

## Strategies for Supporting Students with ASD in Math

Students with Autism have the following concerns related to learning math:

- a disability of interconnectivity, resulting in problems with connection of information
- have problems sequencing information (algebra is often harder than geometry)
- are slower processors of information
- don't generalize well
- have difficulty defining relevance (all details on a page have the same relevance)
- have difficulty with the abstract vocabulary such as more, less, and enough - those need to be defined
- need support for organization
- may have directionality issues, so working left to right is not automatic
- may have difficulty with writing

Helpful strategies:

- Highlight or bold relevant or critical information.
- Simplify directions and provide definitions of abstract words such as more, less, and enough. For example, are there items left over? Are there extras or no extras?
- Instructions from the teacher need to provide the sequence of what to do and those steps need to be written out (and for some students, have them check off each step).
- Provide visual aids to illustrate steps in computation.
- Provide lists of steps for processes, such as cue cards or reference cards.
- Clearly code worksheets so the student knows which reference sheet to use at which time.
- Provide visual cues (i.e., color coding, highlighting tape, post it notes, page flags) as to where to locate information in a text if a student needs to refer back to the text.
- Use color coding for different steps or for order of operation or for grouping like operations (colored highlighters, highlighting tape, colored post-its, etc.).
- Use manipulatives.
- Provide fact sheets.
- Allow use of a calculator.

- Limit amount of information on one page, or provide "focus frames" to show only one problem at a time.
- Increase allowable time on each assignment.
- Make adjustments in how much students are expected to learn at one time (may need two years for a typical one year math class) and where they learn it (may need to be smaller group, quieter setting).
- Use Multiple Choice or Fill in the Blank. Do not use True-False questions (there are too many details and meaning may be implied).
- Add motor movement to activities (i.e., Action Based Learning).
- Use songs to help with memorization tasks.
- Encourage self-correction when reading for meaning.
- Students may need repeated practice using different strategies.
- Use the student's interests to engage them, even if it is just a character picture on a page.
- Use rewards for engagement.
- Suggestions for word problems:
  - Make pictures to visually represent word problems or graphically represent word problems.
  - Consider changing names in word problems to be familiar names.
  - Provide visual cues (i.e., color coding) for the relevant information in a word problem.
  - Remove unnecessary words and adjust pronouns in word problems to clarify.
- If a student struggles with handwriting, consider modifications in how written work is completed (i.e., using computer programs).