Review list of states and their capitals.
- Make "I Have, Who Has?" cards by copying pages 8 and 9 front-to-back and cutting cards on the dotted line.
- Write state names on the "I Have" side of the cards.
- Write state capitals at random on the "Who Has?" side of the cards.
- Laminate cards, if desired.



GROUPING:

• Whole group/small groups (12)



CLASS TIME:

- Two class periods, the first to review states' capitals, the second to play the game.
- During the second class period, each round of the game should take about 10 minutes.



CONNECTIONS:

- U.S. Geography
- U.S. History
- Language Arts



TERMS and CONCEPTS:

- States
- Capitals

A Review of States and Their Capitals





STEPS:

- 1. Distribute the "United States of America Map Template" study sheet (page 30) and have students review the list of states and capitals.
- 2. Let students know that during the next class period they will play a game to review states and their capitals. Remind students to take their study sheet home with them.
- **3.** During the next class period, explain the game procedure, provided below. Give a demonstration, if necessary.
- **4.** Divide the class into groups of 12 or fewer. Give each group one set of "I Have, Who Has?" cards. The students should pass out the cards to the group, one per student. For groups with fewer than 12 students, some students may receive more than one card.
- **5.** Students should play the game, as instructed. Cards can be shuffled, and the game can be replayed. It is also possible to reverse the game so that students use the "I Have" side of the card first (naming the state), and then must identify the correct state capital on the "Who Has?" side of the card.
- **6.** You may wish to time the games to test students' progress, or hold a competition between groups.
- 7. To assess whether or not the students have learned the material, a quiz can be given. In most cases, students have an easier time determining the state when given the state capital, rather than vice versa.

DIRECTIONS FOR "I Have, Who Has?":

- Students place his or her cards "Who Has?" face down on the table.
- Choose a member of the group to go first.
- The game begins when the first player reads the state capital from the "Who Has?" side of his or her card; e.g., "Who has Richmond?"
- Students will then look at the "I Have" sides of their cards. The student who has the card with the corresponding state will read the "I Have" side of his or her card; e.g., "I have Virginia." Then, he or she will turn the card over and read the "Who Has?" side of the card.
- The student with the corresponding state will respond, and the game will continue in this manner until all cards have been read.



ENRICHMENT/EXTENSIONS:

"I Have, Who Has?" card templates have been provided on pages 8 and 9. Students can make "I Have, Who Has?" for all 50 states and play the game for review.

Students can create a crossword puzzle with the state names and capitals.

Students can create and play a game of concentration with states and capitals.





"I Have, Who Has?"

I have I have I have I have I have I have



Game Cards



| 2 ? ? ? ? ? ? ? ? ? ? ? ? ? ? | >>?????????????? |
|---|---|
| Who Has? | Who Has? |
| ? | ?? |
| 3 > 1 × 1 > × > 1 × 1 > × 1 > | 5555555555555 |
| Who Has? | Who Has? |
| ? | ?? |
| ? | |
| 2020 22 22 22 22 22 22 22 22 22 22 22 22 | 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 |
| | |
| Who Has? | Who Has? |
| ? | ?? |
| ? | 55 |
| ? તં દે હતે દે હે | ?? ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ ¿ |

•



3: In the News!



OBJECTIVE:

Students will write a "newspaper article" comparing their state to another state, learning how to research information, take notes, organize material, and proofread.



MATERIALS:

- Reference resources (encyclopedias, atlases, maps, dictionaries, and other reference materials)
- Copies of the "What's the Scoop?" sheet (page 12), one per student
- Copies of the newspaper article template (page 13), one per student or as many as needed
- A notebook
- Pens/pencils
- Markers or colored pencils for illustrations



PREPARATIONS:

- Copy "What's the Scoop?" (page 12) to guide students in their research.
- Copy newspaper article template (page 13).
- Assign a different state to each student.
- Make reference resources available, and schedule time in the library for research.
- Provide markers/colored pencils for students to use in illustrations.



GROUPING:

Individual work



CLASS TIME:

Two to three class periods, or time to complete article at home.



