

## **Intervention Strategies for Teaching Math**

### ***#1 Identify:***

- ❖ Use Formal and Informal Assessments. No single instructional strategy is more important than effective, appropriate, and informative assessment. Teachers need to be informed about their students' understanding and mastery of content.
- ❖ Use informal techniques frequently during class to gauge student understanding.
- ❖ Use questioning that focuses on student thinking and reasoning to help you monitor your students.
- ❖ Incorporate writing activities and group work to observe student thinking and identify misconceptions and gaps in understanding.
- ❖ Have students illustrate concepts using drawings, graphs, and models.
- ❖ Integrate Warm-Up Activities. Students may need intervention because they have not fully mastered prerequisites. Warm-up activities can review prerequisites and to gauge student mastery. This will also allow time to circulate among students and have conversations/discussion that can be used as valuable informal assessment opportunities.
- ❖ Use writing in math instruction. Having our students write in math can help identify areas of misunderstanding and gaps in understanding. Let them describe steps and processes to check for understanding. This could be especially helpful for struggling students who may be inclined to stay quiet during discussions.
- ❖ Assign Application Problems. Teachers need to utilize a variety of techniques to gauge depth of understanding in students. Students who have some understanding of a concept may do well on an assessment, but the lack of mastery of a concept can be illuminated using application problems. This is especially important prior to moving on to a new concept.

### ***#2 Address the Issues:***

- ❖ Use Small Groups and/or Student Pairs. These can be less intimidating for struggling students who may be insecure about their abilities or unmotivated. These students are more likely to ask questions and admit confusion when working in small groups or with another student. Students can also benefit from explanations from fellow students. Small groups should be formed that will be conducive to discussion and support.
- ❖ Differentiate Instruction. Many of our students who need intervention struggle to learn concepts because they may not be able to grasp abstract

concepts. Teachers must vary instructional techniques to best address the learning styles of struggling students. The more varied instructional strategies we incorporate into our lessons, the more likely we will be able to reach all students.

- ❖ Incorporate Multiple Representations. When introducing a new concept, use as many representations of the concept as you can. Use manipulatives, models, real-life examples, technology, and symbolic representations.

- ❖ Emphasize Real-life Applications. This can help students see the value and application of math. By relating a math topic to something relevant in a student's life, it can help increase interest and help to make the topic more meaningful. By increasing their interest, you can help increase their motivation.

- ❖ Consider Seating Arrangements. Strategically seat your struggling students in the best location in your classroom, where they feel most comfortable, can focus on the lesson, and may benefit from peer practice and cooperative learning.