Learning Disabilities

Handbook for Parents and Teachers

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Students Support Services
Saskatchewan Rivers Public School Division (SPRSD) #119
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MESSAGE TO PARENTS

Does your child find learning difficult? Does he or she avoid reading out loud, writing a paragraph, or solving a math equation? Every child has trouble with homework from time to time. However, if a certain area of learning is consistently problematic, it might indicate a learning disability.

Learning disabilities, or learning disorders, are an umbrella term for a wide variety of learning difficulties. It is important to clarify that learning disabilities are not a problem with intelligence or motivation. Students with learning disabilities are not lazy or unintelligent. In fact, most are just as smart as everyone else. Their brains are simply wired differently. This neurological difference affects how they receive, process, and/or store information.

It can be very difficult to face the possibility that your child has a learning disability. No parent wants to see his or her child struggle. You may worry about what this disability could mean for your child’s future, or wonder about how your child will make it through school. The important thing to remember is that students with learning disabilities are just as smart as everyone else. They simply need to be taught in ways that are tailored to their unique learning styles. By understanding all you can about learning disabilities, you can ensure your child gets the proper help to overcome classroom challenges and succeed in life.
OFFICIAL DEFINITION OF A LEARNING DISABILITY

In Canada, each province has authority over its education system. There is no federal legislation regarding diagnosis of learning disabilities (LDs). Consequently, the definition of LD has varied over time, across jurisdictions, and among disciplines. Most Canadian provinces accept the LD definition endorsed by the Learning Disabilities Association of Canada (LDAC; Price & Cole, 2009). The Saskatchewan Ministry of Education (2009) and the Saskatchewan College of Psychologists (2011) have both referenced this definition. Please see below.

Learning Disabilities refer to a number of disorders which may affect the acquisition, organization, retention, understanding or use of verbal or nonverbal information. These disorders affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking and/or reasoning. As such, learning disabilities are distinct from global intellectual deficiency.

Learning disabilities result from impairments in one or more processes related to perceiving, thinking, remembering or learning. These include, but are not limited to: language processing; phonological processing; visual spatial processing; processing speed; memory and attention; and executive functions (e.g. planning and decision-making).

Learning disabilities range in severity and may interfere with the acquisition and use of one or more of the following:
- oral language (e.g. listening, speaking, understanding);
- reading (e.g. decoding, phonetic knowledge, word recognition, comprehension);
- written language (e.g. spelling and written expression); and
- mathematics (e.g. computation, problem solving).

Learning disabilities may also involve difficulties with organizational skills, social perception, social interaction and perspective taking.

Learning disabilities are lifelong. The way in which they are expressed may vary over an individual’s lifetime, depending on the interaction between the demands of the environment and the individual’s strengths and needs. Learning disabilities are suggested by unexpected academic under-achievement or achievement which is maintained only by unusually high levels of effort and support.

Learning disabilities are due to genetic and/or neurobiological factors or injury that alters brain functioning in a manner which affects one or more processes related to learning. These disorders are not due primarily to hearing and/or vision problems, socio-economic factors, cultural or linguistic differences, lack of motivation or ineffective teaching, although these factors may further complicate the challenges faced by individuals with learning disabilities.

Learning disabilities may co-exist with various conditions including attentional, behavioural and emotional disorders, sensory impairments or other medical conditions (LDAC, 2015).
CAUSES OF LEARNING DISABILITIES

Learning Disabilities (LDs) are believed to affect 5 to 10 percent of Canadians (Integra, 2009; Price & Cole, 2009). They are the most common form of disability for children ages 5 to 14 years (Stats Canada, 2006). No one knows exactly what causes LDs. However, the following are believed to be probable causes (Alberta Association for Learning Disabilities, 2010):

**Pregnancy and Birth Problems**
In some pregnancies the mother’s immune system attacks the unborn child as if it were an infection. This complication may cause newly formed brain cells to settle in the wrong part of the brain. Also, during delivery, the umbilical cord may become twisted and temporarily cut off oxygen to the fetus. This disruption can impair the child’s brain function and lead to development of learning problems.

**Tobacco, Alcohol, and Other Drug Use During Pregnancy**
Research shows that a mother’s use of alcohol, cigarettes, or other drugs during pregnancy may have damaging effects on the fetus.

**Genetic Link**
Children with LD are likely to have a parent with LD. However, a parent’s LD may take a slightly different form in the child. For example, a parent who has a writing disorder may have a child with an expressive language disorder. For this reason, it seems unlikely that specific LDs are inherited directly. It’s possible that a subtle brain dysfunction is inherited that leads to LD.

**Environmental Toxins**
Researchers believe that children who are exposed to environmental toxins such as cadmium and lead may cause neurological dysfunction.

“LDs are not caused by factors such as cultural or language differences, inadequate or inappropriate instruction, socio-economic status or lack of motivation, although any one of these and other factors may compound the impact of LDs” (INTEGRA, 2009, p.6).
COMMON SIGNS OF LEARNING DISABILITIES

Learning disabilities look very different from one student to another. One individual may struggle with reading and spelling, while another loves books but cannot understand math. Still another student may have difficulty understanding what others are saying or communicating out loud. These problems are very different from one another, but they are all examples of LDs.

It is not always easy to identify LDs. Because of the wide variations, there is no single symptom or profile that you can look to as proof of a problem. However, some warning signs are more common than others at different ages. If you are aware of what they are, you will be able to quickly take steps to get your child the help they need.

The following checklist lists some common warning signs for LDs. Remember that people who do not have LDs may still experience some of these difficulties at various times. The time for concern is when there is a consistent unevenness in your child’s ability to master certain academic skills.

