

We believe ...

all children can do math.

success in math affects our children's future in school and work.

we are always using math in our daily lives even if we don't realize it.

you can learn about your child's school math program and help determine the best situations for your child.

you have the power to support your children's math learning and achievement.

Acknowledgments

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School Directory

Use the worksheet below to record contact information for the people at your child's school. During the first weeks of school, you will get some of this information through the mail and coming home with your child. You can also call the school and ask for the name of the principal, vice-principal, guidance counselor, and your child's math teacher.

To start, you only need the name of the school. Ask your child for the name, if you don't know it. You can find phone numbers and addresses in the Yellow Pages, on the Internet, or by calling the local school district.

The school principal is the leader of the school. The principal does everything from hiring teachers and setting budgets to meeting with parents.

The vice-principal assists the principal and often deals with discipline issues.

Guidance counselors make sure students are taking the right classes and making progress in school. They may help when teachers and students disagree.

Ask your child for the math teacher's name and the class period. Better yet, get a copy of your child's schedule. Most teachers don't accept calls when they are teaching. But many have times when they can talk with parents. Call the school and ask for the best way to reach the teacher.

Teachers know that some parents are only available in the evenings. Leave a message requesting that the teacher return your call in the evening. Make sure to leave your telephone number.

School name

Phone number

Address

Principal's name

Phone number

Email

Vice-principal's name

Phone number

Email

Guidance Counselor's name

Phone number

Email

Math teacher's name

Phone number

Email

Name of math class

Teacher's office hours at school and best time to call

Contacting the school

Calling a teacher

1. Call the school and ask for a good time to call the teacher.
2. Always start the conversation by introducing yourself.
3. You may have to leave a message with the receptionist or on the teacher's voice mail.

Scheduling meetings

1. Write a note to request a meeting. Send the note to school with your child, mail it, deliver it to the school office, or use email.
OR
2. Call the school. Ask for the person you would like to meet, or leave a message with the receptionist or on voice mail requesting an appointment.

Sample Message and Note:
"Mr. King, this is Loretta Kane, David Clark's mother. I would like to meet with you to find out how David is doing in math this year. Would Thursday at 3:30 work for you? Please leave a message at 555-2323, to confirm or suggest another time."

Be sure to include these items in your message: **NOTES:**

- your name
- your child's name
- your reason for meeting
- a time when you can meet
- a way for the person to contact you

_____ **Date**

_____ **Purpose of call**

_____ **Person contacted**

Leaving messages

1. Call the school and ask to leave a message for the teacher, principal, etc.
2. Give the reason for your call.
3. Leave your name and your child's name.
4. Give a time and a phone number where you can be reached.

What Every Parent Should Know about Middle School Math

Look for



Each topic is keyed to actions, found in the second half of the book. See the green circle on each topic page for actions.

Your child is changing

Physical changes

The middle school years are all about change. Most girls and boys are in puberty—the process of maturing sexually—by middle school. Bodies, voices, even odors are changing! Whatever the averages, children grow and change at different rates. That's why you see children in the same class who are small or large, look or act older or younger than others.

Social life changes

Social life becomes very important to most middle schoolers. Your child may develop many interests besides school. Make sure your child balances social life and school work.

Your child will probably...

- begin to spend more time with other children and with larger social groups.
- begin to spend less time with you and other adults.
- become interested in the opposite sex.

Intellectual changes

Middle schoolers go through changes in the way they think. For example, in middle school, children are able to think more about what might happen in the future. They can handle more complex ideas and generalizations.

These new thinking abilities fit with the kinds of math they do in school. They still do arithmetic, but they also do more complex problem solving. They are asked to think in abstract ways as they prepare for algebra and geometry classes. They also begin to use more mathematical symbols and terms.

Marta was worried about her daughter, Maria. She used to be so happy and now she was moody. All she wanted to do was talk on the phone to her friends. Marta hardly ever saw Maria do homework. Marta called the school guidance counselor to see how Maria was doing in her classes. She was told that Maria was doing well. In fact, her teachers thought she was happy. Marta shared her worries about Maria's moodiness with the guidance counselor. She felt better when she learned that Maria's moods are typical of children her age.

**Look at
ACTIONS
1,2,8,
9,& 10**

For more specific information, you can reference Cole, M. and Cole, S. (1989) *The Development of Children* Science American Books

Homework

Look at
ACTIONS
1,2,3,4,
8,& 10

Every night, Marco asked his daughter, Marisa, if she had done her homework. And every night she would answer, "Yes, Dad." Then Marco went to Back-to-School Night and learned that, in addition to regular homework assignments, extra practice problems were available. He started thinking of ways he could encourage Marisa to do the extra problems.

Students are exposed to many skills and concepts in short time periods. They are expected to understand and use that information in many ways. Students may need more practice than they can get during the school day to become really comfortable with new math topics and skills. Homework can help students review what they already know, practice new material, and apply what they know in new ways.

Sometimes homework can feel like a burden to both the student and the entire family. Find a way for homework to fit your family style. Homework has to be handed in, but not at the cost of making everyone in the family unhappy. If your child is having trouble completing homework, the actions listed below can help.

Math homework may...

- be assigned on a regular basis.
- be full of numbers, symbols and measurements.
- involve problems to practice.
- include writing assignments. Writing in math allows students to show they understand the math.
- ask students to work with things found at home and do activities, such as measuring a bed, or making toothpick models.
- be difficult for your child to complete. Difficult problems should be noted and brought to the teacher's attention at the next class.

