Teachers Involve Parents in Schoolwork

25 Interactive Math Homework Prototypes Matched to SC Math Standards for South Carolina Middle School Teachers

Based on TIPS Interactive Homework Workshop
 Johns Hopkins University, 200

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TIPS
TEACHERS INVOLVE PARENTS in SCHOOLWORK
SC MIDDLE SCHOOL MATH PROJECT

Introduction

Twenty-five math interactive homework assignments, five each for the five SC Math Standards were written by five SC middle school math teachers. The resulting 25 Math TIPS in this publication are offered to middle school math teachers at the annual SC Middle School Association Convention, 2001, for use to improve student learning by connecting family and school through homework.

The family partnership framework researched by Dr. Joyce Epstein, Johns Hopkins University, outlines six family partnership roles including Learning at Home. Connecting families directly to the school curriculum through homework was found to have significant benefits for student learning. TIPS is the format and structure in which the student “teaches” the family partner what the student has learned followed by practice and new learning requiring the family partner to become engaged with the student.

Research on TIPS by Epstein, Simon, and Salinas
- Students who completed more homework assignments had higher report card grades.
- Students had higher scores from fall to spring
- Students whose parents participated on more TIPS activities had higher scores.
- Parents who participated liked the process and requested that it be continued.
[Field test results in the SC Math TIPS Project indicate a similar finding on this last point. More information about student scores will be developed at the end of the 2001 school year.]

SC Math TIPS Project was initiated by middle school math teachers following training conducted by Dr. Epstein at the Johns Hopkins University. The team was convened under the auspices of School Improvement Council Assistance (SICA) to write a series of interactive math homework assignments. The 25 assignments were used in math classes in Chester, Long, and Lakeview Middle Schools for ease of use, understanding and clarity by students and family partners, and family reception of the process.

The initial printing and distribution of the MS Math TIPS is made available to middle school math teachers during the annual convention, March 2-4, 2001, Myrtle Beach, SC.

In SC, for information about training to write TIPS in math or other subjects, call Dr. Jean M. Norman (SICA) at 1-800-868-2232.
For additional information, manuals and prototypes for other subjects contact the National Network for Partnership Schools at www.csos.jhu.edu/p2000
SC MATH TIPS for MIDDLE SCHOOL

GOALS

• Increase students’ ability and willingness to talk about homework at home (research indicates no conversation about math occurs at home).

• Increase connection between homework and real world experiences of student and family.

• Improve students’ skills and homework completion.

• Increase families’ awareness of what student is learning in class.

• Increase parents’ confidence in talking about and involvement in students’ math homework.

• Improve teachers’ and families’ positive attitudes about family interest in student’s schoolwork.

• Increase opportunities for students and families to celebrate student learning and mastery of skills.

SC MIDDLE SCHOOL MATH TIPS

DIRECTIONS for USE

FORMAT:
✓ Two sides of one page.
✓ Print on colored paper (from master copy).

SCHEDULE
✓ Establish regular schedule; weekly when enough TIPS have created.
✓ “Family friendly” schedule; Thursday – Monday recommended.

PRESENTATION:
✓ Introduce the TIPS homework in class.
  Identify the learning goal to be inserted in the letter to family partner.
  Require student to insert date to be returned, and sign the letter.
  Review components of assignment.

✓ Follow up TIPS homework in class.
  Students share the real world experiences component with classmates.
  Collect and treat as other homework assignment.
  Respond to questions parents/family partners ask in their communication component of assignment.
  Acknowledge family participation on TIPS with a note at least once.

1. Letter to parent, guardian, or family partner
   Student fills in the learning goal, the date to be returned, and signs.

1. Look this over
   A practice example of the problem is presented for the student to explain to the family partner. Definitions or jargon are explained in the example.

1. Now try this
   Another example is given and the student shows the family partner how to do the example.

1. Practice and more practice
   Similar problems to the example are to be worked by the student, showing their work and demonstrating their skill mastery to the family partner.

1. Let’s find out or In the real world
   A problem is set out for the student and family partner to create together and then solve using the skills demonstrated and practiced in previous components. This component is designed to use only items or conditions found in the students’ home environment (example: canned goods, shoes, space, story inventions)

1. Home-to-school communication
   Family partner’s reactions to the student’s work and comments about their interaction together completing the activity.

1. Parent/Family Partner signature

TIPS MATH – MIDDLE GRADES

Student’s Name: ___________________________ Date: __________

TIPS: !

Dear Family Partner,

In math, we are studying __________. I hope you enjoy this activity with me. The assignment is due ________________.

Sincerely,

______________________________

I. LOOK THIS OVER: Explain this example to your family partner.

II. NOW, TRY THIS: Show your family partner how you do this example.

III. PRACTICE SESSION: Complete these examples on your own. Show your work. Explain one example to your family partner.

*** CONTINUE YOUR WORK ON THE BACK OF THIS PAGE ***
IN THE REAL WORLD... Work with your family partner to do this.

ANSWER TO “NOW, TRY THIS”:

IV. HOME-TO-SCHOOL COMMUNICATION

Dear Family Partner,

Please give me your reactions to your child’s work on this activity. Write YES or NO for each statement.

_____ 1. My child understood the homework and was able to complete it.

_____ 2. My child and I enjoyed the activity.

_____ 3. This assignment helped me know what my child is learning in math.

Any other comments: ____________________________________________________________

TABLE OF CONTENTS

Math TIPS Matched to SC Math Standards

1. Number and Operations
   - Action Fractions!
   - Line It Up!
   - Integers On A Roll!
   - Watch the Signs!
   - I Know! I Know

2. Algebra
   - What is My Pattern?
   - Excuse Me!
   - Val-U-Me!
   - Triple “O”!
   - Aliens Invade Math!

3. Geometry
   - Give Me Five!
   - Name Game!
   - Get That Bug!
   - Which Way Do I Go?

4. Measurement
   - Pantry Search
   - Formulas of Life!
   - On the Edge!
   - See Spot Run!
   - Around and Around We Go!
   - Parts is Parts

5. Data Analysis and Probability
   - M & M
   - I Mean It!
   - What Are My Chances!
   - Stems and Leaves
   - Too Many Choices!