

Math Way to Excellence Implementation Outline 01/02/16

- 1) Select student(s) in grades K-5th grade from school district(s) who are having difficulties with math problems.
 - a) We will ask the school for information on the students' demographics for establishing comparison to Missouri educational standards. These will include the following:
 - Race, age, grade level, etc.
 - b) We will ask the school for information on the students' math grades to establish a baseline. Some of the data needed will include the following:
 - Current level of math skills the student is expected to know such as counting, addition, subtraction, multiplication, division, fractions, etc.
 - See and complete the comprehensive check off list of the above skills.
 - What areas in math is the student struggling with and could use additional help?
 - Addition comments such as short attention span, homework isn't completed on time, class participation level, confidence level of math skills, etc.
- 2) We will evaluate the student(s) and determine their skill level by questionnaires and pretest.
 - a) Student will complete a questionnaire assessing their math skills.
 - How does the student feel about math?
 - Are they willing to work harder to improve their math skills?
 - b) Specific math pretest will be initially given according to the areas the student is struggling with.
 - Other pretest will be given to evaluate math skills the student already understands as new techniques are introduced to sharpen skills. An example might be a faster way to add.
- 3) Math Way to Excellence or the school administrators will ask to meet with the parent in person (or phone, e-mail, etc) to briefly explain the Math Way to Excellence program.
 - a) We will ask the parent to monitor the students' assigned math missions
 - b) Ask the parent (other family members, friends) if possible to play the math card game with the student regularly.
 - c) Evaluations should be done at home to track student's progress

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| Student understands the basic details |
| Student's rating of mission |
| Instructor's/ evaluator's rating of student's progress |
| Amount of minutes student spent working on mission |
| Amount of minutes student spend playing Cipher Quick Math Game |
| Comments: |
| Rating Scale: 5 excellent—4 above average—3 average—2 below average—1 poor |

- 4) Arrange to work with the student(s) in the after school program for 2 or 3 hours per week.

Math Way to Excellence Implementation Outline (cont.)

5) We will introduce the student(s) to the Math Way to Excellence program and provide the following items:

a) Cipher Pad includes:

- Clear plastic jacket (8.5 x 11) for math boards
- Addition-subtraction board (8.5 x 11) on water and tear resistant plastic paper
- Multiplication-division board (8.5 x 11) on water and tear resistant plastic paper
- Big Step 0-20 addition-subtraction board (8.5 x 11) on water and tear resistant plastic paper
- Plastic screen to hide/reveal numbers for a/s and m/d boards
- Plastic screen to hide /reveal numbers for Big Step 0-20 board
- Clear plastic sheet (8.5 x 11) for markers usage
- Expo dry-erase fluorescent markers (5 pack)

b) Cipher Quick Math Kit includes:

- Addition –subtraction board (5 x 7) side 1 and multiplication-division board side 2
- Dry-erase black marker
- Red dice #2 each (numbered 1-12)
- Blue dice (numbered 0-9)
- Blue dice (numbered 00-90)
- Cipher Quick Math Cards

c) Cipher Quest Storybook

d) Cipher Quest Coloring book

Note: Math Way to Excellence will provide folders the student assignments.

6) Pretest will be given before certain missions as indicated according to student assessments.

7) Depending on the student's math skill level, the appropriate workbook will be used.

Note: See workbook outlines.

8) A lesson plan will be made out for each student.

9) Before the student starts on that particular workbook (ex. Module 9 for 3 grade progressive), we must make sure they understand how to solve different basic problems leading up that particular module.

- We don't need to issue a certificate if the student didn't complete that whole mission segment. Just make a note in the comment section of the evaluation that these skills were explained and understood.

Math Way to Excellence Implementation Outline (Cont.)

- 10) The workbooks, card game, and/or homework problems will be the focus during the sessions. We may want to mix up the card game with the math mission (maybe around every 20 minutes)
 - We can give the student a copy of their mission to work on during the session or at home.
 - Have them use the game dice to make up mission problems.
 - Offer help whenever the student request or needs it.
 - Complete evaluations after each session.
- 11) At the beginning of each new session, collect any completed evaluation by the parent or guardian.
 - Ask the student how the assigned mission exercise progressed.
 - Have the student demonstrate the assigned mission and determine if they mastered the skill.
 - Once the student has mastered the mission segment, give the assigned post-test.
 - Present the student with a "Certificate of Completion" for that mission.
- 12) All of the data from the pretest, post-test, evaluations, homework math problems, and comments will be compiled. We should see that progress has been made.
- 13) Continue with next mission (ex. Module Nine) segment and collect the pretest, evaluations, homework, post-test, certificate of completion, and data compilation.
- 14) We will share our results with the student, parent, and school district.