INFANCY
- Trouble with nursing, sucking, or digesting
- Resistance to cuddling and body contact
- Lack of or excessive response to sounds or stimulus
- Trouble following movements with the eyes
- Frequent ear infections
- Unusual sleep patterns
- Delays in sitting, standing, walking, and/or talking
- Irritability

PRESCHOOL
- Speaks later than most children and/or has immature speech patterns (Developmental norms are provided online by the American Speech-Language-Hearing Association, www.asha.org/public/speech/development/child_hear_talk.htm)
- Slow vocabulary growth, often unable to find the right words, pronunciation problems
- Difficulty rhyming words
- Trouble learning numbers, the alphabet, the days of the week, colours, and shapes
- Extreme restlessness and easily distracted
- Trouble interacting with peers
- Difficulty following directions or routines
- Difficulty with dressing
- Fine motor and/or gross motor skills are slow to develop
- Exaggerated response to excitement or frustration
GRADES K - 4

- Trouble learning the connection between letters and sounds
- Unable to blend sounds to make words
- Confuses basic words (run, eat, want) when reading
- Makes consistent reading and spelling errors including letter reversals (b/d), inversion (m/w), transposition (left/felt) and substitution (house/home)
- Transposes number sequences and confuses arithmetic signs (+, -, x, /)
- Slow to remember facts
- Slow to learn new skills, relies heavily on memorization
- Impulsive, difficulty planning
- Unstable pencil grip, poor printing
- Trouble with the concept of time or learning how to tell time
- Difficulty cutting with scissors, colouring, and/or printing inside lines
- Cannot tie laces, button clothes, or get dressed
- Reads but does not comprehend
- Difficulty playing with more than one child at a time, may prefer to be alone
- Difficulty remembering the names of things such as seasons or months
- Does not understand the difference between concepts such as “up and down” or “top and bottom”
- Poor coordination
- Unaware of physical surroundings
- Prone to accidents

GRADES 5-8

- Reverses letter sequences (soiled/solid, left/felt)
- Slow to learn prefixes, suffixes, root words, and other spelling strategies
- Dislikes reading and writing
- Trouble with open-ended test questions and word problems
- Difficulty with handwriting
- Awkward, fist-like, or tight-pencil grip
- Slow or poor recall of facts
- Difficulty making friends
- Trouble understanding body language and facial expressions
- Difficulty expressing ideas and relating events in sequence
- Difficulty with math skills
- Poor organizational skills (e.g., messy bedroom, desk is disorganized)
- Trouble following classroom discussions and expressing thoughts aloud
HIGH SCHOOL STUDENTS

- Continues to spell incorrectly, frequently spells the same word differently in a single piece of writing, laborious handwriting
- Avoids reading and writing tasks
- Difficulty putting thoughts on paper
- Trouble with summarizing
- Trouble with open-ended questions on tests
- Weak memory skills
- Difficulty adjusting to new settings
- Works slowly
- Poor grasp of abstract concepts
- Either pays too little attention to details or focuses on them too much
- Misreads information, lacks logic, has poor reasoning ability
- Vulnerable to peer pressure, often the “scapegoat” in situations
- Difficulty organizing and/or concentrating on homework
- Rarely relates past events or experiences in sequence or detail

ADULTS

- Excellent verbal ability but cannot express thoughts on paper
- Mechanical aptitude but difficulty with reading, writing, or spelling
- Lacks social skills and has difficulty maintaining relationships or making friends
- Learns well when shown but cannot follow written and/or verbal instructions
- Feels constantly anxious, tense, depressed, and/or has a very poor self-concept
- Has difficulty organizing belongings, time, activities, or responsibilities

The presence of one or two of these signs may not be significant, but a cluster of these behaviors requires further assessment. It is never too early to seek help but waiting too long could be harmful.


For more information regarding common signs of learning disabilities please see:


TYPES OF LEARNING DISABILITIES

LD is an umbrella term for a broad group of neurological or brain-based disorders. LDs generally affect the way that a person takes in, stores and/or uses information.

LDs come in many forms and their effects are different from person to person. Typically, they interfere with:

• Getting information into the brain (input)
• Making sense of this information (organization)
• Storing and retrieving information (memory)
• Getting information back out (output)

Phonological Processing Problems and Reading Disabilities
Reading Disability (also known as Dyslexia) is the most common form of LD. It accounts for at least 80% of all LDs.

Unlike speech and language, reading is not instinctive. It must be taught. Reading requires the ability to decipher a phonetic (sound) code and to make sense of the relationship between written symbols (letters) and sounds. Dyslexia reflects a specific problem in processing individual speech sounds (phonemes) (e.g., the sss sound, the mmm sound, etc). There can also be problems with holding phonemes in sequence in short-term memory (e.g. holding the sequence of sounds in a new word in mind long enough to recognize it). Students with reading disabilities may also have difficulties with reading fluency, resulting in reading skills that are accurate but effortful and slow.

There is strong research evidence to suggest that reading disabilities are caused by impairment in phonological processing (i.e., processing the sounds of speech). Individuals with reading disabilities often have difficulty breaking words down into individual sounds (decoding) and/or blending sounds together to read words quickly and accurately. These decoding problems often result in reading comprehension problems (INTEGRA, 2009).

Language Processing Problems
Difficulties in understanding verbal information and/or in expressing oneself are a common feature of many LDs. These language-based problems may reflect a variety of factors, such as an underdeveloped vocabulary, a concrete style of thinking, difficulties in remembering and keeping track of what is said, or difficulties in organizing one’s thoughts. For students with a language-based LD, it can be hard to find the right words and phrases or to follow a fast-paced conversation. Language-based LDs may also get in the way of effective writing. It can be difficult for these students to know how to organize ideas or to identify the main point of a written communication (INTEGRA, 2009).
Memory Difficulties
Some students with LDs have problems with memory. These students are smart thinkers who may have trouble remembering what they see or hear or may struggle to retrieve what they know from memory. Memory impairments can be key factors underlying LDs in math, writing, or in reading, and are often problems for everyday life. Memory is a complex but important part of learning. There are many different theoretical models of memory. A simple but useful model differentiates between verbal memory, visual memory, and working memory.

Verbal Memory
Verbal memory refers to the ability to take in oral information (e.g., words, numbers, and sentences) and remember it. For example, we use this type of memory to look up a phone number and then dial it, or to remember the connection between the names of letters and their sounds. Verbal information can be stored with a limited capacity in short-term memory and can be converted to longer-term storage if actively rehearsed. Students with language based LDs may have trouble remembering math facts or remembering the order of math operations. Sometimes, verbal memory problems interfere with the ability to keep track of group conversations or to follow a lecture.

Working Memory
Working Memory refers to the ability to hold information in mind while reorganizing or manipulating it. This type of memory has a limited storage capacity: If overloaded, one usually loses track of the information in mind. We use this type of memory to multi-task, or to think about more than one thing at a time. Students with working memory problems may have trouble carrying out multi-step instructions or completing mental arithmetic problems. This type of memory can interfere with reading comprehension because it can be hard to keep track of story characters and plot lines while sounding out new words.

