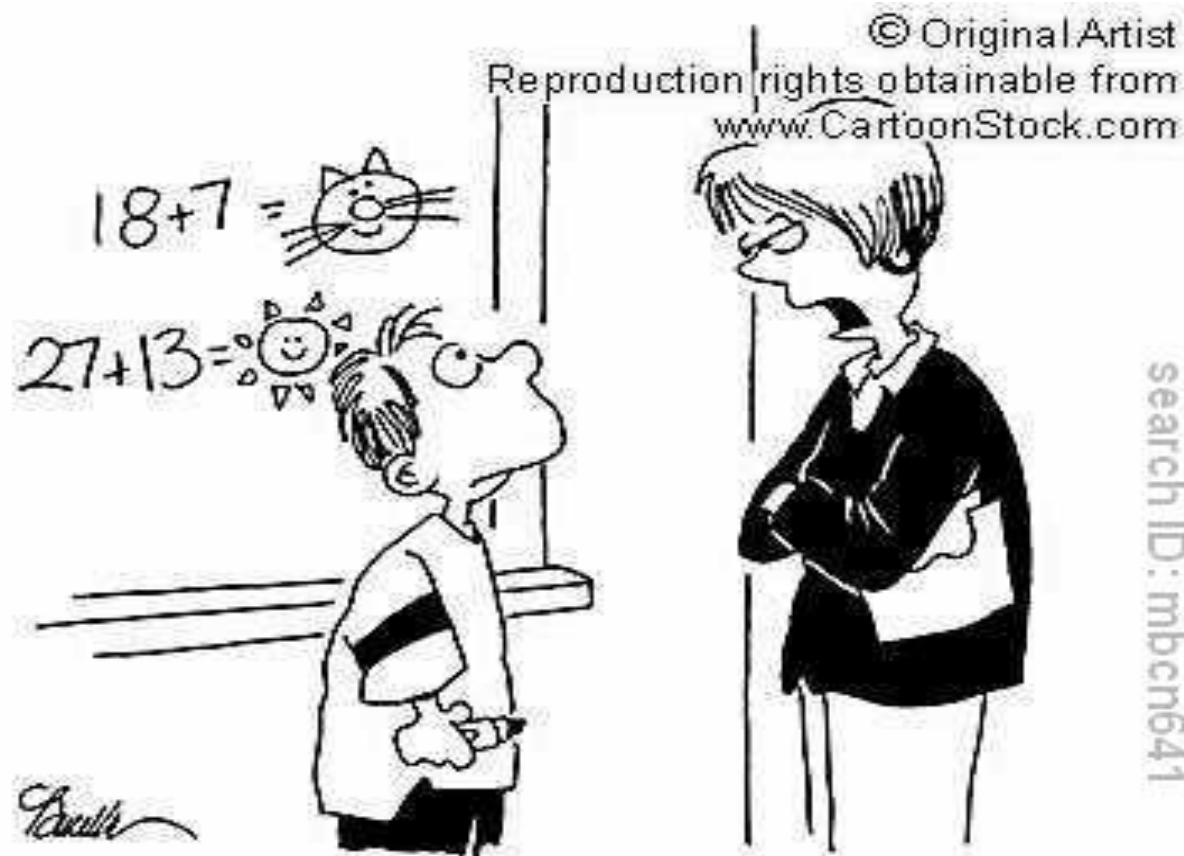


Best Practices in Math Instruction (and why we need them)



FEBRUARY 24, 2010



search ID: mbcn641

"True, we have encouraged you to use your imagination, but not in math."

Math Instruction has been impacted by SRBI.

SRBI is currently driving instruction in literacy and numeracy at every level in the district.

SRBI= Scientifically Researched Based Instruction

SRBI means that all students receive appropriate instruction. (DI)

Increase the number of students who succeed with general education

Reduce the number of students who require special education

How do we do this?

Consistent use of both formative and summative assessments to plan math instruction

In literacy that might mean:

- Day to day conferencing
- DRA
- Ongoing writing assessments
- Fluency Probes
- District Benchmark Assessments

- Workshop Model Instruction

In math that might mean:

- Benchmark assessments in basic facts
- Performance Tasks
- Pre-assessing skills
- Observation/small group instruction

Workshop Model Instruction

Aligning how we teach math, with what we already know and do in literacy, will help us meet the needs of our students in math more effectively.