CONNECTIONS:

- Language Arts
- U.S. History
- U.S. Geography
- Art



TERMS and CONCEPTS:

- Boundaries
- State nicknames/mottoes
- Climate
- Population
- Natural resources
- Symbols
- Statehood



A Mini-Research Project on the Unique Characteristics of a State





STEPS:

- **1.** Explain to students that they are going to become reporters for the *Quarterly News* and write a newspaper article on a state.
- **2.** Hand out the "What's the Scoop?" worksheet (page 12). (It is not necessary that students answer all questions on the list.)
- 3. Have the students keep notes in which they compile the results of their research.
- **4.** Allow students time in class or at the library to work on the project. You may also wish to assign time at home for them to complete the assignment.
- **5.** Once students are finished researching information and taking notes, have them write a one- to two-page draft of the article.
- **6.** Remind students that the article needs a headline and some sort of illustration or picture of the quarter they are researching. Students may also include an illustration or picture of the state flower, the state bird, the shape of the state, the state flag, or any other unique landmark or physical feature.
- **7.** Work with students individually or in groups to help them edit their drafts for grammar, capitalization, spelling, punctuation, and clarity.
- **8.** Have students write his or her final draft on a copy of the newspaper article template (page 13) in his or her best handwriting or on a computer.
- **9.** Bind the final reports together into one "newspaper" and have students discuss possible names for it.
- **10.** Students should be graded on the quality and accuracy of their information; their writing proficiency, including grammar, capitalization, spelling, punctuation, and neatness; their artwork; and the overall effort they have put into their reports. It may be a good idea to require students to hand in their research worksheets (page 10) as well.



ENRICHMENT/EXTENSIONS:

Students can share their reports with the class in an oral presentation.

Students can look for more in-depth resources on the state they researched, and write a "biography" of a famous American from that state.

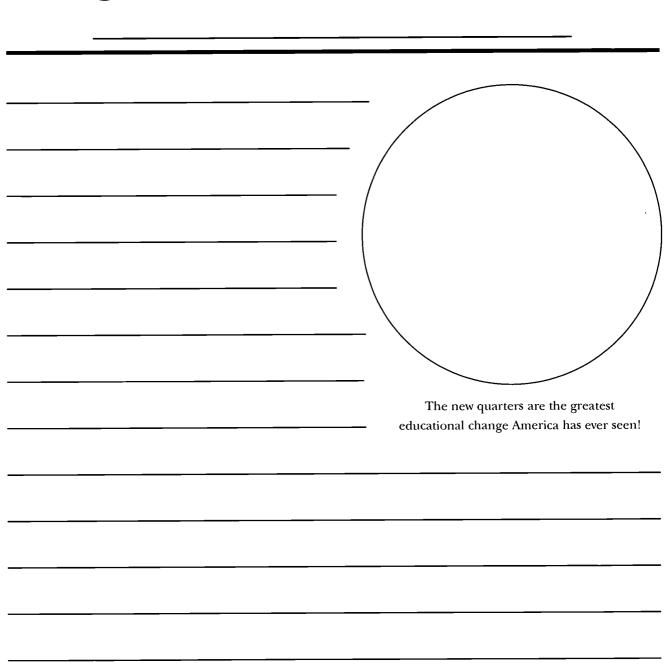
| ame | Date |
|--|--|
| What | t's the Scoop? |
| DIRECTIONS: Good reporters ask good question the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide you in your control of the following list of questions to guide your control of the following list of questions to guide your control of the following list of questions to guide your control of the following list of the following lis | ns that guide them on their search for information. Use our research of your assigned state. Your notes should be as much information as you can in as short a time as |
| What is the state's name? | 11. a. What is the state nickname? |
| What is the name of its capital? | b. Why was it given that name? |
| In what year did it receive its statehood? | 12. Is this state larger or smaller than your state? |
| In what year will this state's new quarter be issued? | 13. Name all the states, countries, and/or bodies of water that border this state. |
| a. Who founded this state? | 14. a. What is the state population? |
| b. How did the United States acquire this land? | b. Is that more on less than your state? |
| What is the state flower? | 15. a. What are the state's chief natural resources? |
| Name three historic facts regarding this state. | b What types of industries is this state known |
| | 16. a. What kind of climate does this state have? |
| Draw the state symbol and describe what it represents. | b. How does that compare to your state? |
| | 17. What are three tourist attractions in this state? |
| What is the state motto-and what does it mean? | 18. List three facts you find interesting about this |
| | state: |

Our & Great & States =

The uarterly News

Today's date is:

Just the facts about





4: Worth the Weight



OBJECTIVE:

The student will convert metric units of measurement. The student will solve problems that involve addition, subtraction, multiplication, and/or division with decimals, as well as order decimals from least to greatest.



MATERIALS:

- Copies of the "Worth the Weight" chart and questions (pages 16 and 17), one per student
- Calculator
- Paper
- Pencil
- Metric scale or metric ruler (optional)



PREPARATIONS:

- Copies of the "Worth the Weight" chart and questions (pages 16 and 17), one per student.
- Read through lesson.
- Set up metric scale (if available).