Visual Memory
Visual memory refers to the ability to take in visual information and to hold it in mind. Like verbal memory, visual information can be stored with a limited capacity in short-term memory and can be converted to longer-term storage if actively rehearsed. Students whose LDs reflect visual memory problems may have trouble remembering the differences between letters (e.g., ‘d’ and ‘b’ – both circles and sticks but one has to remember which side of the circle the stick is on). In school, they may struggle with visual-based subjects, such as mapping in geography, or labeling diagrams in science. Sometimes, kids with visual memory problems have trouble remembering faces.
**Visual-Spatial Difficulties**
Some students with LDs have problems in processing or making sense of visual-spatial information. Often, these individuals have strong sight reading or decoding skills. However, they may have trouble making sense of what they see (perception) or in organizing what they see (visual-spatial organization skills). Impairments in visual-spatial processing can make it harder to learn time/space concepts, such as telling time, understanding measurement, or interpreting charts and graphs. These types of processing impairments can affect one’s ability to ‘read’ body language and non-verbal cues, such as tone of voice, facial expressions, or personal space.

**Visual-Motor Processing Problems**
Visual-motor processing problems refer to impairments in the coordination of eye-hand movements and/or motor planning. People who have visual-motor problems may have trouble with activities such as printing, copying, and/or learning to tie shoelaces. They may find it hard to write. These students may put more pressure on a pencil or pen in order to control their motor movements. As a result, they may experience fatigue with writing and may take much longer to write. In addition, people with visual-motor problems may have trouble orienting their body in space and may need more help to learn dressing or may confuse left and right.

**Slow Processing Speed**
Some students with LDs need more time to process information. They are smart and have good ideas but may take longer than most to make sense of what is being said or to organize their thoughts. Sometimes, kids with slow processing speed are quick to think but need more time to write than most others. Problems with processing speed can make it hard to finish tests on time, to copy information from the board before it is erased, or to volunteer an answer in class.

**Executive Functioning**
Some students with LDs have trouble with tasks of executive functioning, a set of higher order skills that control and regulate other abilities and behaviors. Executive functions include the ability to start or stop actions, to monitor and change behavior as needed, and to plan or organize. Kids who struggle with executive functioning may have trouble inhibiting impulses. They may have a hard time anticipating consequences, being flexible, and adapting to new situations. They may also have difficulty applying what they have learned in one setting to new situations (generalizability) or may not be able to pay attention to how they are doing something (self-monitoring).
DEALING WITH LEARNING DISABILITIES

With the right support and intervention, people with LDs can succeed in school, in work, and in life. Listed below are some suggestions for parents and teachers.

AS PARENTS

 Acknowledge the Problem
Discovering a child’s LD is often a confusing and painful process for parents. Parents often have a hard time knowing whether their child has LD since learning difficulties can be subtle and difficult to pinpoint.

Parents may move through emotions like Kubler-Ross' (1969) five Stages of Grief. According to Kubler-Ross, initially, parents deny there is a problem and then rationalize why it’s not a problem at all. They then have to deal with the fear, the anger, and the guilt of having a child who has several difficulties. It is important that parents accept their child’s LD and develop strategies to help emphasize their strengths and overcome their weaknesses.


Get Involved
You know your child better than anyone else, so take the lead in looking into your options, learning about educational accommodations, and overseeing your child’s education. The Learning Disabilities Association of Canada (LDAC) has prepared a document titled Advocating for Your Child with Learning Disabilities (1998). This resource is available for loan through SRPSD. For more information please call Betty Sinclair at 306-764-1571.

Talk to Your Child’s Teachers
Parents should discuss their child’s case with teachers. Parents’ cooperation with teachers can help children succeed in school by making sure the school can accommodate the child’s learning needs and/or use appropriate teaching methods.

Show an Interest in What Your Child Does In School
Support your child’s special interests by attending school plays, musical events, science fairs, or sporting events. Offer praise and encouragement for achievement and improvement.
**Encourage Learning and Schoolwork at Home**
Creating a home environment that encourages learning enables children to understand the benefits of learning. Establish daily family routine of mealtimes with time for homework, chores, and bedtime as well as time for family activities. Children need to see that the skills they are learning in school are important for life.

**Assign Housework**
Provide clear structure in doing house chores. Children who have difficulty with organization can be best taught by being given clear instructions. For example, shelves can be used instead of drawers so children can see where things belong and how to put them back. The use of other visual cues, such as lists or labels, can support efforts to help children organize tasks and belongings.

**Develop Understandable and Reinforced Routines**
It helps to give children tasks in manageable chunks. It is also helpful to communicate instructions one by one. A large number of children with LDs have language difficulties, which means they have trouble deciphering language, listening, and following instructions. Because of this, it is also helpful to limit the number of words used in giving directions. It’s best to use simple phrases such as, “Go upstairs,” “Close the window,” and “Come down.”

**Engage Your Child in Planning Activities**
Including children in planning activities such as celebrations, developing lists, and shopping teaches them about taking on responsibilities.

**Instill Learning Habits in Your Child**
Make sources of knowledge available to your child. Sources of knowledge include books, magazines, and newspapers that are appropriate for children. Children should also be taught how to use the internet effectively.

**Encourage Your Child to Use the Library**
Ask the librarian to tell your child about special programs that he or she might be able to participate in, such as summer reading programs and book clubs. Ask about services such as homework help.

**Promote Self-Esteem**
When children with LDs begin to notice that they have difficulty with tasks that other children find easy, they begin to feel bad about themselves. Remember that children with LDs are often confused about why they cannot seem to learn like others. Criticisms will not do anything good for them. They will only damage your child’s self-esteem. Listed below are some key points to consider:
Avoid focusing on your child’s weaknesses; divert attention to what he or she does well.

Comment on the positive as much as possible by offering concrete comments on what your child does well.

Use specific phrases to praise your child’s behaviour, such as, “You finished the assignment,” or “You cleaned the table after dinner, Thank you.” With specific praise, your child can be very clear on what behaviours are liked and expected.

Visual, concrete proofs of progress will help children notice and feel confident about their accomplishments. Home-made certificates, gold stars, stickers, charts, and check lists with lots of checks are examples of ways to make children feel recognized for their accomplishments, whether in school or at home.

Boost your child’s self-esteem by supporting his or her interests and other talents. Whether it is an art form, science, nature, photography, computer work, selling things, inventing or telling stories, children need to believe that what they are doing is important.