School policies

How many school days are students allowed to miss? How long is recess? Why did my child get A's on her tests, but a B for the class? Will my child be in an eighth grade algebra class?

The answers to these kinds of questions can likely be found in the school's policies. Policies are rules that apply to a number of areas:

- discipline
- attendance
- technology use
- homework
- grading standards
- testing
- placement

Policies are often sent to parents at the beginning of the school year or explained at Back-to-School Night. Save any information you receive! You may need to refer back to it during the year. The school or district website may have much of the same information.

Each state has education codes that schools must follow. Each school or district may have its particular rules, but they cannot conflict with the state's rules. If you think a policy at your child's school is unfair, start by talking with the teacher or principal. If you still feel your concern has not been addressed, bring it to the attention of the district or the school board.

And in Math...

Policies affect many things about your children's math classes, including...

- which class your child is placed in.
- what kind of textbook or materials are used.
- homework, grading and everyday class activities.

When Brian was suspended for three days, his mom asked the school to give her son the math assignments and quizzes he would miss during his suspension. Some of the teachers said no. Brian's math grade suffered. His mom thought this was unfair, and she found out that similar things had happened to other children. Brian's mom and a few parents formed a group and brought the issue to a school board meeting. The board decided to study the case and found out that schools cannot prevent students from making up work when they are suspended.

**Look at
ACTIONS
1,3,5,6
7 & 12**

School records

When Karen moved her family, her daughter Leslie was placed in a remedial math class. When Karen asked the new school about this, the principal explained that there was a note in Leslie's cumulative file from her last math teacher. The note said Leslie needed "special attention." Karen contacted the teacher who had written the comment. The teacher said that Leslie had needed help with one math concept—adding decimals. Leslie understood this concept well now. The school moved Leslie up to the regular math class. Karen asked the school to take the comment out of her daughter's file.

**Look at
ACTIONS
6 & 7**

What is the cumulative file?

The cumulative file is sometimes called a permanent record. It is a record of each student's school career. The record is kept by the school. The file starts at kindergarten and is kept through twelfth grade. If your child moves, the cumulative file is sent to the new school. Schools use it to make and record decisions about your child's education.

What's in it?

The cumulative file includes...

- copies of report cards and progress reports
- standardized test scores
- classes taken
- teachers' comments
- attendance and discipline records
- medical history
- extracurricular activities and honors
- a list of everyone who has read the file

Three C's: Call, Correct, Contribute

These steps will make sure that your child's records are accurate and up-to-date:

- Call the school, or stop by and ask to read your child's cumulative files. You are entitled, by law, to read them. You can look over the files at the school, or ask for a copy to take home.
- Correct errors. If you find inaccurate information in the file, write a letter asking for corrections. If something in the record seems unfair to your child, ask to have it removed.
- Contribute information. You can add to the file by including letters from your children's employers, clergy, or neighbors.

Grades and Report Cards

Getting the news on report cards

How does the teacher decide on grades? Is a C an “average” grade? Is 89% a B+ or an A-? How does extra credit work? When will I get grades?

There’s more to a grade than meets the eye. Report cards offer information about your child’s performance in each class, but the letter grades alone won’t tell you the whole story. Teachers calculate grades in different ways, and a student’s final grade in a class might be based on some or all of the following:

- tests
- quizzes
- class participation
- homework
- extra credit assignments

Grading policies are often explained at Back-to-School Night. That is a good time to ask how teachers report progress to parents. You can ask when report cards are issued and how they are sent home.

You can contact a teacher to ask how any particular grade is determined. It’s important to share and discuss this information with your child as soon as you find it out.

Javier was usually a good student. On his most recent report card, he got three A’s, two B’s, and a C in math. Javier’s mother was concerned about the math grade, so she scheduled a meeting with his teacher. The teacher showed her some of Javier’s math work and explained how she calculated the math grade. It was clear that Javier understood the math, but he had a hard time keeping track of homework and turning it in on time. Javier’s mother decided to help out by asking to see his homework every day. On the next report card, Javier’s math grade went up to a B.

Look at
ACTIONS
1,2,5,6,7,
10,& 11

Tests and quizzes in class

Every time Judy got a math test back, her mother sat down with her to talk about it. Her mother asked Judy to explain problems she got right and problems she got wrong. Sometimes Judy's mom didn't understand the problems. Even so, she could help by asking Judy to explain how she solved problems on the test. By talking about the problems, Judy sometimes figured out the ones she got wrong.

Tests and quizzes have many uses

Teachers often use in-class tests and quizzes to find out what a child knows. Tests also help teachers decide what to teach next. Students usually know when they are having tests and quizzes, but sometimes they are unannounced (a “pop quiz”). Quizzes are usually shorter than tests, and given more often. Commonly, a quiz is given once a week, while tests are given at the end of each book chapter or unit.

And in Math...

- Students should complete homework and study regularly, instead of “cramming” at the last minute.
- During a test, your child should read the directions and follow them carefully. This is an easy way to avoid losing points.
- Talk about tests with your child.
- If your child struggles with tests, meet with the teacher to discuss it. Ask for reasons and ways to help.

**Look at
ACTIONS
1,2,3,
7, & 11**

Standardized testing

What do standardized tests tell?