GROUPING:

• Individual/small groups



CLASS TIME:

• One to two class periods



CONNECTIONS:

- Mathematics
- Science



TERMS and CONCEPTS:

- Grams
- Millimeters
- Centimeters
- Diameter



A Lesson in Metric Measurement and Problem Solving





STEPS:

- 1. List lesson terms on the board and discuss metric units of measurement.
- **2.** Give students a mental comparison: for example, a gram is a metric unit measurement of weight approximately equal to the weight of a paper clip, or 1 inch is about 2.5 centimeters.
- **3.** Review the measurement of length using the metric units millimeters and centimeters.
- **4.** Review with students that 10 millimeters equals 1 centimeter. Demonstrate how to convert millimeters to centimeters either by dividing the number of millimeters by 10 (example 22.56mm/10 = 2.256cm), or by using a short-cut of moving the decimal one space to the left when converting from a smaller unit of measurement to a larger unit of measurement.
- 5. Demonstrate how to measure the width of a piece of paper by lining up the coins and adding their diameters. Hand out "Worth the Weight" worksheets (pages 16 and 17) and review directions.
- **6.** Students will be evaluated by checking for accuracy in their work. Review students' work and quiz them for understanding of the concepts presented in the lesson.



ANSWER KEY:

Chart:

Cent: 1.905, 0.155
 Nickel: 2.121, 0.195
 Dime: 1.791, 0.135
 Quarter: 2.426, 0.175
 Half-dollar: 3.061, 0.215
 Golden Dollar: 2.650, 0.201

Weight:

- 1. Dime, cent, nickel, quarter, Golden Dollar, half-dollar
- 2. 2 dimes

- 3. 2 nickels
- 4. a. 0.670 grams b. 3.402 grams c. 3.17 grams
- 5. Varies
- 6. Varies

Thickness:

- 1. Dime, cent, quarter, nickel, Golden Dollar, half-dollar
- 2. 32 cents, 23 half-dollars
- 3. 1.957cm, \$3.13
- 4. 50 quarters, 100 dimes

Diameter:

- 1. Dime, cent, nickel, quarter, Golden Dollar, half-dollar
- 2. String A, String B
- 3. 9 quarters, 12 dimes, 11 cents (with an 8½ x 11 sheet of paper) NOTE: Answers are the same in centimeters or inches.



ENRICHMENT/EXTENSIONS:

Students can come up with an additional five questions related to the information found in the chart, and then quiz a classmate for extra credit.

Students can weigh the coins using a metric measuring device or convert the measurements into U.S. customary units of measurement.



| Name | Date |
|------|------|
|------|------|

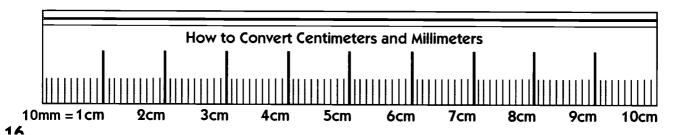


Worth the Weight-Part 1

DIRECTIONS:

Convert the measurements from millimeters to centimeters for both the diameter and thickness columns in the space provided in the chart.

| | | <u> </u> | | | | | |
|---|--|-----------------|----------------|-----------------------|----------------------------|---------------|---|
| | Coin Denomi | ination | Weight | Diameter in Inches | Diameter in Millimeters | Thickness | |
| | (ration) | Cent | 2.500 grams | 0.750 inches | 19.05 mm cm | 1.55 mm cm | |
| | | | 5.000 | 0.835 | 21.21 mm | 1.95 mm | |
| | | Nickel | grams | inches | cm | cm | |
| | | | 2.268 | 0.705 | 17.91 mm | 1.35 mm | |
| | Acces (Control of the Control of the | Dime | grams | inches | cm | cm | |
| | | Quarter | 5.670 | 0.955 | 24.26 mm | 1.75 mm | |
| | | | grams | inches [,] | cm | cm | |
| | H. | alf-Dollar | 11.340 | 1.205 | 30.61 mm | 2.15 mm | |
| | vaca sa mass | | grams | inches | cm | cm | |
| | TO E REPORT | Caldan | 0.400 | | 26.50 mm | 2.01 mm | |
| | Golden 8.100 pollar grams | 1.043 inches | cm | cm | | | |
| Ē | *************************************** | * | | <u>-</u> | | | Ī |



