

Middle School Mathematics Information and Resources

For Your Information

- **Core experiences, based on TEKS, provide common hands-on experiences for all middle school children across the district.**
- For more information on grade 6-8 TEKS and sample lessons, visit: www.tenet.edu/teks/math/clarifying/index.html.
- School libraries have *Connected Mathematics Parent Handbooks* available for assistance at home.
- Students must conceptually understand and have mastered the Kindergarten through Grade 8 TEKS for success in Algebra, Geometry, and Algebra II (AISD recommended graduation plan) and other advanced math courses.
- All students must have access to and experience technology in middle school and high school mathematics classes. Technology incorporated into today's classroom includes: calculators being used in rigorous, problem-solving applications; dynamic computer software to explore higher-level mathematics while offering conceptual understanding; and, interactive websites.
- Portions of the Grade 8 TEKS are tested on the 9th, 10th, and Exit-level TAKS test beginning in 2003. Other TEKS to be tested include Algebra and Geometry TEKS. Texas law states that a passing rate on the Exit-level test is a graduation requirement.
- **Starting in 2008, state law will require a passing score on the mathematics TAKS test in order to promote any eighth grader to the ninth grade.**

Questions Parents Can Ask Their Children

How can you draw and label a picture to represent the problem?
How do you know your solution is reasonable?
Have all parts of the question been answered with a quality reply?
How can you explain your solution so it is clearer?
What is another strategy that would work?
How else can you explain your thinking?

Questions Students Can Ask Their Teachers

How do I know if my work is good?
How does today's lesson connect to yesterday's work?
Which TEKS are in today's lesson?
Where do I stand in my understanding of the TEKS?
Where can I go for additional help when I need it?

Mathematician Information

- Mathematicians and jobs: <http://stats.bls.gov/oco/ocos043.htm>
- Chronological List of Mathematicians: <http://aleph0.clarku.edu/~djoyce/mathhist/chronology.html>

Math Competitions

- MATHCOUNTS coaching and competition program for middle school students: <http://mathcounts.org>
- University InterScholastic League Elementary and Junior High Academic Competitions: <http://www.uil.utexas.edu/aca/ejh/ejhindex.html>

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Magazines

- *Dynamath*. Scholastic. Available from the school division. \$5.00 for the subscription.
- *Games Magazine*, P.O. Box 10147, Des Moines, Iowa 50347.
- *Games Junior*, P.O. Box 10147, Des Moines, Iowa 50347. Appropriate for ages 7 and up.
- *Math Power*. Scholastic. Available from the school division. \$5.00
- *Puzzlemania*. Highlights, P.O. Box 18201, Columbus, Ohio 43218-0201. Cost is approximately \$7.50 per month.
- *Zillions*. Consumer Reports. P.O. Box 54861, Boulder, Colorado 80322. The cost is approximately \$2.75 per issue.

Books for Parents

- Kulm, Gerald. *Math Power at Home*. American Association for the Advancement of Science.
- Kulm, Gerald. *Math Power in the Community*. American Association for the Advancement of Science.
- Kulm, Gerald. *Math Power in the School*. American Association for the Advancement of Science.
- Matyas, Marsha and Triana, Estrella M. *In Touch with Mathematics* (available in English and Spanish). American Association for the Advancement of Science.
- National Council of Teachers of Mathematics. *Family Math Awareness Activities*.
- National Council of Teachers of Mathematics. *Principles and Standards for School Mathematics*
- National Council of Teachers of Mathematics. *Using Calculators to Improve Your Child's Math Skills*.
- National PTA and Exxon Foundation. *Math Matters*.
- Room, Adrian. *The Guinness Book of Numbers*. Sterling Publishing Company, Inc.
- Stenmark, Jean, Thompson, Virginia, and Cossey, Ruth. *Family Math-The Middle School Years* and *Matemática para la familia* University of California at Berkeley.
- Walthall, Barbara, ed. *IDEAAAS: Sourcebook for Science, Mathematics, and Technology education*. American Association for the Advancement of Science.

Technology Resources in District Mathematics Program (that can be purchased by parents for use at home)

- Texas Instruments Graphing Calculators: <http://education.ti.com/>
- Dynamic Geometers' Sketchpad Software Student Versions: http://www.keypress.com/catalog/products/software/Prod_GSP.html
- Dynamic Fathom Statistics Software Student Versions: http://www.keypress.com/catalog/products/software/Prod_Fathom.html

Websites (These contain great links for parents and children.)

- Have your child practice sample mathematics TAAS tests and together discuss strategies for solving the problems. Go to www.tea.st.gov to obtain a copies of released tests.
- For more information on the district-wide mathematics curriculum alignment plan for grades kindergarten through 12th grade visit www.austin.isd.tenet.edu/k12/curriculum/core/math/scopesequence.phtml.

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- Visit the National Council of Teachers of Mathematics Family Corner at www.nctm.org. Go to the Family Corner and select The Math Forum, Do Math, Figure This!, and Illuminations for games emphasizing mathematics.
- Visit the Charles A. Dana Center Mathematics TEKS Toolkit Quickstart for the Family website at www.tenet.edu/teks/math/qstarts/families.html.
- Eisenhower National Clearinghouse for Mathematics and Science Education: <http://www.enc.org/weblinks/math/>
- U.S. Department of Education, America Counts: <http://www.ed.gov/ameriacounts/>
- U.S. Department of Education, Office of Educational Research and Improvement: <http://www.ed.gov./pubs/parents>
- The Math Forum: <http://www.mathforum.com>
- National Institute of Standards and Technology: <http://www.nist.gov/metric>
- For information concerning the AISD middle school mathematics core resource, visit the CMP website at www.math.msu.edu/cmp.
- For calculator and computer information, visit the Charles A. Dana Center Mathematics TEKS Toolkit Technology website at www.tenet.edu/teks/math/tech/index.html.
- Interactive programs that your student can manipulate are available through the Manipula Math Java site at www.ies.co.jp/math/java/index.html.
- Dave's Math Tables at www.sisweb.com/math/tables offers a site you can download into your computer. It also has many links to quality math sites, including a Spanish/English math dictionary site.
- The website designer of Cool Math at www.coolmath.com calls this site an “amusement park of mathematics.”