

Sharing Session

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Agenda

- Introductions
- Overview of Guided Math
- Guided Math in Langley
 - Book Study, workshops, collaboration
 - sharing - Kim, Hedy and Carolyn
 - Others
- Questions
- Resources
- Plans for next year



Introductions

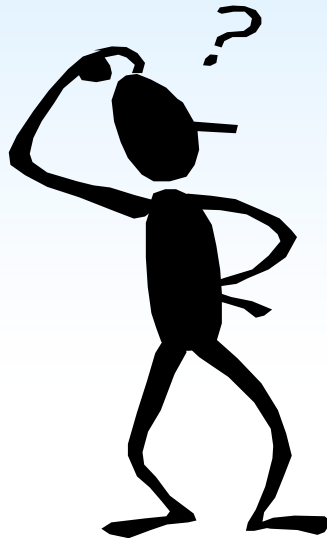
Introduce yourself and please discuss...

1. Describe one negative and positive experience you have had while differentiating math instruction.
2. Explain your familiarity with Guided Math.



Overview of Guided Math

How can we effectively teach math when we have a classroom of students at many different levels of achievement?



How can we...?

- Reach students at all levels of achievement
- Provide diverse methods of learning
- Allow more opportunities for observation and communication by students
- Encourage active engagement by students



What is Guided Math?

A flexible instructional framework that enables teachers to:

- determine students unique needs
- address those needs through a combination of whole class instruction and small group instruction



The Foundational Principles of Guided Math

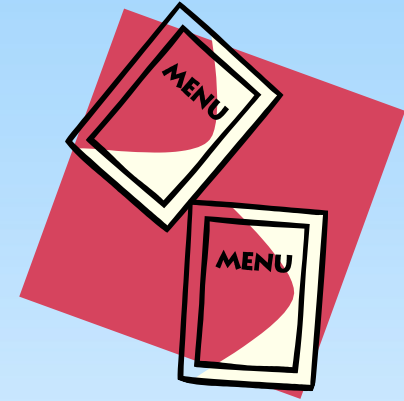
- All children can learn mathematics
- A numeracy-rich environment promotes mathematical learning.
- Learning at its best is a social process
- Learning mathematics is a constructive process.
- An organized classroom environment supports the learning process.



The Guided Math framework offers a **daily menu of instruction** from which teachers can choose based on the **needs of their students** and upon the **concepts** being taught.



Menu of Instruction



- Whole class instruction
- Small group guided instruction
- Math Workshop (independent work or work in cooperative groups)



Guided Math Framework

Choice Components

- Whole-Class Instruction
- Small-Group Instruction
- Math Workshop



Guided Math Framework

Possible Daily Components

- Classroom Environment of Numeracy
- Math Warm-up
- Individual Conferences
- Ongoing Assessment



Whole Class Instruction



- *What are some advantages?*
 - Captures everyone's attention at once.
 - Quick way to present same information to all.
 - Builds mathematical community by creating common experiences.
 - More time can be devoted to the lesson.



Whole Class Instruction

What are some challenges

- Difficult to meet the needs of varying abilities
- Difficult to maintain attention of all
- Communication opportunities limited
- Minimal descriptive feedback from the teacher or peers
- Ongoing assessment is more difficult
- Students may engage in work based on a misunderstanding and then practice incorrect methods



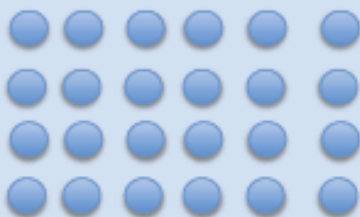
Effective Uses of Whole Class Instruction

- Introduction of a new series of lessons
 - activating strategy to generate interest, enthusiasm and curiosity
- Use of literature to teach a math concept
- Review of previously taught skills
- Preparing for cooperative group work
- Some assessments



Represent 24 in as many ways as you can

Hours in a
day



$$12 + 12$$

$$20 + 4$$

$$25 - 1$$

I might expect

Twenty-four



$$8 \times 3$$

Christmas
Eve



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Small Group Guided Instruction