| Name | | | |
|------|--|--|--|
| | | | |

| Date | |
|------|--|
| | |



| Worth th | e Weight-Part 2 |
|---|---|
| | orth the Weight" chart to help you answer the |
| Questions Regarding Weight: 1. Order the coins according to their weight from least to greatest. | 2. About how many cents would it take to make a stack 5 centimeters high? cents |
| 1.) 4.) 2.) 5.) | How many half-dollars? half-dollars 3. If you stacked 2 Golden Dollars, 4 quarters, |
| 3.) 6.)2. Approximate the number of dimes it would take | 2 nickels, and 3 cents, how high would your stack be in centimeters ? cm |
| to equal the weight of 1 quarter dimes | How much money would you have? \$ |
| 3. About how many nickels would it take to equal the weight of a Golden Dollar? nickels | 4. Which stack would be more valuable: a stack of 100 dimes or a stack of 50 quarters? Circle: Dimes or Quarters |
| 4. About how much more does a quarter weigh than: | Which stack would be higher? Circle: Dimes or Quarters |
| a.) A nickel; gm b.) A dime; gm | Ougsting Regarding Dismotory |
| c.) A cent; gm | Questions Regarding Diameter: 1. Arrange the coins by their diameter from least |
| • | to greatest. |
| 5. List three coin combinations for a dollar and include the total weight for each combination. | 1.) 4.) |
| 1.)gm | 2.) 5.) |
| 2.) gm | 3.) 6.) |
| 3.) gm 6. What coin combination for a dollar would be the: | 2. If you have two strings of coins such as: String A: 3 quarters, 4 nickels, and 8 cents, and |
| Heaviest? | String B: 1 Golden Dollar, 1 half-dollar, and 5 dimes, and you laid them side by side, |
| Lightest? | a.) Which set would be longer? Circle: String A or String B |
| Questions Regarding Thickness: | b.) Which set would be more valuable? Circle: String A or String B |
| Place the coins in order of their thickness from least to greatest. | 3. If you were to measure the width of this piece of paper laying the coins side by side: |
| 1.)4.) | a.) About how many quarters would it take? |
| 2.) 5.) | b.) About how many dimes? |
| 3.)6.) | c.) About how many cents? Hint! An 8½ inch sheet of paper ≈ 21.5cm 17 |



5: Using a Coordinate Grid



OBJECTIVE:

The student will manipulate ordered pairs in the first quadrant of a coordinate plane.



MATERIALS:

- "Coordinate Grid" worksheet (page 20), one per student
- Paper
- Pencil
- "Enlarge a Quarter" worksheet (page 21), one per student
- One picture of a quarter, enlarged (see "Reproducible Coin Sheets," pages 31 and 32)
- Markers or crayons
- Rulers



PREPARATIONS:

- Copy the "Coordinate Grid" worksheet (page 20) and the "Enlarge a Quarter" worksheet (page 21).
- Enlarge a picture of a quarter for display.
- Using a ruler, draw a grid over the quarter with a black marker.



GROUPING:

- Small groups/partner work
- Individual work



CLASS TIME:

Two class periods



CONNECTIONS:

- Mathematics
- U.S. History
- Art



TERMS and CONCEPTS:

- Coordinate grid
- Coordinate plane
- Ordered pairs
- Horizontal
- Vertical

A-Lesson Demonstrating Grids and Ordered Numbers





STEPS:

- 1. Put list of terms on the board and review definitions.
- **2.** Demonstrate that finding an ordered pair on a grid (5,4) would be 5 over to the right (horizontally) and 4 up (vertically). Pass out the "Coordinate Grid" worksheet (page 20) and ask students to complete it.
- **3.** Display the enlarged picture of the quarter with the grid. Demonstrate how to enlarge the picture on the board as follows:
 - a. Measure the distance between grid lines.
 - b. Multiply the distance between grid lines by three, and draw a larger grid on the board.
 - c. Transfer the image from the paper to the board by drawing the contents of each grid block in the appropriate box on the board.
- **4.** Distribute the "Enlarge a Quarter" worksheet (page 21). Have students use a pencil and a ruler to draw in grid lines (to make a grid five boxes across, and five boxes down, gridlines should be three centimeters apart). NOTE: For younger students, you may wish to draw in gridlines before copying sheets.
- 5. Students will enlarge the picture, using the grid as a guide.
- **6.** Students can erase the grid lines, and then color in their picture. These pictures can be displayed in the classroom.



ANSWER KEY:

What do you call a person who collects coins? NUMISMATIST



ENRICHMENT/EXTENSIONS:

Students can create a picture (e.g., a tree, a star) or design made up of points plotted on a grid, and determine the ordered pair for each point. The student can then read the ordered pairs to a partner, who will plot them on a grid, connecting the dots to achieve the same picture.

Students can create their own coordinate grid puzzle, like that on page 20. Students can write a question referring to some aspect of the lesson, and then "hide" the answer in a grid. By assigning a letter to various points in the grid, and then listing the ordered pairs in the correct order, students will make a puzzle for a partner to decipher.

