Chapter 5: Responding to students' needs

Students with FASD can have difficulties in a wide range of areas of functioning. Many of these difficulties are linked to prenatal alcohol exposure.

The eight domains of functioning discussed in this chapter include:

- sensory processing
- motor skills
- behavioural regulation
- adaptive behaviours and social skills
- attention
- memory
- language and communication
- academic skills.

This section includes definitions for each domain of functioning, examples of behaviours in each domain, and sample programming and intervention strategies. The strategies are helpful in writing IPPs and sharing ideas with parents.⁷¹

Sensory processing

Sensory processing involves the brain's ability to efficiently process and organize information. A term often used for this is "sensory integration." Sensory information or stimuli come to individuals through their sensory systems: vision, hearing, smell, taste and touch, as well as vestibular (movement) and proprioception (sensations from muscles and joints). Sensory processing involves the coordination and interpretation of information from separate sensory systems to guide individuals' behaviours and functioning. Sensory processing underpins the ability to manage automatic behaviours, such as attending, maintaining posture or ignoring background noises. It also guides responses to novel stimuli and changes in the environment.

Examples of good sensory processing:

- A student copies from the board using his visual system to read the words, and his proprioceptive system to know where his hand is in space and how tightly to grasp the pencil. Appropriate sensory processing allows him to maintain attention and disregard background noise while forming letters on the page.
- A student uses her auditory system to attend to the teacher's instruction and her visual system to follow points listed on an overhead. The student is not visually distracted by artwork on the wall, auditorily distracted by sounds from the hallway or bothered by the feel of her clothing, but follows the discussion and understands the information.

^{71.} Clarren and Jirikowic 2000.

What sensory processing difficulties look like

Students who do not process sensory information adequately have a variety of functional or behavioural difficulties in a classroom. Students with FASD may experience sensory input differently than other students. They may not only have difficulty putting together sensory information from more than one sensory system, but may also have difficulty interpreting sensory input accurately.

Students experiencing difficulties with sensory processing may be oversensitive (hypersensitive) or undersensitive (hyposensitive).

Students who are oversensitive may be:

- startled or cover their ears at loud sounds
- overwhelmed at bright light
- bothered by certain smells or tastes
- sensitive when touched
- irritated by certain clothing or textures.

Students who are undersensitive may:

- demonstrate high pain tolerance
- seem unaware of events in the room
- seek sensory stimulation through fidgeting, feeling things, placing things in their mouths, chewing, making noises or rocking back and forth.

Examples of sensory processing difficulties:

- A student may not be able to distinguish between relevant and irrelevant sensory information. The student is visually distracted by artwork on the walls, auditorily distracted by the fan humming and still smells the popcorn that was in the microwave oven at lunch time. The student is not able to focus on his math, but offers the observation that the student next to him is using a pen instead of a pencil.
- A student doesn't respond with pain after his hand has been slammed in a locker door, which
 produces swelling and a significant scrape.
- A student has the need to fidget in her desk, play with toys and move in her seat in order to focus her attention on the teacher's lesson. At other times, she seeks oral input by chewing on her pencil or clothing.



Manage the environment to reduce sensory overload.

- Minimize loud noises, bright lights, the number of objects and materials in the workspace, and materials on the walls.
- > Keep working groups small and accommodate students who need to work individually.

- Simplify visual stimulation by displaying few posters on the walls, and few objects on tables and counters. Keep overhead mobiles and dangling objects to a minimum.
- Give verbal instructions in an area with a plain background. A plain background reduces competing visual input so students are better able to concentrate on listening to instructions.
- Reduce tactile stimuli. Suggest that parents cut tags that may irritate the skin out of clothing. Suggest students wear sweatpants instead of jeans and turn socks inside out if the seams are irritating. Clothing made of softer fabrics are more comfortable for highly sensitive children.
- Provide headphones to screen out classroom noise.



Establish consistent, specific routines and procedures to increase students' comfort.

- Adapt environments and routines so students can avoid busy crowded places or situations they find overwhelming and stressful.
- Choose routines that minimize sensory overload. This includes routines for starting and ending the day, washroom use and quiet time.⁷²
- Write routines on chart paper using simple, concise, numbered steps and display them on the wall.
 Consistently follow and refer to them. Students with FASD need to know what is happening and when it is happening. This helps them be as calm and organized as they are able. Use visuals to illustrate steps wherever possible. 72
- Consider seating students with FASD in areas with reduced traffic flow, minimal displays on the wall and away from sources of noise.





^{72.} Adapted with permission from Peggy Lasser, Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS) (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 77.

- Play music with a slow, steady, rhythmic beat during independent work times or transitions in the day. Music may be calming and soothing to students. Mozart and Bach are often good choices.
- Be attuned to students who are oversensitive to loud noises or crowds. Provide warnings for events such as fire drills.



Consider sensory needs as you plan for transitions from activity to activity and area to area.

Samples of specific strategies

- Closely monitor students for overstimulation during gym or assemblies. If necessary, provide accommodations or alternatives to these activities.
- Sensitive students might do better at the beginning or end of a line where there are fewer sensory distractions from other students.
- Plan for quieter activities to follow busier activities. For example, plan a quiet reading activity following lunch time.
- Allow students to remain after class "to help the teacher" and move to the next class after the majority of students have left the halls.



Provide opportunities throughout the day to help students meet their sensory input needs in appropriate ways.

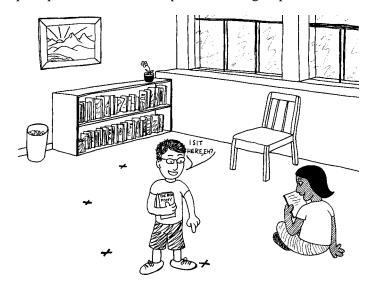
- Allow movement breaks when needed. This includes delivering messages to the office, going to get a drink, going to the washroom or passing out papers in the classroom.
- Encourage students to stretch their arms and legs in their seats periodically throughout the school day.
- Provide small inflatable cushions to sit on. These allow students to get "the wiggles" out while sitting at their desks or on the floor.
- Allow students to hold fidget toys, such as soft squishy balls or small figures when seated at their desks or listening in a circle.
- Allow appropriate oral stimulation, such as sucking on hard candies, chewing on gum or drinking from water bottles with straws at their desks. If oral needs are strong, an occupational therapist might recommend specific chew toys or other strategies.



Clearly define personal spaces and boundaries, and provide areas that accommodate students' sensory needs.

Samples of specific strategies

Use tape to create a circle on the floor to indicate where students should sit, or provide individual seats defined by carpet squares, cushions or tape marks, for group activities.



