

What Educators Need to Know about FASD



Working Together to
Educate Children in
Manitoba with Fetal
Alcohol Spectrum
Disorder

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with Fetal Alcohol Spectrum Disorder

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This resource is also available on the Healthy Child Manitoba website at <www.gov.mb.ca/healthychild/fasd/initiatives.html>.

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Contents

Acknowledgements	iii
Introduction	1
What is FASD?	3
Fetal Alcohol Spectrum Disorder	5
Understanding the Needs of the Student with FASD	7
Physical Motor Skills.....	9
Sensory Processing Skills.....	13
Cognition	20
Communication Skills	21
Academic Achievement	25
Memory Skills	34
Executive Functioning and Abstract Reasoning.....	36
Attention Deficit/ Hyperactivity.....	39
Adaptive Skills	41
What Students Want their Teachers to Know.....	47
What Parents Want Teachers to Know.....	49
The Paradigm Shift.....	51
Secondary Disabilities	53
What Educators Need to Know	55
Teaching FASD Prevention	65

Appendices

Appendix 1: Parent Education Planning for Students with Special Needs	67
Appendix 2: Sample Student Profile Form	68
Appendix 3: Common Misconceptions About FASD.....	69
Appendix 4: General Guidelines: Caring for Students with FASD	72

Resources

FASD Resources in Manitoba	73
FASD Websites	74
References	75

Introduction

If you are a classroom teacher about to teach a student with fetal alcohol spectrum disorder (FASD) for the first time, this guide may help you plan appropriate programming. The strategies outlined are general and may also be applicable for use with students who are not diagnosed with FASD but who do share some of the same learning needs. Many of the strategies that will be discussed may also be useful for parents to use at home. Success is often achieved when teachers and parents work together to create a supportive environment for the child both at school and at home.

The goal of this resource guide is to provide teachers and parents with a clear understanding of the needs of students with FASD by:

- defining fetal alcohol spectrum disorder (FASD)
- describing the common learning and behavioural characteristics of children with FASD
- suggesting strategies that may be helpful in meeting the needs of these children in the classroom and at home

Throughout this guide, the use of the word parent refers to caregivers who live with the child and are the primary caretakers. This includes foster parents and legal guardians.

It is important to recognize that the effects of FASD vary in range and severity for each individual. *As a result, no two children with FASD learn and function in exactly the same way.* Your knowledge and experience, guidance and encouragement are vital to the child's learning. Preparing for your student requires:

- learning about FASD
- talking with parents and the student about the child's strengths and needs
- getting to know your student and his or her goals
- knowing how best to communicate with your student
- becoming aware of what adjustments may be necessary in your planning
- sharing responsibility for directing the student's educational programming in co-operation with other members of the school team
- knowing where to get help when needed

Preparation, co-operative planning and positive communication in the first few days build the groundwork for effective teaching and learning. By working together with the team and parents, you can create an intellectual, physical, social and emotional environment which will foster the student's development in skills, knowledge, communication, self-esteem and lifelong learning.

What is FASD?

Fetal alcohol spectrum disorder (FASD) is a term that describes a wide range of effects that can occur in an individual who was exposed to alcohol during pregnancy (Chudley et al. 2005). These effects may include physical, mental, behavioural, and cognitive disabilities which last a lifetime. FASD itself is not a diagnostic term, but rather an umbrella term under which four specific *medical* diagnoses can be made. They are:

- Fetal Alcohol Syndrome (FAS)
- Partial Fetal Alcohol Syndrome (pFAS)
- Alcohol Related Neurodevelopmental Disorder (ARND)
- Alcohol Related Birth Defects (ARBD)

These diagnoses need to be made through a multidisciplinary assessment.

First described in 1973, FASD is a complex disorder. People who live with this disability experience a wide range of effects. Some individuals have severe growth delays, intellectual disability, birth defects and characteristic dysmorphic facial features. Others have normal growth, normal facial features and intellectual abilities, but with lifelong deficits in several domains of brain function.

FASD is often referred to as a “hidden” disability because its physical characteristics can be subtle and may go unrecognized. Many children with FASD are endearing and affectionate and these qualities can mask the seriousness of this lifelong neurological disability.

Many factors influence the severity and type of effects on the fetus, including the frequency, amount, and timing of alcohol consumed, the mother’s ability to metabolize alcohol, the mother’s overall health and nutrition, the mother’s use of other legal and illegal drugs, the age of the mother and even the fetus’s genetics. There is no known safe amount of alcohol use during pregnancy.

The Diagnostic Process

An early diagnosis is essential to allow access to interventions and resources that support children to develop to their fullest potential.