Standardized tests are meant to measure what your child has learned. Some tell you how your child is doing compared to other children in the same grade. Some compare your child's progress to "standards." In either case, the same test is given to many students.

Schools use these tests in many ways. If many students do poorly in math, for example, then the school tries to improve math teaching. Sometimes, tests are used to help decide your child's next math class.

A test is not the only way to find out what your child knows or can do. Portfolios of student work, teachers' grades and reports also give important information. Anxiety, lack of sleep, and boredom can all affect how your child does on tests. If your child doesn't do well, try to find out why.

You can ask the school counselor questions* about standardized tests:

- What does the test cover? Has my child been given the opportunity to learn things in each of these areas in school?
- What does the school do with the scores? How do the scores affect my child?
- How is the school as a whole doing on the test?
- Will the results of this test be explained to me?
- Are there practice tests available that I can use with my child?

It was that time of year. Time for BethAnn to take the standardized test. This is a test given to all 8th graders in the state. Her parents had questions. What does this test mean for BethAnn? What if she doesn't do well? BethAnn's father called the school counselor to get answers.

**Look at
ACTIONS
2,3,
7, & 11**

* Several of these questions are adapted from a joint publication of the National PTA and the Educational Testing Service.

Tracking

Look at
ACTIONS
1,2,5,6,7,9,
12, & 13

When Rachel began high school, she realized that her former classmates were no longer in her math class. Rachel's math work also seemed very easy.

She reported this to her mother and her mother went to the school to talk to Rachel's guidance counselor. She learned that Rachel had been dropped to the middle "track" based on her 8th grade standardized test scores. Knowing that being placed in the higher "track" helps students get into college, Rachel's mother argued that Rachel's entire record was more important than the test score. The school put Rachel into a higher track.

Did you know that the math classes your child takes right now, in middle school, can affect the courses your child can take in high school and even beyond? This is because of a school practice called "tracking." Tracking is done in many subjects, but being tracked in math can have consequences.

Schools often place students in one of several tracks—honors track, college track, remedial track, or others. A student placed in the college track takes the classes in the right order to be ready for college. Students in other tracks may have trouble getting into college or may need to take college classes for no credit until they catch up.

Some states or districts do not track. Then, all students in a certain grade are in the same class, learning the same material. Why end tracking? Researchers find that more students of color end up in low track classes and achieve at higher levels without tracks.

How does your child get into a track or lane?

Students are placed in a track or lane based on grades, teacher recommendations, and test scores. Most students stay in the same track in middle school and high school, but changes can be made.

What can you do?

- Ask your child's teacher and guidance counselor if there are tracks, and if so, which track your child is in. Have all tracks described to you.
- Tell your child's teacher and counselor what your child's goals are (for example, to go to work or to college).
- Understand what options are available for meeting your child's goals. Tell them you want your child to be on the right track for those goals.
- Find out which math classes your child will take in middle school and high school.
- Ask if those classes will prepare your child properly for work entry or college admissions.

Eighth grade algebra

Math educators believe that all students can learn algebra. Some states require completion of algebra for high school graduation. Many jobs require knowledge of algebra.

There are debates about when students should take their first year of algebra—eighth or ninth grade. Some people think that taking algebra in eighth grade ensures that children will take more math in high school and be better prepared for jobs or college. Those who are against the idea say that eighth graders should study important high-level math, but the traditional first-year algebra course may not lead to more success for more students.

What can you do?

Make sure your child’s school teaches algebra topics in every middle school math class, whether or not it is called Algebra class. Even before the sixth grade, students should be working with patterns, tables, graphs, and variables. These are parts of algebra.

Find out more about both sides of the issue. (See the list of resources at the end of this booklet).

If your school offers Algebra I to eighth graders, find out how students are placed in the class. Also, find out what is covered in the course. Algebra should be more than solving equations. The class should provide models, real-world examples, and use other methods to help students understand the “why” behind the “how” of algebra.

“Why isn’t my son in Algebra I this year?” Tara asked the school guidance counselor. Her son, Ray, had just started eighth grade. Tara had heard from other parents that all eighth grade students should take Algebra I. The guidance counselor told Tara that Ray’s test scores showed he wasn’t ready for Algebra I. Ray was doing well and feeling comfortable in his pre-algebra class, so they decided to keep him there.

**Look at
ACTIONS
2,3,6,
7,& 9**

Math textbooks and materials

Poole stared at her son's math problem. She flipped through the lesson booklets, searching for instructions or sample solutions. Poole wondered how she could help with these difficult problems. What was she supposed to do if there was no explanation or example to follow?

Program? Textbook? What's the difference?

What ever happened to textbooks with step-by-step instructions for working through math problems? Many schools still have such books, but other schools use math “programs.” A math program may include books, workbooks, and computer software. In some cases, teachers put together math programs on their own, using a variety of materials. When a teacher uses a program instead of a textbook, explanations of homework problems may not always be included in the take-home materials.

Different angles on math learning

It is now common for students to solve a problem without a list of steps to follow. The solutions and problem-solving steps are discussed in class. This way, students learn problem-solving skills for life.

You don't have to know the math in order to help your child solve problems. You can ask your child questions such as these: Did you do problems like this in class? What information is in the problem? Can you explain a problem here that you can solve?

Where to get help?