**Empower Your Child**

Parents have the tendency to do too much for their children, especially those with learning difficulties. This strategy may be good at some point, but it does not guarantee long-term success. Doing too much for children does not empower them.

Children need to be taught about their LD so that they can learn to view obstacles as challenges as situations that can be overcome with family support. It also helps to teach the child problem solving strategies rather than always providing the answers.

Parents may want to introduce their child to books that will help him or her understand LD. Please see page 26 for a list of recommended books.

**AS TEACHERS**

**Get Involved**

When a teacher suspects that a student has difficulty learning a specific subject or task, the teacher should schedule a meeting with the student’s parents. By consulting the child’s parents, the teacher can gain a better understanding of child’s difficulties. Teachers can also consult with the Educational Support Teacher (EST) at their school to learn about a variety of instructional strategies and school based accommodations to support the student.
Create an Appropriate Teaching Strategy
Success for students with LD requires a focus on individual achievement, progress, and learning. Students who are struggling may require and intensive remedial instruction.

The Saskatchewan Ministry of Education (2009) has created a useful resource titled *Teachers Make the Difference: Teaching Students with Learning Disabilities at Middle and Secondary Levels*. This document offers a variety of instructional and assessment strategies and adaptations organized by processing difficulties (e.g., language, processing information and attending, memory, metacognition) and academic areas (e.g., reading, written expression, mathematics). Strategies are also provided for homework/assignments and test taking. Please see [http://www.education.gov.sk.ca/Teachers-Make-the-Difference](http://www.education.gov.sk.ca/Teachers-Make-the-Difference)

Listed below are some examples strategies to support students with specific learning disabilities:

**Reading Difficulties**

- Select reading material at a student’s instructional or independent level (may be several grade levels below current grade level).
- Use buddies to read grade level text.
- Offer daily specific instruction and skill building activities that address phonological and phonemic awareness skills, especially in Kindergarten and first grade.
- Incorporate multisensory learning experiences. For example, when trying to teach the alphabet, instead of using simple memorization, have the child look at the letter, write the letter, outline the letter with his/her finger, create the letter out of objects (such as macaroni), sing the sound of the letter, clap out the syllables and/or feel the vibrations of sounding out the letter.
- Supplement classroom instruction with educational apps that provide extra practice with essential literacy skills such as print awareness, phonics, spelling, vocabulary, and writing. See Reading Rockets *Literacy Apps* for a list of recommended apps [www.readingrockets.org/literacyapps](http://www.readingrockets.org/literacyapps).
- Provide students with access to audio books and videos. *TumbleBook Library*, for example, is an online collection of animated, talking picture books. SRPSD students may access *TumbleBooks* for free at [www.tumblebooks.com](http://www.tumblebooks.com). (Username: srsd, Password: books).
- Encourage the student to use a ruler or a small index card to keep place when reading.
- Avoid making the student perform any oral reading in front of the class.
- Provide a reader for assessments.
- Have the student highlight or underline important words and phrases in texts, handouts, and notes.
• Use books with illustrations to help generate conversation and understand vocabulary.
• Help the student to create a notebook of vocabulary words. Encourage him/her to include illustrations within this notebook.
• Use available technology supports designed to assist weak readers. Examples include:
  o Reading Pen (available for loan through SRPSD)
  o Text-to-speech apps such as Speak It and Voice Dream Reader.
  o Built in accessibility features on iOS operating systems (iPhones, iPads, and iPods) including Speech Selection and Voice Over. Devices that are powered by Google’s Android operating system come with some accessibility features that are similar to those in iOS.

Written Expression Difficulties
• Teach students to use graphic organizers to support organization of writing (e.g., story maps/webs, flowcharts, time lines, outlines).
• Have the student write ideas on “post-it” notes to assist with sequencing ideas.
• Have the student use a checklist to ensure that steps in the writing process are followed and completed.
• Have the student present written product orally using a digital recorder.
• Encourage the student to develop keyboarding skills and provide access a computer.
• Consider the use of voice-to-text computer software such as Dragon Naturally Speaking or apps such as Dragon Dictation.

Difficulty with Spelling
• Provide systematic phonics instruction that incorporates teaching of phonemic awareness. Although this kind of instruction alone will not be enough to make students flawless spellers, phonemic awareness and phonics knowledge form an essential base for accurate spelling in English.
• Teach useful spelling rules. Although many English words do not conform to consistent rules, some generalizations are very helpful to students, such as rules for adding endings to words with a silent e (make, making) or to closed syllables that end in a single consonant (sit, sitting).
• Emphasize activities that involve writing or building printed words with letter tiles, not oral spelling. Oral spelling activities, such as traditional spelling bees, usually are not as effective as activities that require children to look carefully at the printed word.
• Encourage students to use knowledge about root words and relationships among words to help them spell new words. Even when they possess this kind of knowledge, students will not always apply it
spontaneously. It is very helpful to point out relationships among words and to illustrate how knowing the spelling of one word facilitates spelling of related words.

- Use mnemonic devices to help students remember tricky spellings of word families.
- Encourage students to keep and use a personal dictionary of frequently misspelled words.
- Teach older children how to use a computer spell-checker. Spell-checkers are not a substitute for explicit spelling instruction from a knowledgeable teacher. Also, children need some phonics knowledge in order to use spell-checkers effectively. Nevertheless, spell-checkers can be enormously helpful to struggling spellers and writers, especially in the later grades when the volume of writing increases greatly.
- Mark written work for content with no discount of marks for spelling errors.