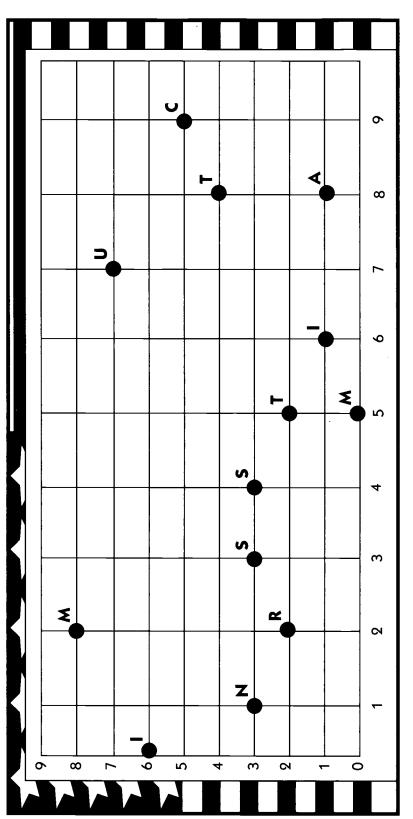
Date_

Name_

Using a Coordinate Grid

DIRECTIONS:

point, there is a letter. As you find each point, write down the letter in the space provided: Below is a list of ordered pairs. Find the exact point for each set of ordered pairs. At each



What do you call a person who collects coins?

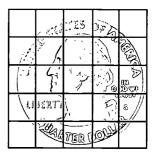
(1,3) (7,7) (2,8) (6,1) (4,3) (5,0) (8,1) (5,2) (0,6) (3,3) (8,4)



Enlarge a Quarter

DIRECTIONS:

First, figure out how many times bigger the picture can be to fit in the large box below. Using a pencil, draw grid lines for the large box. Then, use these grid lines to help you enlarge the picture to fit the box. When you are finished, you can erase the gridlines and color your quarter.



Hint: The white box is 15cm tall by 15cm wide.



6: Take a Chance



OBJECTIVE:

The student will determine the probability of a given event using concrete examples. Students will describe events using terms such as "likely," "unlikely," "certain," and "impossible." The student will convert fractions to decimals, decimals to percents, and percents to fractions.



MATERIALS:

- Several bags with 8 quarters (each can use real coins or cut out coins from the "Reproducible Coin Sheets," pages 31 and 32):
 - 1 eagle quarter
 - 7 new quarters: (All 5 from 1999 and any two from 2000)
- Paper
- Pencil
- Calculator (optional)
- "Take a Chance" worksheets (pages 24 and 25), one per student



PREPARATIONS:

- Prepare coins (either real or cut outs from pages 31 and 32).
- Write key terms on the board (likely, unlikely, certain, and impossible).
- Pass out "Take a Chance" worksheets (pages 24 and 25).



GROUPING:

- Small groups/entire class
- Individual work (optional)



CLASS TIME:

1 class period



CONNECTIONS:

- Mathematics
- U.S. History
- Language Arts



-A-Lesson-on-Probability





TERMS and CONCEPTS:

- Probability
- Likely
- Unlikely

- Impossible
- Certain



STEPS:

- 1. Introduce the activity by asking students if they have ever played a game involving chance. What is another name for "chance"? What does the word "probability" mean?
- 2. Discuss various games and determine if they involve chance or strategy.
- **3.** Discuss terms on board. Define as a class.
- **4.** Pass out bags of quarters (real or paper) and the "Take a Chance" worksheets (pages 24 and 25). Students may work in groups or as a whole class depending on teacher preference. Have students examine the contents of the bags.
- **5.** Review the process for changing fractions to decimals, decimals to percents, and percents to fractions.
- **6.** As a warm-up, have students determine the probability of pulling the eagle quarter out of the bag. Have students write the outcome as a fraction (1/8).
- 7. Students will complete the "Take a Chance" worksheets (pages 24 and 25).
- **8.** Check worksheet answers for accuracy. Quiz students on concepts learned to verify understanding.



ANSWER KEY:

1.1/8

6. 7/8

1. Likely

2.7/8

7. 1/8

2. Unlikely

3.5/8

8. 0

3. Certain

- 4. 2/8 or 1/4
- 9. 8/8 or 1
- 4. Impossible

- 5. 6/8 or 3/4
- 10.3/8



ENRICHMENT/EXTENSIONS:

Students can invent a game of chance to play with classmates.

Students can generate a quiz testing the new vocabulary terms/definitions learned in the lesson.





Take a Chance—Part 1

DIRECTIONS: You are given a bag of eight quarters containing one eagle quarter (made prior to 1999), five new quarters from 1999, and two new quarters minted in 2000. Pulling out one quarter at a time and then returning the quarter to the bag, what would be the probability (in fraction form) of choosing:

- 1. An eagle quarter?
- 2. A new quarter?
- **3.** A quarter minted in 1999?
- **4.** A quarter minted in 2000?
- **5.** A quarter minted before 2000?

6. A quarter minted in 2000 or 1999?

7. A quarter minted before 1999?



Hint: Remember to reduce fractions.

