

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 WORKSHOPS
JOHNS HOPKINS UNIVERSITY, 2001

WRITING TEAM MEMBERS:

BEVERLY BURGESS, CHESTER MIDDLE SCHOOL, CHESTER
BARBARA BOSTIC, LONG JUNIOR HIGH SCHOOL, CHESTER
KAY CREAMER, CHESTER MIDDLE SCHOOL, CHESTER
CINDY GIBSON, LAKEVIEW MIDDLE SCHOOL, GREENVILLE
WILMA KEITT, SCHROEDER MIDDLE SCHOOL, CHARLESTON
JEAN M. NORMAN, FACILITATOR, SCHOOL IMPROVEMENT COUNCIL ASSISTANCE, USC

TIPS MATH WRITING PROJECT SPONSORED BY:

SCHOOL IMPROVEMENT COUNCIL ASSISTANCE, COLLEGE OF EDUCATION
UNIVERSITY OF SOUTH CAROLINA, COLUMBIA

PRINTING AND DISTRIBUTION BY:

SOUTH CAROLINA MIDDLE SCHOOL ASSOCIATION, CONVENTION 2001

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.

Adapted from: Epstein, J.L., Simon, B.S. and Salinas, K.C. Effects of Teachers Involvement Parents in Schoolwork (TIPS) Language Arts Interactive Homework in the Middle Grades. *Research Bulletin*, #18, September, 1997, (Phi Delta Kappa, CEDR, Bloomington, IN).

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.

SC MIDDLE SCHOOL MATH TIPS

TIPS Math Component

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

Adapted from: Epstein, J.L., Salinas, K.C., Jackson, v., & Van Voorhis, F.E. Teachers Involve Parents in Schoolwork (TIPS) Interactive Homework for the Middle Grades. Baltimore: Center on School, Family, and Community Partnerships, Johns Hopkins University.

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.

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!