In Manitoba, there are two diagnostic centres for FASD: the Clinic for Alcohol and Drug Exposed Children (CADEC) located at Children’s Hospital in Winnipeg and the Northern Consultation Clinic at Thompson General Hospital. Assessments may be made via telehealth in partnership with the diagnostic centres. To optimize the outcome of diagnosis, the family and the community must be ready and able to participate in, and be in agreement with, the diagnostic assessment. The diagnostic process will consider the families’ and caregivers’ needs within their community and cultural environment.

Children are assessed by a multidisciplinary team that may include a developmental pediatrician, a geneticist, an occupational therapist, a speech-language pathologist and a nurse practitioner. Information from multiple sources (school records, hospital records, psychological assessments, social services, previous assessments) is obtained to aid in assessment. Caregivers and professionals who know the student (family members, teachers, social workers, psychologists, education support personnel) may be invited to meet with the diagnostic team during this process.

The assessment and diagnosis is formulated into a report containing the assessment findings, medical diagnosis and recommendations. A summary report is available (upon consent from the legal guardian) to caregivers, educators and biological families as well as other individuals who work with the child. The assessment also provides important information about the child's unique needs and allows interventions to be tailored to his or her strengths and challenges.

The diagnostic team will facilitate referrals and provide short-term follow-up with the family and community resources regarding outcomes of the recommendation.

For more information on diagnostic services and how to make a referral contact:

Clinic for Alcohol and Drug Exposed Children
Children's Hospital of Winnipeg
CK275-840 Sherbrook Street
Winnipeg, MB R3A 1S1
Phone: (204) 787-1822

Northern Consultation Clinic
Thompson General Hospital
867 Thompson Drive South
Thompson, MB R8N 1Z4
Phone (204) 677-6580

Fetal Alcohol Spectrum Disorder

Diagnostic criteria for FAS, pFAS, and ARND

FASD is an umbrella term that encompasses specific medical diagnoses: fetal alcohol syndrome, partial fetal alcohol syndrome and alcohol related neuro-developmental disorder

Fetal Alcohol Syndrome (FAS)	Partial Fetal Alcohol Syndrome (pFAS)	Alcohol Related Neuro-developmental Disorder (ARND)
Physical indicators small for age distinctive facial appearance: - small eyes - smooth philtrum (area between the nose and upper lip) - thin upper lip abnormal brain function	Physical indicators some, but not all, of the physical signs of FAS abnormal brain function	Physical indicators There are no identifiable physical features specific to ARND abnormal brain function

Abnormal brain function, evident throughout the spectrum, includes impairment in at least three of the following brain domains:

- hard and soft neurological signs (including sensory-motor)
- brain structure (head circumference or size, magnetic resonance imaging)
- cognition (IQ)
- communication (both receptive and expressive)
- academic achievement
- memory
- executive functioning (common sense) and abstract reasoning
- attention deficit/ hyperactivity
- adaptive behaviour, social skills, social communication

Confirmation of maternal prenatal alcohol exposure is required for a diagnosis of FAS, pFAS and ARND.

There is also the diagnostic category "FAS without maternal confirmation of alcohol exposure".

Note: Those with ARND are most at risk of being misunderstood because there are no physical indicators of FASD - they have average growth and typical facial features. This diagnosis is often referred to as a hidden disability. The only difference among ARND, FAS and pFAS is the absence of physical characteristics, not the severity of brain dysfunction.

The spectrum of brain differences with FASD varies from individual to individual and causes many different learning, behavioural and daily-living challenges. Individuals with FASD have many strengths, skills and interests. It is important that their strengths are recognized, nurtured and developed.

For more detailed information on the diagnostic criteria, view *Fetal Alcohol Spectrum Disorder: Canadian Guidelines for Diagnosis*, published in the *Canadian Medical Association Journal*, found at <http://www.ecmaj.com/cgi/content/full/172/5_suppl/S1>.

Understanding the Needs of Students with FASD

The Impact of Brain Domain Dysfunction on Learning and Behaviour

Students with FASD are as different from each other as any group of children. Each child presents a complex individual portrait of competencies and challenges. Students with FASD must be recognized as individuals rather than as members of a homogeneous group. FASD can affect individuals in varying degrees, from mild to severe.

Behaviours that result from the effects of FASD can be challenging and often try the patience of the most dedicated and experienced educators and caregivers. The response of children with FASD to corrective methods can be frustrating since these children are often inconsistent. In one circumstance they may respond positively to feedback. On the next occasion, the same feedback may result in a negative response. Children with FASD often have difficulty with cause and effect reasoning and adjusting to new or unfamiliar situations. This can result in teachers or caregivers misinterpreting the behaviour and responding in a way that may create a more difficult situation.