Math Difficulties

- Research has shown that the optimal presentation sequence to teach new mathematical content is through the concrete-pictorial-abstract (CPA) approach.
  - At the **concrete level**, tangible objects, such as manipulatives, may be used to approach and solve problems. Examples of concrete tools include: unifix cubes, Cuisenaire rods, fraction circles and strips, base-10 blocks, counters, and measuring tools. Virtual manipulatives may also be used. Please see Learningbox.com for free examples.
  - At the **pictorial level**, visual representations may be used to approach and solve problems. These can include drawings (e.g., circles to represent coins, pictures of objects, tally marks, number lines), diagrams, charts, and graphs.
  - At the **abstract level**, symbolic representations may be used to approach and solve problems. These representations can include numbers or letters. It is important for teachers to explain how symbols can provide a shorter and efficient way to represent numerical operations.
- Most students will benefit from a multisensory approach to mathematics which involves hearing, seeing, saying, touching, manipulating, and writing or drawing concepts within mathematics. See examples below.
  - TouchMath® engages students on auditory, visual, and tactile/kinesthetic levels. Each numeral from 1 through 9 has TouchPoints corresponding to the digit’s value. As students tap and count the TouchPoints, they associate numerals with real values. They learn that a numeral (3, for instance) is not just a squiggle on a page. It represents a quantity such as three baseballs, three
ladybugs, three starfish or three 

TouchPoints. TouchMath® is available for loan from the SRPSD Teachers Resource Center (TRC).

o Talking calculators engage students on auditory, visual, and tactile/kinesthetic levels. These calculators use a built-in speech synthesizer to say numbers, symbols, or operation keys as they are pressed. They also read back answers from completed problems. Hearing the numbers or symbols helps some kids find errors they made when pressing keys. Hearing the answer helps you double check for errors made when copying numbers, such as writing "91" for "19" or confusing "6" with "9." Some models have an earphone jack. The external speaker automatically shuts off when the earphone is inserted, so the calculator can be used without disturbing anyone.

• When teaching math at the abstract level, provide students with acronyms for math processes. See examples below.
  o “Does McDonalds Sell Cheese Burgers?” could be used to remember the main steps in long division: Divide, Multiply, Subtract, Compare, Bring down.
  o BEDMAS could be used to remember the order of operations in math equations: Brackets, Exponents, Division and Multiplication, Addition, and Subtraction.

• Combine the numeral or symbol with the word.
  o Examples:
    ▪ + (plus)
    ▪ 5 (five)

• Create visual associations with operations.
  o Example: Multiples of Two/Doubles
    ▪ 2x2 (2+2) a car with four wheels
    ▪ 3x2 (3+3) a six pack of soda or the legs of an ant
    ▪ 4x2 (4+4) a spider or octopus with four legs on each side
    ▪ 5x2 (5 + 5) the fingers on both hands
    ▪ 6x2 (6 + 6) is an egg carton
    ▪ 7x2 is two weeks
    ▪ 8x2 two octopi or spiders
    ▪ 9x2 an 18 wheel truck or two baseball teams

• Teach math vocabulary using visual cues (E.g., BIG, small, add, Subtract, fraction).
• Use a highlighter to colour code and identify symbols and operations.
• Have the student articulate the mathematical process prior to completing the calculations.
• Create a math dictionary.
• Provide a written copy of questions with room to do calculations directly on the question sheet to reduce copying errors.
• Have the student use graph paper to help align numbers (enlarged graph paper if necessary).
• Reduce the number of questions to reduce fatigue.
• Provide access to a multiplication table, number line, math fact reference handout, and/or a calculator.
• Read books about math processes. A variety of math stories are included within the online TumbleBook Library. SRPSD students may access TumbleBooks for free at www.tumblebooks.com. (Username: srsd, Password: books).

**Difficulty Taking Notes**
- Teach note taking skills (subject, date, page numbers, two-column notes, summary section at the bottom of each page, notes on only one side of the page leaving the other side free for additional study notes, illustrations, diagrams, graphic organizers, etc.)
- Provide photocopies or peer copies of notes.
- Provide partial notes for student to complete.
- Cue students to important points
- Teach abbreviations for vocabulary.
- Provide instruction and opportunities for students to become proficient at keyboarding.
- Use word prediction computer software.
- Allow student to record lectures.

**Memory Problems**
- Use a multisensory approach (visual, auditory, kinesthetic, and tactile) to enhance memory.
- Activate a student’s prior knowledge before beginning a lesson.
- Offer instructions in short sentences one at a time.
- Provide much repetition and drill with examples.
- Explicitly teach memory techniques such as:
  - Associations: Associate new information with previously learned information.
  - Visualization: Form a picture in your mind of things you want to remember.
  - First Letter Clues: Acronym or Acrostics (e.g., *Never Eat Soggy Wieners* for North, East, South and West)
  - Chunking: Group items within a category to help recall them more easily.
  - Rhyme: Make a rhyme to help recall information (e.g., Columbus sailed the ocean blue in 1492).
  - Rehearsing Aloud: Say aloud what needs to be memorized.
- Make Visual Aids: Draw pictures or cartoon characters, graphs, tables, charts, time lines, etc. to aid memory. Even simple stick figures and drawings can be useful.
- Color Code: Use colored pens, highlighters, post-it notes and flags, index cards, etc. as a way of sorting information for storage.
- Frequent review: A small review each day is essential if you have memory problems.
- Use Humor or Exaggeration: Information stays in memory longer if it is related to something novel and interesting. Make up something funny or exaggerated that ties in to what needs to be memorized.

**Fine Motor Control**

- Explicitly teach fine motor skills (see page 30 for suggested instructional resources).
- Use short crayons/pencils/chalk to encourage proper tripod grasp.
- Place paper over a textured surface (e.g., rough sandpaper) to help students ‘get the feel’ of correct finger positioning.
- Provide a pencil grip or a triangular pencil to enhance pencil control.
- Paint a ring around the pencil to indicate where it should be held.
- Secure an elastic band at the bottom of the pencil to prevent the fingers from slipping down. Put the elastic band about an inch from the tip.
- In some cases, pencil positioning products (e.g., HandiWriter®) may be needed to facilitate the correct tripod positioning (see image). Pencil positioning products are available for trial from SRPSD. Please contact Betty Sinclair at 306-764-1571 for more information.
- Tape paper to the desk to prevent slipping. Another option is to use a desk fence (a narrow bar wood placed along the edges of the desk).
- Use a clip board to help students hold pages steady.
- Use highlighted paper to help students with letter differentiation (see image). Highlighted paper can be purchased commercially (e.g., Hi-Write Notebook Paper) or created on the computer.
- Use enlarged graph paper to help with spacing and neatness of work. Encourage students to place one letter inside each box, leave one or two blank boxes between words, and a blank line between each row.
- Place dots at either side of the page to act as markers of where to write from/to, or put left and right hand margins on lined paper.
- Draw boxes for students to place letters when using fill in the blank.
- Use raised or bolded lined paper to make it easier for students to stay on the line.
- Teach and encourage cursive handwriting over printing.
- Use a slant board (15-30 degree angle).
- Provide photocopied or partially completed notes.
- Have the student present written product orally using a digital recorder.
• Provide instruction and opportunities for students to become proficient at keyboarding.
• Do not discount marks for neatness.