- Put coloured masking tape on the floor around students' desks to help them see where their space is in relation to others.
- Make defined lines on the floor for students to follow as they line up in the classroom.
- Provide study carrels or use partitions to create workspaces with fewer distractions for individual students.
- Provide a quiet space with blankets, beanbag chairs, a sleeping bag or cardboard box for down time. This designated space can function as a place for students to reorganize or calm down.
- Provide seating in the front row of the classroom for students with FASD so they can clearly see the teacher and be less aware of other students. Avoid seating them in the middle of groups. If possible, allow students to keep the same seat for the entire school year to develop a sense of stability.
- Set physical boundaries on the playground and encourage students to play within certain areas during recess. Select one peer buddy initially, and gradually add a few others and more activity options.

Motor skills

Fine motor skills involve the development and use of smaller muscles of the hands to manipulate objects and use tools with precision. Gross motor skills involve learning how to control and coordinate large muscle movements to walk, run and perform simple to complicated athletic activities. There may be some students who would benefit from a consultation and/or individual therapy with an occupational or physical therapist.

What motor skill difficulties look like

Students experiencing difficulties with gross motor skills may:

- fall frequently
- bump into people or objects
- dislike physical education classes
- have problems with games and ball skills
- appear uninterested in sports.

Students experiencing difficulties with fine motor skills may:

- have a hard time learning to write
- produce messy work with much erasing
- press hard enough to rip the paper when writing
- use too little pressure so that their written letters are illegible
- have trouble keeping written work on the lines, or spacing letters and words
- become tired and frustrated during written assignments
- have trouble using building blocks, stringing beads, cutting, pasting, completing craft activities
- have problems opening containers or packages
- have problems with self-help tasks, such as dressing.



Emphasize safety, participation and success during play, recess and physical education classes.

- For younger students, provide opportunities for playful exploration in gross motor and movement activities, such as soft climbing equipment, obstacle courses and riding toys.
- Use hula hoops, ribbon sticks, jump ropes and scooter boards to engage students in non-competitive movement activities.
- Allow students to work at their own rates to increase motor skills.
- Eliminate competition pressures.
- Reduce the confusion of following complex rules by simplifying games.
- Practise gross motor skills and sports activities that are important to individual students. If a student has athletic interest, provide instruction and opportunities to use the skill. If he or she cannot be successful in the regular athletic program, provide alternate roles or look for alternate opportunities, such as Special Olympics.

- Emphasize individual sports and fitness activities versus team sports. Students may enjoy and succeed at individual athletic activities, such as swimming, horseback riding, martial arts, running, bicycling, hiking, walking or bowling.
- A variety of activities can help students improve eye-hand coordination and prepare for games involving balls. These activities can occur during gym classes, therapy sessions, on the playground or at home. The following are preparatory ball skill activities.
 - Hit balloons with foam paddles. This activity slows down the action and provides additional response time.
 - Play a game of "hot potato" sitting in a circle. Pass a potato or large softball quickly around the circle while music is playing. The object of the game is to not drop the potato or be the person holding the potato when the music stops.
 - Practise ball skills with a large plastic bat and ball or with a batting tee and ball.
 - Toss bean bags into hoops or at targets.
 - Use darts with blunt ends to hit targets.
 - Play catching and rolling games using soft balls with textured exteriors that are easier to control.
 - Use Velcro paddles and fuzzy tennis balls.
 - Use a soft basketball and low basket to practise basketball skills.



Provide opportunities for developing fine motor skills.

Samples of specific strategies

- For hand strengthening and dexterity, have students model with clay, play card games, spin tops, roll dice in board games, and play marbles or pick-up sticks.
- Provide blocks, puzzles and drawing materials to help students practise and improve fine motor skills.



Adapt handwriting activities so students can successfully complete assignments.

- Provide a writing surface that adds additional visual structure, texture and space.
- Have students use wide-ruled paper or write on every other line.
- Use paper with raised lines, graph paper or draw arrows for directional cues to guide left-right and top-bottom spatial organization.

Create a template with a bolded top and bottom line, wide-spaced lines and clearly marked margins.



- Use adaptive aids, such as slant boards to hold paper securely and assist with hand position. Use pencil grips to modify grasp.
- Provide a model of what is to be written on students' desks.
- Reduce the length of the assignment or provide additional time to complete assignments.
- Scribe students' ideas or have two students work together with one student writing both students' ideas.



Develop computer skills and use assistive technology to compensate for handwriting difficulties.

- Make computers and portable word processors available in the classroom for written work.
- Allow students to type their answers on word processors.
- Teach students how to use word prediction software or word processors with auditory feedback.
- Teach keyboarding and computer skills early. Students are generally ready for keyboarding instruction by Grade 3. However, students with FASD may learn these skills more slowly and the fine motor difficulties that affect handwriting may also affect keyboarding skills.
- In order to reduce the handwriting or typing load, arrange to have some assignments completed orally by using a cassette recorder or giving oral reports.



Adapt daily living tasks that require fine motor dexterity.

Sample of a specific strategy

Encourage parents to consider clothing with Velcro fasteners, and pullover and pull-on clothing whenever possible. Eliminate or delay the use of laces, buttons or zippers if they cause frustration. This helps students develop and maintain independence.

Behavioural regulation

Behavioural regulation is the age-appropriate ability to control one's activity level and modulate emotions in response to internal or external stimuli.

What difficulties with behavioural regulation look like

Students experiencing difficulties with behaviour regulation may:

- become extremely upset when required to change activities in the classroom
- shut down when there is too much noise or activity in the classroom
- display extreme emotional ups and downs
- have extended tantrums—shout, scream, kick and hit
- shut down when reprimanded.



Consult professionals who have experience with FASD or other neurological impairments.

- Consider psychiatric and psychopharmacological assessment and treatment. It can be helpful in understanding and providing interventions for many aspects of behavioural regulation. The neurochemical level of children with FASD may be unusual and they may respond in atypical ways to medications, such as Ritalin. Psychiatrists need to proceed with caution and carefully monitor individuals' reactions to medication. Medications that are properly administered and monitored may significantly improve arousal, attention, behaviour and mood regulation.
- Find professionals who can act as ongoing consultants on behavioural issues, such as therapists, counsellors or psychologists. These people should be knowledgeable about issues of FASD.
- Help access appropriate counselling and family support. Individual counselling with students is most helpful if the focus is on social skills training rather than talk and insight therapy.
- Work collaboratively with parents and other teachers to develop strategies for managing difficult behaviours and separating normal misbehaviour from behaviours related to neurological damage.



Consider how behavioural difficulties can be related to developmental level.

Samples of specific strategies

- Understand that out-of-control behaviours or shut downs are ways individuals communicate their feelings and frustration. Observe, evaluate and if possible, adapt situations.
- Consider students' developmental rather than chronological ages when planning ways to deal with emotional difficulties and lack of behavioural regulation.
- Continue to provide external structure and support for learning and daily routines that would typically be used with younger children. Teachers, job coaches and friends should all use external structuring that is developmentally appropriate to help individuals manage their emotions and behaviour.



Help students learn self-management skills by teaching strategies to deal with overstimulation and anxiety from sensory overload.

