

Getting your Math Message Out to Parents

Making the Home/School Connection

Written by Nancy Litton

We're excited about our newest Math Solutions publication, Getting Your Math Message Out to Parents, by Nancy Litton. Nancy is a classroom teacher with almost thirty years of experience as well as a Math Solutions instructor. She's thought a great deal about how to bridge the gap between home and school and knows that teachers must find ways to reach out to parents and communicate with them about what's going on with their children's math education. In her book, Nancy draws from how she and other teachers approach parents and offers practical, effective, and thoughtful suggestions about newsletters, homework, back-to-school nights, classroom volunteers, and family math nights. Following is just part of her "Parent Conferences" chapter.

Holding conferences with parents has a deserved reputation for being time-consuming and emotionally demanding. The high-stakes quality of conferences is inherent to the situation: both teacher and parents care deeply about the child they are discussing and feel a high degree of responsibility for that child's success as a student and as a person. Finding a way to tap into this high degree of caring in a relaxed and positive way is important, because conferences are a rare commodity - a time and place to focus on the needs and abilities of each child as an individual. I try to use a conference to get to know my students better: I carefully review their work beforehand and ask the parents to be active participants. Ideally, teacher and parents pour equal effort into the conference, firming up the notion of a parent-teacher partnership. A conference gives me a chance to show parents that I'm knowledgeable about their children and that I'm open to any ideas and information the parents have. Most of all, I see a conference as an opportunity to celebrate the many strengths and abilities of each of my students.

The Conference

My cardinal rule is to begin every conference on a positive note. I generally mention some recent triumph the child has experienced at school or some especially endearing quality she or he has exhibited. This friendly beginning conveys to parents that I like and appreciate their child. It makes parents feel at ease and gives them confidence that I have their child's best interest at heart. They are also more likely to be receptive to any problems I may need to discuss later in the conference.

After I've set this positive tone, I ask the parents to tell me about their child. As I listen to their description, I pay attention not only to the information they provide but also to what they leave out. I get them to round out their story by asking a question or two. I learn a lot about what parents value and how they relate to their children from what they say. Sometimes parents want to get right to the things they see as problems. I listen to these concerns, but I also make sure that the conference includes plenty of time to share positive thoughts about the child. I want to help parents appreciate their child's good qualities.

If parents mention a particular educational goal, I take specific notes so that I can follow up on it throughout the year. If the goal is unrealistic - having a first grader memorize the multiplication table by the end of the year, for example - I try to respond to the underlying concern, which is that their child encounter a rigorous

math curriculum. I let them know that I recognize and share their interest in skill development. I might even describe how I'll be helping my students become more proficient with numbers, at the same time emphasizing how important it is for children to understand what they're doing in mathematics. (I'll also make a note to myself that I need to send out a newsletter that describes how number sense is developed.) In any case, discussions like this remind me that I need to let parents know what I consider to be developmentally appropriate for their children.

After thanking the parents for their perspective, I offer some thoughts about how my perception of their child matches or contrasts with theirs. Then I begin showing the samples of student work I've collected, explaining what the work tells about the child's growth. For example, look at first grader Lana's solution to the Rooster problem, shown on the next page. Here's what I told Lana's parents:

Sometimes a piece of literature can be an interesting context for problem solving. I had read aloud Rooster's Off to See the World [Eric Carle, Scholastic, 1972], a one-to-five counting book that involves one rooster, two cats, and so on up to five fish who go on a journey. The problem I posed for the children to solve was, How many animals went off to see the world?



Lana figured out that 15 animals went off to see the world.

You can see that Lana got the correct answer and that she's been very clear about how she solved the problem through counting. Her work shows that she has a good conceptual understanding of what the problem entails. She made a point of using pictures, tally marks, and numbers to solve the problem. She counted accurately, an important skill for a first grader. When she brought her paper up to me, it was very important to her that I notice how complete she had been. This is just one example of what a conscientious student Lana is. When I asked Lana to share her paper with the class, I noticed that the other children also took note of how complete she had been. On subsequent problems that the children have been asked to solve, I've noticed that her work has served as a good example for some of her classmates.

