MARTIN'S math club

Lesson Plan

Grade 3

Algebraic Thinking and Operations

"Using Pom-Poms to Organize Groups"

Objective:

By the end of the activity, the students will be able to:

- Develop a deeper understanding of division through the use of manipulatives.

Materials:

- Pack(s) of Pom-Poms (crafts section of store)
- Re-sealable plastic bags
- "Pom-Pom" task cards

Teacher Preparation:

- Place the students in pairs.
- Make copies of the task cards.

Introduction:

Ask the students whether or not they have been to a basketball game. Then, show the students pictures of the seating at a gym. *You want the students to see that the seats are in sections, and there are sections that have the same number of seats in each row.*

South Carolina College- and Career-Ready Standards for Mathematics:

3.ATO.2 Use concrete objects, drawings and symbols to represent division without remainders and explain the relationship among the whole-number quotient (i.e., 0- 10), divisor (i.e., 1-10), and dividend.

Question(s):

- What did you notice about how your family or friends found your seats? How were the seats arranged in the arena? Were there groups of seats?

Activity:

- Have the students read and complete their task cards. Walk around to monitor and facilitate the activity.
- Once all students have completed their tasks, have them journal or record their responses to the following questions:
  - How did you solve your problem? What was you answer? Was your task exactly the same as your partner's? Similar? Different? How so?
- Once all groups are done, record different responses as a whole group in a Venn diagram.

Extensions:

- The students may complete additional division tasks with their materials to see if the concept holds true to various division problems.
- Incorporate division problems and word problems that ask the questions, "How many Groups? How many in each group?"

Pom-Pom Task Cards

Partner A	Partner B
You will need: • 12 Pom-Poms • Plastic bags Get 3 plastic bags. Put an equal number of Pom-Poms in each of the plastic bags. How many Pom-Poms are in each plastic bag? _____ Pom-Poms in each bag	You will need: • 12 Pom-Poms • Plastic bags Put 3 Pom-Poms in a plastic bag until you do not have anymore. How many plastic bags do you have with Pom-Poms? _____ bags with Pom-Poms
Partner A You will need: • 12 Pom-Poms • Plastic bags Get 3 plastic bags. Put an equal number of Pom-Poms in each of the plastic bags. How many Pom-Poms are in each plastic bag? _____ Pom-Poms in each bag	**Partner B** You will need: • 12 Pom-Poms • Plastic bags Put 3 Pom-Poms in a plastic bag until you do not have anymore. How many plastic bags do you have with Pom-Poms? _____ bags with Pom-Poms
Partner A You will need: • 12 Pom-Poms • Plastic bags Get 3 plastic bags. Put an equal number of Pom-Poms in each of the plastic bags. How many Pom-Poms are in each plastic bag? _____ Pom-Poms in each bag	**Partner B** You will need: • 12 Pom-Poms • Plastic bags Put 3 Pom-Poms in a plastic bag until you do not have anymore. How many plastic bags do you have with Pom-Poms? _____ bags with Pom-Poms