- Directly teach and practise ways to cope with overstimulation. Teach appropriate techniques to calm down and focus.
- Help students determine their most difficult times in the day and which situations make them feel uncomfortable. Work with them to see what they can do to avoid overstimulation.
- Teach students the names of different feelings and show them ways to control their behavioural responses. For example, provide a script to help identify feelings and steps to calm down.
- Use pictures and visuals to help students identify and communicate their feelings and the intensity of their feelings.
- Teach older students to be aware of personal signs of overstimulation. For example, when students retreat or look agitated because the room is too noisy, take them aside and discuss how they feel. Ask, "What is going on in your head, your skin, your chest and your inner organs?" Explain that such physical signs indicate they should ask for help or move to quieter locations.
- Create a respite plan so students know what to do if they become overwhelmed. For example, when the class activity level is too intense, a high school student can quietly leave the classroom to spend time with the counsellor or in the library.
- Advise older students to shop and run errands in the community in the early morning or later in the evening when there are fewer distractions from crowds. Share such ideas with the parents of younger students so they can avoid problems of stimulus overload in the community.

Adaptive behaviours and social skills

Adaptive behaviours are age-appropriate skills and abilities related to learning and demonstrating school and community rules, household routines, chores and self-care.

Social skills include understanding and expressing the social conventions necessary for effective communication, participating in positive daily social interactions, and demonstrating behaviours that lead to the development and maintenance of social relationships.

What difficulties with adaptive behaviours and social skills look like

Students experiencing difficulties with adaptive behaviours and social skills may:

- act younger than their chronological age
- have no friends their own age
- play with younger children
- have problems in gym class because they don't follow game rules
- have problems with time management
- be unable to manage their money in age-appropriate ways
- come to school dirty and unkempt
- be naïve and gullible
- say inappropriate things or act in ways that disturb others.



Provide supervision and support throughout the school day.

Samples of specific strategies

- Provide direct supervision for less-structured activities at school and in the community. These include changing classes, lunch time, recess, and getting to and from school. Have teachers or other staff members present during transition times to provide extra supervision.
- If older students have success in a structured, supervised environment, continue it. Many individuals regress when supervised social relationships, medication regimes and education programs are reduced or eliminated. If it is necessary to reduce support, reduce it slowly and practise new independent behaviours repeatedly. Continue to monitor students to determine if they are coping successfully with less support.



Prepare students for changes in routines.

Samples of specific strategies

When changes are required, add them gradually and monitor how students are coping.

- Provide warnings of changes, such as vacations, fire drills or extra visitors. Visual supports, such as charts with movable cards, can also be used to give students information about changes.
- Develop special plans for situations in which there will be different teachers. Provide instructions for substitute teachers.
- Discuss and practise behaviours for changes in the daily routine at school, e.g., field trips.
- Teach and practise specific behaviours and routines in the settings in which they will be demonstrated. Teach and practise skills in different settings and with different people. Don't assume students will be able to generalize new skills from one situation to another without a great deal of practice and support.



Teach social skills.

- Provide direct instruction in social behaviour skills.⁷³
- Use a video camera to capture students in positive role-plays of social skills. Students can watch themselves demonstrating appropriate behaviour.
- Give students opportunities to help so they feel valued as members of the classroom.⁷³
- Encourage students to use positive self-talk. "I can do this. I am able to pay attention right now. I can figure this out."
- Encourage students to shake hands when greeting and saying good-bye rather than hugging or kissing. Children with FASD often have difficulty differentiating between family members and acquaintances, and strangers. Replacing hugging with handshakes lessens the potential for initiating or participating in inappropriate social behaviour.
- Teach students about personal space by using masking tape or hula hoops as visual cues of appropriate personal space.
- Establish signals, such as holding up a hand, when it is inappropriate to interrupt. Use this signal consistently, and tell students what to do instead of simply telling them to wait.
- Work with students to develop an entrance and exit routine for the day or for each class.⁷³
- Play turn-taking games. For example, pass an object around and when a student has the object, it is that student's turn.⁷³

^{73.} Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Victoria, BC: British Columbia Ministry of Education, Skills and Training, 1996), p. 26. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

- With older students, use role-plays to review basic friendship skills. Include role-plays that involve what to say and do in new situations, such as dating, driving or working.
- Practise verbal responses, behaviours and social scripts to help students avoid risky behaviour. For example, students could prepare for situations in which they are offered drugs or alcohol by developing simple scripts and practising them in role-plays. The student might say, "I could get sick or addicted," or "I have an allergy to alcohol."
- Many students with FASD have difficulty discerning fact from fantasy. Restrict entertainment that is confusing or overstimulating, such as violent television, movies or video games.
- Recognize that students with FASD can be exploited and may need consistent monitoring in controlled environments. Explain the rules and routines for these students to other adults so they can help monitor and support positive interactions.



Teach functional life skills.

Essential and Supportive Skills for Students with Developmental Disabilities (Alberta Education, 1995) provides ideas on how to assess and teach functional daily living skills.

Samples of specific strategies

- Provide instruction in social, vocational and life skills. Teach skills for succeeding in real-life situations, such as taking the bus, shopping and doing chores.
- Include a vocational component in the school program. Try to give older students supervised work experiences in a variety of settings. Make sure vocational goals are included in individualized program plans if students are in special education programs.
- Practise personal-care routines, such as brushing teeth, combing hair and dressing, starting in elementary school.
- Provide positive peer models to teach and reinforce basic adaptive and social skills in the classroom and on the playground.



Teach and practise self-advocacy skills.

- Develop social scripts students can use in high-stress situations, such as getting on the wrong bus or hurting themselves. Students can keep these scripts in their wallets and use the steps when necessary.
- Use tools, such as the Self-advocacy Checklist, Appendix A10, page 124, to help students identify self-advocacy behaviours. Provide opportunities to role-play self-advocacy behaviours. Try them out in the classroom and practise them in other settings.

Attention

Attention is the capacity to focus on relevant information, encode information being focused on, sustain attention and split attention between two or more tasks. The attention function involves control of processing and production, as well as regulation of mental energy and alertness.

What attention difficulties look like

Students experiencing difficulties with attention may:

- miss instructions
- respond with answers unrelated to the questions
- look attentive and focused but have trouble understanding and responding appropriately
- be easily distracted
- have difficulty inhibiting responses
- be impulsive
- be hyperactive, e.g., move around, fidget
- have problems doing two tasks simultaneously, e.g., listening and taking notes.



Provide structure to focus attention.

Samples of specific strategies

- Provide external structures, such as study carrels, earphones or desks located in a quiet part of the classroom. Reduce extraneous stimuli to help students attend to relevant materials.
- Use a bookmark, ruler or sheet of paper to cover the rest of the page when reading or reviewing directions.
- Limit materials on desks or workspaces.
- Neep instructional group size as small as possible.
- Limit the number of oral instructions given at any one time. Follow up with printed instructions that include visual cues.





Give only one task at a time to reduce problems when shifting attention.