Literacy Workshop Model

Writing
Workshop

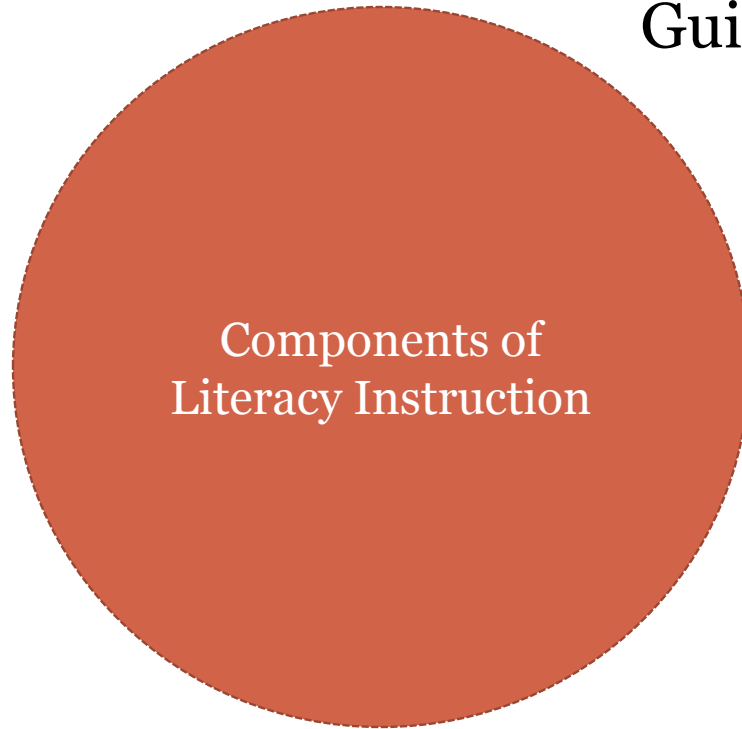
Guided Reading

Word Study

Components of
Literacy Instruction

Read Alouds

Independent
Reading



Math Workshop Model

Math Writing

Growing With
Math

Components of Math
Instruction

Basic
Facts

Problem
Solving

Procedural Knowledge

Conceptual
Understanding

Math in Ridgefield



- GWM is the formal math program used by all teachers in the district.
- This district follows the curriculum as set by the state of Connecticut in regards to standards and grade level expectations.
- By using a workshop model in math instruction, teachers find it easier to include all components.
- The district guidelines for math instruction in grades one through five is about 60 to 75 minutes daily.

Numeracy and Literacy



- Instructional time provided for both numeracy and literacy should be *equitable*.

Primary Grades

Components of Math Instruction Include:

Math Chat can be done during the Morning Meeting or during a transition time. 10 minutes. It should not be omitted and should be done daily.

Growing with Math Lesson-35---40 Minutes

Math Center- 15 Minutes

**Problem Solving or Basic Fact Instruction 15
Minutes**

Closure

Intermediate Grades

Components of Math Instruction Include:

DNSS or the Daily Number Sense Starter

10 minutes. Can be done at the start of lesson or during Morning Meeting. Should not be omitted and should be done daily.

Growing with Math Lesson –40-45 Minutes

Problem Solving or Basic Fact Instruction--15 Minutes

Closure

Best Practices Include”



- Closure/Cognitive Closure-
 - Helps students connect the dots
 - What Did I learn Today

- Differentiated Instruction
 - small group instruction
 - meeting students' needs

- Word Walls
 - Increase student vocabulary and concept understanding

Closure



- to help organize student learning
- to help form a coherent picture, to consolidate, eliminate confusion and frustration, etc.,
- to reinforce the major points to be learned...to help establish the network of thought relationships that provide a number of possibilities for cues for retrieval.
- Closure is the act of reviewing and clarifying the key points of a lesson, tying them together into a coherent whole, and ensuring their utility in application by securing them in the student's conceptual network.

