Table P. Student Characteristic: Specific Learning Disability: Oral Expression and Listening Comprehension

■ Symbol represents accommodations that can be considered as use of Assistive Technology

Accommodation Category	Consider the following accommodations for use in
	instruction*
Presentation	Read Aloud/Oral Presentation/ Accessible Educational Materials
光 Computer-based instruction	Audio tape/CD/Digital Reader
	Screen Reader
	Video tape
	Picture Supported Text
	Visual cues
	 Phonological Awareness Activities: Such as rhyming games; identifying/sorting pictures that Rhyme
	 Phonemic Awareness Activities: Such as tapping out words in
	sentences, clapping the number of syllables, games to identify initial, medial and final sounds
	Alphabet games
	Letter/sound games or activities
	 Narrative Skill Development: such as sequencing activities (arranging picture cards to illustrate a story or series of events)
	Model Summarization strategies; teach summarization
	Cooperative learning structures
	Rephrase with only important elements
	 Use story maps or graphic organizers for sequencing, retelling or summarizing
	Story grammars
	Visualization strategies with verbal description
	 Read-alouds using Pre-taught vocabulary; students draw, write, and/or orally respond
	Questioning for comprehension and expression
	 Model making connections to prior knowledge and experience (e.g. picture walk, KWL chart)
	Recorded books, Mp3 players, other electronic
	reading devices
	Give short and simple directions with examples
	Use nonverbal signals
	Repeating directions
	Restate directions

- Text highlighting for oral response
- Capitalize on student interests
- Personal FM system
- Clarify directions (rephrase, explain)
- Clarify test questions (rephrase, ask the question in a different format instead of open-ended response choices)
- Visual aids (provide written directions, graphics, diagrams, color coding, highlighting)
- Provide captioned versions of videos
- Provide guided notes
- Provide note-taking assistance or app
- Use hand-held microphone to pass around the class during class discussions
- Repeat questions and answers from students
- Provide graphic organizers
- Break long assignments/projects into steps; provide a model of the finished project
- Make eye contact with child before giving directions
- Give short, simple directions; avoid verbal overload
- Preview important vocabulary and key concepts prior to a lesson
- Use advance organizers (Advance organizers used in reading may involve a preview of the objectives, topics and subtopics, questions, or the chapter summary.)
- Provide study guides, review packets
- Use demonstration and hands-on activities

Response

Resource:

National Center on Accessible Educational Materials http://aem.cast.org/about#.VfYWOmzn ZyQ

See CDE Specific Learning Disability webpage:

http://www.cde.state.co.us/cdesped/s

- Write in test booklet instead of on answer sheet
- Monitor placement of student responses on answer sheet
- **X** Use materials or devices used to solve or organize responses
- **光** Use visual organizers
- **X** Use graphic organizers
- Use mnemonic devices to aid memory
- Retelling stories; paraphrasing
- Allow for class presentations to be given individually to the teacher or to a small group
- Allow child to record class presentation at home and provide teacher the video to assess
- Allow child to use assistive communication device to respond
- Add to the child's response by extending it and expanding it.
- Allow "processing time" for children to respond
- Allow amplification such as hand held microphone for responses

<u>d-sld</u>	Have script of child's speech/ presentation on an overhead
Also see Glossary of Instructional Accommodations	 projector while student reads or delivers speech Allow child to use note cards for class presentations to organize
	thoughtsGrammar checker/ spell checker
	Allow non-verbal responses (pointing, gestures, pantomime, eye
	gaze responses)Highlight key words in directions
	 Have student repeat and explain directions to check for understanding

Table P. Student Characteristic: Specific Learning Disability: Mathematical Calculation and Problem Solving

X Symbol represents accommodations that can be *considered as use of Assistive Technology*

Accommodation Category	Consider the following accommodations for use	
	in instruction*	
Presentation	Frame mathematical instruction in growth-mindset	
	Encourage positive self-talk	
	Set purpose for learning	
	Provide positive reinforcement	
	Create a safe-learning environment	
	Reduce emphasis on peer competition and perfection; use	
	personal growth models and ongoing revision and learning	
	as models of a differentiated, flexible, relaxed learning	
	community	
	Repeat directions/instructions	
	Simplify directions/instructions	
	 Read aloud text/problems, repeat, review 	
	 Reduce number of items on a page/practice items to improve focus 	
	 Use masking to reduce visual load or fold paper to limit amount of text visable 	
	Reduce amount of work required; focus on quality of	
	answer not quantity	
	Provide extra processing time for learning new	
	procedures/concepts	
	Require verbal and written expression of thinking/problen	

