

# **10 POWERFUL** & easy **SECONDARY** MATH **INTERVENTION STRATEGIES**

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# 10 POWERFUL & easy SECONDARY MATH INTERVENTION STRATEGIES



### how to get the most out of this guide

This guide will help take the guesswork out of what small tweaks or strategies you can add to your teaching toolbox so you can help each and every student actually get the math.

On the next page you'll find the quick list of the 10 math intervention strategies. On the subsequent pages you'll find more detail on each of the strategies as well as examples of how you can try them in your classroom.

I truly hope this resource helps make your math lessons and activities more accessible and engaging for your students who struggle most with mathematics. I've been exactly where you are and let me tell you... you really can make secondary math accessible for all of your students.

juliana

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# **10 POWERFUL**

## & easy

# **SECONDARY MATH INTERVENTION STRATEGIES**

- Break down worksheets into sections or chunks
- Graphic organizers
- Graph paper or printed grids
- Create a separate worksheet for word problems
- Focus on one problem at a time
  - Provide organized extra space to work

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- Manipulatives
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  - Remove speed pressure
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- Encourage student "self-talk" through problems
- Use of calculator





#### Break down worksheets into sections or chunks

Remember that your students have seen the same 15 problem worksheet 2, 3, 4 times already. They've given up every other time. Give them something different in your classroom.

Try
Cutting the worksheet into 3 parts of 5 questions each. Add a little reward for students at the finish of each chunk to really encourage



#### **Graphic Organizers**

Try printed closed notes or digital notebooks for your students. When they just need to add in a few words and examples as you deliver your lesson, they'll be more likely to follow along and not feel so lost. It will be helpful for them to have clear expectations about exactly what they should take notes on and how.

Instead of	Try
A blank paper for students to take notes on during your instruction	<b>POWER TIP</b> : Ask students to fold a blank piece of paper into 8 boxes (hot dog way once, hamburger way twice) and label the boxes 1-8. This creates an instant graphic organizer (with no need to wait in the copy machine line every morning!) for students to follow along clearly with you.

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#### Graph paper or printed grids

Asking students with dysgraphia or visual spatial disorders to "sketch a grid" or create a graph is not only painfully time consuming, but very difficult.

Instead of	Try
Asking students to sketch a grid or axes	Print grids on their notes paper or have graph paper handy.
	<b>POWER TIP:</b> Search amazon for grid stickers. Have these handy for students to stick on their notes paper whenever a grid is needed!

*\*Graphing digitally?* Make the grid the slide or doc background so students don't accidentally click and move it while trying to plot points and graph.

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#### Create a separate worksheet for word problems

Remember that word problems can ignite a lot of fear and anxiety in our students.

Instead of	Try
A worksheet mixed with traditional problems and word problems all together	Print the word problems separately from the rest of work and give lots of space for students to guess and check.





#### Focus on one problem at a time

If there are a lot of problems in the workbook or on a worksheet, it might be too visually overwhelming for students and make them shut down and not even attempt to start the problems.

Instead of	Try
Assigning workbook pages filled with an overwhelming amount of math problems	Give students activities that encourage work on one problem at a time. If a pre-printed visually overwhelming worksheet is unavoidable, encourage students who get frustrated easily to cover up upcoming problems to help them focus on just one or two problems at a time.

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#### Provide organized extra space to work

Textbooks and workbooks were - for the most part - not created with students who struggle in mind. On our screen the resource might look like it has plenty of blank space to show work, but in reality our students may need even more space.

Instead of	Try
Assigning workbook pages or worksheets filled with an overwhelming amount of math problems and not enough blank space to solve	Try the power tip in accommodation #2 to quickly create a graphic organizer without a trip to the copy machine! Ask students to show all work on this organized extra sheet of paper to turn in with the assignment.



#### Manipulatives

Many of our students with learning disabilities need a kinesthetic opportunity. Here are a few of my favorites for secondary math students:

Physical manipulatives	Math Activities that are kinesthetic
<ul><li>Two sided counters</li><li>Algebra tiles</li><li>Number lines</li></ul>	<ul> <li>Matching activities (ex: match a set of linear equations, graphs, and tables together)</li> <li>Card sorts (ex: group the tables into two piles: linear and nonlinear)</li> </ul>



#### **Remove speed pressure**

Timed math fact quizzes push math anxiety through the roof for our students who struggle. While we can't take forever for every student, encourage accuracy over time as much as possible.

Instead of	Try
Timed math fact quizzes	Allowing students the time they need to complete an assignment and encouraging accuracy first and foremost.



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#### Encourage student "self-talk" through problems

You may need to model what "self-talk" during math problem solving sounds like to your students first. This will help your students who struggle get an inside look at how to approach problem solving independently.

Instead of		Try
Solving problems on the bo students quickly and silently	ard for /	Model how to think out loud for your students while you're solving problems during instruction. Count on your fingers so they don't feel embarrassed if they need to use their fingers during a problem either. Explain your reasoning. Share if you think you made a mistake.



If you have students with IEPs, it's likely written into their accommodations that they can use a calculator. You do not need to spend hours (or days or weeks) teaching them how to multiply a negative and positive or other basic operations. Use the calculator. This will allow you to move on to more grade level appropriate content and give a HUGE boost to the students confidence!

Instead of	Try
Taking hours, days, or weeks of lesson time to cover basic math operations at the secondary level	Using the calculator.



# teacher friend, im so glad youre here!

#### Let's connect!



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hey, im juliana

I'm a former high school math intervention teacher and Algebra 1 co-teacher who left the classroom to provide engaging and applicable workshops, resources and support for fellow secondary math teachers working with students below grade level. I'm also an instant pot enthusiast, prefer chai to coffee, and love 2000's hip hop and Christian pop equally.

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