P.A.S.S. OBJECTIVES:

Standard 1: Patterns - The student will sort and classify objects and analyze simple patterns.
   1. Sort and group objects into a set and explain verbally what the objects have in common (e.g., color, size, shape).
   2. Explain verbally and extend simple patterns (e.g. A B A B).

INSTRUCTION:

Introduction
   - Field trip to the local grocery store. No explanation was given regarding the reason for a trip to the grocery store. As we're touring the store, I point out how items are arranged.
   - Patterning was introduced with unifix cubes and the children themselves.

Materials Needed:
   - Computer/printer
   - SmartBoard
   - Jack Hartmann CD Hip Hop Alpha-Bop - Clapping Machine
   - Pattern blocks
   - Dramatic play materials
   - Lakeshore Pattern puzzle
   - Pattern blocks
   - Math Start Level 1 Books
     - Vroom Vroom
     - Seaweed Soup
     - Bug Parade

Frank Schaffer Publications, Inc. reproducible

Instructional Process
   - The pre-test was given.
   - The purpose of this lesson is to teach and explain the relevance of sorting and patterning. To make it a “real world” experience we made a trip to the grocery store. At the grocery store we learned what a grocery store has to do so that we can have groceries to buy. We went to
the back where the trucks are unloaded we also looked at the enormous refrigerator and freezers; We went to each department and looked at how the groceries were arranged and “sorted”.

- We set up a grocery store in our dramatic play center which included two cash registers, shopping carts, food, a scale, a balance, food pyramid, sacks, wallets, pretend money and labeling, (e.g. store name, open/closed, food labels and prices).

- We discussed the how grocery store was arranged and discussed reasons why it was necessary to have items sorted and how they were sorted. We sorted the vegetables and fruits in our dramatic play grocery store.

- I demonstrated how to build an AB pattern with unifix cubes and posed the question if children could make an AB pattern with themselves. We made a girl/boy pattern; then a front/back pattern; soon an up/down pattern developed. The children liked getting in groups and working out patterns. We moved to an ABC pattern and as the children made patterns with themselves, we translated the pattern to Unifix cubes.

- We created AB and ABC patterns in our journal.

- I read the Math Start books as we discussed the aspects of patterning, grouping and sorting.

- I extended the lesson with pattern games on the Internet. The children enjoyed several sites, including:

  http://saxonpublishers.harcourtachieve.com
  http://rozauer.tripod.com/elemmath.htm
  http://www.philtulga.com/resources.html

**Closure**

- Post test was given. From the scores on the post-test, I determined that several of the students needed more instruction or clarification.

- Since time was an issue, I planned a closing activity to be held at snack time. I provided hexagon shaped oyster crackers, teddy grahams and American cheese slices divided into small squares. These shapes were distributed to the children with the instruction not to eat them until their patterns had been checked. The first sorted the snacks by shape; they were then instructed to create an AB pattern. I observed that they understood that they need to choose only two items to complete their pattern. They were then instructed to make an ABC pattern. Finally, they were instructed to “make their patterns disappear”.

ASSESSMENT:
- The pre-test and the post test were the same reproducible from Frank Schaffer Publications. Because paper/pencil activities are not completely appropriate for Kindergarten children, I also used observation of more tactile activities such as the closure activity at snack time, work with the puzzle and pattern blocks and individual work at the SmartBoard.

MODIFICATIONS:
- Although food activities are a wonderful way to emphasize a lesson, many children have food allergies so modifications to food content must be made depending on the specific allergies.
- I have steps in front of my SmartBoard because people come in many different sizes. With the steps, they feel special like they are on a stage. I also provide pointers and finger guards so that they can reach higher and their fingers will slide better on the SmartBoard.
- I don’t have ESL children go first when beginning a new activity. I will choose a child who is good at following instructions and allow children with limited English to follow their example.

REFLECTIONS:
- Overall, I was pleased with the understanding and excitement of the children regarding sorting and patterning.
- I believe that the pre/post test was inappropriate. I wasn’t able to produce the test that I wanted to and therefore had to use a reproducible. I don’t believe that it gave me a good beginning or ending assessment.
- The field trip and consequent discussion was very beneficial for vocabulary development and understanding of sorting and the need for organization in the real world.
- In the future, I won’t combine so many patterns in a short amount of time. I will go back to teaching one pattern set, AB then ABC then ABB, etc. at a time.