



## **Our Journey to the Top: Increase Student Engagement and Efficacy with Math Work Stations**

Presenters: Tayo McGuirk and Laurel Pate,  
Denver Colorado

NCTM, Boston Convention Center: Session #660  
Saturday, April 18, 2015 9:30-10:30 a.m.

### ***Link to presentation:***

[http://prezi.com/yaogd-rxzrdn/?utm\\_campaign=share&utm\\_medium=copy&rc=ex0share](http://prezi.com/yaogd-rxzrdn/?utm_campaign=share&utm_medium=copy&rc=ex0share)

### ***Resources:***

*African American Boys Checklist*

Dr. Darlene Sampson, Ph.D, LCSW, Director of Culturally Responsive Education, DPS

[http://denverpeerobservers.wikispaces.com/file/view/African\\_American\\_Boys\\_Checklist.pdf](http://denverpeerobservers.wikispaces.com/file/view/African_American_Boys_Checklist.pdf)

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### **TIPS TO LAUNCHING MATH WORK STATIONS**

- 1) Take it slow. Launch one work station at a time.
- 2) Co-create the following charts with students:
  - a) Advantages of Work Stations
  - b) Compare New to Old Structures
  - c) Teacher and Student Roles
  - d) Rules for Playing Cooperative Games
  - e) Giving Compliments
  - f) Expectations for Turning in Work
  - g) What to Do When I'm Stuck?
- 3) Model and role play how to use the rotation board.
- 4) Model and role play rules and routines for movement/transitions.
- 5) Provide students with lanyards, as reminders of their group and rotation order.

### **ADVANTAGES OF MATH WORK STATIONS**

1. student-centered approach
2. includes new learning, daily
3. includes review skills, daily
4. includes small guided groups, daily
5. incorporates movement
6. deeper learning for shorter amounts of time
7. incorporates individual, partner and group learning
8. increases engagement through games/technology
9. increases on-task behavior and self-efficacy

### **Math Work Stations Structure**

5 min. Indep. Student Warm Up

20 min. Whole-Group Teacher-Guided Mini-Lesson

20 min. Practice Work Station (indep./partner new learning)

20 min. Review Work Station (indep./teacher-guided small group)

20 min. Games/Technology Work Station (partner/indep.)

5 min. Closure (teacher-guided whole group)

### **WORK STATION ROTATION BOARD**

<b>Student Group</b>	<b>Rotation 1</b>	<b>Rotation 2</b>	<b>Rotation 3</b>
<b>A</b>	<i>Practice</i>	<i>Review</i>	<i>Games</i>
<b>B</b>	<i>Games</i>	<i>Practice</i>	<i>Review</i>
<b>C</b>	<i>Review</i>	<i>Games</i>	<i>Practice</i>

### **"PRACTICE" WORK STATION OPTIONS:**

- a problem(s) from the curriculum
- a workbook page
- a teacher-created task
- a constructed response task
- a performance-based task

...TIED TO THE DAY'S MINI LESSON AND CURRICULUM/STANDARDS.

### **"REVIEW" WORK STATION OPTIONS:**

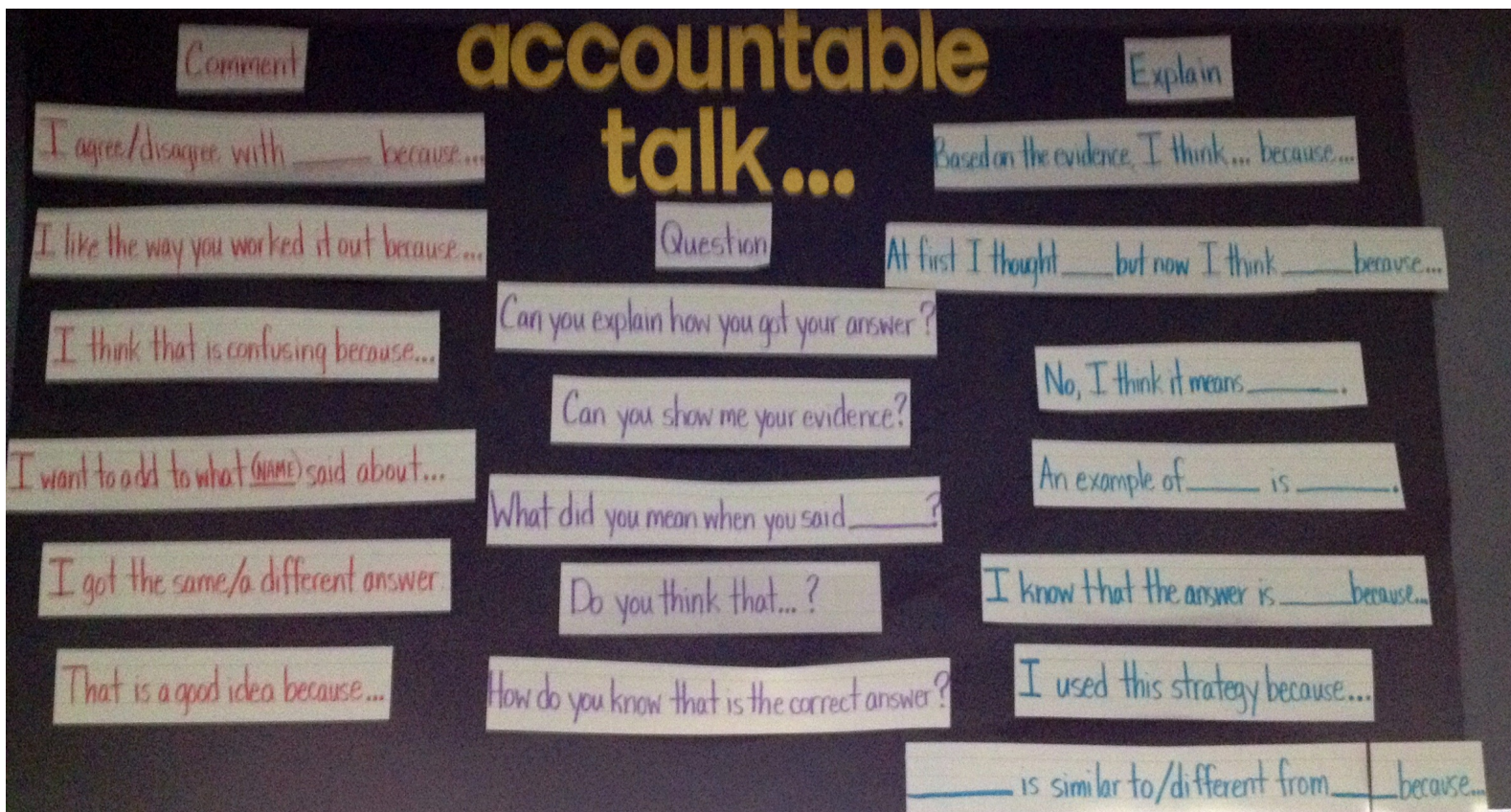
- Everyday Mathematics "Math Boxes"
- "Readiness" or "Extension" activities
- revision of previous practice work
- skills from benchmark assessments
- skills from unit assessments
- skills from STAR or SMI reports
- ST Math (online)

...TIED TO NON-MASTERED SKILLS OR CONTENT.

### **"GAMES/TECHNOLOGY" WORK STATION OPTIONS:**

- Everyday Mathematics games
- math board games or card games
- flashcard practice games
- online games or simulations:
  - Online EM Games
  - Khan Academy
  - Sheppard Software
  - ST Math
  - TenMarks
  - ALEKS

...TIED TO DAY'S NEW LEARNING OR STANDARDS.



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