Release

3 x /

I. Fluency

Important piece is to say the _____ fact (3 x 7 = 21)

- "Three times seven is twenty-one."

If the student misses the fact, error correction:

- I Say
- Say
- You Say
- _____ Say

Time Per Day : ______ only on a maximum of _____ new facts

II. Problem Solving

A. Deep Practice should be practiced ______.

Problems should not be ______ or ______. They should lead to discourse and multiple strategies on how to solve the problem.

Ways to discuss:

- 4 Corners (if multiple choice)
- "Which Answer": teacher calls out 6 students and writes their answer on the board. Students then look at the ways each answer was developed, and identify which one is correct.
- "My Favorite No" teacher selects student work that is not correct, but has all of the work shown and allow students to identify the small error made to cause the incorrect answer

B. Fostering Perseverance

Article from: Vol. 22, No. 2, September 2016; NCTM "Mathematics Teaching in Middle School"

III. Vocabulary

A. Taboo

- Make "Taboo" cards with vocabulary words and key words that students can't say when describing the words. Students complete in teams.

- Modeled after the original game "Taboo", just use with math words

B. Word Sneak

- Each group of students gets 3 content/academic words and one "silly" word.

- Students take turn saying sentences using their words in conversation. The sentence must make sense and include proper context of the academic word.



- Set ______ (and stick with them)
- Consistency is the _____

Relate

- Out of 150 influences on learning, teacher-student relationships was ranked number 12 (Hattie, 2012)
- For students to be engaged, they must ______ that their work has meaning. Having a ______ relationship between the teacher and student is a critical piece to designing engaging work (Schlechty, 2011)



"Engaging Students: The Next Level of Working on the Work" by Phillip C. Schlechty

"Visible Learning for Teachers: Maximizing Impact on Learning" by John Hattie

"The End of Molasses Classes: 101 Extraordinary Solutions for Parents and Teachers" by Ron Clark

NCTM "Mathematics Teaching in Middle School" Journal; Vol. 22, No. 2, September 2016;