8. A cent?

9. A quarter?

10. A quarter not minted in 1999?

Fill in the blank with one of the following terms: Likely, Unlikely, Impossible, Certain

- 1. The chance of choosing a new quarter:
- 2. The chance of choosing an eagle quarter:
- **3.** The chance of choosing a quarter:
- **4.** The chance of choosing a cent:



| Name | |
|---------|---------------|
| A Tales | Change Bart O |



Take a Chance—Part 2

Test Trial—Make a Prediction

When you flip a coin, what is the probability that it will land on heads? On tails?

Now, test your prediction. Toss a quarter 30 times and record how many times it lands on heads and how many times it lands on tails. For each result, color in a block.

| (10) | Heads | Tails |
|---------------|-------|-------|
| (95) | | |
| | | |
| | | |
| (50)) | | |
| Totals: | | |

Did your prediction come true? Why or why not?

Convert between fractions to decimals to percents in the chart below.

| Fraction | Decimal | Percent |
|----------|---------|---------|
| | | · 50% |
| 1/5 | | |
| | 0.75 | |
| 3/10 | | 80% |



State Information 1999 Quarters

Delaware -

The Delaware quarter, depicting the historic horseback ride of Caesar Rodney, galloped onto the scene as it kicked off the much anticipated U.S. Mint's 50 State Quarters™ Program.

Caesar Rodney was a delegate to the Continental Congress. On July 1, 1776, despite extreme illness, Rodney set off on the 80-mile journey to Philadelphia withstanding thundershowers and a severe summer heat wave. The next day, he arrived at Independence Hall just in time to cast the deciding vote in favor of our nation's independence. This native of Dover has also held more public offices than any other Delaware citizen. In addition to being an extremely dedicated delegate, Rodney was also a soldier, judge, and speaker of Delaware's Assembly.



| State Capital: | Dover |
|----------------|------------------|
| State Bird: | Blue Hen Chicken |
| State Tree: | American Holly |
| State Flower: | Peach Blossom |
| State Motto: | Liberty and |

indepedence **Entered Union (rank):** December 7, 1787 (1) Nickname: First State Origin of Name: Named for Lord De La Warr

Pennsylvania -

The Pennsylvania quarter, the second coin in the 50 State Quarters™ Program, depicts the statue "Commonwealth," an outline of the state, the state motto, and a keystone. This design was chosen to further help educate people about the origins of our second state, founded on December 12, 1787.

The statue "Commonwealth," designed by New York sculptor Roland Hinton Perry, is a bronzegilded 14' 6" high female form that has topped Pennsylvania's state capital dome in Harrisburg, Pennsylvania, since May 25, 1905. Her right arm extends in kindness and her left arm grasps a ribbon mace to symbolize justice. The image of the keystone honors the state's nickname, "The Keystone State." At a Jefferson Republican victory rally in October 1802, Pennsylvania was toasted as "the keystone in the federal union." The modern persistence of this designation is justified in view of the key position of Pennsylvania in the economic, social, and political development of the United States.



| KIO L | State Capital: Harrisburg |
|--------------|----------------------------------|
| | State Bird: Ruffed Grouse |
| | State Tree: Eastern Hemlock |
| | State Flower: Mountain Laurel |
| State Fun | State Motto: Virtue, liberty, |
| | and independence |
| Entered Unio | on (rank): December 12, 1787 (2) |
| Nickname: . | Keystone State |
| Origin of Na | me: In honor of Admiral |

Sir William Penn, father of William Penn

New Jersey —

The New Jersey quarter, the third coin in the 50 State Quarters™ Program, depicts General George Washington and members of the Continental Army crossing the Delaware River en route to very important victories during the Revolutionary War. The design is based on the 1851 painting by Emmanuel Leutze, "Washington Crossing the Delaware."

It was a cold Christmas night in 1776 and the Delaware River was frozen in many places. General George Washington calculated the enemy would not be expecting an assault in this kind of weather. He and his soldiers courageously crossed the Delaware River into Trenton, New Jersey. Using surprise as their greatest weapon, Washington's army captured over 900 prisoners and secured the town. Later that night, his army continued towards Princeton, New Jersey, again taking the enemy by



State Information 1999 Quarters



surprise. These two victories proved very important to his army as they gave the soldiers courage, hope, and newfound confidence. The supplies confiscated from their captives helped them survive the brutal winter of 1777.



| · O Kno | State Capital: Irenton |
|---------------|---|
| | State Bird: Eastern Goldfinch |
| | State Tree: |
| State Fund | State Flower: Purple Violet |
| , saldfillar, | $\textbf{State Motto:} \ \dots \ \text{Liberty and prosperity}$ |
| Entered Unio | on (rank): December 18, 1787 (3) |
| Nickname: | Garden State |
| Origin of Na | me: From the Isle of Jersey in |
| | the English Channel |

Georgia -

The Georgia quarter, the fourth quarter released under the 50 State Quarters™ Program, is a real peach. The selected design incorporates several symbols associated with this traditional, yet very diverse southern state.

