KRAUSE LATER ELEMENTARY
School Improvement Goals 5/2/11

Conceptual Math Goal

Goal: Increase student conceptual development and communication of mathematical reasoning.

Gap Statement: Based on a review of our math MEAP scores from the previous five years, 6th grade proficiency scores dropped by significantly over the past five years. Recent assessments, such as the Pro-Solve math program, indicate a need to increase conceptual understanding. This need is further supported by the adjustments in curriculum required with the adoption of the Common Core Standards (CCS).

Causes for Gap: Inconsistent instructional delivery minimally supports conceptual develop in mathematical reasoning due to an over reliance on procedural strategies. As a result, student's deeper level of understanding has been negatively impacted.

Multiple measures/sources of data you used to identify the gap in student achievement:
Aggregate NWEA RIT scores
MEAP aggregate scores

Criteria for Success:
Student success is measured using 80% proficiency on each of the curriculum-based assessments (such as the Monday Math quiz, quarterly math assessment). Successful changes in programs/curriculum will be evidenced by a 1-2 point increase of the aggregate NWEA math RIT score. Baseline data will be taken by all grade levels on common constructed response assessments using common rubrics by fall 2011.

Objectives and Strategies:

Objective: Students will improve conceptual development and communication of mathematical reasoning.

Strategies:
-Teachers will model, provide guided and independent practice and opportunities for peer critique to develop effective written communication of mathematical reasoning. Teachers recognize that oral proficiency proceeds written proficiency.

-Students will write one journal entry constructed response monthly (minimum) emphasizing the communication of mathematical reasoning, based on a common rubric.

-Professional develop will support success

-Teachers will develop math specific vocabulary and have students incorporate it in writing to effectively communicate mathematical reasoning.

-Students will write one journal entry constructed response monthly (minimum) emphasizing the communication of mathematical reasoning, based on a common rubric.
-Teachers will use the vocabulary listed in the CCS flip chart resource
-Professional develop will support success

-Teachers will develop math constructed responses.
-Students will write one journal entry constructed response monthly (minimum) emphasizing the communication of mathematical reasoning, based on a common rubric.
-Professional develop will support success

-Teacher will use the conceptual math activities described in the CCS flip chart resource
-Students will write one journal entry constructed response monthly (minimum) emphasizing the communication of mathematical reasoning, based on a common rubric.
-Professional develop will support success

-Volunteer teachers will pilot Lesson Study based on the book *Leading Lesson Study* by Jennifer Stepanek et al.
-Volunteer teachers will review and discuss the book *Leading Lesson Study* by Jennifer Stepanek et al.
-Teachers will identify a goal for the lesson study and complete the lesson study process
-Professional develop will support success

Resources:
Lesson Study based on the book *Leading Lesson Study* by Jennifer Stepanek et al.
Mentoring Minds Common Core Standards and Strategies flip chart developed by Michael L. Lujan M.Ed.
Writing Strategies for Mathematics *Shell Education*