Small Group Guided Instruction

- Is similar to guided reading, but composition of the groups may be even more fluid
- Homogenous, flexible grouping by level of achievement
- Requires assessment to determine each student's level
- Provides scaffolding to support the learning efforts of students
- Encourages exploration of math concepts in a risk-free learning environment



Small Group Guided Instruction

- Introduction of new concepts
- Practice of new skills
- Instruction with manipulatives
- Intensive instruction for students having difficulty mastering concepts
 - Re-teaching based on results of formative assessment
- Introduction of activities that will later become independent work during math workshop/centres
- Informal assessment



Math Workshop

Centres/Workstations etc.

- Students work independently, in pairs, or in groups.
- Procedures and routines must be established and practiced.
- Activities should provide opportunities for exploration or practice of mastered skills.



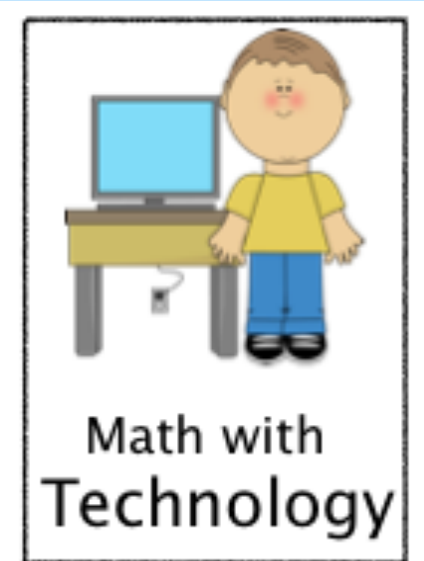
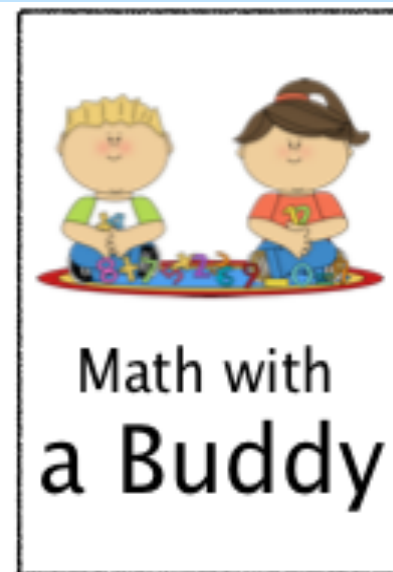
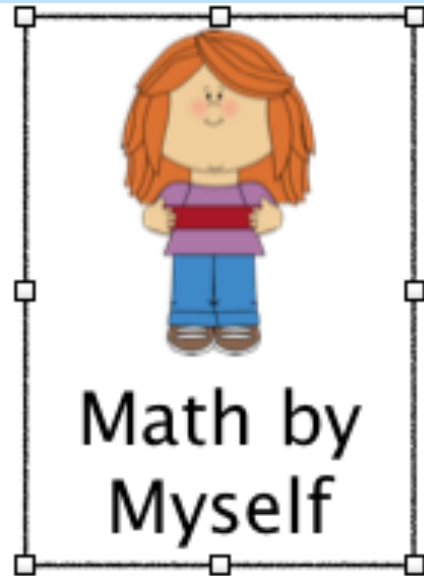
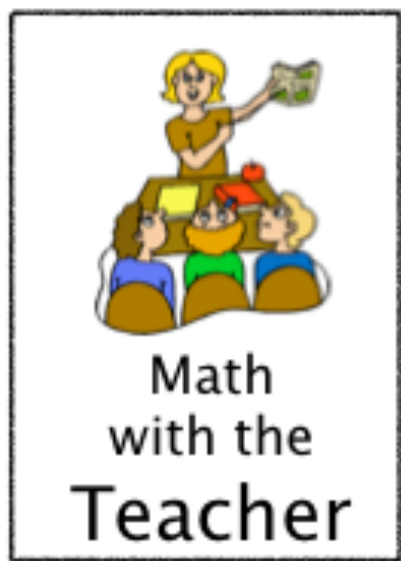
Math Workshop Activities



