

MATH SPHERES

What is it? Math Spheres is a unit where you and a group of people will discover the objectives of each lesson by working together to solve mathematical problems.

How it works? After being placed in your groups, there will be four jobs in which to choose from. You must fill all positions, even if you only have three people in your group. Below are a description of each job and their duties:

Recorder: This person is in charge of writing down all of the information. They are also in charge of making sure the handouts get placed in the folder. This person will also assume the role of the cop if that group member is sick.

Janitor: This person is in charge of gathering and putting away of folders, manipulatives, white boards, and any other materials that your group will need.

Illustrator: This person is in charge of drawing and labeling the concepts that the group is trying to discover.

Cop: This person is in charge of making sure each member stays on task as well as watching the time. This person will also assume any of the other jobs if someone in your group is sick.

Expectations: All of you are expected to participate. You are to explore the concepts and to teach each other. You are to keep track of all of the handouts and worksheets, making sure everyone in your group gets finished with the assignment.

Written Work Expectations: For each problem, you will need to have the following information on your sheet of lined paper:

- +1 1) **What the problem is:** for example, it might be an adding two decimal numbers or adding a decimal plus a whole number
- +4 2) **How you solved it:** an actual written out form of how you solved the problem...this may be written out in numbers or words
- +4 3) **Why you solved the problem in that way:** this is a written description in words on why you solved the problem in that way....use the word "because" to describe why. This is the hardest part of the project.
- +1 4) **Other ways to solve it...**this will describe if there are any other ways to solve the problem. Be careful...sometimes you will have another way and sometimes you won't, but don't just put down that you don't have another way to solve the problem.
- +5 5) **Illustration:** This needs to be a real-life example drawn out on a white piece of paper.

- Talk to student group after each concept.

- 2 worksheets with each concept