

Company's Coming

When food is served, math can be dished up at the same time. Children will be eager to help themselves to both the meal and the math.

Most days, four people dine at the Archibold home, but today company's coming. There will be five for lunch. The frittata is out of the oven. Soon it will have to be cut by 7-year-old twins Evvy and Mariah.

Mom: How many pieces should we make?

Evvy: Five.

Mom: Why?

Evvy: There are five people.

Mom: Do you think everyone will eat the same amount?

Mariah: No. Adults eat more.

It is decided that the three adults will each get two pieces while the children will have one. Of course, the girls have to figure out how many pieces are needed all together.

Mariah (after thinking): Eight.

Dad: How do you know?

Mariah: There are three adults, so that's one-two ... three-four ... five-six ... and the kids have one each, so that's seven and eight.

Dad: So how can we cut the frittata into eight pieces?

Out come paper and pencils so they can draw up their plans for dividing the frittata into "eighths" (a term adults can use without explanation, since it is obvious from context). Several division schemes are considered before the idea of two



With some help from their parents, 7-year-old twins Evvy and Mariah Archibold learn some advanced math lessons in the kitchen.

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rows and four columns emerges as the winner. But another possibility is suggested:

Mom: Suppose we wanted 12 pieces. How would you divide the pan?

Soon the girls are inventing their own scenarios and solving them without prompting. Thinking ahead, Mom shows Evvy and Mariah the cake they will have for dessert. She complicates the problem in a new way.

Mom: Let's eat half of it today and save the rest for tomorrow.

How should we cut it?

Even something as simple as setting the table can be a math lesson for young ones: Count

the number of plates, glasses and cutlery to be carried to the table. How does it change when there are guests? With one knife, one spoon, one fork and so forth for each setting, the young tablesetter is dealing with the basic math concept of matching, or "one-to-one correspondence."

When Evvy and Mariah had to divvy up the frittata so that the three adults each got two and the two children each got one, they were actually being exposed to algebra! A middle-school math teacher might have expressed it more abstractly, but by the time these girls enter middle school, they will easily be able to understand the frittata problem as an algebraic equation.

When they tried out different combinations of rows and columns, they were learning not only about area and geometry, but basic multiplication visualized in a grid. Their parents did not proclaim "Right!" or "Wrong!," but instead asked the children to justify their thinking, a strategy that helps kids think clearly about whether their answers make sense.

In the few minutes before lunch, Evvy and Mariah solved real life, real food problems with math. What could be tastier? Math Moments are an appropriate side dish to any meal.

Math Moments™ creator David Schwartz spends much of his time finding unusual, whimsical ways to make math and science come alive for kids and teachers, both through writing and through speaking at schools and conferences. He has written nearly 50 books for kids, including *How Much Is a Million?* and the "Look Once, Look Again" series. For more information about David's math and science adventures, check

out his Web site, www.daidschwartz.com. To read previous installments of our Math Moments column, visit Parenthood.com/math.html.

