

# Procedure:

## Boardwork Rotation Utilizing Makeshift Whiteboards (can be adapted to other subjects)

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### Benefits:

1. Students get INSTANT, *real time* feedback on whether they understand a concept, procedure, task, or algorithm BEFORE THEY LEAVE FOR THE DAY and BEFORE THEY GO HOME TO DO HOMEWORK.
2. Students do similar problems to the homework if the teacher purposely, carefully selects problems designed to help with or match the homework. Students generate problems on paper to refer to once they're at home doing the homework.
3. Students see other students working problems as they themselves work them, and therefore students have the opportunity to learn from other students' strategies/methods.
4. The teacher gets instant knowledge about who knows what, and the teacher can then modify the next day's instruction and learning activities accordingly.

### Cautions:

1. The learning environment has to be incredibly safe, emotionally speaking. You might pair up students at the board. Also, please see Step 9 at the end of this document for ideas about accommodating students needing significant help.

2. The groups need to transition to and from their seats quickly. This may require practice and training.

### **BOARDWORK PROCEDURE STEPS:**

1. For every four students that you teach in the class, ahead of time select one problem for that group of four to work at the board. In other words, if you have 35 students, then divide by 4 and prepare 12 problems (one for each group of four) to be worked at the board. If you have 28 students, then prepare 7 problems for 7 groups of four to work at the board.
2. Ask all students to take out their math spiral or note-taking folder and their individual whiteboard. This can be a makeshift whiteboard which is a heavy duty sheet protector containing a piece of white cardstock.
3. Make sure each student has a whiteboard marker and an eraser. It is best to have included the whiteboard marker on the student supply list. Otherwise, the teacher can maintain a classroom set of whiteboard markers. Socks from the dollar store can function as a classroom set of whiteboard “erasers” or the teacher can order a classroom set of tiny whiteboard erasers or use inexpensive, tiny cloths.
4. Call the first group of four students to the large board at the front of the room.
5. Call out or display (the same) one problem for all four of the students to work. Seated students will work the problem IN THEIR MATH NOTEBOOK FOR FUTURE REFERENCE (e.g. for review once at home doing homework), and will copy their final answer on their individual whiteboard.
6. Students at the front board who need assistance may seek assistance from another student in the class.

7. As the teacher, observe and or take notes on student work at the board. Allow your observations to inform upcoming instruction.
8. Once students have had sufficient time to work the problem, ask for seated students to hold up their whiteboards for your quick review. Discuss the work of the students at the front board. Discuss any alternative solutions, thoughts, questions, etc. Have students make any needed corrections to their work. Seated students correct any errors in their math spiral, and students at the board correct any errors on the board.
9. Call up the next group of four students and repeat the process until you've seen all desired students working at the board. **It may not be appropriate to call some students to the board. It might work to only call certain students to the board in a pair (with a helper student). This can be done discreetly if the helper student is one of the 4 students called to the board in the same group with the student who needs significant help/support. Then, the helper student can just discreetly slide next to the support-needing student and help.**