ENGAGING STUDENTS TO INCREASE MATH TEST SCORES

Gale Grindrod
INTRODUCTION TO MS. GRINDROD

- Presently ESS teacher for Gordon County Schools for 6-8th grade Math, teaching mostly GAA students.

- Tutors CRCT takers in 6th grade.
INTRODUCTION TO MS. GRINDROD

- A few years ago, her third grade class of 33 students all passed the CRCT; 27 exceeded standards in Math. (Class Average was 870)

- The next year, 96 percent of her EIP class in Math. (Class Average of 850)
SO HOW DOES SHE DO IT?
OLD METHODS MADE ANEW

- **Mastery Learning**: The theory that if you show your students how to do something five different ways then 98 percent of your class audience will pass.

- **Modality**: Learning style of each child. Teach to this!

- **Mastery Learning = Differentiated Instruction.**
WHO CAN USE THESE METHODS

So who can use these methods? The methods can be adapted to fit student needs of:

- Any AGE!
- Any GRADE!
- Any LEVEL of Education!
- For tutoring or refreshing exercises!
- Even Adults!
LETS START WITH MULTIPLICATION!

- Multiplication is a necessity for all mathematicians from an early age.
- If you can’t multiply, you can’t move forward.
- Foundation of Math.
Why Music?

 Use music to set the mood: Many people associate music with great times, so why not math?
 Music triggers memory: Music acts as a soundtrack to memories.
 Music improves mood and emotional wellbeing.

How to use music?

Try a theme for WS Transition: James Bond for opening, NCIS for Math workshop and in closing: Hawaii Five-O.
Get on your feet!

AND JUST WHEN YOU EXPECTED TO WATCH ANOTHER POWERPOINT!

Get on your feet!

http://www.mathsisfun.com/tables.html

Use during Math Skills daily for at least 10 minutes
Most students coming out of second grade know their 5s, 2s and 1s in multiplication.

They can use their fingers.

Forces student to learn times tables by writing them down.

 Gives them the correct answer every time!

Success becomes contagious
WHERE CAN THE GRINDROD METHOD BE APPLIED?

- Multiplication
  - With 5s, 2s and 1s

- Expanded Notation

- Turn it around to do Division!
  - Both with and without remainders!
PANTOMINE USING THE SCALE FOR WORKSHOP

- Teacher will pantomine (modeling) equations using a scale

- Students will follow using their scale
WHEN ALL ELSE FAILS...

- Using your answer choices, use the divisor and multiply it by the last number of the answer (not the remainder!)
  - If the answer has a remainder, add it to the product of the divisor and the last digit of the answer choices

- Now compare to the dividend!
  - Is the last number of product (or sum, in case of a remainder) the same as the last digit in the dividend?
Correlation with numerator and denominator.
First, show the student the place values and how they can use the whole number side, to label the fraction side.

Left side of the decimal are whole numbers
Right side of the decimal are fractions
DECIMALS AND FRACTIONS FOR OPENINGS
HOW TO APPROACH THE DECIMAL: CORRELATION OF NUMERATOR/DENOMINATION

- Whole numbers stays the same.
- To the right of the decimal:
  - The denominator is always one more than number than the numerator
  - Always starts with a one and ends in a zero
  - Example: .2 = 2/10
DECIMALS AND FRACTIONS

TOON UNIVERSITY is a great website that offers math games for decimals and fractions.

M&M MATH: 3rd/7th GRADERS FOR OPENINGS

- Teaches properties
  - **Commutative Property of Addition/Multiplication**
    - A binary operation is commutative if changing the order of the numbers doesn’t change the sum/product.
    - Example: \( A + B = B + A \)
  - **Associative Property of Addition/Multiplication**
    - If you change the grouping of three or more addends or factors it does not change their sum or product.
    - Example: \( A + (B + C) = (A + B) + C \)
    - Example: \( A \times (B \times C) = (A \times B) \times C \)
M&M MATH: 3RD/7TH GRADERS FOR OPENINGS

- Teaches properties
  - Distributive property states that the product of a number and a sum is equal to the sum of the individual products of addends and the number.
  - Example: \( A(B + C) = AB + AC \)
M&M MATH: 3RD/7TH GRADERS FOR WORKSHOP MODEL

- Each student gets a bag of M&Ms and places the colors in circles
- List M&M variables:
  - Red = R
  - Orange = O
  - Green = G
  - Yellow = Y
  - You can eat the blue and brown ones 😊

Teacher models equations using M&M colors as variables for the properties.
CROSS CURRICULUM MATH/MYSTERY?

- Take what you need...

- You ready?

Line Plot
DATA ANALYSIS

- Talking about Progress Monitoring
  - Formative
  - Benchmark
  - Summative
  - CRCT

- Study Island Usage
  - Green People help Yellow people
  - Everyone Helps Red

- Test Busters
  - I ain’t afraid of no test
Want me to contact me?

Email me at: lgrindrod@gcbe.org

Link to my article about the Grindrod Method in the Calhoun Times:


http://www.gcbe.org/education/staff/staff.php?sectionid=3838&&PHPSESSID=56e9189841ba1d078fa93b8163bf4a8d