PARTY TIME

Student/Class Goal
Adults enjoy entertaining. They often are "on a budget" and need to determine what type and quantities of food they can afford.

Outcome (*lesson objective)*
Students will be able to calculate unit prices, quantities and total cost for a party or picnic.

Time Frame
1 hour or two 40 minute classes

Standard *Use Math to Solve Problems and Communicate*

NRS EFL 3-5

COPS	**Activity Addresses Components of Performance**
Understand, interpret, and work with pictures, numbers, and symbolic information.	Students will obtain information from grocery store ads and food labels.
Apply knowledge of mathematical concepts and procedures to figure out how to answer a question, solve a problem, make a prediction, or carry out a task that has a mathematical dimension.	Utilize the concept of unit cost and serving size in order to plan the amounts and costs of a party or picnic.
Define and select data to be used in solving the problem.	Choose items and prices from grocery store ads.
Determine the degree of precision required by the situation.	Calculate cost per unit to the nearest cent ($.01)
Solve problem using appropriate quantitative procedures and verify that the results are reasonable.	Calculate cost per serving. Calculate costs for number of people attending the party.
Communicate results using a variety of mathematical representations, including graphs, chart, tables, and algebraic models.	Complete a chart showing the items, cost per serving, serving size, amount needed and total cost.

Materials
Party Planning Chart Handout
Grocery store ads
Optional: boxes, bags, food labels with serving sizes and number of servings per container

Learner Prior Knowledge
Students are skilled in the four basic math operations using whole numbers and decimals. Students are familiar with ratios in terms of cost per unit item. On a life-skill level, they know that parties need food and planning. **TEACHER NOTE** The type of party planned will be influenced by the calendar year. This activity would be enhanced if the students had an actual celebration to plan, e.g., winter holiday party, spring/summer picnic.

Instructional Activities
Step 1 - Pairs or small groups of students should create a menu and estimate the number of people attending the party. The students should use grocery store ads to find the costs of the items.

Step 2 – Complete the *Party Planning Chart* of Items, Ad Price, Unit Price, # of Servings Needed, Servings per Container, Containers Needed, Total Cost. Teacher should review how to calculate the unit price.

Cost/ # items = Unit cost

Example - Assorted Chips 3 bags for $4.97

$4.97/ 3 = $1.65

One bag of chips contains 12 servings. 40 people are attending. Number of bags needed? Units could be pounds or ounces

$$\frac{\text{12 servings}}{\text{1 bag}} = \frac{\text{40 servings}}{\text{? bags}}$$

Answer - 3.3 bags are needed, but since you can't buy part of bags whole bags must be purchased, 4 bags are needed.
4 bags at $1.65 per bag = $6.60

Calculate the costs for all of the items in the menu.

Step 3 – Using a calculator, calculate total cost of the party.

Step 4 - Second problem/situation. Students plan the same party for 10 people with a $100 food budget (Use a second *Party Planner* handout). Calculate the costs with the same menu for 10 people. Will $100 cover the costs? What can be eliminated? Again at the same party, there are 15 people with $200 food budget. Can the original menu be used? What will the cost per person be now?

Assessment/Evidence (*based on outcome)*
Students will complete charts with unit costs and quantities needed for the party. This will demonstrate their ability to calculate unit prices and to utilize proportions to change quantities needed.

Teacher Reflection/Lesson Evaluation
Not yet completed.

Next Steps
Plan parties that are "Desserts Only," "Appetizers and Drinks" or other variations.

Technology Integration

Purposeful/Transparent
Many students can use practice with party planning and budgeting. This activity will allow them to keep to a budget.

Contextual
Students will use real-life materials to plan and budget for the party.

Building Expertise
Students use their own experiences of party planning and grocery shopping to learn how to better estimate food needed and the costs of a party.

PARTY PLANNING CHART

NAME OF PARTY_____

Number of people attending_____ Budget amount_____

Chart of Food Items, Cost, Servings and Total Cost

ITEM	AD COST	UNIT COST	NUMBER OF SERVINGS PER CONTAINER	NUMBER OF CONTAINERS NEEDED	TOTAL COST
TOTAL COST OF ALL FOOD					

Additional questions

Is the budgeted amount sufficient for all of the food items selected?

What can be eliminated in order to meet the budget?

Brainstorm

How could you use the same menu without increasing the budgeted amount?