Just from studying the Georgia quarter design, one can learn a lot about the fourth state of the Union. The selected design prominently features the peach—a symbol long associated with the state—within the confines of a silhouetted outline of the state. Live Oak sprigs border the central design paying homage to the official state tree, the Live Oak. And if you ever need to know the Georgia state motto, simply look across the top of the design, where the words "Wisdom, Justice, and Moderation," grace a hanging banner.



| State Capital: | Atlanta |
|----------------|------------------|
| State Bird: | Brown Thrasher |
| State Tree: | Live Oak |
| State Flower: | Cherokee Rose |
| State Motto: | Wisdom, justice, |
| | and moderation |

| Entered Union (rank): | January 2, 1788 (4) |
|-----------------------|----------------------------|
| Nickname: | Empire State of the South |
| Origin of Name: | In honor of King George II |
| | of England |
| State Song: | "Georgia on My Mind" |

Connecticut -

The Connecticut quarter, the last 50 State Quarters™ Program coin issued in 1999, features "The Charter Oak," an important part of Connecticut's heritage and existence. On the night of October 31, 1687, Connecticut's Charter was put to a test. A British representative for King James II challenged Connecticut's government structure and demanded its surrender. In the middle of the heated discussion, with the Charter on the table between the opposing parties, the candles were mysteriously snuffed out, darkening the room. When visibility was reestablished, the Connecticut Charter had vanished. Heroic Captain Joseph Wadsworth saved the Charter from the hands of the British and concealed it in the safest place he could find—in a majestic white oak. This famous tree, "The Charter Oak," finally fell during a great storm on August 21, 1856.



| AND STORES | State Capital: Hartford |
|---------------|---|
| | State Bird: American Robin |
| | State Tree: White Oak |
| | State Flower: Mountain Laurel |
| Action 10 | State Motto: Qui transtulit sustinet |
| | (He who transplanted still sustains) |
| Entered Union | n (rank): January 9, 1788 (5) |
| Nickname: | Constitution State |
| Origin of Nam | ne: From an Indian word, |
| | "Quinnehtukqut," meaning "beside the |
| | long tidal river" or "long river place" |
| State Song: . | "Yankee Doodle" |



State Information 2000 Quarters

Massachusetts -

Did you know that the design for the Massachusetts quarter was submitted by two fifth-grade students?

The Massachusetts quarter, the first quarter of the new millennium, features a design of "The Minuteman," a famous statue that stands guard at The Minuteman National Historical Park in Concord, Massachusetts.

The selected design captures a piece of the Bay State's exceptional history. The Minutemen played a big role in protecting our nation, as they rallied together to help defeat the British during the Revolutionary War. These small, influential forces consisting of farmers and colonists, were always at-the-ready and were trained to assemble and fight on just a minute's notice—hence the term "minutemen".



| State Bird: Chickadee |
|--|
| State Tree: American Elm |
| State Flower: Mayflower |
| State Motto: Ense petit placidam sub |
| libertate quietem (By the sword we |
| seek peace, but peace only under liberty) |
| Entered Union (rank): February 6, 1788 (6) |
| Nickname: |
| Origin of Name: From Massachusetts tribe of |
| Native Americans, meaning "at or about the great hill" |
| State Song : |

State Capital: Boston

Maryland -

The Maryland quarter, the second in the Year 2000 series, highlights the striking dome of the Maryland Statehouse.

Through its new quarter, our seventh state shares its pride for the honored Maryland Statehouse. A distinctive building dating back to 1772, it features the country's largest wooden dome built without nails. Besides housing Maryland's colonial legislature, it was also crucial to our national history. From 1783-1784, the Maryland Statehouse served as the nation's first peacetime capital. The Treaty of Paris was ratified here, officially ending the Revolutionary War. A treasure preserved, the Statehouse continues as the country's oldest state capital building still in legislative use.

Leaf clusters from the official state tree, the White Oak, and the nickname the Old Line State complete the selected design. Maryland is nicknamed the Old Line State in honor of its "troops of the line." These troops won praise from George Washington, who was Commander-in-Chief of the Continental Army during the Revolutionary War.



