

5: A Financial Flower Garden

Based on the Mississippi quarter reverse



OBJECTIVES:

Students will expand their knowledge of whole number computation by solving problems involving multiplication and division. Students will also use online technology in addition to other reference materials to research their projects.



MATERIALS:

- 1 overhead projector (optional)
- 1 overhead transparency (or photocopy) of the Mississippi quarter reverse
- "State Flower" worksheet
- Seed catalogs or online resources for buying flower seeds
- Colored pencils and/or crayons
- Drawing paper
- Calculators (optional)



PREPARATIONS:

- Review lesson.
- Make copies of the "State Flowers Results" worksheet (1 per student).
- Do online research on state flowers and bookmark or print off online seed information for students to use.



GROUPINGS:

- · Whole group
- Individual work
- Small groups



CLASS TIME:

2 30- to 45-minute sessions



CONNECTIONS:

- Mathematics
- Art
- Technology
- Social Studies



TERMS AND CONCEPTS:

- State flowers
- Interpreting data Cost

3 2



Estimating and buying



BACKGROUND KNOWLEDGE:

Students should have basic knowledge of:

- Estimation
- Multiplication
- Division
- Conducting Internet research



STEPS:

Session 1

- 1. Describe the 50 State Quarters® Program for background information, if necessary, using the example of your own state if available. Then display an overhead transparency or photocopy of the Mississippi quarter reverse.
- 2. Explain to the students that the design was specially chosen to represent the state of Mississippi. Using the state facts information provided in this packet, discuss how the magnolia is prominent throughout the south, then share the state nickname ("The Magnolia State"), state flower, and state tree in order to impress on students why the design on the quarter reverse is appropriate to the state of Mississippi.
- 3. Tell students that all states have state flowers and ask if students know what flower was chosen to represent their home state. (If the home state is Mississippi, give general examples of other states' flowers.)
- 4. Have each student choose a state and the corresponding state flower. To research various states and the corresponding state flower, use the school library (or, if possible, take your students into a computer lab with an Internet connection. Bookmark appropriate Internet sites to guide student research).
 - **Note:** Although the Mississippi state flower comes from a tree, for this activity, only state flowers that grow from seeds should be chosen. Instruct students to verify this fact through research. This choice will be the basis of further work, so you may want to give them a list of states to research, or approve their choices before moving forward. Some state flowers come from flowering trees or shrubs, so they would not make good choices for this lesson plan.
- 5. When the state and flower choices have been finalized, challenge the students to find out how much it would cost to buy one packet of that type of flower seeds as well as how many seeds come in a packet. Again, the Internet or seed catalogs may be used to research this information. Review any math strategies they will need to employ, including estimation.
- 6. Based on these findings, have students complete the top portion of the "State Flowers" worksheet. Be sure to point out, where noted, that students should estimate their answer before they calculate it (whether using scratch paper or calculators).



A Financial Flower Garden

7. Check research, worksheet, and scratch work (if applicable) for accuracy.

Session 2

- 1. Have students form State Flower groups (no more than seven to a group). Using their initial state flower results, have the group complete the last set of questions on the worksheet.
- 2. Check the worksheets for accuracy.



ENRICHMENTS/EXTENSIONS:

Have students illustrate and color the state flower of their choosing. Staple these pictures to the State Flower Results worksheet and display on a bulletin board.

Have students choose eight to ten flowers (from the class display of state flower pictures) that would make a nice flower bed. Have students calculate how much money they would need to buy a packet of each type of flower. Plan and plant such a garden.

Explore why flowers are more appropriate for certain states and climates rather than others.



DIFFERENTIATED LEARNING OPTIONS:

- Have students create a table to record their information as they locate it in order to become familiar with the development of organizational charts.
- Invite students to determine different fractions or percentages represented within the group.
- Have cooperative groups plan the style of garden they could create using the selected flowers. Students will diagram the layout of their garden based on the number or size of the selected plants.



HPC CONNECTIONS

If your students liked the Mississippi quarter, let them examine the April 2002 Coin of the Month in the "Coin News" area. it's the 1997 U.S. Botanical Garden Commemorative Silver Dollar, which features our national flower, the rose!

For added educational value, test out the related Teacher Feature "A Financial Flower Garden" as well, in the "Teachers" area.

	NAME	DATE
	State Flower Worksheet	
	PART 1	
• •	The state I chose was	
	That state's flower is the	
	I need 1 000 seeds. I need to figure out ho	ow many nack-

I need 1,000 seeds. I need to figure out how many packets to buy and how much they will cost.

Number of seeds in one packet		
Cost of one seed packet		
Price per seed		
	Actual	
Number of seeds in three seed packets		
Cost of three seed packets	Estimate	
	Actual	
Number of seed packets needed to get at least 1,000 seeds		
	Actual	
Cost of packets needed for at least 1,000 seeds		
	Actual	

PART 2

The states and flowers in my Flower Group are:

State	State flower	Price per Packet
		\$.
		\$.
		\$.
		\$.
		\$.
		\$.

Price to buy a packet of each state flower's seeds	
Total number of seeds in all state flower seed packets	
Price difference between the most and the least expensive seed pkt.	
State that has the least expensive seed packet	
Number of seeds in the least expensive seed packet	
Approximate price per seed in the least expensive seed packet	
Flower with the most expensive seed	



Mississippi Quarter Reverse