- Follow-up work from small group lesson
 - Seat work, Performance Task
- Problems of the Week
- Math games
- Work with manipulatives
- Math journals
- Children's literature
- Technology



Examples of Work Stations



Math Workshop

| Red | Yellow | Green | Blue |
|----------|---------|----------|---------|
| Felix | Grace | Jane | Karel |
| Alex | Curtis | Ruby | Amelia |
| Zoe | Gene | Isabella | Julia |
| Joan | Connor | Jack | Trinity |
| Mia | Evelyn | Kyle | David |
| Isabella | Spencer | Destiny | Ellen |

Norms

1. Do your best!
2. Be respectful
3. Use appropriate voice level
4. Be responsible with materials

Front Carpet

North Desks

Back Floor

South Desks

Teacher: Smartboard

Ind: Construct shapes on geo board

Game: Partner Mystery Shapes

Fact: Bingo



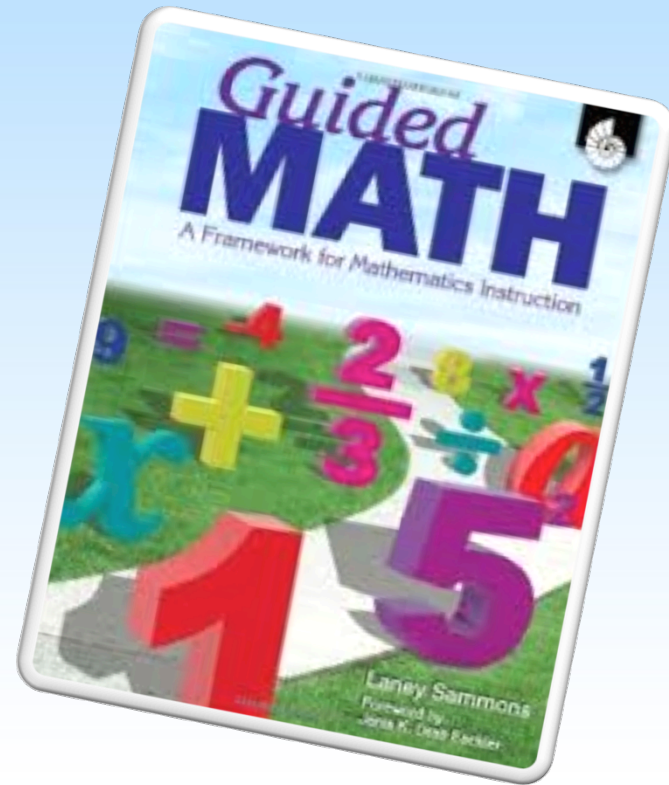
Schedule Example...

| | | |
|------------------------------------|------------------|---|
| Math Warm up | 5-7 Minutes | Review and Practice |
| Whole Group Mini Lesson | 7-10 Minutes | Whole group standards-based lesson |
| Work Time | 30-45 Minutes | <ul style="list-style-type: none">•Small guided math group•Individual math interview or conferencing•Workstations |
| Share | 5-10 Minutes | <ul style="list-style-type: none">•Discuss Major Takeaways•Writing Response |
| Total Time | 70-75 Minutes | |



Guided Math in Langley

- Book Studies
- Workshops
- Collaboration at schools
 - Action plans



Sharing – How Does Guided Math Work in *My* Classroom?

- Kim Cline, Hedy Miller – Coghlan
- Carolyn – Shortreed
- Others
- Questions



Resources

- See handout
 - Guided Math (Laney Sammons)
 - Guided Math in Action (Dr. Nicki Newton)
- Pinterest - Be careful!
 - www.pinterest.com/dlightbody



Plans for 2015/16

- Book Study - district or school level
- Observations in classrooms (Joint Pro-d funds)
- Workshops
 - Specific topics
- Resources
 - Website
 - Other?

