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| **Learning Area** | **Types of Tasks that Students Need to Carry Out in Learning Mathematics\*** | **Student Difficulties***What others would you add to the list?* |
| **Conceptual** | * Moving from concrete to abstract
* Making generalizations
* Determining rules
* Identifying and extending patterns
 |  Thinks concretely and has difficulty generalizing  |
| **Language** | * Reading text
* Writing explanations
* Understanding and using math vocabulary
* Participating in class discussions
 |  Difficulty understanding written directions  |
| **Visual-Spatial** | * Aligning numbers
* Interpreting and making graphs
* Working with 2-D and 3-D representations
* Copying from board and book
 |  Difficulty interpreting coordinate graphs  |
| **Organization** | * Collecting and recording data
* Sequencing and carrying out procedures in a multi-step problem
* Finding information in prior student work
* Completing long-term assignments or projects
 |  Disorganized approach to problems leads to errors  |
| **Memory** | * Recalling previously learned information from long term memory, such as retrieving math facts
* Keeping pieces of information in one’s head (working memory) to solve multi-step problems
* Remembering the sequence of steps in a mathematical procedure
 |  Makes frequent errors when retrieving information  |
| **Attention** | * Sustaining the attention needed to carry out multi-step investigations
* Focusing on the details in math problems
* Attending to other students’ explanations
* Sitting for extended periods
 |  Speeds through tasks and makes many careless errors  |
| **Other** | * Using fine motor skills for making tables, graphs, diagrams, etc.
* Using social skills for working cooperatively with classmates in pairs or groups
* Working independently and moving through a frustration point
 |  Works very slowly and with difficulty on tasks that involve fine motor skills.  |

\*This list is based on analysis of tasks in several middle school mathematics curricula and research on the math difficulties of students with disabilities. The table provides some examples and is not meant to be a comprehensive list.