- If the textbook doesn't show the steps needed to solve a problem, ask the teacher if there is a reference book for the math class that you can use. Ask if you can look at the teacher's edition.
- Find out if the school holds parent workshops or activities related to the math program.
- Ask the teacher to send home a letter explaining the main ideas in each math unit.
- Several solutions to typical school math problems can be found in books available at your local book store or on Internet math sites. See the reference list at the back of this book.

**Look at
ACTIONS
2,3,4,5,7,
10,11& 13**

Look at
ACTIONS
6, 10
& 13

What are standards?

What are they?

School mathematics standards outline the mathematics topics that should be learned by each grade level. School districts, states or even national organizations create standards. State standards are the most widely used right now. They are often printed up as a book. Your school will have a state or district standards book.

Some schools use standards to help teachers decide what to teach. Others keep them on the shelf, but don't actually use them much. Some people say that standards help teachers and schools deliver high quality teaching to all students. Others believe that standards pressure schools to teach narrowly to a test.

Even though tests and standards are not the same thing, they often go hand in hand. The idea is that standardized tests should match up with standards. Also, teachers should teach in line with the standards. Ask the school for a copy of the standards that affect your child. You can also get standards from the State Department of Education or from the school district's main office.

Wherever you live, you should know about the national math standards: *Principles and Standards for School Mathematics*, was published in 2000 by the National Council of Teachers of Mathematics, an important national group. This book outlines the important topics to teach from kindergarten to grade 12. It also explains why math is important, and why it is essential that our schools teach math to *all* children.

The politicians Alba King saw on TV talked about having kids meet "world-class standards."

Alba went to a "standards" night at the PTA, where parents discussed the district standards for middle school math. There were standards for all kinds of math topics.

Alba recognized some of them; others were new to her. She took a copy of the math standards home.

Alba also asked Michael's teacher about his progress on some of the standards. It was a good way to find out how Michael was doing in school.

Who to go to for what?

Frank Hernandez thought that his son Jason was being graded unfairly by one of his teachers. So he went to the school to inquire about it.

When Frank met with the assistant principal, she asked him to talk with Jason's teacher before she would get involved. The teacher was able to clear up the problem.

Schools encourage parents to first take their questions and problems to the teacher. If going to your child's teacher doesn't help, you should then speak with the principal or assistant principal. You don't have to go to the teacher first, though. You can always call the principal or a guidance counselor with your question.

<i>Go to...</i>	<i>For what?</i>
Teachers	<ul style="list-style-type: none"> • How your child is doing in class. • Grading policies and what is being taught.
Counselors	<ul style="list-style-type: none"> • Which classes your child should take to meet his or her goals (for example, college). • Which track is your child in.
Principal or Vice Principal	<ul style="list-style-type: none"> • Overall school policies or issues. • Behavior or social issues, goals for the school. • Issues about school personnel.
Parent group	<ul style="list-style-type: none"> • If you don't think the school staff did enough to address your concerns. • If you want to be more involved and meet with other parents.
Site councils	<ul style="list-style-type: none"> • If you don't think the school staff did enough to address your concerns. • If your concern is about a school-wide issue.
School board	<ul style="list-style-type: none"> • If you don't think the school staff did enough to address your concerns. You or your parent group may go to the school board.

If all else fails, you still have options:

- Call a school board member or write a letter explaining your problem.
- Discuss your problem with a district supervisor.
- Attend the next school board meeting and bring it up in person.
- Go to an advocacy organization to help you.



Parent-teacher organizations

If your child's school has an organization for parents and teachers, getting involved can really help you know what is going on at school and even in the community. The group may be called the PTA (Parent Teacher Association) or the PTO (Parent Teacher Organization.)

Lucinda went to a couple of PTA meeting when her son was in elementary school, but she just didn't find them worth the time. When her son entered middle school, though, Lucinda started having a hard time keeping track of what was happening in his education. Finally, she went to a PTA meeting and learned it was a great way to stay in touch with the school as well as a good place to share her concerns with other parents and teachers.

What does a PTO do?

The PTO, or PTA, holds meetings where teachers and parents talk about school issues. Here are some typical activities:

- Special guest speakers or presentations on school programs.
- Workshops, such as Primes or Family Math workshops, or other activities to help you understand the math programs.
- Fund-raisers for the school or for special school events.

PTO: Phone the office!

If you want to get involved, call the school and ask...

- Is there is an organization for parents and teachers?
- What is it called?
- When and where are the meetings held?
- How do parents join?
- Is there child care?
- Is there a cost to join? (No one on the PTO is paid—everyone is a volunteer—but it may cost a few dollars each year in dues to join. The PTO president can probably waive the fees if you cannot afford them.)

**Look at
ACTIONS
3, 6, 10,
12, & 13**

What You Can Do to Help Your Children Succeed



ACTIONS

This section contains tips and ways you can help your children both at home and at school. They apply to the topics listed in this guide as well as to many others!

Talking and listening to your child

Undivided attention

Math is more than numbers. Words are important, too. Having conversations with your children is a great way to show your support and interest.

