EASY AS PUMPKIN PIE

SUBJECTS: Mathematics, Language Arts

STUDENT SKILL: (Math) The student will model the concept of place value through 4 digits. (LA) Students are expected to recognize and use adjectives correctly in their writing.

OBJECTIVE: The student will demonstrate place values, using pumpkin seeds as a math manipulative.

BACKGROUND
Pilgrims and other early American settlers made the first pumpkin pies by burying pumpkin in the ashes of their fires. After a pumpkin had cooked, they would cut off the top, scrape out the pulp and add honey or maple syrup. The pulp was then made into delicious pies and breads. Pumpkins were used for many different things. Dried pumpkin shells served as bowls or containers for storing grains and seeds. Pumpkin seeds were dried and roasted for a high-energy treat. The Pilgrims' dependence on pumpkins is reflected in this poem, from 1630.

For pottage and puddings and custards and pies,
Our pumpkins and parsnips are common supplies,
We have pumpkins at morning and pumpkins at noon,
If it were not for pumpkins we should be undone.

ACTIVITY
1. Divide class members into groups of four or five students. Provide one pumpkin for each group. Allow students to handle the pumpkins.
2. Review the term “estimate.” Ask each group to estimate the number of seeds in their pumpkin. Write the group estimates on the board.
3. Hand out three sheets of construction paper, and instruct the groups to tape them together in a row to create place value boards. Have one member of each group write the place value terms — “ones” across the top of the first sheet of construction paper, “tens” across the top of the second sheet and “hundreds” across the top of the third sheet.
4. Cut the top from each pumpkin. Give each group 10 small cups (paper muffin cup, bathroom cups, nut cups) and two large styrofoam cups.

MATERIALS
1 large knife
(for each group)
1 pumpkin
3 sheets construction paper
tape
10 small cups (muffin cup, bathroom cup, or nut cup)
2 large styrofoam cups

OKLAHOMA AG IN THE CLASSROOM
5. Have students scoop the seeds from the pumpkins with their hands and place them on the construction paper labeled “ones.”

6. Have students count the seeds into groups of ten, place them in the small cups and place the filled cups on the construction paper labeled “tens.” When students have counted ten groups of ten they should dump those cups into the larger cups and place them on the construction paper labeled “hundreds.”

7. Have students continue the activity until all the seeds have been counted. Then have them write and read the exact number of seeds in their pumpkins. Have students compare the exact numbers with their estimates.

**ADDITIONAL ACTIVITIES**

1. Roast pumpkin seeds. Wash them, and place them in a vegetable steamer with some water. Cover and cook for 30 minutes. Dry the seeds with a towel. Spread them out on a cookie sheet, brush with vegetable oil and sprinkle with salt. Bake the seeds in a preheated 300-degree oven for 30 minutes, or until golden. Serve them to students as a snack.

2. Make pumpkin pie in a bag. See “Recipes.”

3. Make pumpkin seed art. Bake clean seeds in a 300-degree oven for 30 minutes, or until golden. Let the seeds cool completely. Provide students with tempera paint in autumn colors, and have them dip the pumpkin seeds in the paint. Let the seeds dry. Have students draw tree trunks with branches and glue seeds to the branches to make beautiful full trees.

4. Have students draw Jack-o-lanterns, color them and use different kinds of seeds to make their features.

**EXTRA READING**


**EVALUATION**

Were the students able to understand the place value concept? Did any group’s estimate come close to the actual number?