Focused observation is important to gain an understanding of how the children experience stress, relieve tension, cope with obstacles and react to change. It provides valuable information on how they meet their needs, how hard they actually try and how to build a supportive environment that leads to achievement. Additional structure can be provided through the teaching of rote social skills or patterns of social behaviour. A multi-sensory, whole-brain approach offers students the greatest opportunity for understanding. Curriculum is often best taught in the context of daily life. A calm, nurturing, structured learning environment is vital.

Students with FASD can bring gifts to your classroom, including humour, creativity, caring, a love of animals, determination, musical and artistic talent and a desire to please. Through formal and informal assessments, you will be able to develop a plan that draws on your students' strengths to support their educational needs. An essential ingredient throughout the process is developing and supporting students' self-esteem. Children delight in achieving success through a learning experience. It is important to have a classroom where this happens as often as possible.

Children
delight in
achieving
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through
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experience.

Understanding Brain Differences

How this section works

This section is designed to help teachers plan appropriate interventions by identifying the challenges associated with impairment in each of the brain domains examined during the diagnostic process. Each brain domain is explained, with an emphasis on the commonly associated disabilities found in children with FASD. Understanding what brain differences exist will help teachers appreciate why certain strategies should be used. The nine brain domains are covered in the following order:

- physical motor skills
- sensory processing skills
- cognition
- communication
- academic achievement
- memory skills
- executive functioning and abstract reasoning
- attention deficit/hyperactivity
- adaptive skills

For each brain domain, strategies that have proven successful are suggested. Some of these may work with a particular student, some may not. Each student is unique so teachers must be creative and persistent in finding their own successful strategies for each student.

By developing learning environments that respond to the unique challenges of students with FASD, teachers can provide an important link in the chain of support needed to assist these children to succeed in school and the community.

Physical Motor Skills

Children with FASD have a wide range of gross and fine motor skills. Some excel in physical motor skills, particularly in individual sports such as swimming, skiing, running, skating and rollerblading. Success in these areas is a great way to build self-esteem and develop lifelong leisure pursuits. Involvement in organized team sports may be more challenging, not necessarily due to poor motor skills, rather due to poor memory for rules, impaired judgment and problem-solving skills and immature social skills. Children may require more support and understanding as well as repetition, practice, pre-teaching and individual coaching to succeed on a sports team.

Some children with FASD have significant problems with gross and fine motor development that can interfere with daily functioning at home, school and in the community.

Gross Motor Skills

Students with FASD may experience difficulty with:

- poor co-ordination (including eye-hand co-ordination)

The co-ordinated movements required for physical activities such as running, bike riding, skating, rollerblading and playing ball games may be delayed. Physical therapy can be helpful, as can physical activities such as swimming, dancing, gymnastics and cross country skiing, provided the goals set for these activities are realistic.

- abnormal muscle tone (usually tightness in the arms and legs and low muscle tone in the trunk)

Poor central or postural stability of the core body or trunk muscles can affect students' balance and functioning in the classroom. Often, static or stationary balance is more affected than moving or dynamic balance. The child may constantly be on the move around their environment to help maintain an upright posture. They will often depend on momentum to keep themselves upright. An analogy of this would be to try riding a bike very, very slowly. It is much easier to ride a bike fast to maintain balance or prevent falling over. To help compensate for poor postural stability, children with FASD will often fix at the neck and shoulder area to help improve their stability. This can interfere with use of their arms and hands during fine motor activities and cause them to expend a great deal of energy trying to remain seated. Students with FASD may constantly move in their chairs, fall off their chairs, avoid sitting or only remain seated for short periods of time during tabletop or circle sitting activities. Students often will try to lean against a wall, furniture or other people for support in a constant effort to keep upright.

- poor body awareness

Poor sensory processing of information from the muscles and joints (poor proprioception) results in decreased understanding and feel of body position and movements. Students may have difficulty using the right amount of pressure or force to do a job. For example, they may not control their muscles appropriately to hold a pet gently, tag a classmate without hurting, or throw a ball with the correct amount of force to a partner.

As a result of poor body awareness, decreased muscle control and poor co-ordination, children often seem clumsy, careless or physically aggressive. They may bump into peers and furniture, trip over their own feet when crossing the room and play in an apparent rough or aggressive manner, often hurting peers or breaking toys. This is not intentional or defiant behavior, rather a result of impaired motor skills and poor body awareness caused by neurological impairment.