Here are some ways to keep the lines of communication open between you and your middle schooler:

- Don't just tell—ask! As parents, we are often in the habit of telling: “It's time for bed”; “Stop teasing your sister”; “Come here!”. Remember to ask, too: “What do you think we should do?”; “How is your friend, Jana, doing?”; “What do you think about that?”.
- Talk about school, but talk about other things, too. Ask what's on your children's minds. We all know the answer to, “What did you do in school today?” Get beyond, “Nothing” by asking more questions.
- Finish conversations. When you get interrupted, pick up where you left off.
- Have two-way talks. Show your children you care about their thoughts on things in your life, just as you care about things in theirs.
- Choose activities that you both can enjoy. Doing things together makes more time to talk.
- Be honest and open.
- Things that may not seem like a “big deal” to you may be a huge issue for a middle school child. Show respect for your children's feelings.
- Stick with it. Sometimes your children will talk nonstop; other times they may have little to say. Either way, your children will know you care if you take the time to ask.

“I talk to my oldest son all the time. He is easily distracted. He's very bright, but it's hard having to deal with school. So I try to build his hope.”



And in math...
Communicating with your children now will help you later, when it's time to discuss math homework, progress, or math class options for the future. If you are comfortable talking with your children about life in general, it will be easier for you to set short- and long-term math and school goals together.

Helping your child with homework

Mathematics homework can be tough. Parents can feel even more helpless than the child. Even if you once knew a certain topic, you may have forgotten how to do the problems, or your child might have learned it differently. Relax. You still have options.



ACTION 2

- Children often know more than they think. They were in class. Even if they start out confused, talking through the problems can lead to solutions. You can be a sounding board.
- Ask your child to teach you what she or he learned in class. If your child knows you will expect a lesson at home, your child will pay close attention in class and may do better.
- Ask the teacher for a copy of the textbook. You may know much more than you think, particularly if you ask your child to explain things along the way.
- Talk to the teacher about her or his expectations—and about your expectations. What is a fair amount and type of homework? How much is the child expected to figure out alone? Is there a low-stress way to handle it when homework seems too hard?
- Get help. Use neighbors and friends. If your school has a homework hot-line, give it a try. Some teachers encourage children to call them at home for help. Be sure to follow up. There are websites that offer help, too (see reference list at the end of this guide).

Reading school notices

The first week of school is very hectic, and it may feel like you're being bombarded with everything at once: schedules, school supplies, and lots of paperwork from the school. Important information about your children's classes and teachers may be sent home in fliers:

- school rules and policies
- school addresses, phone numbers, and names of personnel
- specific classroom rules and policies
- information from teachers about their programs and requirements
- schedules and calendars
- events for parents

Check the mail! Email! or Internet!

Many schools mail important information during the year such as grade reports and testing information. Other schools email notices on a regular basis, and some schools have information on a school website. Ask the school how you can receive email or get the school web address. And keep checking—more information may be sent home throughout the year.

Special delivery

Information to you may be sent home with your child. Of course, delivering school flyers may not be the first thing on your middle-schooler's mind, so be sure to ask if there are any school fliers—important information might just be crumpled in the bottom of a backpack!

The refrigerator file

Save school information you think is important. Put fliers on the refrigerator, in a binder, or keep them with this guide. You may need this information in the future.

And in math...

Keep track of the math teacher's telephone number and email address. Many math teachers leave homework assignments on a call-in number or on a school Website. These can come in handy when your child forgets to write down an assignment. You can also check when the grading term ends. Students are often given a deadline to turn in assignments before the end of the term.



**ACTION
3**

Using math in family life

Some home math activities:

Figure out how much those new shoes will cost if you wait for a sale, at 10%, 25%, or 30%.

Try to estimate the cost of the grocery bill as you shop.

When a product comes in two sizes, let your children figure out which one is cheaper per ounce.

If a recipe serves four, figure out the amount of ingredients needed for six people.

Notice geometric shapes of the buildings in your neighborhood. Do the same when you take a trip—bridges have many geometric shapes in them.

Budget for a road trip. Calculate gas mileage, and use a map to estimate the time the trip will take.

Whatever your math background, you can be helpful and supportive in a number of ways:

- Weekly, ask your child what's going on in math class. Ask to see classwork or homework. Ask to see the easiest problem and the hardest problem of the week.
- Play games together. Card and board games encourage problem solving and using strategies. They also provide easy ways to practice adding and subtracting.
- Talk regularly with your children about their short- and long-term goals: for school and for life! Together, think about what you will need to do and know to meet these goals.
- Talk about non-school math. Every time you pay a bill, talk about baseball statistics, or double a recipe, you're using math—whether you're aware of it or not. Talking with your children how math is used in everyday life will help them connect school math to the rest of the world.



**ACTION
4**

Visiting the school

Why?

Visiting the school is a great way to show interest in your child's education. It also helps open communication between you and the school.

How?

Each school handles visitors its own way. Some school staff tell parents to "Just stop in!" Others require appointments. Some schools have special Open House or visitor days.

Usually, you can stop by the school without an appointment for a number of things:

- Get an answer to a simple question—about school rules, the names and schedules of teachers, or the school phone number.
- Learn more about the school and get a feel for its environment.
- Schedule an appointment with teachers, principals, or counselors.
- Visit the parents' lounge if your school has one. If not, ask about the possibility of creating one.
- Sign up as a volunteer.

Because teachers can't meet with you during class, you should schedule an appointment in advance if you want to talk to the teacher or principal about a specific issue.

Where?

Start every visit at the school office. Sign in and get a visitor's pass. The office needs to know about everyone in the building, for safety reasons.



Attending Back-To-School Night

Back-to-what?