Attention Difficulties
• Offer preferential seating away from distractions such as the window or hallway. Seat the student in a location where frequent eye contact with the teacher is likely.
• Attempt to reduce extraneous background noise. For example, fans might need to be turned off, the door to the hallway closed, or windows by the playground closed. Students may also benefit from using a study booth, white noise, and/or ear plugs. There are free white noise apps available for apple and android technologies.
• Ensure you have the student’s attention before beginning verbal instruction. Use attention-getting devices, such as telling everyone to “listen” or “pay attention” before pertinent information, addressing the student directly (if it is appropriate, and does not upset him or her), or using a cue word.
• Offer the student frequent short breaks (1-2 minutes). Attentional breaks are best taken with a motor activity or a relaxing activity. For example, the student might be asked to complete some independent desk work within his/her capabilities before running an errand, taking a bathroom break, or simply bringing his/her work to the teacher for review.
• Explicitly teach self-regulation skills (see page 29 for suggested resources).

Executive Functioning
• External prompting may be necessary to help certain students get started. Stop by their desk at the onset of each task and prompt them to start working.
• Tasks or assignments that seem too large can interfere with a student’s ability to get started. Breaking tasks into smaller, more structured steps may reduce the sense of being overwhelmed and increase initiation.
• Teach students how to divide their tasks into timed “chunks” using a visual timer. This strategy may help to limit frustration for students as they know time spent on tasks is limited by the clock. Time Timers® are available for loan through SRPSD. Please contact Betty Sinclair at 306-764-1571 for more information.
• Provide daily instruction in using an agenda.
• Many schools post important dates and reminders on their website.
• Having an alternate set of books at home may make it easier to have necessary supplies on hand.
• Explicitly teach self-regulation skills (see page 29 for suggested resources).
**Exam Accommodations**

- Offer extended time.
- Provide access to a quiet working space.
- Provide a reader and/or scribe.
- Allow student to use a computer.
- Provide student with access to a spell-only dictionary.
- Do not discount marks for spelling or grammar, unless the course is language based.
- Provide access to a calculator and/or formula sheet.
- Provide a memory/mnemonic sheet.
- Consider spacing of exams (e.g., no more than one exam per day).

For more information regarding home and school based accommodations for learning disabilities please see:


Learning Disabilities and Mental Health

Having LDs puts kids at greater risk for a number of mental health concerns. Kids who have LDs may experience feelings of frustration, shame and perceived stigma, hopelessness, and anxiety about not meeting expectations. It is estimated that 40% of people with LDs struggle with problems such as anxiety, depression, or low self-esteem. In addition, 75% of kids with LDs appear to have difficulties with social relationships. Depending on the nature of the LDs, it can be hard for kids to ‘read’ social cues or to adapt to new social situations, or to regulate their emotions or behaviours in order to fit in with peers. Kids with LDs are at greater risk for bullying and victimization, social isolation and rejection, or for feelings of loneliness.

Research has identified a number of protective factors that help to foster resilience and well-being among kids with LDs. People who have personal characteristics such as persistence in the face of adversity, flexibility to pursue alternate strategies when appropriate, and self-awareness are at reduced risk for problems. We also know that helping kids to develop effective skills such as achievable goal-setting and coping strategies to manage stress and frustration is important.

Strategies for Helping Self Esteem
• Support kids to pursue activities in their area of strength or interest.
• Plan activities that will give kids the greatest chance of success.
• Experiencing success may give kids the motivation to try activities that are more of a challenge for them.
• Be supportive of any signs of progress, even when progress is slow.
• Kids need to learn that practice can help develop skills and that success is within their reach.
• Notice the reactions of classmates to a kid’s academic strengths/weaknesses. Sometimes self-esteem and competence increases when students are in an academic environment with peers who are similar to them academically.

Strategies for Helping Emotional Awareness and Control
• Look at anger and frustration as possible ways of saying, “I can’t” or “It’s too hard”, which may in fact be the case.
• Offer assistance in a supportive way.
• Ask what part of what they are doing is frustrating kids: Would they like to learn another way of approaching it?
• Be patient.
• Validate feelings of frustration, anger.
• Label feelings and emotions in a non-judgmental way.
• Allow kids time to engage in solitary activities in order to give them time to think, reflect, and calm down.
• Create a safe, supportive atmosphere, which respects confidential information.
• Allow kids to discuss their fears and anxieties. Show that it is ok to talk about them.
• Recognize that kids with LD may seem to overreact to what you think of as small issues. Remember that their reaction needs to happen to let you know how they are feeling. Try not to overreact in return.

**Strategies for Helping Kids with Social Interactions**
• Discuss with kids their understanding of what happens to them socially.
• Assist them to gain awareness of how they behave with others.
• Help them clarify their feelings and make their words consistent with their feelings.
• Assist them to review cause and effect (behaviours and responses).
• Offer them meaningful feedback about their behaviour.
• Allow kids the opportunity to engage in solitary activities, while taking care to ensure that there are also sufficient opportunities for peer interaction.
• Help kids to learn to recognize situations that are potentially problematic and develop strategies to deal with them (i.e. recognizing that large groups are too stimulating, and requesting permission to be in a smaller group).
• Use descriptive, non-judgmental explanations about inappropriate behaviors, being specific and instructional.
• Explain social situations verbally, as they happen.
• Use real life rather than artificial examples.
• Don’t just tell the individual what they did wrong. Tell them what to do the next time, giving specific examples.
• Kids with LDs may annoy, irritate or frustrate other kids. Allow others to share their frustration in private, out of earshot of the kids with LDs. Help them find positive ways of giving feedback that would be helpful.

Note: The information above was borrowed from Integra (2009). *A Handbook on Learning Disabilities.*
Counselling Services

There are a variety of free counselling services available to support SRPSD students. Some of these services are listed below:

- **School Social Workers** are available to provide counselling services to SRPSD students who are experiencing difficulties in maintaining a healthy social, emotional and/or behavioural state. These professionals will also work with and support the family. Please contact the Educational Support Teacher (EST) at your child’s school for more information.

- **Prince Albert Mental Health** offers group therapy for children affected by anxiety and/or depression (Mixed Emotions). For more information, please call Prince Albert Mental Health at 306-765-6055.

- **Prince Albert Catholic Family Services** provides individual and group counselling services to children and adults. For more information, please call Prince Albert Catholic Family Services at (306) 922-3202 or 1-877-922-3202.