STRATEGIES:

- Ensure students are provided with stable seating when doing seat work at a table or desk. The best seating position for these students is to sit on a properly fitted chair which lets their backs rest against the chair back. Hips, knees and feet should be at about 90 degrees of flexion with feet resting solidly on the floor or a footstool if the chair is too high. Chairs with armrests are good for children with low muscle tone in their trunk.
- Use a variety of positions throughout the day to do work. Suggestions include lying on their stomachs on the floor, standing, sitting on a therapy ball, etc.
- Perform structured gross motor activities, prior to fine motor activities, to give muscles a wake up call. Try scheduling phys-ed class first thing in the morning or have students run a few laps around the gym or school, or run up and down a set of stairs before starting academic work. Vary seat work with physical activity throughout the day, to help keep the mind and body more alert. An air filled cushion or wedge that provides movement helps challenge and strengthen postural muscles.
- Provide activities to improve balance and co-ordination skills. Set up obstacle courses during phys-ed class or movement breaks. This could involve climbing over, under, through; jumping or hopping on one or two feet; balancing on a large ball or balance beam; throwing, hitting or kicking a ball at a target; skipping or galloping along a line; jumping rope or bouncing on a trampoline (under supervision).
- Increase upper body strength through the shoulder joint by using weight bearing activities. Try wall pushups or wheelbarrow walking. Have students lie on their stomachs on scooter board and propel themselves using their arms. Pull the child in this position by having them hold onto a towel or hula hoop. Encourage climbing monkey bars or gym bars; chalkboard drawing at or above eye level; or pushing a large rubber tire up and down the hall.

Structured, organized activities which provide students with heavy work to their muscles tend to have a calming effect. Avoid doing these activities in loud, unstructured environments as this tends to increase the activity level even more. **Caution:** Closely supervise students during these activities as they often don't have a sense of danger and have poor body awareness.

To set up a specific exercise program to meet the individual needs of the students, or adapt classroom seating for optimum functioning, contact your school physiotherapist or occupational therapist.

Fine Motor Skills

The delayed development of some fine motor skills, such as tying shoelaces, handwriting, using scissors and opening food packages at lunch time can cause additional stress for the school-aged child. Students may have difficulty sustaining the motor activity required in a typical school day without adaptation to reduce the demands on their muscles. As they learn motor skills, the motor skills may become automatic, but it often takes longer for students with FASD to reach this automatic state. Even then, there may be days when they forget a skill that they have previously learned. The effort it takes to remember what a letter looks like and how to form it, detracts from writing the message or remembering how to spell a word.

Several of the neurological outcomes of FASD may include:

- immature grasp and manipulation patterns (including pencil, scissor grasp and the ability to manipulate small objects)
- decreased hand strength, low muscle tone in hands, instability of joints in hands, all of which may cause students to tire faster than their peers while engaging in fine motor activities such as pencil use
- fine motor tremor
- poor bilateral hand use - using one hand for movement and the other as a helping assist
- no established hand dominance, rather a switching of hands during an activity such as cutting or pencil use

STRATEGIES:

- Ensure that students have supportive seating in a properly fitting desk and chair. Their feet should rest solidly on the floor, with hips and back supported by the chair back. The table top should be a forearm's length away from the chin with elbows resting on the table. The fist should fit under the chin.
- Allow extra time for writing, but recognize students' difficulty in sustaining the motor activity of writing. Students may only be able to do small amounts of writing before needing a break.

- Reduce the amount of copying required (e.g. from the chalkboard or overhead projector). Provide a photocopy of the information for students to use at their desks; use a scribe or buddy system for copying. Help the older students determine what information in the notes is most relevant by having them highlight the sentence or information.
- Encourage the early development of keyboarding skills for word processing. Word prediction software programs may help with word processing, reading and organization of written assignments.
- Provide extra practice in handwriting and printing. In intermediate grades decide whether to encourage cursive writing or continue with manuscript form.
- Watch to see if students grip their pencils too tightly, which is tiring. Use soft slide-on pencil grippers. Molded pencil grips can also help develop a more efficient tripod grasp.
- Provide a brief time for seat breaks. Vary seat work with physical activity such as taking a short walk, watering the classroom plants, delivering a parcel to another part of the school, etc. This will help keep the body and mind more alert and increase productivity.
- Provide hand strengthening activities such as tug-of-war, using a hole punch, spraying with trigger-type spray bottles, kneading, poking and rolling play dough and clays of various densities and squeezing sponges or squishy balls.
- Use a multi-sensory approach to teaching printing and handwriting which incorporate the visual, tactile and kinesthetic senses.
- To reduce fine motor tremor, increase resistance or the weight of the pencil. A softer lead pencil (2B, 3B or 4B) provides more resistance to the paper. A pencil topper adds weight or a special glove with added weight can be made to increase weight (check with your occupational therapist). If quality and quantity of written work remain poor after working on this skill, it may be necessary to adapt the requirements by accepting oral reports spoken into a dictaphone, or a computer generated or scribed report.