- Keep tasks short and specific with one instruction at a time, such as "Read the first paragraph." After it has been read, instruct, "Now answer question one."
- Provide a list of tasks to be completed and have students check off each task as it is completed.

Provide cues when there is a shift in activity. For example, when speaking to the class, stop and indicate information that students should write down.



Schedule times for appropriate movement.

Samples of specific strategies

- Provide stretch or movement breaks as needed or make them part of the classroom routine. Arrange an area in the classroom where students can move around without distracting others. Give students the option of going to this area when they need a stretch break.
- Have students do regular errands in the classroom, such as passing out papers or putting materials away, so they can move in the classroom in appropriate, helpful ways.
- Arrange nondistracting ways for students to move while involved in work. For example, one teacher replaced a student's seat with a large ball with a handle. The student could bounce at her desk and still get work done. Small inflatable cushions also provide students with an opportunity to move in their seats without distracting other students.⁷⁴



Manage the environment so students maintain mental energy and sustain focus.

Samples of specific strategies

- Provide periodic verbal prompts or visual cues to remind students to stay on task. Set watch alarms to go off at specific intervals as a reminder to focus. Use tape-recorded messages to remind students to check their work.
- Create guidelines for developing good listening skills and review them frequently. For example, "Show me good listening skills. Heads up. Pencils down. Hands in front of you. Turn your body so you can look at me. Look and listen." ⁷⁵
- Reinforce listening skills and behaviours for all students by commending students who demonstrate them.⁷⁵

District Learning Services, Vancouver School Board, 1999), p. 94.

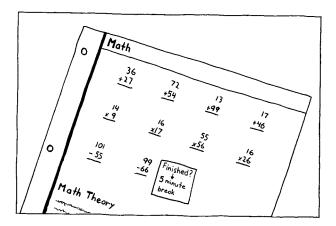
Teaching Students with FASD (Chapter 5)

Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS) (Vancouver, BC:

^{74.} Kleinfeld and Wescott 1993.

^{75.} Adapted with permission from Peggy Lasser, Challenges and Opportunities: A Handbook for Teachers of Students with

Place visual cues, such as stickers or checkmarks, at specific spots on worksheets that signal students to take a break.



- Use auditory cues, such as bells or egg timers, to provide cues for when to take a break or return to work.
- Place a time limit on homework. If elementary students are typically spending more than one hour a night on homework, this may be counterproductive and cause problems at home.



Use low-key cueing to encourage students to stay on task. 76

Samples of specific strategies⁷⁶

- Post reminders on students' desks. When possible, have students design and make reminder cards. Simply walk by and point to the reminder. This works for such skills as:
 - asking politely for help
 - focusing on work
 - taking turns.



^{76.} From Catherine Walker (Edmonton, AB: Smart Learning, 1998).

- Collaborate with individual students to identify physical cues that indicate a behaviour is interfering with learning. Cues should be unobtrusive and simple, such as a hand on the shoulder. This works for minor behaviours, such as interrupting or talking off topic.
- Allow students to listen to quiet music or a recorded voice that motivates them to keep working. Record an adult voice giving intermittent comments that support focusing attention and sustaining working.
- Laminate fluorescent file cards with key messages, such as *Talk in a low voice* or *Keep working*. If students need reminders, lay the cards on their desks, without comment. After five minutes, if behaviour has improved, quietly remove the card. If the behaviour continues, add a second card.



Encourage students to attend to instructions.⁷⁶

Samples of specific strategies⁷⁶

- Enforce a *No pencils in sight* rule during class instruction and discussion times.
- To physically slow down students and encourage them to attend to directions, fold over the worksheet so only the directions show.
- Ask students to explain directions in their own words to partners, teacher assistants or the teacher.
- Ask students to work through a few questions and then check their work. "Do the first five and then raise your hand and we'll check them together to make sure you are on the right track."
- When possible, hand out worksheets one at a time.
- If students are focused on quantity rather than quality, make a graph for certain tasks, such as math fact sheets and spelling tests, and record the number of correct answers (versus the number of completed answers).

Memory

Memory is the ability to register new stimuli, retain information for a short time, consolidate and use new knowledge and skills, and store information in long-term memory storage. Retrieval involves efficiently recalling stored ideas.

What memory difficulties look like

Students experiencing difficulties with memory may:

- be unable to remember colours and shapes despite repeated instruction
- be unable to recall information for tests despite extensive studying
- frequently lose their belongings
- have problems remembering daily routines despite regular exposure
- have problems recalling facts and procedures, such as number facts or steps to long division.

^{76.} From Catherine Walker (Edmonton, AB: Smart Learning, 1998).



Use instructional techniques that support and enhance memory skills.

Samples of specific strategies⁷⁷

- Provide one instruction at a time until students can remember two consecutive instructions. Provide two instructions at a time until students can remember three.
- When giving verbal instructions, write down the main points on an overhead or on the board.
- Provide opportunities for students to see directions and other information. For example, take time each day to note the daily schedule on the board.
- Present concepts concretely. Real-life examples add meaning and relevance that aid learning and recall. Concepts are easier to learn and retain when presented in familiar contexts or in contexts in which the skill will be used.
- Assess student learning frequently and on shorter units of work. Continue to reinforce concepts. Use quick, short evaluations rather than formal, longer tests.
- Use language that is familiar.
- Use cues to help students recall details.



Integrate memory aids into each learning activity.

- Provide regularly scheduled reviews of procedures and concepts. For example, start each day reviewing previously learned skills and ideas. Then present new skills and ideas. Before students leave for home, review the new information.
- Teach students to make lists, and note dates and assignments on a calendar.
- Encourage students to make lists of reminders regularly.

^{77.} Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Victoria, BC: British Columbia Ministry of Education, Skills and Training, 1996), pp. 32–33. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

Teach mnemonics for recall when concepts or facts are presented. An example is the math mnemonic Doctor-Sister-Mother-Brother for remembering the steps in long division.

Doctor – Divide Sister – Subtract Mother – Multiply Brother – Bring down

Teach and practise other memory strategies, such as rehearsal, clustering and associations.

Use rhymes, limericks, songs, movement and patterns. Music and physical routines linked to fact learning can help students memorize faster and act as a cue for retrieving specific information.

See *Teaching Students with Learning Disabilities* (Alberta Education, 1996), page LD.130 for ideas for teaching mnemonic techniques.

Rosella Wallace (1993) has published two books of learning raps, rhymes and songs that can be used to teach math, geography, reading, and other academic skills and concepts.

For older students, teach study skill strategies for taking notes and preparing for tests.



Provide multisensory cues to make information and skills easier to remember.

- Use multisensory instruction to teach sound-symbol associations in initial reading instruction. The procedure includes: Say the name of the letter, its sound and a word that starts with that letter while looking at a picture of the word. Trace the letter either on the desk, in the air or in a sand tray.
- Teach arithmetic facts by using concrete ways to show quantity or number, such as fingers and counting blocks.
- Provide visual cues, such as colour coding, photo and drawing sequences, charts and videos.
- Use auditory and kinesthetic cues in combination. Combine rhymes, raps and songs with movement and dance patterns.
- Duild in hands-on learning experiences and demonstrations across subject areas. Students will learn and remember more effectively when they have opportunities to see and try out new information and skills in a variety of settings and contexts.



