

Parent Involvement and Awareness:

Advice On Sending Home Mathematics Activities for Families To Do Together

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The experience of a parent helping children with their mathematics homework is a common one in most families, but not always a pleasant one. Wouldn't it be wonderful if you could play a role in a different, more positive and powerful mathematics experience—parents and children doing mathematics together, having a good time!

Parents send powerful messages to their children when they participate in fun mathematics activities—"My parent enjoys math, and maybe I should too!" All of us understand the importance of parents reading to children and doing art projects together, but we often neglect the importance of families enjoying pleasant math activities as well.

Here are a few tips how teachers can bring mathematics home to families successfully.

Choose an interesting activity.

Children and parents will hardly welcome anything that simply seems like more homework. Mathematics games, interesting problems, or simple mathematical construction projects offer a fun and different experience. These projects should require only readily available materials and be completed in one or two sittings. Choose an activity that is within the skill level and understanding of the child and yet interesting to the parent. And by all means, avoid calling it homework!

Teach it in class first.

Teach a mathematics game or introduce a project to your students in class first. Allow them time to play the game or begin planning the activity before suggesting that they take it home. If the child is excited about the activity in class, it is much more likely that the excitement will be carried home.

Make sure the project is clear.

Keep in mind that you won't be there to explain and clarify the mathematics activity when the parent and child begin the task at home. Children often have difficulty remembering and explaining what you

have presented in class, so include clear, concise, and complete directions along with the activity. But be sure that reading the directions is a brief part of the experience—If you need pages and pages to explain how to do an activity, it is probably not a good activity to send home. Make the wording of the directions parent-friendly. Parents might not understand educational jargon, such as "manipulatives," or "assessment."

Keep it simple.

If you can't fit the entire activity (directions, materials, diagrams, etc.) into a large zip-lock plastic bag, then it is less likely to be successful. Don't assume that the family has anything at home needed to complete the activity (except for such items as pencils, scissors, and glue). It is much more fun for the family to open a baggy with everything they need inside than it is to spend time searching all over for the necessary materials.

Make the purpose of the activity clear.

Include a brief note explaining why you are sending the activity home. Stress that positive mathematics experiences shared by parent and child can help their child form a positive attitude toward mathematics. List the specific skills and concepts this activity covers.

Be sensitive to family situations.

Keep in mind that most parents now work outside the home, and that some of your students have single-parent families. First, limit the number of home "fun" mathematics activities—one a month is often enough. Second, recognize that not all students have equal access to their parents. If their parent is unable to work with them, encourage students to do the activity with an older brother or sister, aunt or uncle, grandmother or grandfather, or another adult in the household.

Give credit to those that follow through.

Find some way to acknowledge the children that follow through. Keep it simple: getting a sticker upon completion and the return of

the materials, or a short discussion of their experiences. It is important to encourage rather than discourage the students, so remember, when a teacher puts students names on a wall chart with obvious blank spaces, some children are embarrassed, leading to one more reason they might want to avoid mathematics in the future.

One of my favorite family games is the Take-Away Game shown below. Encourage your

families to have fun doing mathematics. After all, it is good for everyone! 

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The Take-Away Game

by Paul Giganti

Materials: 12 to 20 counters (You can use the beans as counters.)

How to play the game:

1. Place a pile of twelve counters in the middle of the table between the two of you.
2. Take turns removing counters. Each player must remove one, two, or three counters from the pile on each of his or her turns.
3. The object of the game is to be the player to remove the last counter from the pile. If you remove the last three, two, or one counter(s) from the pile, you are the winner!



Finding a Strategy

At first glance, this game seems very simple—but as you and your child repeat the game, look for patterns. You'll start to see a strategy for winning. As you and your child play the game, talk together. Can you discover a winning strategy for the Take-Away Game?

If you figure out the winning strategy for twelve counters in the beginning pile, then begin with 13 counters in the pile and start the game again. The rules remain the same. After you figure out a strategy for a 13-counter game, continue changing the number of starting counters. Can you figure out an overall strategy that works for any number of counters in a pile? Watch out! As you change the beginning number of counters in the pile, the strategy for winning also changes.

This is a great exercise for the mind. It's also a fun way to build quality time with your child and to encourage him or her to learn that mathematics is fun!