Sensory Processing Skills

Sensory Processing Disorder (SPD) is a complex disorder of the brain that affects many students with FASD. These children misinterpret everyday sensory information such as touch, sound, movement and smell. Some students feel bombarded by sensory information; others seek out intense sensory experiences or have other problems.

“Children with [FASD] may be under or over sensitive to their surroundings. They may not be able to communicate their responses to the environment clearly and directly, not having a language to say what’s different for them. They will more likely communicate their response to their environment through their behaviours . . . environments need to be modified to support people with [FASD]. Behaviours often change as environments are modified . . .” (Diane V. Malbin).

School classrooms are overwhelming places for students with FASD because there are many things to see, movements to observe, sounds to hear, things to smell, and things to feel (from accidental bumps in line, to the feeling of clothing on one's skin). The overwhelming feeling of being bombarded by all this sensory information may affect students' inner sense of calm and their ability to organize themselves and process the information being presented in class. Consequently, students may appear disorganized, confused, emotionally upset, scared, shut down or become out of control. Frequently, caregivers and teachers interpret this behaviour as hyperactive, defiant, resistant, avoidant or aggressive. In reality, their nervous systems are having difficulty making sense out of the world around them.

- When setting up a learning or classroom environment for students with FASD, always start with the physical environment.
- Structure and routine are of utmost importance in the classroom.
- Less is best for students with FASD when it comes to visually appealing classrooms.
- A tuned down class is one tuned into the student, not a result of lack of interest or effort on the teacher's part.

“Students who are alcohol-affected often experience difficulties in processing the different sensory information they receive. For most individuals, the processing of sensory information is automatic. Most individuals can screen, filter, and selectively attend to different sensory information. However, children who are alcohol-affected often have difficulty with these processes. They may be over-responsive to some forms of sensory input and under-responsive to others. They may become overloaded by the sensory information they receive and, as a result, are unable to organize their behaviour” (Manitoba Education, Training and Youth, *Towards Inclusion: Tapping Hidden Strengths: Planning for Students Who Are Alcohol-Affected* 3.5).

When students become overwhelmed by all the sensory stimuli around them in the classroom, a safe quiet place or calming space should be available for them to retreat, calm and organize themselves. It is not meant as time out or punishment, but a safe place to calm down. Initially, they

may need permission or guidance to use this space. This must be done in a non-threatening and non-punitive manner. The aim is to teach students to self regulate by going to this safe place on their own when needed. This is a life skill which will benefit them throughout their lives. It must be a safe, inviting place to retreat before their behaviour escalates and becomes out of control. There is no set pattern for constructing a calming space. "For examples, see figures 1 and 2 below."

Once in the quiet space, students are provided with a sensory helper to calm them down. The sensory helper will vary from student to student. It can be anything from a weighted blanket or warm fleece blanket, to looking at a book, drawing or doodling on paper, listening to music or soft soothing sounds, manipulating a hand held toy, or watching a slow-moving oil and water toy. Deep back massages or squeezing students' hands and feet can also be helpful if they tolerate this. Please check with your occupational therapist for some safe and appropriate suggestions for calming the nervous system.

Figure 1



Figure 2



Other designated spots within the classroom may be set up for calming and organizing students and helping them focus their attention.

The following sections describe visual, auditory, tactile and locomotor strategies that may help manage the sensory experience of students with FASD.

Visual Strategies

Visual stimuli within the classroom can be very distracting and can easily lead to over stimulation. Students in classrooms with reduced visual stimulation have much less hyperactive behaviour and are better able to pay attention.

Natural lighting is preferable to electrical lighting. Windows should have blinds to adjust the amount of direct sunlight or block out outside stimulation. When natural lighting is not available, use non fluorescent lighting such as full spectrum lighting or incandescent lighting. Sensitive children see a flicker and hear a hum in fluorescent lighting that the average person does not. Provide ways to dim the lights or turn some off while leaving others on.

- Reduce the amount of information on the walls in the classroom by using easily removable sheets attached with Velcro or curtain rods. (Figure 3)
- This covering can be easily removed when needed. (Figure 4)
- Below is an example of a regular-sized kindergarten classroom with a modified teaching area to reduce stimulation during focused learning. The rest of the classroom is set up as a regular stimulation environment to meet the needs of all learners. (Figure 5)

Use cupboard doors or fabric to cover storage cupboards, bookshelves, toy and supply shelves and closets to reduce the amount of visual clutter present in the classroom. Fabric coverings should consist of solid, non-stimulating, soft pastel colours. (Figure 6)

Use visual language to enhance comprehension and retention of learning as students with FASD are often visual learners and possess visual processing strengths. Students often find it challenging to follow the steps involved in a routine or task. Breaking tasks down into smaller, more attainable, visual steps using a computer program or digital real-life pictures assists in comprehension and memory of everyday life skills and classroom routines / tasks.