Back-to-School Night is a time for parents to...

- briefly meet their children's teachers
- learn classroom rules and expectations
- hear about what students are learning in each class
- see the materials being used in class
- find out about homework and grading policies

Don't be absent!

Back-to-School Night is an evening event that usually happens soon after the school year begins. Parents and teachers get to meet, briefly. Teachers want parents to attend. This is the time to show your support for teachers and your child, just by showing up. If you don't receive a notice about Back-to-School Night within the first three weeks of the school year, call the school.

And in math...

Math teachers will likely do the following on Back-to-School night:

Show you the materials and texts they will be using.

Explain how grades are given.

Give a schedule of quizzes and tests.

Explain homework policies.

Give you information about how this class fits in with future math class options.

Come back to school—again

Back-to-School Night is tough on parents and teachers. It is often very rushed and hectic because there's a lot to do in one short evening. You may have only 10 -15 minutes with each teacher. You won't get much time to hear from the teacher about your child. Instead, you will hear from each teacher about each of your child's classes. If you want to know more, set up a meeting with the teacher for another time. You can also schedule a visit to your child's math class to watch or volunteer.

**ACTION
6**

Back-to-School Night Checklist

Before

- _____ Check the date and time of Back-to-School Night.
- _____ Arrange for a baby-sitter or see if the school offers child care.
- _____ If you cannot attend, find a relative or friend who can go and take notes for you.

During

- _____ Sign any attendance sheets with your name and your child's name.
- _____ Take a pen and paper (or this guide) with you so you can take notes and write down teachers' phone numbers.
- _____ Ask general questions about the program, materials, grading, or homework.

After

- _____ Talk with your child about what you learned at Back-to-School Night.
- _____ Schedule a meeting if you would like to talk with a particular teacher.

Meeting with teachers, principals, and others

Don't wait for a problem to visit the school!

You can schedule a meeting just to find out how your child is doing.

Teachers, counselors, and principals like to see that parents are interested in their child's education. You can make an appointment at any time during the year to get to know your child's teacher and learn about the curriculum.

Here are some tips for what to do before, during, and after a meeting:

Conference Questions

Date: _____

1. _____

2. _____

3. _____

4. _____

5. _____

Plan ahead

- Find out how long the meeting will last.
- Pick a topic: how your child is doing in math or how to plan for choosing next year's courses.
- Write out a few questions.
- Decide if you want your child at the meeting. If you do, talk to your child about your expectations.

During the meeting

- Introduce yourself.
- State what you want to know. Ask if the teacher or counselor has other goals for the meeting. Figure out if you can cover everything in this one meeting.
- Ask the questions on your list.
- Make sure you cover your topic before moving on.
- Agree on actions that you, your child, or the school will take. Write them down.

After

- Write down any questions you still have.
- If your child wasn't with you, tell your child about the meeting and what happened.
- Make sure to complete any agreed-upon actions.
- Schedule another talk if you feel it would be helpful.



ACTION
7

Staying informed

Your boss asks you to work overtime. Your mother isn't feeling well. Your daughter needs new shoes. As a parent, you have a lot of things to worry about—in addition to keeping up with what goes on at school. Staying informed can be hard. Here are a few pointers for communicating and keeping up-to-date:

Talk

- Ask your children about what they did in school. If you get the age-old kid reply (“nothing”), try asking more specific questions: “What did you do in math? What happened in P.E.?” Ask your children to tell you if they are worried or excited about anything.
- Talk with teachers on a regular basis. Get to know them and keep up with your children's progress.

Look

- Pay attention to notices and bulletins sent home. Some teachers send out weekly updates on class assignments and homework. If your children's teachers don't, you could ask them to.
- Find out if your school has a calendar of activities. Mark important events on your own calendar.

Visit

- Attend a PTA meeting, Back-to-School Night, Open House, and other events.
- Call the school to set up a time to watch your child's class or have a conference with the teacher.



ACTION 8

“By special arrangement, my son has a school planner. The teacher for each class writes in the homework assignment and what he has to do. This way, the teacher keeps in contact with us and we read it and see what has to be done.”

Aiming for their futures

Does your child dream of becoming a writer, a contractor, or a scientist? Maybe your child wants a career in business or technology. When you know your child's wishes, you can make better decisions about school and classes.

“My daughter’s dream is to be a lawyer. So, that tells me and her daddy that we have to get her into classes that will help her reach her goal.”

- Some public schools focus on certain topics and careers. These schools are sometimes called magnet schools. Consider a magnet school that matches your child's interests.
- If your child shows interest in a specific career, make sure he or she gets the right classes to prepare.
- If your child wants to go to college, make sure the classes he or she takes will put him or her on track to graduate high school ready for college.
- Consider prerequisites. A prerequisite is a class that must be completed before you can take the next class. For instance, your child must take Algebra 1 before taking Algebra 2.
- Ask what classes will be available to your child in the future. For example, will he or she get to precalculus from general math in eighth grade.

Your child's school guidance counselor is the expert on these questions. Make sure the counselor knows your child's goals. Ask the counselor to help your child meet those goals. Middle school is the right time to start to ensure that options are open later on.

ACTION
9

Attending events

How can you help your child's school work by attending an event like an International Food Night, a family workshop, a school play, or a sports match?

The parent network

You will meet other parents. They are a great resource for information about teachers and classes, and ideas for how to help your children.

