ASSISTIVE TECHNOLOGY RESOURCE GUIDE:



MATH

What is available to support math?

Math can be a difficult area to accommodate through assistive technology. Teachers often want to make sure that the technology is not "doing the work" for the student but rather helping them to do their work. Supports with math can help students with decoding the information in front of them and understanding it, encoding their responses, organizing their work, physically being able to participate, and more.

What types of students might benefit?

Some students who may benefit include those who use text to speech for reading in other areas, students who have difficulty writing (either legibility or organization), students who are blind (tactile supports), students with lower cognition who have increased understanding with concrete supports. Also, remember that math skills are also used in other classes such as science, art, and social studies.

How does it help?

Tools for math can support comprehension of words in word problems, being able to interpret what is on the page as well as being able to express and demonstrate what you know. Tools for math can also help to augment instruction (i.e. using manipulatives or visualizing software) for all students under UDL. Some curriculae come with manipulatives which can be used for all students and may be assistive technology for certain students.

Who can be a support on your team?

Math teacher, science teacher, IEP team, parent, student

Math Skills to Consider:

- Identify numbers
- Use number concepts
- Complete basic calculations
- Complete complex calculations
- Complete math word problems
- Use time concepts
- Use money concepts
- Use measurement concepts
- Use geometric concepts
- Use fractions and decimals
- Use and interpret data
- Explain knowledge of mathematical process

Common Classroom Tools:

- Calculator
- Computer/tablet/word processor
- Document camera

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- Formula sheet
- Graph paper
- Interactive whiteboard
- Manipulatives
- Math chart
- Math drawing tools
- Math fact sheet
- Number line

Common Accommodations/Modifications/Strategies:

- Change assignment format
- Change complexity of material
- Color-code operation symbols and/or text
- Decrease assignment length
- Dictionary of math terms
- Group similar problems together
- Have students verbalize the process
- Increase print size
- Increased time
- Peer/adult assistance
- Provide additional spacing between problems
- Re-phrase vocabulary in word problems
- Turn lined paper vertically for ready-made columns

Assistive Technology Solutions:

- Adapted paper
- Tactile graphics
- Calculator
- Alternative calculators
 - talking
 - on-Screen
 - o braille
 - o money
- Talking watch/clock
- Device, Software or App
 - equation editors
 - o math translator
 - o document scanner
 - o electronic math worksheets
 - o graphing
 - o color identifier
 - money identifier

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- Adapted measuring devices
 - measuring cups
 - o talking tape measures
 - rulers
 - compasses or protractors
 - thermometers

Products mentioned below are examples of available items. Their listing in this guide is not an endorsement or suggestion for purchase. Consideration of the tool should be individualized to each student.

Example Products



Desmos

https://www.desmos.com/



Math Talk
https://mathtalk.com/



Panther Math http://panthertechnology.com/



Geogebra https://www.geogebra.org/



Math Magic http://www.mathmagic.com/ https://www.maxiaids.com/



Talking Calculator



Equatio

https://www.texthelp.com/en-us/products/equatio/