- solving steps/reasoning
- Use multiple modalities for instruction (Auditory, Visual, Kinesthetic)
- Make learning relevant/Connect examples to student's daily life
- Sequence instruction from concrete, to representational, to abstract; use concrete examples to teach abstract concepts
- Use tangible/concrete materials/ manipulatives to illustrate concepts
- Use Collaborative Learning Structures
- Use multi-sensory strategies
- Use hands-on activities
- Explicitly teach academic vocabulary
- Use math word walls with visuals; teach key words with multiple application and teach how to use, model, and encourage student use to check work
- Use and allow ongoing access to anchor charts with examples and non-examples;
- Use Advance organizers
- Provide outline of lesson materials, steps for problems, concept maps, prior to instruction
- Explicitly model and draw attention to critical features and mathematical relationships
- Explicitly teach purpose and application of mathematical models and tools; teach use of knowns and unknowns for strategy selection
- Provide multiple strategies for skill instruction
- Provide guided notes
- Pre-teach important concepts and vocabulary before lesson; use visual reminders (e.g. concept maps, pictures, etc.)
- Connect to prior learning and background knowledge, use culturally relevant and developmentally appropriate examples
- Provide frequent opportunities for cumulative and distributed review of rules, facts, formulas, strategies, etc.
- Provide immediate corrective feedback
- Use written prompts and cue sheets to support independent sequencing and chunking (breaking tasks/assignments/problems into smaller segments)

- Small group instruction
- Ensure mastery prior to independent practice
- Use checklists for solving word problems
- Teach math "tricks": mnemonics, stories, rhythm or music, and use visual cues to teach rules or facts
- To encourage operation sense and reduce confusion use color-coding/different fonts for operation symbols
- Record lesson for review; provide access to student
- Break long assignments and lengthy sequences into shorter assignments and/or part/steps
- Provide study guides and review packets
- Highlight essential components in texts, worksheets, problems
- Teach self- monitoring (self-questioning, self-evaluation) and self-regulation strategies
- Connect learning to real-life examples
- Pre/teach and/or review pre-requisite skills/component skills prior to teaching new concepts with complex processes or multiple steps(e.g. order of operations for use in algorithm);
- Encourage use of models, drawings, etc., when solving problems
- Encourage reading aloud to self/sub-vocalization during problem solving
- Teach coding (using symbols, colors, underlining and/or highlighting) to determine and highlight critical components of problems
- Encourage note taking; allow use of note during assessments
- Provide cloze notes and/or teach note-taking procedures during direct instruction
- Teach and Use two-column notes strategies to assist with review of concepts/test-taking
- Allow use of computing devices for problem solving
- Provide desk and pocket size tools, e.g., multiplication and measurement tables; number lines, addition tables, bar models; fraction/decimal conversions0
- Monitor progress frequently to ensure appropriate application and encourage student to set goals based on data
- Use flexible grouping(i.e., heterogeneous grouping for collaborative structures based on strengths to minimize

barriers of disability; match groupings with instructional intent) Provide environmental accommodations: quiet space with minimal distractions for independent work; head phones, or earplugs, study carrels; Be consistent with classroom routines and procedures to help focus attention on mathematics Encourage use of calculator to check work Allow talking calculators **光** Use technology: e.g Computer Algebra Systems, online tools, digital manipulatives 器 Use tablets and apps for note-taking; procedural/conceptual review, frequent practice, and **光** Computer-assisted instruction for highly, structured systemic tutorials and independent practice with immediate feedback **Collaborative Learning Structures** Response Allow choice in solving problem strategy Allow for class presentations to be given as a group Interactive notebooks Resource: Cloze notes/ two-column notes other assisted note taking http://www.cde.state.co.us/cdesped/SLD.asp strategies **Calculation Devices** Manipulatives **Visual Organizers Graphic Organizers Mnemonics for Problem Solving**

Math Tables and formula sheets

Extra time

solving

Guided notes (e.g., cloze/2-column, highlighted, etc.)

Extra Space on worksheets/assessments for problem