- The **Kids Help Phone** is a free, anonymous, and confidential online and telephone counselling service. To access this service please call 1-800-668-6868 or visit the Kids Help Phone web-site at www.kidshelpphone.ca. A free app is also available called Always There.
SUGGESTED RESOURCES

Organizations

Learning Disabilities Association of Canada
20 - 2420 Bank Street
Ottawa, ON K1V 8S1
Phone: (613) 238-5721 or 1-877-238-5332 (toll free)
Fax: (613) 235-5391
Email: info@ldac-acta.ca
Website: http://www.ldac-acta.ca/

LDAS – Provincial Office
Learning Disabilities Association of Saskatchewan
2221 Hanselman Crt
Saskatoon, SK S7L 6A8
Phone: (306) 652-4114 Ext 4
Fax: (306) 652-3220
E-mail: reception@ldas.org
Website: www.ldas.org

LDAS – Prince Albert Branch
1106 Central Ave
Prince Albert, SK S6V 4V6
Tel: (306) 922-1071
Fax: (306) 922-1073
Email: pabranch1@sasktel.net

Web-Sites

• **Friends of Quinn** ([www.friendsofquinn.com/](http://www.friendsofquinn.com/)) is an online community that offers resources and support for young adults with learning differences, as well as for the people who love them.

• **LDonline** ([www.ldonline.org/](http://www.ldonline.org/)) seeks to help children and adults reach their full potential by providing accurate and up-to-date information and advice about learning disabilities and ADHD. The site features hundreds of helpful articles, multimedia, monthly columns by noted experts, first person essays, children’s writing and artwork, and a comprehensive resource guide.
• **LD@school** (www.ldatschool.ca) provides educators with information, resources and research related to teaching students with learning disabilities. The website features evidence-based strategies that can be put directly to use in the classroom.

• **Smart Kids with Learning Disabilities** (www.smartkidswithld.org/) provides information, support, and inspiration to parents of children with learning disabilities and attention deficit disorders, while also educating the public about the remarkable gifts and talents of these kids. This comprehensive, award-winning website and blog empowers parents to become effective advocates for their children. Smart Kids also emphasizes the importance of nurturing a child’s interests and strengths, and works to dispel the stigma and misconceptions about LDs and attention deficit disorders.

• **Understood.org** (www.understood.org/) is a comprehensive online resource for parents of children with learning and attention issues. Parents may access a variety of suggestions based on their child’s age and area of difficulty.

### Books about Learning Disabilities

Note. The following books are available for loan from SRPSD. Please contact the Student Support Services Department at 306-764-1571 for more information. For a more comprehensive book list please see [www.ldonline.org/kids/books](http://www.ldonline.org/kids/books).

  - Within this manual, students and adults can learn about the often mysterious world of learning disabilities in a format which is fun and easy to understand. This resource is available online for free at [www.ldinfo.com/self_advocacy_manual.htm](http://www.ldinfo.com/self_advocacy_manual.htm)

- **Denison, Katherine. (1996). I Wish I Could Fly Like a Bird!**
  - This is the story of a bird with LD, who flip-flops when he tries to fly. While he struggles to accept his limitations, he begins to discover his talents, trust his intuition and find his own way. Perhaps most importantly, he learns about making room for differences.

  - What is LD? Why do some kids have LD? Why is it hard for kids with LD to learn? Why do other kids sometimes tease kids with LD? What happens when kids with LD get out of school? This book answers these questions. It is designed to help children understand LD better.

  - Zoe is a young girl with dyslexia who invites readers to learn about her disability from her perspective. She helps readers to understand the challenges faced by a
child with dyslexia, explaining what dyslexia is and how it affects her at home and at school. Zoe describes exactly why she finds reading, writing and words so difficult, and how other people can help her in these areas. This illustrated book is ideally suited for readers aged 7 and upwards, and will be an excellent way to start a discussion about dyslexia, in the classroom or at home.

- **Kraus, J. (2007).** *Annie’s Plan: Taking Charge of Schoolwork and Homework.*
  - Annie is really smart, but she needs a plan for focusing on her work at school and getting her homework done and turned in. Annie's Plan presents a 10-Point Schoolwork Plan and a 10-Point Homework Plan that helps her master the organizational and study skills needed for school success.

- **Levine, Mel. (1993).** *All Kinds of Minds: A Young Student’s Book About Learning Abilities and Learning Disorders.*
  - This book is written from the perspective of five elementary students in the same class. Each student struggles in their own way (e.g., attention deficit disorder, dyslexia, language disorder, social and/or motor skills deficits). Eventually they discover their unique strengths which enable them to overcome the difficulties caused by having a "different" kind of mind.

  - This book introduces the concept of a learning disability in concrete terms for younger students. A supportive and upbeat story reassures readers that they are capable, and can use "smart strategies" to help themselves learn. A Note to Parents, Caregivers, and Professionals is included, with suggestions to guide discussion and help children identify their particular strengths and challenges.

- **Parr, Todd. (2009).** *It’s OK to Be Different.*
  - Targeted to young children first beginning to read, this book will inspire kids to celebrate their individuality through acceptance of others and self-confidence.

- **Smith, Sally. (1994).** *Different is Not Bad Different is the World: A Book About Disabilities.*
  - This book helps children realize that being “different” is O.K.; in fact, it makes people more interesting and the world a better place. The book is intended to help children understand that people may have different ways of accomplishing everyday tasks, but people can do almost anything in their own way.
Reading and Writing Resources

Note. The following resources are available for loan from SRPSD. Please contact the Student Support Services Department at 306-764-1571 for more information.

- **Smith, Sara. (2010). *Expanding Expression Tool™.*
  - The *Expanding Expression Tool™* provides students with a hands-on approach to describing and defining. As a mnemonic device, it provides visual and tactile information which facilitates improved language organization. The kit itself is designed to allow you to follow a hierarchical approach taking student's expression from words to paragraphs to reports. Therefore, it can be used by a variety of ages. Recommended for students in preschool through high school.

  - *Webber HearBuilder®* is a systematic learning program for PreK to eighth-grade students that provides individualized instruction in basic concepts, following directions, phonological awareness, sequencing, and auditory memory. The *HearBuilder Collection* consists of four award-winning software titles: Following Directions, Phonological Awareness, Auditory Memory, and Sequencing. Each CD offers multi-level activities with progress monitoring reports for educators.

