

Franklin School - School Improvement Plan 2001-2006

Mathematics

District Goals: Success for All, Curriculum and Instruction, Assessment, Professional Development, Technology

School Council Subcommittee Members: Diana Uttley (4) Chair; Erin Gaffrey (1); Mary Beth Chesler (P.E.); Cynthia Cronan (Art); Cathy Dainowski (2); Julie Faye (3); Paul Ferguson (P); Pam Lathrop (5); Mary Louise Purcell (Sped Ed.) Min Terranova (P)

School Goal #1 : All Franklin students will develop number sense, solve algebraic problems, apply strategies to solve multi-step word problems, learn to use standard tools for measurement and apply basic concepts of data gathering and interpretation.

Actions

Objectives	Action Steps	Assessment	Professional Development	Time Frame	Progress to Date
1. Students will understand numbers, ways of representing numbers, relationships among numbers and number systems. (Stand 1.A)	1. Students and teachers will focus on place value in problem solving with whole numbers. 2. Each classroom will display a place value chart. Grades 1&2 - place value to 1,000 Grade 3 & 4 to 1 million, Grade 5 to 1 billion. 3. Students will learn and apply the commutative, distributive, and associative properties. 4. Students will learn and apply expanded notation, short word notation, word notation, and standard notation of numbers. 5. Teachers will utilize supplemental resources as recommended by the Math Subcommittee/District. 6. Utilize proper math vocabulary that aligns with the MCAS. 7. "Math Link" newsletter that goes home has math activities in every day life. 8. Math websites will be included in newsletters for children to explore at home	1. Pre and post assessment to determine individual student understanding of place value. 2. Pre and post assessment to determine individual mastery of coins and bills. 3. Teachers will use assessments which align with the style and language of the MCAS. 4. Opportunities for authentic assessment will be developed across grade levels	1. Participation on Grade Level meetings to share effective strategies. 2. Explore math web sites. 3. Provide opportunities for conversations among teachers at the same and different grade levels. 4. Research supplementary materials.		

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<p>2. Students will compute efficiently and accurately and make reasonable estimates and will round numbers to the 10,000 place. (Strand 1.C)</p>	<ol style="list-style-type: none"> 1. Develop strategies at each grade level for addition, subtraction, multiplication and division of whole numbers, decimals and fractions. 2. Teach standard algorithm for addition, subtraction, multiplication, and division of whole numbers and of fractions and decimals. 3. Create opportunities for estimation and rounding. 4. Encourage participation in Math Superstars. 5. Require reasonable estimation of math problems before computation. 6. Teach strategies for checking accuracy of answers (ex. fact families). 7. Master addition, subtraction, multiplication, and division facts by the end of third grade. 8. Utilize supplemental resources as recommended by Math Subcommittee/District. 	<ol style="list-style-type: none"> 1. Pre and post assessment to determine individual student level of computation. 2. Pre and post assessment to determine individual students' ability to estimate 3. Determine number of student participants in Math Superstars. 4. Utilize proper math vocabulary that aligns with the MCAS. 5. Teachers will use assessments which align with the style and language of the MCAS. 	<ol style="list-style-type: none"> 1. Participation in Grade Level meetings to share effective strategies. 2. Develop pre and post assessment to determine individual level of computation. 3. Provide opportunities for conversations among teachers at the same and different grade levels. 		

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<p>3. Students will organize, classify, represent, interpret, and draw conclusions from data. (Strand 5)</p>	<p>1. Science curriculum will be integrated with mathematics re: data representation.</p> <p>2. Students will develop understanding of data representation using real life situations.</p> <p>3. Students will be given opportunity to work with tallies, charts, tables, bar graphs, line graphs, pictographs, pie charts, Venn diagrams.</p> <p>4. Teachers will utilize supplemental resources as recommended by the Math Subcommittee.</p> <p>5. Teachers will teach and utilize proper math vocabulary that aligns with the MCAS.</p>	<p>1. Teachers at each grade level will determine appropriate performance-based assessment for their grade.</p> <p>2. Teachers will use assessments which align with the style and language of the MCAS.</p>	<p>1. System-wide, building and grade level math meetings will occur periodically to discuss strategies, successes and issues.</p>		

School Goal #2: All Franklin students will develop number sense, solve algebraic problems, learn to use tools for measurement and apply basic concepts of probability.

Actions

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<p>1. Students will represent and analyze mathematical situations and structures using algebraic symbols and will understand order of operations. (Strand 2.B)</p>	<p>1. Teachers will increase opportunities to challenge students with open number sentences containing variables. 2. Students will generate number sentences to solve word problems. 3. Students will develop the use of logic when solving word problems. 4. Teachers will encourage cross-curricula opportunities for students (ie., p.e., music, art) 5. Teachers will utilize supplemental resources as recommended by the Math Subcommittee/District.</p>	<p>1. Assessment will be determined by teachers at each grade level. 2. Teachers will use assessments which align with the style and language of the MCAS.</p>	<p>1. System-wide, building and grade level math meetings will occur periodically to discuss strategies, successes and issues.</p>		
<p>2. Students will apply appropriate techniques and tools to determine standard measurements. (Strand 4.B)</p>	<p>1. Parents will be encouraged to use and give analog clocks and watches to children. 2. Classroom clocks will be used by teachers and students to designate daily events. 3. Standard measurement will be applied to other curricula areas (ie., science)</p>	<p>1. Brainstorm ways to incorporate teaching time into existing program.</p>			