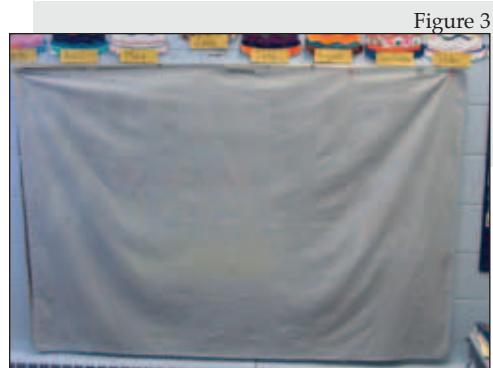


Figure 3

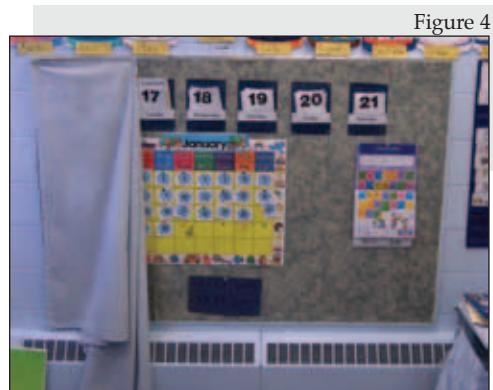


Figure 4

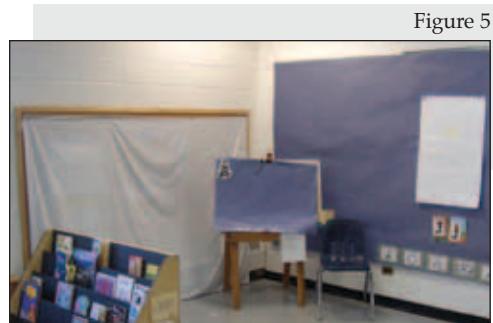


Figure 5

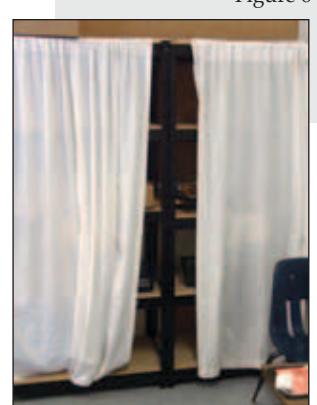
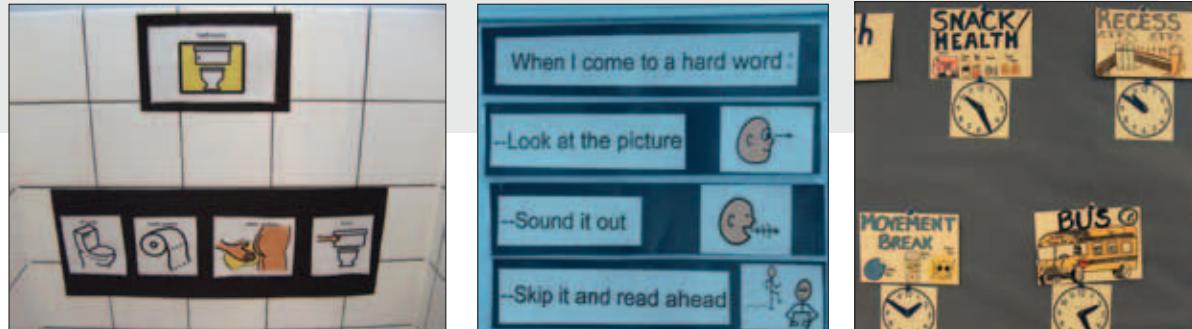


Figure 6

Figure 7



- Use visual schedules for daily routine and to prepare students for the day including any changes that will occur (Figure 7)
- Use highly organized shelves and colour-coded binders to help with organization and reducing visual clutter (Figure 8)
- Add picture symbols to songs or classroom routines (Figure 9)
- Use visual timers to help students prepare for transitions and assist in awareness of elapsed time (Figure 10)

Figure 8



Learning becomes more difficult when students become so overwhelmed by the environment, that they tend to tune out or shut down. Students with FASD need more opportunities to calm their nervous systems than the average student, therefore many sensory tools and strategies should be available, depending on which sensory system helps calm them.

Figure 9



Figure 10



Auditory Strategies (Noise and hearing)

Children who are alcohol affected may experience difficulty in screening out background environmental noise. This may result in their becoming unfocused and overloaded in a noisy classroom environment or anxious when exposed to sudden unexpected sounds such as the fire alarm or PA system.

