Multiplication Baseball

Strand: Computation and Estimation

Topic: Multiplying with 0, 1, 2, 5, and 10

Primary SOL: 3.4 The student will

> c) demonstrate fluency with multiplication facts of 0, 1, 2, 5, and 10

Materials

- Index cards with the basic multiplication facts written on them
- Calculators

Vocabulary

array, fact family, multiply, number sentence, numeral, product, strategy

Student/Teacher Actions: What should students be doing? What should teachers be doing?

Note: This activity is intended for review and should not replace instruction. It would benefit students to play during transition times or as a special activity.

1. Explain that the class is going to play a game of baseball, but rather than using a bat and a ball, students are going to use multiplication. An incorrect answer will be an out. Label home plate and first, second, and third bases around the room. Designate a pitcher's mound. Divide the class into two teams of nine. If there are remaining students, designate one to be the home plate umpire, one or two to be the scorekeeper(s)—one to keep the actual score and to keep track of outs and innings, and the other to be the commissioner. The commissioner will be armed with a calculator. Have each team decide on the positions the members will play. Toss a coin to determine who bats first.

2. Give the pitcher (you may want to reserve this position for yourself) the set of index cards with multiplication facts on them. The first batter goes to the plate, and the pitcher verbally "tosses" a fact to the batter. The batter responds. The umpire determines whether the response is correct. If it is correct, the umpire calls, "Hit," and the batter proceeds to first base. If the response is incorrect, the umpire calls, "Out," and the next batter comes to the plate. The commissioner double-checks the responses; if the umpire makes an incorrect call, the commissioner overrules him or her. (Note: Record hits and outs for all students as they come to bat. Watch for common mistakes and have students correct errors.)

3. Play continues until three outs have been accumulated. At that point, the teams trade places.

4. Play continues until nine innings have been played. The team with the most runs at the end of nine innings wins. In case of a tie, the game can be extended into extra innings.

5. Debrief the activity with the students to talk about strategies for improving their "play," just like a real baseball player might analyze their strengths and weaknesses to improve.

Assessment
- **Questions**
  - What could you have done to improve your game?
  - Do you think that the strategy you used in the game helped or hindered you? Why?

- **Journal/Writing Prompts**
  - Write about another popular game that can be played using mathematics facts. Describe how the game would be played, explaining the rules and telling how someone would win.
  - Explain why knowing your multiplication is important when playing this game.
  - Describe the strategies that you used to learn your multiplication facts. Which ones worked best? Why? Did you use any helpful tools or materials?
  - Using one of the facts used during the game, create a single-step multiplication word problem. Have another student solve your problem. How did they solve it? Is there another way they could have solved it?

- **Other**
  - Have students play "Around the World." Students stand up, two at a time. The teacher calls out a math fact, and the first student who calls out the correct answer moves on to challenge the next student. Any student who makes it all the way "around the world" to challenge every classmate is the winner.
  - Give each student a basic multiplication problem. Have him/her solve the problem and write the corresponding number sentences to complete the fact family.
  - Give each student a basic multiplication problem. Using the commutative property, have the student rewrite the multiplication problem to represent the property.

Extensions and Connections (for all students)
- Students may work beyond facts of zero, 1, 2, 5, and 10.
- Mix in addition and subtraction facts for review.
- In place of various multiplication facts, incorporate single-step multiplication problems for students to answer on the index cards.
- Students can be given a multiplication fact and need to respond with the commutative property fact.
- Have students create two concentric circles (one inside the other). Have the inside circle of students stand facing the outside circle of students. Provide each student a mathematics fact card or a card with an array on it. Play music for the circles to move in opposite directions (inside walks clockwise and outside walks counterclockwise). When the music stops, have students face each other and flash the card they have to the other student. Have each student tell what the product is on their partner's card.

Strategies for Differentiation

- Provide multiplication charts, calculators, and additional mathematical aids for students with memory difficulties.
- Supply graph paper for students to draw arrays.

Note: The following pages are intended for classroom use for students as a visual aid to learning.

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