Spaghetti and Meatballs for All ! by Marilyn Burns	
Parts of the Lesson	**Materials Needed**
I. Pre-activity: Pasta Graphs Children get a scoop of mixed shapes of pasta, sort them and line them up on their tables to make a physical graph. (Optionally, they can make a bar graph, see sample recording sheet in the appendix.)	I. Pre-activity: Pasta Graphs -big bowl of mixed uncooked pasta in fun shapes like wheels, bowties, ziti, elbows, corkscrews, etc -plastic baggies, masking tape (for names), and ½ cup measuring cup -(optional) photocopies of pasta graph paper so children can make their own bar graphs; colored markers -(optional) a large chart forcompiling whole class results (older children)
II. Read the book (Talking points) -How do families behave when they get together? What do you think of the way the husband and wife divided up the work for planning the party? -Model what is happening with the tables and chairs, using post-it notes.	II. Read the book. At least one copy of the book. Eight squares (representing tables) to model what happens at the party. Make chairs out of 32 small post-its, and remove them when the tables get pushed together. Loops of tape for taping down the paper squares, OR (optional) use a flannel board
III. Do the math (Activities) Use Cheez-Its® crackers to make pentomino shapes and record the ones that are found. Discuss area and perimeter of each pentomino shape that is "discovered."	III. For the activities -Big box of Cheez-Its® crackers (which are perfect 1" squares). Each child needs 5, plus extras for eating and/or taking home for their "soup." -several sheets of 1" graph paper for each child, to draw pentominoes. -pencils or markers for tracing the shapes onto graph paper. -Chart paper to show all 12 pentominoes.
IV. Wrap Up (Debrief) -Today we made graphs of different kinds of pasta. We showed how shapes made with 5 squares can have different perimeters. Thought question: which shapes would fold to make a box? (a cube without a top)	IV. Wrap Up (and take home items) Take home 2 baggies: one with pasta and a bouillon packet; another with Cheez-Its® crackers. Give them the pentomino worksheets so they can think about folding boxes, and the recipe for making "soup."