LEARNING also takes place outside of school. Thinking mathematically is critical to every life skill from balancing a checkbook to understanding the newspaper. In *every* job people use math skills that require the ability to identify a problem, look for information that will help solve the problem, consider a variety of solutions and communicate the best possible solution to others.

LOOK CLOSELY AT A MATH CLASSROOM IN TODAY'S SCHOOLS.

Is it teaching the same old stuff in the same old way, turning out students grossly unprepared for the real adult world?

OR

Is it teaching skills for life and work in the next century?

Which do we choose for our children?

YOU LOOK AND DECIDE.

THE MATH CONNECTION

Members of the Math Connection are:

American Association of Colleges for Teacher Education

American Association of School Administrators

Mathematical Association of America

National Association of Elementary School Principals

National Association of Secondary School Principals

National Association of State Boards of Education

National Council of Teachers of Mathematics

National School Boards Association

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What Should I Look for in a Math Classroom?

Creating a Climate for Change...
MATH
Leads the Way

A math classroom should provide practical experience in mathematical skills that are a bridge to the real world of jobs and adult responsibilities. This means going beyond memorization into a world of reasoning and problem solving.

Sounds good, but how will I recognize a good math classroom when I see it?

Look for these changes from the traditional classroom, and if you see them, you will be looking at a classroom that is preparing students for the world outside of school.

WHAT ARE STUDENTS DOING?

- Interacting with each other, as well as working independently, just as adults do at work.
- Using textbooks as only one of many resources. Manipulatives such as blocks and scales and technology such as calculators and computers are useful tools, and students should be learning *how* and *when* to use them.
- Becoming aware of how math is applied to real life problems, not just learning a series of isolated skills. And as in real life, complex problems are not solved quickly.
- Realizing that many problems have more than just one "right" answer. Students can explain the different ways they reach a variety of solutions and why they make one choice over another.
- Working in groups to test solutions to problems. They are more than only "listeners" and are highly involved.
- Learning how to communicate mathematical ideas with one another.
- Working in a physical setting that promotes teamwork and helps them challenge and defend possible solutions. Even while using computers, they do not always work alone but with other students, helping each other.

WHAT ARE TEACHERS DOING?

- Raising questions that encourage students to explore several solutions and challenge deeper thinking about real problems. They are not just lecturing.
- Moving around the room to keep everyone engaged and on track. They are not glued to the chalkboard.
- Allowing students to raise original questions about math for which there is no "answer in the book," and promoting discussion of these questions, recognizing that it may be other students who will find reasonable answers.
- Using manipulatives and technology when it is appropriate, not just as "busy work."
- Drawing on student discovery and creativity to keep them interested. The teacher knows that boredom is the enemy of learning.
- Encouraging students to go on to the next challenge once a step is learned, understanding that not all students learn at the same pace.
- Bringing a variety of resources into the classroom from guest speakers to creative use of technology.
- Working with other teachers to make connections between disciplines to show how math is a part of every other major subject.
- Using assessments that reflect the way math is being taught, stressing understanding and problem-solving skills, not just memory.
- Exploring with students career opportunities that emphasize mathematical concepts and applications.