If I had omitted showing the student work and just described Lana as "well organized and always eager to do her best work," her parents would have been reassured, but they wouldn't have seen how these characteristics play out for Lana when she's doing mathematics. Being able to back my statements up with a look at how Lana actually organized her thoughts on paper in solving a real problem gives a much fuller picture, both of Lana's way of working and what we are doing in the math program.

For any work I share, I take pains to describe the context of the problem and to mention the strand of mathematics it falls under. Then, when I go on to describe how their child approached the problem, parents can better understand why the work is significant. In addition to describing the actual mathematical thinking

that went into the work, I make sure to include my observations about the child's attitude toward doing mathematics, ability to organize thinking, and willingness to persevere in the face of difficulty. I explain that children who are committed to working hard on problems, even those that are difficult, are learning the tools that will help them throughout their mathematics career.

Choosing Student Work for Conferences

I know that having samples of the child's efforts will give the parents and me something concrete on which to focus our attention. While describing the way their child has gone about solving a specific problem, I'll be able to comment on his or her mathematical thinking in a lively way that includes the child's attitude toward doing mathematics. Having a little piece of the child there in the room can even dissipate some of the natural uneasiness we may all be feeling. And the student work allows me to give a fuller picture of what math looks like in my classroom.

Choosing work for conferences enables me to reinforce my deep-seated convictions about the way I am teaching mathematics. It also helps me become clearer about the choices I'm making in general for my students. For example, I asked my second graders to add $35 + 27$, explain how they did it, and then write a story to match the equation. When I look at George's solution (see figure below), I'm reminded of how important it is to structure assignments that help to reveal how children think. I would never have known that George was so gifted mathematically if he spent his time doing pages of double-digit addition. George was able to solve the addition problem, explain the steps that he used for his mathematical solution, and create a story context that matched the original problem. He then went on to create a new problem (how to share the orange peels equally among the six spiders) and solve it accurately as well. When I talked with George's parents about his work, it was clear to all of us that George was being challenged by our math program in the best way possible: he was challenging himself, taking every opportunity to extend and articulate his thinking.

thirty five plus twenty seven = ~~sixty two~~
 once upon a time. There were thirty five orange peels,
 on the ground. And twenty seven orange peels
 on the table. then six spiders came, and one of the
 spider said, there are thirty five orange peels on the ground
 and twenty seven on the table. how many orange peels do we get? how
 said, thirty five plus twenty seven = sixty two. Because
 thirty plus twenty = fifty. And five plus seven = twelve.
 And fifty plus twelve = sixty two.
 So there are sixty two orange peels.
 And there are five plus me = six. So we
 each get ten. And the two left over
 we cut the other two into three
 peels. And we do this to the other orange
 peel. The end. so my idea was that.

In his paper, George explains how he added $35 + 27$ and also creates a story context to match the problem

Student-Parent Conferences

Teachers aren't the only ones who can confer effectively with parents. Sometimes, students can do the best job of letting parents know what's happening in math class. Sessions at which children share their own work can take place at home or at school. Maryann Wickett, a third-grade teacher in San Marcos, California, regularly enlists her students' help in reviewing work and reporting progress. Here's how she goes about it. After her class has completed a unit of study, each of Maryann's students reviews the work he or she has completed and chooses three pieces of work to include in a math portfolio. Each of the three pieces must represent at least one

of five categories:

1. The child's best work.
2. A favorite paper.
3. A paper that describes a mathematical discovery or theory.
4. A paper that clearly explains mathematical thinking.
5. A paper dealing with an idea about which the student is still wondering or unsure.

The children then write about why they've chosen the three pieces. They also reflect on their work in a more general way. The completed portfolio consists of a cover letter to parents from Maryann, the three pieces of math work, and the child's two reflective pieces of writing.

The children then take their portfolio home and share it with their parents. The parents are encouraged to comment about what they learned from this process and to write to Maryann about any questions they have.

Students, parents, and teachers all benefit when student voices are included in the reporting process. Teachers are well aware of the value of having their students review and reflect on their own learning, and they enjoy knowing that attention is being directed where it should be - on student growth.