Nickname: . . . Origin of Name:

State Song: . . .

| ٠, | State Capital: Annapolis |
|------|--|
| 24 | State Bird: Baltimore Oriole |
| | State Tree: White Oak |
| 3 | State Flower: Black-Eyed Susan |
| | State Motto: Fatti maschii, parole |
| | femine (Manly deeds, womanly words) |
| nter | ed Union (rank): April 28, 1788 (7) |
| | Old Line State |
| me: | In Honor of Queen |
| Hen | rietta Maria (wife of King Charles I of England) |
| | "Maryland! My Maryland!" |

South Carolina —

Enter

The South Carolina quarter, the eighth coin released under the 50 State Quarters™ Program, shows key state symbols—a Palmetto Tree, the Carolina Wren, and the Yellow Jessamine. The Palmetto Tree represents South Carolina's strength. The Carolina Wren's song symbolizes the hospitality of the state's people. The Yellow Jessamine, a delicate golden bloom—a sign of coming spring—is part of South Carolina's vast natural beauty. An outline of South Carolina, and a star indicating the capital, Columbia, form the quarter's background.

The Carolina Wren, the state bird, and the Yellow Jessamine, the state flower, are native throughout South Carolina. The importance of the Palmetto Tree, the state tree, dates back to the Revolutionary



State Information 2000 Quarters

on My Mind"



War. In 1776, colonists in a small fort built of Palmetto logs successfully defeated a British fleet trying to capture Charleston Harbor. Since then, South Carolina has been called "The Palmetto State."



State Songs: "Carolina" and "South Carolina

New Hampshire —

The New Hampshire quarter, the ninth coin released under the 50 State Quarters™ Program, honors one of the state's most unique natural attractions, "The Old Man of the Mountain." The state's motto, "Live free or die," and nine stars, representing New Hampshire being the ninth state to ratify the Constitution, complete the design.

"The Old Man of the Mountain" is a rock formation that can be found on Mt. Cannon in the Franconia Notch gateway to Northern New Hampshire. From the right view, this unique rock formation, comprised of five layers of Conway red granite, depicts the distinct profile of an elderly man gazing eastward. Geographers believe that the layers of granite were positioned by the melting and slipping away action of an ice sheet that covered the Franconia Mountains at the end of the glacial period—some 2,000 to 10,000 years ago. Today, the formation, measuring over 40 feet high with a lateral distance of 25 feet, is held in place by cables and turnbuckles to prevent further slipping and possible destruction.

| ou Knou | State Capital: | Finch Birch Lilac r die 8 (9) |
|---------------|-------------------------------|---|
| Origin of Nam | e: From the En county of Hamp | glish shire |
| | | |

Virginia -

The Virginia quarter, the tenth coin released under the 50 State Quarters™ Program, honors our nation's oldest colony, Jamestown, Virginia. Jamestown turns 400 years old in 2007. The selected design features the three ships, Susan Constant, Godspeed, and Discovery. These ships brought the first English settlers to Jamestown.

On April 10, 1606, King James I of England chartered the Virginia Company to encourage colonization in the New World. The first expedition, consisting of the three ships depicted on the quarter, embarked from London on December 20, 1606. On May 12, 1607, they landed on a small island along the James River nearly 60 miles from the mouth of the Chesapeake Bay. It was here the original settlers (104 men and boys) established the first permanent English settlement called Jamestown, in honor of King James I.

| Sale In the | State Capital: Richmond State Bird: Cardinal State Tree: Dogwood State Flower: Dogwood State Motto: Sic semper tyrannis |
|-------------|---|
| Enter | (Thus always to tyrants) 2 d Union (rank) : June 25, 1788 (10) |
| Nickname: | |

| Teacher's Pages—Additional | Resources/United States of America Map Temple | ate |
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Teacher's Pages—Additional Resources/Reproducible Coin Sheets









































THE UNITED STATES MINT 50 STATE QUARTERS™ PROGRAM

| Release Year | Statehood Date | Release Year | Statehood Date |
|---|--|----------------------------------|---|
| Delaware Pennsylvania New Jersey Georgia | December 7, 1787 December 12, 1787 December 18, 1787 January 2, 1788 January 9, 1788 | Michigan Florida Texas | January 26, 1837 March 3, 1845 December 29, 1845 December 28, 1846 |
| | May 23, 1788 June 21, 1788 | California | February 14, 1859 January 29, 1861 |
| New York | November 21, 1789 May 29, 1790 March 4, 1791 | Nevada | |
| 2002 Tennessee June 1, 1796 Ohio March 1, 1803 Louisiana April 30, 1812 Indiana December 11, 1816 Mississippi December 10, 1817 | | Montana Washington Idaho Wyoming | • , |
| Illinois | December 3, 1818 December 14, 1819 March 15, 1820 August 10, 1821 June 15, 1836 | New Mexico Arizona Alaska | November 16, 1907 January 6, 1912 February 14, 1912 January 3, 1959 August 21, 1959 |



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