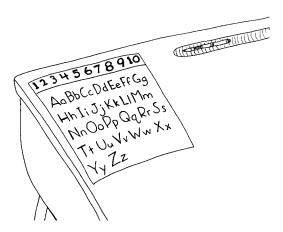
Provide clear organization to make retrieval of materials easier.

Samples of specific strategies

- ▶ Label class supplies and class work. Encourage students to use folders and binders with different colours, or labels with pictures to separate subject work or materials for each class. Ensure students have their names prominently displayed on all personal supplies.
- If students have lockers, have them put materials for each class in separate colour-coded bags or encourage them to keep their morning books on the bottom shelf and their afternoon books on the top shelf. Have students post their daily schedules and monthly calendars of assignments on the inside of locker doors.
- Assist students with daily and weekly organization of their desks, workspaces and living spaces by providing time to clean desks and organize homework at school.
- With older students, build procedures into the day for recording information in day-timers or assignment books.
- Provide strategies to avoid losing keys, clothing and books. For example, house keys can be worn on a chain or hook sewn to the inside of a pocket.

See Time Management, page LD.111 in *Teaching Students with Learning Disabilities* (Alberta Education, 1996).

- Provide memory aids for frequently used facts. For example, a grid of math facts can be kept in a pocket on the side of desks. Letter formation strips can be laminated and pasted to the tops of desks. Schedules should be kept on the blackboard or on the wall. Students can keep personal copies in their desks or notebooks.
- Tape simple cue cards of daily class routines on students' desks.
- Tape laminated number lines, the alphabet or other specific codes and information to students' desks so they have an immediate reference to frequently needed symbols.



During functional skills training, teach students to make and use cue cards of the daily schedule, medication routines and critical telephone numbers.



Language and communication

Language is the complex, rule-governed code or set of symbols people use to communicate. Language can be divided into two main processes: 1) comprehension—also called receptive language, and 2) production—also called expressive language. Language can be spoken, written or gestural, as in American Sign Language. People use receptive language skills to follow directions, listen to other people and understand what is being said. Expressive language skills are the ways people use meaningful statements to communicate information and ideas, and respond to questions or comments.

Communication involves the use of language to exchange information between people within a social context. It also includes nonverbal communication, such as gestures, facial expressions, body movements and posture. Affect, stress and intonation also influence communication. Communication is how people express emotions, initiate and develop social relationships, and convey their needs within the daily events of life. Social communication is the ability to consider the perspective of another person within interactions and use that information to guide responses.

At elementary school age, it is important to monitor students' abilities in speech articulation, vocabulary, grammar, comprehension, expressive language and social communication. It may be necessary to refer individual students for a speech and language assessment. The language difficulties of students with FASD are sometimes not apparent until later elementary years, so ongoing assessment may be required. These students typically lack higher-level language skills despite having seemingly normal vocabulary, grammar and sentence structure skills.

What language and communication difficulties look like

Students experiencing difficulties with language and communication may:

- be chatty, but have a difficult time explaining what they have seen or heard in a logical coherent manner
- have much better expressive than receptive language abilities
- not appear to understand verbal directions
- have problems putting thoughts into written language
- be able to describe a picture or fill in a worksheet, but have much more difficulty writing a story or simple report

- have limited ability to exchange information effectively within a conversation
- interrupt frequently and make unrelated comments
- say, "Everything is going fine," when offered assistance because they are unable to talk about specific details or explain problems.



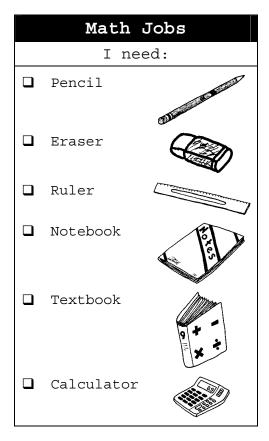
Teach students strategies to develop their listening and comprehension skills.

- Use visual cues and verbal aids, such as songs and mnemonics, to remind students what to do and in what order to perform tasks.
- Use concrete language.
- Use visual, auditory, tactile and kinesthetic instructional strategies. For example, expose students to letters with a variety of cues and in a variety of settings.⁷⁸
- Use visual models to make abstract concepts more concrete.⁷⁸
- Be aware that students with language difficulties may not understand announcements made on the public address system even though they are listening attentively. Get a print copy of all school announcements and review the information and its implications with the class.⁷⁹
- When planning for emergencies, consider how to accommodate individual students who may not understand instructions given on a loud speaker.
- Use visual cues and role-plays to teach students the five listening behaviours:
 - mouth quiet
 - hands quiet
 - ears listening to speaker
 - eyes looking at speaker
 - feet still.
- Accommodate individual students who have difficulty dealing with sensory overload by allowing them to look away, play quietly with a small toy or sit in a manner that allows movement during listening activities.
- Encourage students to watch classmates for cues about what they should be doing.

^{78.} Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Victoria, BC: British Columbia Ministry of Education, Skills and Training, 1996), pp. 37–38. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

^{79.} Adapted with permission from Peggy Lasser, Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS) (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 83.

- Sive instructions one step at a time and repeat information as needed. Check for understanding by asking students to repeat directions in their own words, or by checking understanding with partners.
- Provide photocopies or audiotapes of important information.
- Speak slowly and wait for understanding and student responses. Some students need time to process information before they can understand it.⁷⁹
- Use visual stimuli, such as charts, pictures and videos to develop understanding of the language of instruction.



- Adapt instructions and lectures so talk is reduced, and instructions are clear and concise.
- Give simple sequential instructions orally and print them on the board.
- Present information in a variety of ways, including visually, in writing, orally and by gestures.

^{79.} Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 83.

Consult with a speech pathologist to see if sign language may be a helpful strategy for teaching individual students even if they do not have a hearing loss. Sign language is concrete and visible, and can be used with verbal language.⁸⁰



Provide support for social communication development.

Samples of specific strategies

- Be aware of the possible discrepancy between students' oral fluency and their actual ability to communicate concepts or needs effectively.
- Teach replacements for inappropriate language and gestures.
- Address social communication difficulties through group activities with peers. Group activities provide an opportunity to use a variety of teaching techniques, including modelling, coaching, role-playing, behavioural rehearsals and group discussions. Ultimately, move teaching and practice to the environments in which the language and communication skills will be used.
- Use scripts to teach social communication behaviours. Techniques for teaching social pragmatics are available in a number of resources and commercial programs.
- Monitor students for an increase in social difficulties, such as peer rejection and social isolation, that may be a result of difficulties in social communication. Provide social communication training through individual and group instruction in the classroom.
- Provide direct teaching of social and conversational skills, such as topic maintenance, taking turns and social distance. Use peer models whenever possible.
- Help students learn language skills by teaching them in the environment in which they will be using the skills.⁷⁸

Academic skills

As students progress through the grades, the curricular emphasis changes from learning skills, to using them to comprehend and demonstrate understanding of new information and concepts.

