Title: Pattern Mania

Subject Matter Emphasis and Level: Kindergarten Math

Author: Nancy Noess

School District: Mitchell

Email: nancy.noess@k12.sd.us

Brief Description of the Lesson/Unit:

The students will be able to make various two-part patterns using a variety of manipulatives.

SD Content Standards:

K.A.4.1. Students are able to identify and extend two-part repeating patterns using concrete objects.

I can make a repeating pattern using two objects.

Stage 1: Identify Desired Results

1. What enduring understandings are desired?

   The students will use two simple objects and make a repeating pattern.

2. What essential questions will guide this unit and focus teaching/learning?

   Can the child use two simple objects to create a repeating pattern?
   Can the child continue to create patterns using other manipulatives?
3. What key knowledge and skills will students acquire as a result of this unit?

Children will understand the importance of patterns and it will be helpful when learning to read to see patterns in words.

4. What prior learning, interests, misconceptions, and conceptual difficulties might be brought to this unit?

Color blindness or difficulty in discriminating between objects.

Stage 2: Determine Acceptable Evidence

1. What evidence will show that students understand?

Performance Tasks:

Given two specific objects the child will be able to make a two-part repeating pattern. The child will be able to pick two specific manipulatives to create a two-part pattern. The child will be able to identify and describe the two part pattern.

Other Evidence:
*Quizzes, Tests, Prompts, Work Samples (summarized):*

Center activities and activity worksheets.

*Unprompted Evidence: (observations, dialogues, etc.)*

Observation of student making patterns.
Student is able to verbally finish a pattern when it is presented to them.

*Student Self-Assessment*

Activity project using manipulatives.
Student will do an activity sheet completing an already started two-part repeating pattern.
Stage 3: Plan Learning Experiences and Instruction

1. What sequence of teaching and learning experiences will equip students to develop and demonstrate the desired understandings?

Major Learning Activities:

Children watch as teacher makes a pattern and verbally tell what comes next in the pattern.
Using manipulatives, the teacher will start a pattern and the child will be able to extend the pattern.
Using manipulatives, the student will create and make their own two-part pattern.

Materials & Resources (technology & print):

Manipulatives to make patterns. Activity sheets.

Management:

Whole group instruction, small group center activity, and individual assessment.

Support Services and Special Teacher Notes:

Students who need help with making the pattern may need extra support services. Many times the classmates will be the extra support group. More visual and tactile experiences in creating patterns may be needed.

Extensions and Adaptation:

Students that can create a two-part repeating pattern will be encouraged to make more difficult patterns such as using 3 objects to make a three-part repeating pattern or extending the patterns from an ABABA format to AABBAABB or AABAABAAB etc.
2. What differentiated instruction strategies are being used in this lesson/unit?

Differentiated Process:

Instead of making a simple ABABABA pattern, the child would start creating AABBAABBAABB or AABAABAAB or ABBABBABB. Depending on the child’s understanding of making simple patterns, children will be encouraged to extend the patterns to more complex patterns using three or four objects such as ABCABC or ABCDABCE etc.

Differentiated Content:

For the children who have mastered making the simple two-part repeating pattern, they would begin working on more complex patterns.

Differentiated Product:

Observation of student’s ability to make a repeating two-part pattern. Students will continue a started pattern on an activity sheet.