

Math

Math Goal: All students will improve problem-solving skills.
All students will perform basic math facts efficiently and accurately.

What data supports the selection of the math goal?

KS Math Assessment: In 2000-2001, 82% of the fourth grade students scored proficient or above. In 2001-2002, 77% of the fourth grade students scored proficient or above. In 2002-2003, 92% of the fourth grade students scored proficient or above. In 2003-2004, 87% of the fourth grade students scored proficient or above. In 2004-2005, 65% of the fourth grade students scored proficient or above. The Standard of Excellence was achieved in Grade 4 Mathematics in 2001, 2003, and 2004.

In 2000-2001, 80% of the seventh grade students scored proficient or above. In 2001-2002, 70% of the seventh grade students scored proficient or above. In 2002-2003, 80% of the seventh grade students scored proficient or above. In 2003-2004, 78% of the seventh grade students scored proficient or above. In 2004-2005, 89% of the seventh grade students scored proficient or above. The Standard of Excellence was achieved in Grade 7 Mathematics in 2001, 2003, 2004, and 2005.

ITBS: During the 2003-2004 school year, we changed from spring to fall ITBS testing and only tested students in grades 1, 3, 5, and 7. In 2003-2004 on Mathematics Total, students in grade 1 scored 56 NCE; students in grade 3 scored 54 NCE; students in grade 5 scored 64 NCE; and students in grade 7 scored 56 NCE. In 2004-2005 on Mathematics Total, students in grade 1 scored 54 NCE; students in grade 3 scored 59 NCE; students in grade 5 scored 60 NCE; and students in grade 7 scored 54 NCE.

STAR Math: In 2005-2006, we changed STAR Math to an optional form of data collection. Previously, grades 2-8 had been administered the STAR Math test in September, January, and May while first graders were added in January and May.

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What populations will be targeted for improvement?

Kansas Math Assessment: Students in the Unsatisfactory and Basic categories of the Kansas Math Assessment will be targeted for improvement.

ITBS: For those students who fall into the lower two categories of the Kansas Math Assessment, we will cross-reference their scores with the ITBS to determine which students should be targeted for improvement.

STAR Math: For those students who fall into the lower two categories of the Kansas Math Assessment, we will cross-reference their scores on an as needed basis with STAR Math to determine which students should be targeted for improvement.

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Strategies/Programs/ Expectations	Person(s) Responsible	Resources Needed	Timeline	Monitoring Plan
<p>Students will solve problems using the 4-Step Problem-Solving Model (Grades K-8). The following strategies will be introduced at these grade levels:</p> <p>K: Act out or use objects Make a picture or diagram Use or make a table Use or look for a pattern Use logical reasoning</p> <p>2nd: Make an organized list</p> <p>3rd: Guess and check Work backwards Make it simpler Brainstorm</p> <p>4th-8th: All strategies</p>	<p>Pat Jones Reneé McKernan Carla Meyer Odette Helm Carole Sperflage Shelly Schmelzle Tamela Becker Carol Sack Arminda Feldkamp Ryan Noël David Warner Dee Lizzol Betty Peterson Roxanne Thomas Deitra Claas Thelma Linck</p>	<p><u>Time:</u></p> <ul style="list-style-type: none"> •Updated training session on Problem Solver Series. •Sharing at grade level meetings. •Formal collaboration time for staff. <p><u>Money:</u></p> <ul style="list-style-type: none"> •Minimal as all materials have been purchased & initial training has occurred. <p><u>People:</u></p> <ul style="list-style-type: none"> •Staff previously listed. <p><u>Materials:</u></p> <ul style="list-style-type: none"> •Problem Solver Series. •Three point rubrics and monitoring chart. 	<ul style="list-style-type: none"> •Carryover from Cycle II. •Implement during Cycle III. 	<p><u>Student Monitoring:</u></p> <ul style="list-style-type: none"> •Students will do problem-solving activities three times a quarter. •Activities will be graded using a 3-point rubric. <p><u>Teacher Monitoring:</u></p> <ul style="list-style-type: none"> •Teachers will complete a standards-based checklist regularly; these will be submitted to the building administrator on a quarterly basis. •Teachers will complete a Math Monitoring Sheet, which monitors student performance on the 4-Step Problem Solving Model, Crawford Math, real-life applications, and STAR Math (optional).