Websites

- **All About Adolescent Literacy** ([http://www.adlit.org](http://www.adlit.org)) is a national multimedia project offering information and resources to the parents and educators of struggling adolescent readers and writers. Resources are tailored for students in grades 4 through 12.

- **Funbrain®** ([www.funbrain.com](http://www.funbrain.com)) offers free educational games, online books, and comics. This website is created for students in preschool through grade 8 and offers more than 100 fun and interactive games that develop skills in math, reading, and literacy.

- **Get Ready to Read!** ([www.getreadytoread.org](http://www.getreadytoread.org)) is developed by the National Center for Learning Disabilities. This website is designed to support educators, parents, and young children in the development of early literacy skills in the years before kindergarten. The website offers screening tools, suggestions for skills building activities, and free online games designed to promote essential early literacy skills.

- **Professor Garfield** ([www.professorgarfield.org](http://www.professorgarfield.org)) provides free online games with a primary emphasis on children's literacy and creative expression. This website is created for students in preschool through grade 8.

- **Reading Rockets** ([www.readingrockets.org](http://www.readingrockets.org)) is a national multimedia literacy initiative offering information and resources on how young kids learn to read, why so many struggle, and how adults can help. This web-site offers research-based strategies to teachers, parents, administrators, librarians, childcare providers, and anyone else involved in helping a young child become a strong, confident reader. Its goal is to
bring the reading research to life — to spread the word about reading instruction and to present "what works" in a way that parents and educators can understand and use.

- **Tumble Book™** library ([www.tumblebooklibrary.com](http://www.tumblebooklibrary.com)) is an online collection of animated, talking picture books available to all SRPSD students (username: srsd, password: books).

### Math Resources

- **Bird, Ronit. (2007). The Dyscalculia Toolkit.**
  - Provides a collection of 200 teaching activities and 40 games to use with students (ages 6 through 14) who struggle with math. The activities and games provided in this book can be used with individuals, pairs, or small groups of students. The CD accompanying the book contains printable resources. It is suitable both for teachers and parents who want to support their children’s learning. This resource is available for loan through SRPSD. Please contact Betty Sinclair at 306-764-1571 for more information.

  - Provides a collection of 100 games and puzzles to use with students (ages 7 through 14) who struggle with math. It is suitable both for teachers and parents who want to support their children’s learning. This resource is available for loan through SRPSD. Please contact Betty Sinclair at 306-764-1571 for more information.

- **Innovative Learning Concepts. (2013). TouchMath®.**
  - A multisensory teaching strategy that uses counting points on numbers to help students understand how a symbol represents a quantity. This resource is available for loan from the Teachers Resource Center (TRC). Apps are also available. Please see Touch Math Mobile Math Apps for more information ([www.touchmath.com/index.cfm?fuseaction=technology.apps](http://www.touchmath.com/index.cfm?fuseaction=technology.apps)).

### Websites

- **Acing Math One Deck at a Time** ([http://www.pedagonet.com/quickies/acingmaths.pdf](http://www.pedagonet.com/quickies/acingmaths.pdf)) describes a variety of fun math card games that can be used with students (Kindergarten to Grade Eight) to help make math entertaining and lively.

- **Funbrain®** ([www.funbrain.com](http://www.funbrain.com)) offers free educational games, online books, and comics. This website is created for students in preschool through eighth grade and offers more than 100 fun and interactive games that develop skills in math, reading, and literacy.

- **Learningbox.com** provides free access to a variety of virtual math manipulatives.

- **Math for Families: Helping Your Child with Math at Home** ([http://www2.gov.bc.ca/assets/gov/education/kindergarten-to-grade-](http://www2.gov.bc.ca/assets/gov/education/kindergarten-to-grade-)}
12/teach/pdfs/math_for_families.pdf) suggests ways families can support children’s math development by doing activities at home.

**Self-Regulation Resources**

Note. The following resources are available for loan from SPRSD. Please contact the Student Support Services Department at 306-764-1571 for more information.

- **Kuypers, Leah.** (2011). *The Zones of Regulation®.*
  - A systematic, cognitive behavior approach used to teach self-regulation by categorizing all the different ways we feel and states of alertness we experience into four concrete zones. The Zones curriculum provides strategies to teach students to become more aware of, and independent in controlling their emotions and impulses, managing their sensory needs, and improving their ability to problem solve conflicts. The Zones lessons are designed to be used with students as young as preschool age (if they are at or above average intellect), elementary students, secondary students, and adults.

  - A research-based curriculum that features 15 lessons that use the latest information about the brain to help improve behaviour and learning for all students. Each lesson offers strategies for helping students focus their attention, improve their self-regulation skills, build resistance to stress, and develop a positive mind-set in both school and life. Three books are available, each tailored for a different age group (Grade PreK-2, Grades 3-5, and Grades 6-8).

  - Describes an innovative program that supports children, teachers, parents, and therapists to choose appropriate strategies to change or maintain states of alertness. Students learn what they can do before a spelling test or homework time to attain an optimal state of alertness for their tasks. Teachers learn what they can do after lunch, when their adult nervous systems are in a low alert state and their students are in a high alert state. Parents learn what they can do to help their child's nervous system change from a high alert state to a more appropriate low state at bedtime.

**Fine Motor Skills Resources**

Note. The following resources are available for loan from SRPSD. For more information, please contact the Student Support Services Department at 306-764-1571.

  - Offers 250 activities for teachers and parents to use with children from birth through age 6 to help develop solid foundations for art, academics (including pre-
reading and pre-writing), and athletic skills. At each level, activities are included for gross motor, fine motor, visual, and visual-motor development.

  - Contains 100 geometric paper-and-pencil exercises that preschool and early years teachers and parents may use with children to refine motor, visual, and visual-motor skill development. The exercises help support early prevention of problems and provide an important foundation for the teaching of letter and numeral shapes in the first semester of school.

  - Provides 100 exercises for elementary students. The exercises use numeral and letter shapes so that the motor, visual, and visual-motor skills children learn with geometric shape exercises can be successfully transferred to numeral and letter shapes they will use in school.

  - Contains 65 structured fine motor activities organized by the component of hand function. When the component of hand function that is causing the child difficulty has been identified, choose from the list of appropriate activities. The activities are graded by level of difficulty.

  - Provides suggestions for practical activities covering four areas: Fine Motor Skills, Preparatory and Manipulative Activities, Development of Paper and Pencil Activities, and Handwriting Development.
REFERENCES