- Students should be prepared ahead of time for fire drills.
- Announcements over the intercom should be limited to certain times of the day when possible.
- Use a sound field system so the teacher's voice overrides background classroom sounds (Figure 11)
- Use soft relaxing music either for the whole class or individually, using earphones
- Use ear protectors or headphones to filter out sounds allowing students to focus better (Figure 12)
- Use noise-reducing materials throughout the classroom wherever possible. Use carpet wherever practical.

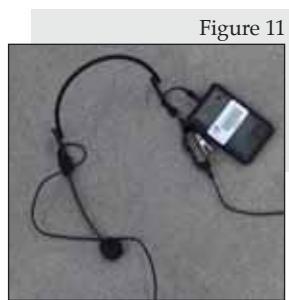


Figure 11



Figure 12

Tactile Strategies (Touch)

Alcohol affected children may be oversensitive or under-sensitive to touch. A variety of sensory tools or strategies should be available for students to use to self-regulate based on what works for them. Use stress balls, soft stretchy key chains or any other soft, manipulative hand-held objects. Self regulation refers to students' ability to appropriately attain, maintain and change their level of alertness or attentiveness for a specific task or situation, so they can learn and function appropriately in their environment. These tools can enhance learning and attention during circle time or other seated activities.

The effectiveness of these strategies can vary from student to student and also can vary on a daily basis. These tools should be made available for all students to use when needed. (Figure 13)

The sense of touch through the mouth is also a part of our touch system and plays an important part in calming and organizing the nervous system. Some students may benefit from listening helpers for the mouth. Activities such as chewing gum, sucking on a candy, sucking on a straw or water bottle often can help children focus and organize themselves while working on academic activities. Students may be given rules (printed and visual) to help them remember how to use these listening helpers correctly.

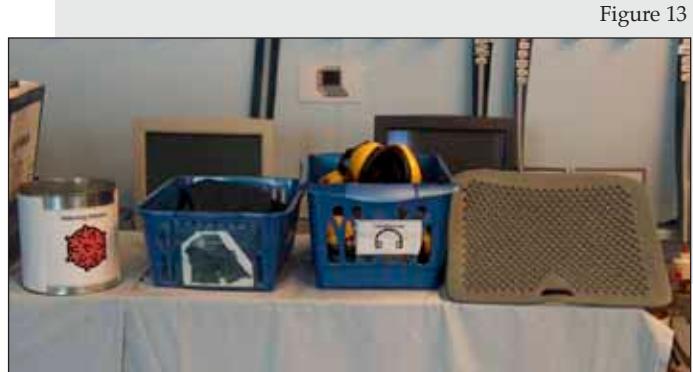


Figure 13

Figure 14



Sense of Body Position and Movement/Balance Strategies

Our sense of body position consists of sensory receptors in our muscles, skin and joints that unconsciously provide information about the position of our body parts. Alcohol affected children often have difficulties with body awareness and body boundaries, causing them to look disorganized, enter other people's personal space, trip or stumble over things, bump into peers or furniture, play destructively or break toys or other objects, because they have difficulty adjusting their muscle movements appropriate to the task.

- Visual boundaries in locker areas and

hallways can help students organize themselves and their physical space during transitions and while changing into, or out of, outdoor clothing (Figure 14) .

- A visual line using court tape on the floor in the classroom or hallway helps them line up. Painted floor tiles can help provide students with visual cues and boundaries when lining up in the classroom, at the door and sink. (Figure 15)
- Some children benefit from deep pressure touch such as back rubs to help calm or relax them.
- Mark visual boundaries on the floor using a duct-taped square grid. Carpet squares can be placed within these squares as the textured surface helps to enhance this boundary through touch. (Figure 16)
- Incorporating movement breaks into students' schedules can help them self-regulate. Movement breaks can take a variety of forms such as walks outside of the classroom, running errands for the teacher, recess, yoga, stretching, rocking, bouncing on therapy balls, swings, etc. Slow, repetitive movement (rocking, swinging, bouncing) can be calming and organizing, whereas fast movements in all directions (running, spinning etc.) may further over-stimulate the child.

Figure 15



Figure 16



- An air-filled chair cushion placed on the chair or the floor can provide students with much needed movement within a physical boundary (Figure 17)
- Provide students with chairs with arms, which offer more postural support and physical boundaries. (Figure 18)



Figure 17



Figure 18

Organizing Sandra

Sandra, a Grade 8 student with FASD and a high/average IQ, was consistently late to her first class, even though her mother drove her to school on time. Teachers and a school counselor had spoken with Sandra about being responsible and placed her on a behaviour modification program where she received points for being on time and made up time missed in an after school detention program. Sandra became highly stressed and was often unable to sleep at night.