Differentiated Instruction



- Group students according to interest, need, learning style during independent work time.
- Teacher uses this time to observe and confer with students.
- Teacher/Math Para work in small group instruction
- DI does not mean an IEP for every child
- DI means slightly modifying process, content or product

Word Walls



- A math word wall is an interactive collection of words to teach math concepts.
- Word walls are not simply décor; they are works in progress designed to promote group learning.
- Words should be added to the wall as they are encountered in learning and should be removed (or moved to a review board) as they become part of the student's knowledge bank.
- Students should be encouraged to use math vocabulary when communicating mathematically.

Word Wall

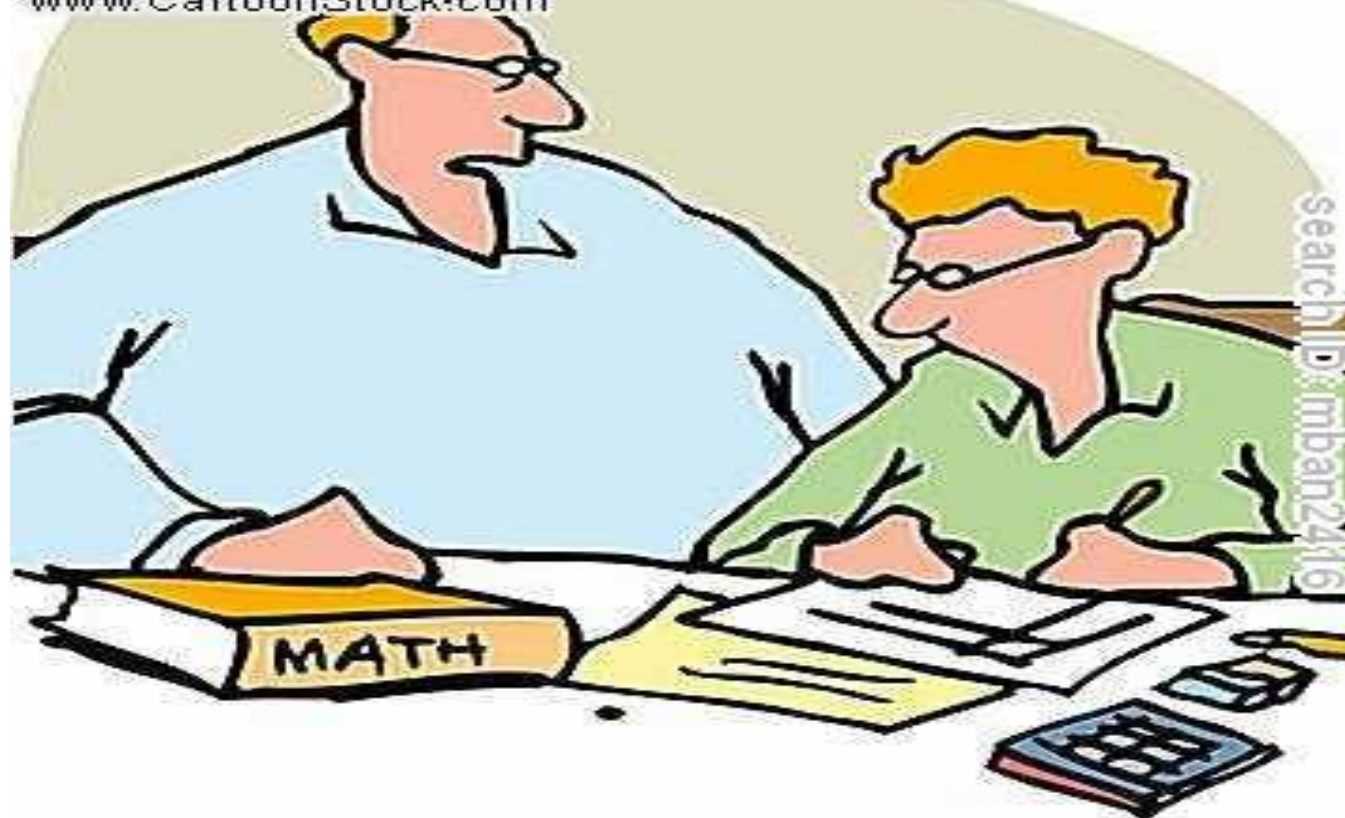




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Baldwin



“4x4? That’s an easy one: truck.”

