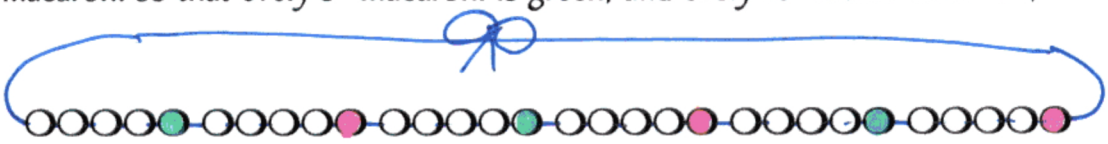
Arithmetic on a String

by Denise Ambrosait

1 piece of string
30 pieces of macaroni (or beads) (26 plain, 3 red, 3 green)
(Ziti is too big, choose small pasta This web site had some cute ideas, Baseball pasta, holiday pasta, animal pasta www.pastashoppe.com/)

String the macaroni so that every 5th macaroni is green, and every 10th macaroni is red, tie at end.



FORETHOUGHT:

This could be a good tool to bridge the gap when teaching students multiplication and division. I believe it could be used on most age levels, even for teaching addition and subtraction.

By using different colors, you can differentiate different groups. For my macaroni example I have broken down the macaroni into groups of 5's or 10's. You can do this in any denomination.

I tried this out on 4th graders. They thought it was a "present". I let them play with it for a few minutes, some children put it on like a necklace. I asked the children if they thought they could use this to help them with math. They all said yes. I also asked if anyone could figure out the pattern. I did this example based on 5's and 10's. Every fifth macaroni was green, and every 10th macaroni was red. You can use this for any number, and is a fun tool to show "grouping".

Since I wanted to find out if it would be helpful, I didn't give much information, instead, I asked a lot of questions. I held up two groups of five . . and ask them what mathematical problem could they come up with to demonstrate what I was showing. I also asked them what kind of math would this help them with. They all said, they could multiply, add, subtract and divide.

They really liked the idea.

AFTERTHOUGHT:

I think it would be more productive to have the students put these together themselves. I think they would have a better understanding of the reasoning behind the final product. If you made a new one up in each number category, you could have a nice variation of patterns and colors.