Informal...

At a game or Family Night, you can chat with a principal or teacher without making a formal meeting out of it.

...and Informational

Events like a Primes Workshop or Family Math Night can give you new ways to think about math and help your child.

Quality time..

When you show up for a play or a workshop, you send the message to your child that you care. And you may get to see your child shine.

...and not enough time

Sometimes it is hard to find the time to attend even one event—let alone several. Don't feel like you have to go to everything. Pick events that your child cares the most about or that just seem interesting to you.



Getting extra help

“With math I didn’t feel that comfortable. But what I did was I got real familiar with the math teachers. Many of them would do tutoring after school. At one point, I did get one of the teachers to tutor for a nominal fee. It worked out for my daughter because she was really turning her nose up at math. I went the extra mile. You don’t know what is available if you don’t come to the school.”

Extra help with mathematics can make a big difference to students. Children who are struggling can get a leg up. Those in a fast paced course can keep up with a little extra help. Children who are specially interested in math can explore special topics. From occasional help with a specific homework problem to regular tutoring, extra help can add to your child’s confidence and success.

There are many ways and many places for your child to get extra help.

In school

Math teachers. Many math teachers offer extra help. Students can get help on class topics and specific problems. Your child can ask his or her teacher about when it is possible to get extra help. Before or after school or during scheduled free or lunch periods are all possibilities. Sometimes students can drop by. Other times, teachers may want to set an appointment.

Homework centers. Some schools have after-school homework centers. There is usually a teacher on duty to give students help with homework, and math teachers may be assigned to the center.

Special needs accommodation. If your child has special needs, the school will be willing to accommodate by providing extra help with mathematics. Call the school and ask a counselor what can be done to meet the needs of your child. She or he may be able to receive extra help at the school on a regular basis.

Out of school

After-school programs. Your child’s after-school program may offer math homework help. Those sponsored by community organizations such as a Y or Boys and Girls Club usually do.

Homework hotlines. A homework hotline offers help with homework right over the phone. Your child can call in after school or during evening hours and speak with a teacher for help on homework assignments. The teachers on the telephone will usually have copies of the materials used in class. They won't give away the answers, but they will explain and guide. Ask the school if there is a homework hotline in your area.

Tutors. Private tutors usually charge a fee. The school may keep a list of them. High school students make good tutors. Service organizations at your local high school may organize tutors, or the math department can recommend some good students. Colleges and universities may have tutors for middle schoolers. College students who want to be teachers can make good tutors.

Options during the summer

Summer School. Many school districts have summer school programs that include math. Call the school or district office to find out what is offered.

Camps. Many camps have an academic focus. They provide a mix of academic work, special help, and fun activities. You can get information from local organizations that serve youth in your community.

Businesses. Academic storefront programs are available in some areas. Check your local telephone directory.



Organizing other parents

“The parent group was very supportive for me because we worked as a team. We would call each other in the evening, tell our frustrations, and compare notes. The administration paid more attention to us after we came together as a team. We saw some changes in the discipline and the work that was being given to the children.”

ACTION 12

Organizing a parent group, step-by-step

Other parents who share your views and experiences can sometimes be your best allies and sources of support. Organizing a parent group can help you address your concerns about the school or your children’s education..

Shirley Harris was not happy with discipline and homework policies at her son’s middle school. She had taken her concerns to the administration, but she didn’t get the results she wanted. Shirley decided to form a parent group on her own. Here’s how she did it.

Started talking to other parents—Shirley talked to other parents at school events and when she picked up her children from school. She asked if it would be OK to call them and got their phone numbers.

Made the phone calls—Shirley called the parents and told them about some of her concerns. If they shared her interests and concerns, she asked them if they would join a parent group.

Talked to the principal—Once the group formed, Shirley asked the principal to give his support. He agreed to let them hold their meetings on school grounds in the evenings. He also gave Shirley phone numbers of other parents who might want to join the Parent Group.

Hold meetings—Once they started meeting, Shirley’s group was able to focus on their concerns. They got more parents to join by having public sign-ups and forming phone committees who called other parents. During the meetings someone always took notes so they would have a record of what they talked about.

Took the group’s concerns to the school administration—After meeting and discussing their concerns, they met with the principal. They found the administration and the school board took their concerns more seriously when they went to them as a group.

Contributed to the school—Not only did Shirley’s group contribute by arguing for better policies, they also held fund-raisers and events for the school body.

Joining committees



**ACTION
13**

Schools have committees; so do PTAs. There is a committee for many interests or skills: fund raising, textbook selection, equity, building improvement, and school improvement, to name a few. The school office is the place to find out about what committees exist at your school, or even at the district level.

Why should parents join committees?

When a parent joins a committee at his or her child's school, it pays off for...

The child—Committee members end up at school a lot. You can find out things that you can use at home, from homework help, to school rules.

The school—No matter what your skills are—making clothing, rewiring an electrical outlet, or budgeting—the school could use your help. You can help the school and serve as a model for all students. And parents can share their expertise with all of the students, not just their own.

The parent—When you sit on a school committee, you will really get to know how the school works. That knowledge helps you guide your child to success. And it never hurts to get to know a teacher in a committee—it makes those formal meetings about your child much easier.

Committee work and school involvement will really help you and your children, as well as the school. You get a chance to communicate with school staff, you get to help make decisions about the school, and you can be a positive influence on your child and all the other children in the school.

