Prep Less - Think More

Presented by
Susan Tate and Melissa Canham
Making CGI work in YOUR Classroom

“Our goal is not to provide models of classroom instruction to serve as a template for you to apply to your own classroom. Rather, we present specific cases that embody first principles of successful CGI classrooms. Our goal is for teachers individually and in collaboration with other teachers to make sense of the principles in relation to their own classes and teaching styles.” Children’s Mathematics page xix
if you don’t know where you want to go, it doesn’t matter which path you take.
How to get where you’re going!

**What…**

**CCSS**

**Why…**

**CGI**

**How…**

**SMPs**

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**CGI = Cognitively Guided Instruction**

Thomas Carpenter and Elizabeth Fennema defined different problem types. “If we want to give children the opportunity to build their understanding from within, we need to understand how children think about math.”

—Carpenter, et. al. (1999)
Getting it all in!

- Number of the Day
- BRASSY
- Routines
- MWF New Word Problem
- TTH Revisit yesterday’s Word Problem and Counting Collections
- Game
Number of the Day

Everyday
Count days of school or pick a number

10-15 minutes
Number of the Day in Action
Number of the Day

- Prep Less
  1. Student books
  2. Number paper and colorful markers

- Think More
  1. Standards
  2. Stretching their thinking
  3. Keeping them all engaged
  4. Having everyone contribute
**BRASSY**

Cover the additional and supporting standards everyday for 5 minutes

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**First Grade BRASSY Time**

**Basic Readiness 4**

**Additional & Supporting Standards Yearlong**

BRASSY time is 3 to 5 minutes every day that you specifically teach the Measurement and Geometry Standards. Only MD.1 is an essential standard. The rest are supportive or additional, which means they are necessary, but are not the bulk of your program. A unit does not need to be done to cover these standards. Exposure over time will be helpful to retain this information. Choose one section to cover each week. Ex. For geometry work on the halves only. Then the next week do fourths, etc. To assess, use tickets out, put them in a center, and/or formal assessment. These standards are fun!

*The 2D and 3D shapes can be reviewed each day with the calendar (if you want).*

<table>
<thead>
<tr>
<th>Day of the Week</th>
<th>Standards to focus on for 3 to 5 minutes DAILY</th>
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<tbody>
<tr>
<td>Monday MD.4</td>
<td>Data Dump Day - Students collect the data that will be used to make a graph. EX. choose peppermints or cheese puffs. Use a Post It on a piece of construction paper labeled.</td>
</tr>
<tr>
<td>Tuesday MD.4</td>
<td>Data Discovery - Make a type of graph using Data Dump information. Discuss the graph. Find how many more etc.*</td>
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<tr>
<td>Wednesday MD.1 &amp; MD.2</td>
<td>Measurement - Using a non-standard unit, measure things in the classroom. Compare lengths of things. EX: an eraser to an eraser, a crayon to a pencil, then without showing them together, an eraser to a pencil.</td>
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<tr>
<td>Thursday MD.3 &amp; MD.3.1</td>
<td>Time - Use a clock to teach and practice time to the hour and the half hour. Relate time to events (before/after, shorter/longer).</td>
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<tr>
<td>Friday G.1, G.2, G.3 &amp; MD.4.1</td>
<td>Geometry - Explore the 2D and 3D shapes. Distinguish between defining and non-defining attributes. Make new shapes using these shapes. Make circles and rectangles into halves and fourths. Describe, extend, and explain patterns.</td>
</tr>
</tbody>
</table>

*This data can be used for one of the class word problems this week. Works well for how many more or fewer.

**This is just a suggested order. Use in order that works best for your class.**

*rev 7/26/14*
“Wait a minute! Why’d PJ get 4 sandwiches and I only got 2?”
BRASSY Day 2 in Action

How do you get to ABCD?

- walk
- bus

Look right
right
sense
BRASSY

**Prep Less**
1. paper
2. colorful marker
3. Post-Its
4. Judy Clock
5. Something to measure with
6. Pattern block and 3d shapes

**Think More**
1. Standards
2. Stretching their thinking
3. Keeping them all engaged
4. Having everyone contribute
5. Who needs what
6. What questions to ask
7. Scaffold
8. Next steps
Routines
10-15 minutes each day

Build Number Sense
Make connections
Cover standards
These are a Few of Our Favorite Routines

- Hundreds Chart
- Choral Counting
- True/False
- Dot Cards
- Queen of TEN
- Guess My Number
- 3 of These Things
- Number Strings
Routines

Dot Cards with Ten Frame
Routines

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The formulation of a problem is often more essential than its solution, which may be merely a matter of mathematical or experimental skill.

Albert Einstein

I Scream, You Scream, We all Scream for Ice Cream!

Problem Solver ___________

Mrs. Tate had some ice cream scoops. She ate ___ ice cream scoops. She now has ___ ice cream scoops. How many scoops did she have before she ate any?

(42, 10) (30, 20) (9, 8) (7, 12) *(123, 489)

Show your strategy.

Number sentence _______________________

Solution ____________________________
Think - What type of word problem and number choice

- Read problem together
- Unpack
- Have a go
- What did we do
MWF-Word Problem

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Tuesday and Thursday
Targeted Discussion
Revisit Yesterday’s Word Problem

- Compare and Connect
- Why? Let’s Justify
- What’s Best and Why?
- Define and Clarify
- Troubleshoot and Revise

INTENTIONAL TALK
HOW TO STRUCTURE AND LEAD PRODUCTIVE MATHEMATICAL DISCUSSIONS
ELHAM KAZEMI & ALLISON HINTZ
Foreword by Megan Franke
Compare and Connect
With a little What's Best and Why?
Counting Collections
35-40 minutes 2 times a week

“Children’s counting quote from blue book
Counting Collections in Action!
TTH-WP Targeted & Counting Collections

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Games

- 5-8 Minutes when there is time!
- Cards- Making 10, greater than less than, Number Top-It, Addition Top-it
- Dominoes
Games

**Prep Less**
1. pocket chart
2. cards
3. Dominoes

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Will we get it all done without a text book? And more importantly, will we have a generation or thinkers not requirjitaters?

- Simplified standards
Jump in!

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- dusd.net/CGI?