Cross-Curricular Math Extension

Animal Habitats
Second Grade Math Extension
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SCA Theme: Habitats

Focus Question
How could you count groups of Brian’s salamander friends? How could you multiply the bugs and insects that the salamander would eat?

Activity Synopsis
In this lesson students will make groups of plastic and paper salamanders by twos. Students will also multiply groups of paper insects by twos, fours, fives and tens.

Time Frame
2 weeks

Objectives
The learner will be able to:

• Group salamanders by twos
• Multiply insects by twos, fours, fives and tens
• Identify and write our math facts correctly

Standards
Math – K.OA.1, K.OA.2, 1.OA.1, 1.OA.5, 2.OA.1, 2.OA.2, 2.OA.3
Science – 2-2.1, 2-2.2

Materials

• *The Salamander Room* by Anne Mazer
• *The Big Book of Animal Manipulatives* by Mary Strohl and Susan Scneck, pg. 33-52 (ISBN 0-590-49245-4)
  o Salamanders – enough for 20 cut-outs per student
  o Insects – enough for 100 cut-outs per student
• *1001 Instant Manipulatives for Math* by Alison Abrohms, pg. 21-24 and 64-71 (ISBN 0-590-49238-1)
  o Meadow Story Mat – one per student
  o Toy Room Story Mat – one per student
• Plastic salamanders or lizards (The Dollar Store has bags of plastic animals)
• Glue
• Scissors
• Crayons
Procedure

Step 1:

1. Read The Salamander Room by Anne Mazer. Point out the part of the book where the boy says that he will bring friends from the forest for the salamander. Show the page where a pair of salamanders is drinking from a pool of water. Have students’ group pairs of plastic salamanders (or lizards) on individual story mats (from 1001 Instant Manipulatives for Math, pp. 64-71).
2. Students can make up stories about multiple pairs of salamanders drinking at a mountain pool or stream. The Meadow Story Mat could be changed to look like a stream in the mountains. Then they can write math facts on the story mats to denote what did with the plastic salamanders.
3. This activity can be done several times/days until students have a good level of understanding about grouping things.

Step 2:

1. Have students cut out and color paper salamanders (from The Big Book of Animal Manipulatives). Each student should make 20 salamanders.
2. Use the paper salamanders to make an addition math fact such as: 2+2+2+2+2= 10.
3. Have each student glue this to the Meadow Story Mat (may need to enlarge) and write the math fact with their mat.
4. Tell the students that there is another way to write 2+2+2+2+2. It can be written as the number of items you have (2) and how many times it is grouped (5): 2x5.
5. Introduce the word multiplying and its math sign.
6. Let students put other groups of two paper salamanders on their mat, but this time they should write the multiplication fact that goes with their picture.

Step 3:

1. Reread the page in The Salamander Room that tells about the insects multiplying and bugs everywhere. Shrink insect page in The Big Book of Animal Manipulatives (50%) and copy 100 different insects for each student. Children should color and cut then out.
2. Use them to make multiplication facts with 2, 4, 5 and 10. Glue groups onto Toy Room Story Mat (may need to enlarge) and write out multiplication facts.

Assessment
After students have practiced making multiplication facts, give them a lot of paper cut-outs, five story mats and five multiplication facts (at least one of each; 2, 4, 5 and 10). Students should write each fact on a story mat and illustrate it with the cut-outs.