^{78.} Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Victoria, BC: British Columbia Ministry of Education, Skills and Training, 1996), pp. 37–38. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

^{80.} Adapted with permission from Judith Kleinfeld and Siobhan Wescott (eds.), Fantastic Antone Succeeds! Experiences in Educating Children with Fetal Alcohol Syndrome (Fairbanks, AK: University of Alaska Press, 1993), p. 335.

What difficulties with academic skills look like

Students experiencing difficulties with academic skills may:

- be unable to learn simple one-step rules, e.g., "hang up your coat on the hook"
- have trouble learning sequences, e.g., the days of the week, the ABC song
- not understand basic math problems
- be unable to learn to tell time
- have problems answering comprehensive questions about material they appear able to read
- be unable to learn math skills beyond a basic level
- have problems writing coherent stories and reports.



Adjust academic expectations to match the skill level and developmental age of individual students.

- Provide inservice education to teaching and administrative staff about the issues associated with neurological impairments, and the effects of prenatal alcohol exposure on child development and learning.
- Use a variety of assessment strategies to generate comprehensive information for planning and instruction.
- Adjust instruction to the slower cognitive pace many students with FASD demonstrate.
- Present only one new concept in a lesson, if possible.
- Provide extra time to complete work and, when appropriate, reduce the workload so it can be accomplished within a reasonable time. Students should not be expected to take home all the work they are unable to finish in class plus all the regular homework.
- Vary the number of responses required to demonstrate mastery of a skill by emphasizing quality versus quantity in rote-learning tasks.
- Provide individualized instruction in areas of weakness. Use a range of approaches that are successful for teaching reading, math and written language to students with learning difficulties.
- Provide alternative course placements for areas of weakness, such as math and second languages. For example, American Sign Language may be a more appropriate alternative for students instead of French, Spanish or Japanese.
- Focus on vocational learning and teach functional life skills. Attend to safety issues, health and nutrition, leisure time skills, and job skill instruction.
- Continue to supervise and support academic development with in-school advocates and counsellors. Identify the support team at the beginning of the school year. Include plans for academic skills and social support in students' IPPs.



Use instructional strategies that are explicit and tap various senses and learning styles.

Samples of specific strategies

- Use multisensory approaches to instruction. Use a variety of approaches to teach one concept. For example, teach time with an hourglass, digital clock and linear clock. Relate changes in daylight and darkness to times to wake, eat and sleep. Draw pictures about different times of the day.
- Use assistive technology, such as computers, language masters and tape recorders, for instruction and practice. Such technological aids allow students to work at their own pace and provide multiple repetitions of instruction and practice. Give explicit instruction on how to use these devices.
- Provide opportunities to learn in context and in real-life situations.



Teach strategies for managing learning and organizational demands.

Some students with FASD have life-long struggles with organization. However, even these students will benefit from learning and practising effective organizational strategies. Even if the students do not internalize these strategies, they will give teachers, parents and others who work with students effective structures and routines.

- Limit the number of items used at a time.
- Use communication books for daily communication between school and home. This may also be a way to provide instructions for and track homework assignments.



- Display simple, numbered, concise steps for completing assignments.
- Use pictures to accompany written and verbal instructions, whenever possible.
- Give students photocopies of instructions for multiple-step assignments. Number the steps or separate them into a stapled instruction booklet to further emphasize the order and steps in the process. When possible, provide a finished sample.
- Organize older students' class schedules for optimum success. For example, group classes in the same area, assign lockers close to classes, and recruit peers to help students with FASD move between classes and organize assignments.
- Teach students how to use daily planners. Provide a visual system to record and monitor what tasks need to be done, and check off completed items.
- Encourage students to set aside a clear organized workspace at home to complete homework and to set aside the same time each night to work.
- Visually delineate individual students' workspaces or personal space with tape, colour or labels.



Teach basic note-taking skills to older students.

- Encourage older students to include the date and a title for notes they record in their notebooks.⁸¹
- During lessons and demonstrations, write related key words on the board and ask students to record these words in their notebooks. They can create definitions for these key words using phrases or pictures.
- Set specific format guidelines for note taking, such as:
 - write one idea per line
 - skip lines between writing
 - leave wide margins (so details can be added later)
 - use one side of page only.⁸¹
- Encourage students to put question marks beside any written notes they don't understand. This reminds them to ask for clarification at the end of the lesson.⁸¹
- Provide five minutes at the end of learning activities so students can compare their notes with each other.

^{81.} Adapted from *School Power: Study Skill Strategies for Succeeding in School (Revised and Updated Edition)* (p. 25) by Jeanne Shay Schumm, Ph.D. © 2001. Used with permission from Free Spirit Publishing Inc., Minneapolis, MN; 1–866–703–7322; www.freespirit.com. All rights reserved.

Through class discussion and brainstorming, develop a sheet of note-taking tips, such as the following.

How to take effective notes in class⁸¹

- Write down a date and title for each lesson. (If the teacher doesn't provide a title, make one up.)
- You don't need to write down everything the teacher says, but do write down everything the teacher writes on the board as well as any questions the teacher asks.
- Underline, circle or star anything the teacher repeats or emphasizes.
- Write one idea per line and skip lines. Leave wide margins so extra ideas can be added later.
- Use one side of the page only (so you can add details later).
- Write neatly so you can read it later.
- Abbreviate common words and terms that are repeated. For example, "b/c" for because, "&" for and, "govt" for government.
- Put question marks beside any points you don't understand—they can be discussed later with the teacher.
- Listen and take notes to the end. Important summaries and ideas are often given in the last five minutes of class.
- Compare your notes with a friend. Add to your notes.
- Designate one student who is a good note taker to take notes that can be used by classmates. These notes can be photocopied and placed in a binder for students who are absent as well as for students who have difficulty taking notes because of motor or language difficulties.



Teach students strategies for reviewing and studying for tests.

In addition to teacher support, some students need substantial parental support to successfully prepare for tests. Ensure review materials, study strategies and details of when tests will be and what material will be covered are communicated clearly. At times, parents or a tutor can assist with test preparation. Make sure helpers have the information they need about test content and format.

Samples of specific strategies

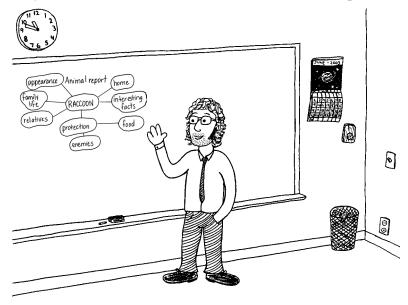
Make photocopies of important pages in textbooks. As a class activity, highlight key words. Use an overhead transparency to model how to highlight key words.