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<p>Students will demonstrate basic math fact strategies (1-5).</p> <p>Crawford Math Scope & Sequence A=Addition S= Subtraction M=Multiplication D=Division</p> <table border="1"> <thead> <tr> <th>Grade Level</th> <th>1st Quarter</th> <th>2nd Quarter</th> <th>3rd Quarter</th> <th>4th Quarter</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>A (about 4 weeks into quarter)</td> <td>A</td> <td>A</td> <td>A</td> </tr> <tr> <td>2</td> <td>A</td> <td>A</td> <td>S MANDATED</td> <td>S</td> </tr> <tr> <td>3</td> <td>S</td> <td>S If finish, review A</td> <td>M MANDATED</td> <td>M/D D NOT Mandated</td> </tr> <tr> <td>4</td> <td>M MANDATED</td> <td>M If finish M, review S</td> <td>D MANDATED</td> <td>D/M</td> </tr> <tr> <td>5</td> <td>A/S Must pass 40</td> <td>A/S Must pass 40</td> <td>M After passing A/S</td> <td>D After passing M</td> </tr> <tr> <td>Sp. Ed</td> <td colspan="4">Individualized</td> </tr> </tbody> </table>					Grade Level	1 st Quarter	2 nd Quarter	3 rd Quarter	4 th Quarter	1	A (about 4 weeks into quarter)	A	A	A	2	A	A	S MANDATED	S	3	S	S If finish, review A	M MANDATED	M/D D NOT Mandated	4	M MANDATED	M If finish M, review S	D MANDATED	D/M	5	A/S Must pass 40	A/S Must pass 40	M After passing A/S	D After passing M	Sp. Ed	Individualized				Carla Meyer Odette Helm Carole Sperfslage Shelly Schmelzle Tamela Becker Carol Sack Arminda Feldkamp Ryan Noël David Warner Dee Lizzol Betty Peterson Roxanne Thomas Deitra Claas Thelma Linck	<p>Time:</p> <ul style="list-style-type: none"> Updated training session on Crawford Math. Sharing at grade level meetings. Formal collaboration time for staff. <p>Money:</p> <ul style="list-style-type: none"> Teacher resource manuals, site license, resource booklet (\$700), file folders & containers for math fact sets (\$300). <p>People:</p> <ul style="list-style-type: none"> Staff previously listed. <p>Materials:</p> <ul style="list-style-type: none"> Monitoring chart. 	<ul style="list-style-type: none"> Pilot: 01-02. Initiate: 02-03. Implement: During Cycle III. 	<p>Student Monitoring:</p> <ul style="list-style-type: none"> Students will do Crawford Math at least three times per week. Students will keep track of individual progress. <p>Teacher Monitoring:</p> <ul style="list-style-type: none"> Teachers will complete a standards-based checklist regularly; these will be submitted to the building administrator on a quarterly basis. Teachers will complete a Math Monitoring Sheet, which monitors student performance on the 4-Step Problem Solving Model, Crawford Math, real-life applications, and STAR Math (optional).
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Strategies/Programs/ Expectations	Person(s) Responsible	Resources Needed	Timeline	Monitoring Plan
<p>Students will apply math skills to real-life applications at least one time per semester.</p> <p>Real-life problem-solving activities (the first activity will be completed during the first semester; the second activity will be completed in the second semester):</p> <p>The activity for each grade level will be recorded on the Math Monitoring sheets.</p>	<p>Pat Jones Reneé McKernan Carla Meyer Odette Helm Carole Sperflage Shelly Schmelzle Tamela Becker Carol Sack Arminda Feldkamp Ryan Noël David Warner Dee Lizzol Betty Peterson Roxanne Thomas Deitra Claas Thelma Linck</p>	<p><u>Time:</u></p> <ul style="list-style-type: none"> •Classroom time to do real-life application activities. <p><u>Money:</u></p> <ul style="list-style-type: none"> •Adequate funds to cover supplies and materials for the activities. <p><u>People:</u></p> <ul style="list-style-type: none"> •Staff previously listed. <p><u>Materials:</u></p> <ul style="list-style-type: none"> •Varies per grade level. Each grade level will compose a list of materials and estimated cost. 	<ul style="list-style-type: none"> •August 2004 to end of Cycle III. 	<p><u>Student Monitoring:</u></p> <ul style="list-style-type: none"> •No formal student monitoring for this strategy, as this will be included with the standards-based checklists. <p><u>Teacher Monitoring:</u></p> <ul style="list-style-type: none"> •Teachers will complete a standards-based checklist regularly; these will be submitted to the building administrator on a quarterly basis (when a real-life application task is applied in mathematics, it will be noted). •Teachers will complete a Math Monitoring Sheet, which monitors student performance on the 4-Step Problem Solving Model, Crawford Math, real-life applications, and STAR Math (optional).