Resources

Articles

Helping your child learn math “Foundation for California Early Literacy Learning”

<http://www.cell-exll.com>

Online Library: Parent & Community Involvement

<http://www.ncbe.gwu.edu/library/parent.htm>

Math Homework Help

Ask Dr. Math Project

<http://mathforum.org/dr.math>

Developmental Studies Center (DSC)

<http://www.devstu.org>

Figure This! Math Challenges for Families

<http://www.figurethis.org>

Organizations of Interest

Algebra Project

<http://www.familyscience.org>

America’s Promise-The Alliance for Youth

<http://www.americaspromise.org/index.cfm>

Center for Law & Education

<http://www.cleweb.org>

Free Spirit Publishing

<http://www.freespirit.com/>

George Lucas Foundation

<http://www.glef.org>

Massachusetts Parental Involvement Project (MPIP)

<http://www.doe.mass.edu/pip>

Math & Parent Partnership Project in the Southwest (MAPPS)

<http://www.math.arizona.edu/~mapps>

Mid-Continent Research for Education & Learning

<http://www.mcrel.org>

MiddleWeb: Exploring Middle School Reform

<http://www.middleweb.com>

National Education Association

<http://www.nea.org/>

National Network of Partnership Schools

<http://www.csos.jhu.edu/p2000/index.htm>

NCOPIE-National Coalition for Parent Involvement in Education

<http://www.ncpie.org/>

National Council of Teachers of Mathematics (NCTM)

<http://www.nctm.org>

Project Appleseed

<http://www.projectappleseed.org/>

The National PTA

<http://www.pta.org>

What Kids Can Do

<http://www.whatkidscando.org/home.html>

Parent Organizations

ALLPIE-The Alliance for Parental Involvement in Education

<http://www.croton.com/allpie/>

Center for Family, School & Community (EDC, Inc.)

<http://www2.edc.org/FSC>

Equals & Family Math	http://www.lhs.berkeley.edu/EQUALS/lhshome.html
FairTest: The National Center for Fair & Open Testing	http://www.fairtest.org
Families Achieving New Standards in Mathematics, Science & Technology Education (FANS)	http://www.dimacs.rutgers.edu/fans
Families & Education: Parent, Family & Community Involvement in the Middle Grades	http://www.rmcses.com/famed/
Family Education	http://www.familyeducation.com/home/
Family Mathematics	http://www.lhs.berkeley.edu/equals/fmnetwork.htm
Investigations Implementation Center	http://www.terc.edu/investigations
Leaders Guide to Parent & Family Involvement	http://www.pta.org/programs/ldrshd.htm
Learning First	http://www.learningfirst.org
National Parent Information Network (NPIN)	http://www.npin.org/library.html
Parent Academy	http://www.charm.net/~wizards/parent/
Parent Partners	http://www.lhsgems.org/gemparpar.html
Parents for Public Schools	http://www.parents4publicschools.com/
PRIMES	http://www.stanford.edu/group/primes/
The School-Savvy Parent	http://www.freespirit.com
The Whole Family Center	http://www.wholefamily.com

Books

Goddess, J. (1999) *California School Rules: A School-Smart Parent's Guide to Advocating for your Child*, San Francisco: School Wise Press.

Barber, J., Parizeau, N. and Bergman, L. (2002) *Spark you Child's Success in Math and Science*, Lawrence Hall of Science, University of California at Berkeley

Parent Teacher Association *National PTA's Leader's Guide to Family Involvement*. Chicago

Stipek, D. and Seal, K. (2001) *Motivated Minds, Raising Children to Love Learning*. New York Owl Books: Henry Holt and Co.

Other Organizations

Center for Parent Involvement in Education (CPIE)
 Parents Union
 Walter Kudumu
 4749 Federal Blvd., Suite F
 San Diego, CA 92102
 (612) 264-8828 Email: cpie@pacbell.net

Center for School, Family and Community
 Partnerships
 Johns Hopkins University
 3505 North Charles Street
 Baltimore, MD 21218
 (410) 516-8800 Email: nnps@csos.jhu.edu

FAIRTEST: The National Center for Fair and Open Testing
 342 Broadway Cambridge, MA 02139
 (617) 864-4810
 Email: FairTest@aol.com <http://www.fairtest.org>

Parent Teacher Association
 330 N. Wabash Ave., Suite 100
 Chicago, IL 60611-3690
<http://www.pta.org/programs/ldrshd.htm>



Dear family members:

Middle school is an exciting time of development and growth for young people. As their social lives become more important, their schoolwork also becomes more interesting and more complex.

Middle school is an especially important time for school mathematics. The foundation is laid for algebra, geometry, and much of the math needed for employment. Middle school is also when you, your child, and the school make choices that will affect how your child meets his or her educational and life goals.

This guide will help you figure out the best ways to support your child. It covers

- issues affecting your child's middle school math success
- ways you can help
- ways to learn more about the specifics at your child's school
- ways to get support from the school and other parents
- tips for improving communication among parents, their children, and the school staff

We hope the guide meets your needs as you work towards math success with your middle school child. Other Primes resources—workshops and a television special—may also help you. Call 650 723-8422 for more information.

Sincerely,

Shelley Goldman and Jennifer Knudsen,
Co-directors of Primes
on behalf of all the Primes staff.