See Study and Organization Skills, pages LD.109–124 in *Teaching Students with Learning Disabilities* (Alberta Education, 1996.)

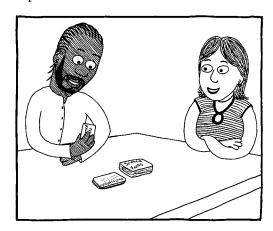
See Get Organized, Make Every Class Count and Use Tests to Show What You Know, pages 14–48 in *Make School Work for* You (Alberta Learning, 2001)

^{81.} Adapted from *School Power: Study Skill Strategies for Succeeding in School (Revised and Updated Edition)* (p. 25) by Jeanne Shay Schumm, Ph.D. © 2001. Used with permission from Free Spirit Publishing Inc., Minneapolis, MN; 1–866–703–7322; www.freespirit.com. All rights reserved.

Model webs that summarize information or generate ideas on the chalkboard when discussing stories or experiences. Give students guided practice in constructing webs on specific topics that they can use to study for tests. To ensure success, have students work in pairs or triads.



- Provide class time for students to review all activity sheets in a unit. Working with partners, they can cover answers with sticky notes and try the activities again.
- Have students create fill-in-the-blank statements to review new material. They can trade statements with other students and identify the missing key words.
- Encourage students to teach new information to another person. Assign it as homework and they can teach a parent or sibling.
- Have students work in pairs or small groups to make up questions for a practice test. This strategy will help them focus on identifying key information.
- Make flashcards for special terms in science, social studies and math. Print words on one side and definitions or illustrations on the reverse. Students can use these cards to review new vocabulary, individually or in pairs.



- Give students many opportunities to practise making up questions. Choose one piece of information and challenge students to make up as many questions as they can about that specific topic. Post questions on the board and discuss how different question words, such as "how" or "why," require different kinds of answers.
- Make up *Jeopardy!* questions and organize a fun review of a particular unit or topic. Use key words as answers and challenge students to identify related questions.



Teach test-taking skills.

Samples of specific strategies

Through class discussion and brainstorming, generate a list of tips for taking tests, such as the following.

Be test wise⁸²

- Read all directions TWICE.
- Highlight key words.
- Pay special attention to words in bold or italics.
- Read all the important clues in charts, pictures, graphs and maps.
- When you are given information for more than one question, reread the information before answering each question.
- If there is a word that you can't read or don't understand, read around it and ask, "What word would make the most sense here?"
- Mark any questions you find difficult, skip them and come back to them at the end of the test.
- Often, test questions have more than one step and ask you to consider a number of pieces of information. On scrap paper, jot down notes for each step of the problem. Use this information to find your answer.
- Talk through your plan in your head. "First I have to find out ... then, I take that number and ... to find out ... I need to ..."
- Use smart guessing strategies. Do not leave any questions unanswered.
- Keep working. If you finish early, read through each question and answer to make sure you have a complete answer.



Teach students techniques for managing test anxiety.

Samples of specific strategies

Identify what stress looks and feels like, specifically when writing tests.

^{82.} Adapted from Alberta Learning, Make School Work for You: A Resource for Junior and Senior High Students who Want to be More Successful Learners (Edmonton, AB: Alberta Learning, 2001), p. 44.

- Rehearse simple steps for managing anxiety, such as:
 - 1. close your eyes
 - 2. breathe deeply and slowly
 - 3. relax your hands.
- Have students make a tip card outlining a strategy for handling test anxiety. Post on individual desks so students can use the strategy independently.
- If necessary, refer families to appropriate resources. At times, students may need professional counselling or medical intervention to deal with anxiety issues.



Teach binder organization skills.

Samples of specific strategies

- Investigate a number of organizational systems for binders, and choose and reinforce one that will best support individual students or group of students.
- Provide a three-hole punch, stick-on hole reinforcements, tabbed dividers and any other materials that will help students keep their binders organized.
- Initially, schedule class time daily for students to do an informal binder check to ensure assignments are filed in the right section and include necessary information. As students become more proficient at organizing their binders, checks can be done weekly or even monthly.
- Through class discussion and brainstorming, develop a tip sheet for binder organization.



Help students clarify questions about homework assignments.

For more information on binder organization, see *Teaching for Learning Success: Practical Strategies and Materials for Everyday Use* by Gloria Frender (Nashville, TN: Incentive Publications, Inc., 1994).

Samples of specific strategies⁸³

Help students pinpoint their difficulties. "I can't do it" or "I don't know what to do" isn't specific enough. Spend a few minutes encouraging students to say, "I can't spell this word," "I don't know how to make this letter," "I don't have a pencil" or "I don't know where to find the answer to this question."

^{83.} Adapted with permission from Peggy Lasser, Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS) (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 86.

- Sometimes asking students "What would help?" enables them to explain what worked in the past or what they think will help them now.
- Commend students when they are able to explain precisely what is wrong or why they cannot complete assignments.



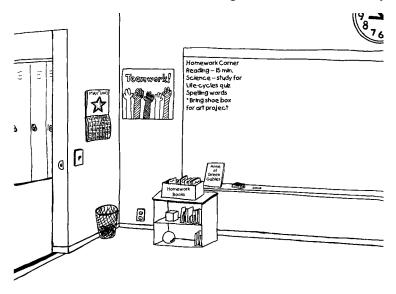
Teach techniques for organizing homework.

For many students with FASD, a successful homework program is contingent on the active involvement of parents. To ensure optimum parent participation:

- provide clear directions
- establish a routine so parents know what to look for on different days
- share strategies and tips for working with students with parents or tutors
- keep lines of communication open and be sensitive to the individual circumstances of each family.

Samples of specific strategies

- Schedule a regular time during the school day for recording homework assignments, clarifying instructions and packing books and materials.
- Designate a homework corner on the board so assignments are visible all day.



In junior or senior high, one staff member, such as the homeroom teacher or counsellor, can serve as a homework coordinator for individual students. Students can meet briefly with their coordinators daily, to ensure they understand the day's homework and have the necessary books and materials ready to take home.

- Help students organize materials in their lockers. One mother sewed her teen separate coloured bags for the books and materials needed for each class. Between classes, the student could open her locker, select the right bag and take it to class.
- Make daily or weekly assignment calendars or charts listing tasks that have to be done and when. Keep one copy at school and send the other home. Keep instructions clear and simple.
- Introduce students to checklists or assignment books with pictures of tasks and a way to indicate when work is completed. Gradually, introduce students to planning and assignment books with large squares for each day. Eventually, most students will be able to use commercially available assignment books and day organizers.
- In junior high and high school, provide daily assignment notebooks that each teacher verifies and the homeroom teacher checks. Parents can also sign homework after it is completed and reviewed at home.
- Ask a capable student to write in a class copy of a homework book each day and display this demonstration copy. It can be kept in a binder for reference. This allows individual students, teacher assistants or parents to check dated entries and see what the homework book should look like.
- Use visual timelines to develop time-management skills. Show students how to plan for projects that involve several steps over the course of several days or weeks.
- Help students learn to plan their time and organize priorities. Have them start to make their own daily homework plans. Later, have them make time-management plans for longer assignments, outlining each step.
- Develop homework checklists that students understand and can use to self-monitor.
- If students are unable to manage getting their books to and from school, provide an extra set of textbooks for home use. If technology is available, consider e-mailing copies of assignments and required textbook pages.
- Offer extra tutoring after school using volunteers, teachers or a designated school homework coach.
- Set up a homework buddy system so students can telephone or e-mail classmates if they have questions about homework assignments.

