UNITED EDUCATION CONSULTANTS

Mathematics Instruction Planning & Implementation Guides for Students with Down Syndrome

My student's mathematics learning objective/goal is: _____

I can leverage my student's knowledge and skills in the following math content to support their success: _____

Planning Questions	Ideas to Consider	Notes
What is my learning/teaching focus?	☐ Use Continuous Formative Assessment ☐ Use Coherent & Connected Math Content ☐ Integrate Conceptual Understanding & Procedural Fluency ☐ Engage in the Mathematics Processes	
What area(s) of difficulty might present barriers to my student's learning success given the learning/instructional focus?	☐ Motor Skills ☐ Expressive Language ☐ Verbal/Auditory Short-term Memory ☐ Number Skills ☐ Other	
What areas of strength can I leverage to promote my student's success given the learning/instructional focus?	☐ Social Interaction ☐ Empathy ☐ Visual Inputs & Short-term Memory ☐ Self-help/Daily Living Skills ☐ Word Reading/Vocabulary Acquisition ☐ Technology Oriented ☐ Other	
Which research-supported practice(s) can I use to promote my student's learning given the learning/instructional focus?	☐ Peer Tutoring/Structure Collaborative Groups ☐ Authentic Contexts ☐ Purposeful Use of Technology ☐ Game-Based Learning ☐ Structured Language Experiences ☐ Visuals ☐ Explicit Systematic Instruction ☐ Metacognitive Strategy Instruction	
Which math processes/practices are best to engage my student in given the learning/instructional focus?	☐ Problem Solving ☐ Reasoning and Proof ☐ Communication ☐ Connections	

	☐Representation	

Math Implementation Plan for Students with Down Syndrome

Implementation Plan Area	Description/Notes
I am going to leverage my student's math knowledge and skills in _____ to support their success with the mathematics objective/goal by:	
Given my learning and teaching focus of _____, I am going to do the following to improve my student's abilities related to the mathematics objective/goal by:	
I am going to accommodate my student's pertinent area(s) of difficulty, _____, by:	
I am going to leverage my student's pertinent strength(s), _____, by:	
I am going to implement my selected research-supported practices of _____ _____, by:	
I am going to engage my student in my selected math process(s) of _____ to support my student's success with the math learning/	

teaching goal by:	

Supporting Information

Checklist for Considering How to Accommodate My Student's Areas of Difficulty Based on the Mathematics Learning Goal/Objective

Area of Difficulty	Possible Accommodations
Motor Skills	☐ Provide manipulatives/concrete objects that my student can easily grasp and manipulate (e.g., larger size, foam instead of hard, etc.) ☐ Make adaptations for tasks that involve the use of a pencil or pen (e.g., pencil grip, large-size pencils/pens, etc.) ☐ Make space adaptations to make writing/drawing easier (e.g., highlight areas to be filled, larger spaces where responses are to be written, etc.) ☐ Provide *sentence stems* with blanks for writing in important words/vocabulary when engaging students in math discourse/explanations/discussions. ☐ Consider technology-related accommodations that do not require written responses (teach keyboarding skills, speech-to-text software, physical mouse instead of a trackpad on a computer, etc.) ☐ Other _____
Expressive Language	☐ Instead of expecting a student to initially respond verbally or in writing to an open-ended question, provide the student with choices that they can point to or select (**Tips:** *no more than 2-3 initially, ensure the difference between the correct and incorrect choice(s) is significant initially; then scaffold to a larger number of choices – 4 or 5- and differences between choices that are less significant*). ☐ Provide *sentence stems* with blanks for important words/vocabulary students express verbally when engaging students in math discourse/explanations/discussions (**Tip:** *provide the student with choices – see above*). ☐ Use computer/tablet/phone text-to-speech software. ☐ The teacher responds to the question/prompt and asks the student to identify the extent to which the teacher's response or explanation is accurate using a rubric or scale (e.g., yes/no; not at all/some/perfect, etc.). ☐ Engage the student in using manipulatives/drawings to represent their thinking. ☐ Other _____
Verbal/Auditory Short-Term Memory/Working Memory	☐ Reduce the number of verbal directions. ☐ Break up tasks that require verbal input on the part of the student into chunks (complete one chunk at a time with wait time between chunks). ☐ Provide visual supports that represent verbal directions (e.g., written key vocabulary, written directions, pictures, etc.). ☐ Embed mathematics instruction within contexts that are relevant and meaningful to the student. ☐ Frequently check for understanding. ☐ Emphasize the **V**, **K**, & **T** of "VAKT" (**V** – visual, A – auditory, **K** – kinesthetic, **T** – tactile) ☐ Provide multiple opportunities to respond/practice a mathematics task/activity. ☐ Reduce distractions.
Other	☐ _____ ☐ _____