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GRADE LEVELS: K – 2nd

Lesson 9: Five-Pointed Stars and Developing Number Sentences

Objective

- Students will count by fives
- Students will multiply by five
- Students will write number sentences to describe situations with fives

Vocabulary

Multiplying by five

Number sentence

Materials Needed

- CD Player
- CD on “The Fives”
- Mat for stars (sheet of blank paper)
- Overhead stars from transparency of p. 24
- “Five-Pointed Stars” activity sheet, p. 24 (one per student)
- “Stars, Points, and Number Sentences” activity sheet, p. 25
- Scissors
- Overhead projector

Teacher Information

This lesson provides practice in counting by fives and multiplying by five. It also provides an opportunity for students to write multiplication facts for five.

Lesson 9 focuses on using stars and characteristics of stars to reinforce multiplication by five.

Teacher Preparation

1. Have a CD player with the CD, “The Fives,” installed ready for play.
2. Make copies and transparencies for “Five-Pointed Stars,” p. 24 and “Stars, Points, and Number Sentences,” p. 25.
3. Have scissors ready for students to use.

Procedure for the Lesson

Engage

1. Display a star on the overhead. Ask students, “Describe what you see. How can you tell me how many points there are on a star?”
2. Place a star on the overhead and have a student come up and show the five points.
3. Ask students, “How many points are on three stars? Have a student come to the overhead and show fifteen. Encourage counting by fives to get the count.
4. Sing and dance to “The Fives.”

Investigate

1. Distribute p. 24 and allow students to cut out the stars. They are to cut along the dotted lines.
2. Have students place two stars on their mats. Ask, “How many points?” Tell student to show how they derived their answer, then write $2 \times 5 = 10$ on the overhead.
3. Place six stars on the overhead and have students place six stars on their mats. Ask, “How many points now?” Have a student come to the overhead and count by fives as each star is touched to thirty. Let the six stars remain on the overhead and write $6 \times 5 = 30$.
4. Remove the six stars and place down eight stars. Have students place eight stars on their mats. Have students tell how many points there are on eight stars. Ask students to predict the number sentence that should be written. Then write $8 \times 5 = 40$.
5. Write $5 \times 4 = \underline{\quad}$. Under 4×5 , use the “talk to yourself aloud technique” as you perform the actions. Say, “I put down four stars and I count five, ten, fifteen, twenty,” and write twenty on the line.
6. Write $5 \times 7 = \underline{\quad}$. Think aloud and say “I put down seven stars and I count five, ten, fifteen, twenty, twenty-five, thirty, thirty-five” and write 35 on the line.”
7. Write $5 \times 9 = \underline{\quad}$ and allow the students to show what the number tells them to do and write the number on the line.
8. Ask the students to write a number sentence that can represent 25 points on five stars. Accept $5 \times 5 = 25$. Repeat with “Can you write a number sentence that represents 60 points on twelve stars.” Accept $12 \times 5 = 60$ or $5 \times 12 = 60$.

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9. Tell students that they will be doing more of this later.

Reflect

- Lead a discussion on multiplying by five.
- Ask for volunteers to explain how they count the points on the stars. Allow students to use the overhead for their explanations.
- Ask, “How many stars if you have seventy-five points?”
- Ask students to work with a partner and justify their answers.

Apply

1. Distribute the “Stars, Points, and Number Sentences” activity sheet, p. 25 to each student.
2. Tell students to work the page independently.
3. Once completed, provide an opportunity for the students to share their responses orally at the overhead.

Assessment

1. Are the students able to count by fives?
2. Are the students able to write a fact/number sentence to describe points on a star?

Teacher Reflection

What did I learn from my students as they counted the points on stars?
What did I learn from my students as they wrote multiplication facts and answers?

Information can be gathered from

Class discussion

Teacher observation

Individual questioning

“Stars, Points, and Number Sentences” activity sheet

Making connections