^{84.} Kleinfeld 2000.



Use technology to enhance home-school communication about specific homework assignments.

Samples of specific strategies

- If students have difficulty remembering to bring home spelling lists or other assignment information, give them class time to phone home and record the information on their answering machines or voice mail.
- Offer to send class newsletters, test reviews and other school information via e-mail to families with Internet access.



Teach strategies for building reading comprehension and decoding skills.

- Pair less-able readers with competent readers and have them read and complete assignments together. 85
- Help older students locate and colour code essential information in instructions by underlining, circling or highlighting key words or steps. Teach students to use different colours to distinguish specific information while studying. For example, in a language arts assignment, students might highlight action words in green or nouns in yellow. Older students can underline or circle parts of the text in specific colours as they study. They can use one colour for new vocabulary, another for specific facts and a third for main ideas.
- Photocopy reading material and use whiteout tape to cover difficult words. Write simpler words on the whiteout tape. This is also effective in work that contains many idioms, metaphors or unfamiliar figures of speech.⁸⁵
- Consider adapting materials written for students learning English as a second language. They are written at a simpler, less complex level than other materials. 85
- Dook for high interest/low vocabulary materials in the library. 85 Teach students to find books at their level.
- Provide audiotapes or audio CDs of textbooks and novels. 85
- Introduce new words slowly and repeat them frequently. 85

^{85.} Adapted with permission from Peggy Lasser, *Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS)* (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), pp. 84, 86.



- Use picture dictionaries to aid vocabulary development. 86
- At the beginning of the school year, plan for review as students may have forgotten many sight words and decoding skills over the summer.⁸⁵
- Start with books at an easier reading level so students can build their reading confidence. "Start low. Go slow." 85
- Consider having volunteers or buddies read with students regularly. 85
- Use flashcards to practise sight words and decoding skills. 85
- Use cut-up sentence strips to assist with word identification and comprehension.⁸⁶
- When teaching phonics, teach word families as well. Some students need to see and use words many times before they remember them. 85
- Start a home reading program. Let parents know that even five minutes a day can make a difference.⁸⁵



Help students find appropriate books for independent reading.

Samples of specific strategies⁸⁷

- Teach students how to check book cover information. Many paperback novels for young readers have a reading level printed on the cover.
 - Look for a number on one of the bottom corners of the back cover, e.g., RL 2.4. This means
 that in the publisher's opinion, this book could be read independently by most students reading
 at a mid Grade 2 level.
 - IL refers to interest levels. It indicates the grade level that the ideas and story line would most appeal to. For example, IL 3–5 means a book might be of special interest to students in Grades 3–5.
- Encourage students to use the five finger rule to test whether a book is the right difficulty level for independent reading. Have students read the first page of the book. Whenever they come to a word they don't know or are unsure of, they put up one finger. If all five fingers are up by the end of the page, the book is too difficult. The book might still be a good choice for paired reading or for a read-aloud. Keep a list of titles and authors of the difficult books so students can come back to them when their reading skills are stronger.

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^{86.} Adapted from British Columbia Ministry of Education, Skills and Training, *Teaching Students with Fetal Alcohol Syndrome/Effects: A Resource Guide for Teachers* (Victoria, BC: British Columbia Ministry of Education, Skills and Training, 1996), pp. 37–38. Copyright © 2004 Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca

^{87.} Adapted with permission from Dana Antayá-Moore and Catherine M. Walker, *Smart Learning: Strategies for Parents, Teachers and Kids* (Edmonton, AB: Smart Learning, 1996), p. 19.



Use strategies that support reluctant writers and provide alternate ways to record and communicate information and ideas.

Samples of specific strategies

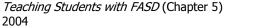
- Consider alternative demonstrations of knowledge and understanding, such as videotaping, audio recording and computer applications, instead of written work.⁸⁸
- Teach and encourage the use of electronic spellcheckers, tape recorders and word processors for writing.⁸⁸
- Encourage students to write about their own experiences in order to help them organize their thoughts. 88
- Use visual structures, such as story organizers or report developers. Good examples are available in a variety of sources.



Use hands-on activities to support math learning.

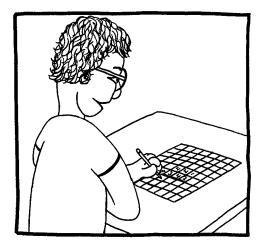
- Assess current math skills. Don't assume students have mastered concepts and skills taught in previous years. 89
- Locate math resources that focus on basic math skills. Move slowly when concepts are introduced, and offer lots of repetition and practice. Students need clear, concise examples and explanations. 89
- Dook for different ways to teach concepts and skills, such as number lines, blocks, fingers, calculators, chanting, drill sheets, alternate texts, a slower pace, and worksheets with entertaining pictures and clear examples.⁸⁹
- Use consistent language to explain concepts or operations. When teaching operations that involve more than one step, such as subtraction with regrouping, use consistent steps and consistent language. 89
- Provide illustrated checklists for mathematical operations that have more than one step.⁸⁹

^{89.} Adapted with permission from Peggy Lasser, Challenges and Opportunities: A Handbook for Teachers of Students with Special Needs with a focus on Fetal Alcohol Syndrome (FAS) and partial Fetal Alcohol Syndrome (pFAS) (Vancouver, BC: District Learning Services, Vancouver School Board, 1999), p. 90.



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Use graph paper or lined paper turned sideways to spatially organize mathematics problems. The lines on the page or the graph grid can be used to line up numbers in columns. This approach is especially helpful when students do subtraction and multiplication with regrouping.



- Make checklists and examples available for students to use during tests.⁸⁹
- Some students with FASD can learn the operation, e.g., addition, but have difficulty understanding the concept behind it. Teach *how* rather than *why* at first. ⁸⁹ Gradually work to develop understanding through multiple presentations with manipulatives.
- Use computer programs for review. Some programs assess students' individual levels and pace instructional practice. 89
- Add value to daily math drills by having students repeat the questions and answers as you correct them together. Students see, hear, say and write the questions with the answers. This gives them more practice than if teachers do the marking.⁸⁹
- Be aware that the concept of time causes problems for many students with FASD. 89 Use physical examples of time passing, e.g., hourglass, plants growing, candle burning down.
- Some students need intensive individual support and adapted materials to successfully complete problem-solving questions. Use diagrams and start from the simplest level. Provide visual steps wherever possible.⁸⁹

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