

What to Do at Your Family Math Event: Activities and Schedules

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In my first article about hosting a Family Math event (Part 1), I wrote about **WHY** your school should host a Family Math event, **WHAT** the goal(s) of your Family Math event might be, and **WHEN** are the best times in the year to host such an event. In my second installment (Part 2), I dealt with **HOW** you might organize and plan a Family Math event to ensure it is well attended and a great success. This third installment is all about **WHAT** to do during your Family Math event: the model you choose, the activities families work on, and the unique opportunities you have to communicate directly with parents and guardians about their children's mathematics learning.

One Class or the Whole School

In my personal experience hosting Family Math events, I have found that there are two sizes. The large size Family Math event usually involves the whole school and many staff. There is also a one classroom Family Math model, a smaller event that is very powerful for a small group of students and families, and much easier to handle. The advantage to a one classroom Family Math event is that you, as the parent or teacher, can focus on just the mathematics and activities going on in your own classroom. The advantage to a whole-school Family Math event is that you get a much larger number of families excited about math. My advice is to first check to see if there is enough interest in a school-wide Family Math event as this will require a whole bunch of interested parents and teachers! However, if that level of interest doesn't seem to be there, consider hosting a Family Math event in your child's classroom with just the help of the teacher and one or two more parents.

Involving Your Parents and Students Directly

The most memorable school events are those during which students and parents are directly involved in hosting the Family Math event and not just part of the audience. While the lion's share of the work naturally falls to a few, students and families can be involved in creating the activities and materials for a Family Math event. That evening, those same parents and students can

be active participants in hosting the event and teaching math activities to other families.

A Family Math event often involves several mathematics activity "stations," where different activities can be set up in different parts of the room, each perhaps on its own table with materials, and instructions. Since these stations always work better if knowledgeable people are placed at each station to assist the visiting families, this can provide a perfect role for some of your parents or students who would like to help.

As preparation, first do the activity with students during class time. Then spend a bit of time "prepping" just a few students how best to help others with the activity—we call it, "teaching without telling." After prepping students on a specific activity, allow them to visit another classroom and teach a small group of students how to do that activity. You can also send an activity home with a student for their parent(s) to practice and learn, if they have volunteered to assist. You will find that, on the evening or day of your Family Math event, these students and parents will be very helpful to the families that visit their particular mathematics station.

All activity stations will require some materials. Usually each station will need enough materials for six to eight people to do the activity at the same time. Preparing multiple sets of the materials is a perfect job for some parent volunteers. First make one finished set of materials as a sample of activity. Then gather the necessary raw materials for however many more sets of that activity you need. Parents who've volunteered can involve their families in completing all the sets for that one math station. Keep in mind that the few in charge do not have to do all the work!

Activities That Work Best With Families

Here are some general guidelines to help you choose the activities you share with families at your event:

- ◆ **FUN:** You want the adults and students at your Family Math event to have a good time doing mathematics together. While some might argue

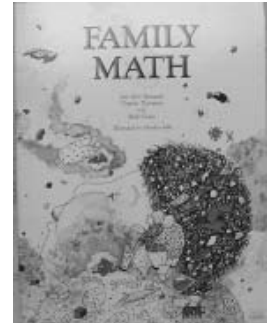
that “fun” is not a good adjective when thinking about mathematics, no one will argue that you do want those attending your Family Math event to suffer. Put away the long-division problem sheets and get out the hands-on materials. Since you want people to leave your Family Math event having enjoyed mathematics, choose your activities accordingly. Puzzles, good problems to solve, things to build, and mathematics & art projects are great suggestions with which to start. Ask your students for suggestions of their favorite math activities.

- ◆ **INTERESTING:** This may seem the same as “fun,” but here my suggestion is to choose activities that are suitable and accessible to different ages and ability levels. If you are expecting primary students through adults to attend your Family Math event, choose your activities with the broadest possible appeal so there will be something interesting for everyone. For example, since there are very easy Tangram puzzles as well as very hard Tangram puzzles, Tangram puzzles are suitable for kindergartners through adults—this makes them a good choice for a Family Math event station.
- ◆ **SIMPLE:** If you only have a Family Math event that lasts from 1 to 1.5 hours in length, you cannot afford to spend 20 minutes explaining the instructions for a single activity. By all means include simple directions with each activity, but choose those activities that are the most intuitive to start with. It is best if you can explain the instructions and get participants started on an activity in less than five minutes.
- ◆ **BRIEF:** This is not the same as “simple” above. Activities that take little or no time to explain but take hours to complete are not good choices for a Family Math event. Those activities that can be completed in 5 to 10 minutes with satisfaction, however, are best. If possible, you want participants to start AND finish an activity. Try to plan for parents and students to do several activities in the hour to hour and a half of your Family Math event.
- ◆ **STANDARDS-BASED:** Math textbooks, tests, and teaching are now based upon standards. While the focus of your Family Math event does not need to be the standards as such, be prepared to identify which activities help students learn which mathematics. It is not a bad idea to label

your mathematics activity stations in advance. For example, “*This activity, Tangrams, is designed to show students that polygons of different shapes can be combined to make new polygons.*”

Where to Find Good Activities for Your Family Math Event

While you can find activities many places that are perfect for a Family Math event, one of my favorite resources for fun, interesting, simple, brief, and standards-based activities are the *Family Math* books, published by the EQUALS Program at the University of California at



Berkeley. These books are a wonderful source of new activities covering many mathematics topics, and are specifically designed for families with children of different ages (these books are listed in the References section at the end of this article).

Building an Effective Schedule for the Event

Most Family Math events last from one to one and a half hours. The greatest amount of time should be set aside for families to do mathematics together. Give careful thought to the time required to cycle through the mathematics activities or stations you have planned. At the same time, while tempting, it is not wise to use all the time doing mathematics. You will need a short welcome and orientation for families before they begin, and a short debriefing at the end before they go home. You may also want to have time for questions and answers and/or for families to view mathematics projects on display. It is a good idea to build a time schedule, timed to the minute, indicating when segments begin and end. The planning committee should think very carefully about the times so that everyone can stick closely to the schedule. It is very frustrating for families to be rushed, and for you to squeeze an important part of your event into the last two minutes when you planned for 15!

Use the Opportunity to MAKE A POINT about Mathematics

A Family Math event provides an opportunity you don't often get: to say something powerful about mathematics learning to a gathering of interested parents. If you have chosen your activities carefully, the activities themselves will say a lot and lead nicely into a few brief, well chosen comments to families. For instance, if

you want parents to understand why students sometimes do some work in groups, choose a group activity that involves parents working together—then talk briefly about the importance of cooperation. The right activities can say a great deal more to parents than your words alone—but your words can be the punctuation!

Your Family Math Event Does Not Have to End When the Families Go Home

Often parents and students get quite excited about the subject of mathematics at a Family Math event. Make use of that enthusiasm by sending families off with a mathematics activity they can work on at home. In choosing an “at-home” activity, make the required materials very simple and cheap, like dried beans or paper clips. Then include a single sheet with instructions and all the necessary materials in a zip-lock bag. At the end of your event, hand each family a mathematics “activity bag” as they head out the door. What a wonderful way to end a successful Family Math event!

Remember, you can always find reasons to put off holding a Family Math event, but I promise, if you host a Family Math event at your school or in your classroom, you will not regret it. We need to bring families into schools for positive experiences if we expect our students to succeed.

References

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I am happy to answer questions or give advice, especially if you have just committed to hosting a Family Math event. Please contact me at:

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