One day, the counselor observed Sandra. She saw the student get out of her mother's car, go directly to her locker, and begin to search out her materials for class. As the other students clamored in the hall and the noise level increased, Sandra became increasingly agitated as she attempted to screen out the distractions and to find her school supplies. When the bell rang, the hall quieted, Sandra relaxed and was able to focus. She retrieved her materials and rushed to class... late. On arrival she was sent back to get her homework. After searching for more than 10 minutes she burst into tears alone in the hallway.

Fortunately, the counselor was familiar with the organizational difficulties of students with information processing deficits and was able to help Sandra organize her locker. Together they put the supplies for each class into separate, colour-coded bags. Now Sandra walks to her locker before each class and pulls out the correct bag. She has been supported and assisted to meet her basic needs for competency and belonging, and is no longer late for class.

Debra L. Evensen, 1994.

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The type of cognitive concerns that appear differ depending on a variety of factors including the general health of the mother, the amount of alcohol consumed and the stage of development of the fetus when alcohol was consumed.

Cognition

Most children with FASD have reduced cognitive functioning due to their disorder. However, there is a great deal of variability in the scores and no one particular pattern of deficits. Some students with FASD have scores in the mentally deficient range while others' scores are much above average. The type of cognitive concerns that appear differ depending on a variety of factors including the general health of the mother, the amount of alcohol consumed and the stage of development of the fetus when alcohol was consumed.

Although there is no one particular pattern of deficit, the deficits that appear are often dramatic. Normally, the left and right hemispheres of the brain involved in language functioning or spatial organization and planning are similar. However, in students with FASD, the two hemispheres can often be significantly different from each other. If the language area is higher than the spatial area, students may have an impressive vocabulary but get lost going from one classroom to the next. Other students may be talented artists but are unable to describe their painting.

Even when the left and right brain components function at similar levels, more specific deficits often are identified. There may be difficulties such as organizing visual material, identifying the similarities between two objects or describing a known word. These difficulties are more pronounced than the differences other children have between their strengths and weaknesses.

Communication Skills

Children with FASD usually show some degree of language disability or delayed language development. They often have significant problems in communicating regardless of whether or not their overall development is delayed. Difficulty with language affects social communication and academic learning.

Expressive Language Development

Children with FASD often develop language skills at a slower rate than normal. They may not use the vocabulary (semantics) or grammatically complex language structures (syntax) expected for their age. Often they know the word but cannot retrieve it from memory. They may call toast “warm bread” or a flag “a pole with a blanket.” They may use a wrong word from the same general category. For example, they might call a sheep a goat. Examples of immature syntax include using the wrong pronoun or verb form, using plurals inappropriately, omitting prepositions and other mistakes that younger children might make.

Receptive Language Development

FASD is sometimes described as a problem of processing information, i.e., receiving information accurately, interpreting and remembering it correctly and then acting on that information. Problems with listening encompass many aspects that affect students’ ability to follow directions and complete tasks:

- *Comprehension*—understanding what is meant, especially if different words are used which may mean the same thing. e.g., add these numbers vs. what is the sum?
- *Discrimination*—understanding whether things or words are the same or different.
- *Association and generalization*—Understanding how things are related by their category, function or physical similarities.
- *Sequencing*—doing things in the right order or following a plot.
- *Selective attention*—knowing what is important to notice and to what one should pay attention.
- *Memory* –immediate and long-term memory

Students with FASD may not be able to keep up with the normal pace and complexity of the language of instruction and discussion, remember what has been said and translate that into action. Younger students may have trouble following when the teacher reads a story unless it is accompanied by pictures or a concrete representation (e.g., puppets or models).

Students with FASD may understand language messages in a concrete and literal way. They may not respond when the teacher says, “It’s time to get

ready for the field trip," or "It's time to get down to work." These messages may be too abstract for the student to interpret. Instead they may respond to more precise, concrete instructions such as "We are going to the zoo today. You need to put your shoes on." or "You need to open your math book. Please turn to page two." Instructions like these are more simplistic and there is less room for misinterpretation.

Students with FASD may have trouble understanding the intent of the other speaker. Students with this type of language disability may be described as egocentric because they cannot take the listener's point of view. They may go off-topic because they respond to internal associations or experiences that the listener does not know about. They may use pronouns incorrectly or give so few details that a story does not make sense. Students who have problems not knowing how to respond, or to what they should respond, may experience many conflicts in a day. The students' anxiety may increase, and they may have outbursts. Students who seem to have difficulty responding to a request may actually be unable to understand the task being asked of them. What appears to be willful disobedience may actually be an inability to translate verbal directions into action. Teachers need to be aware that students with FASD often can repeat verbal directions accurately but have difficulty putting the verbal request into action.

Pragmatics

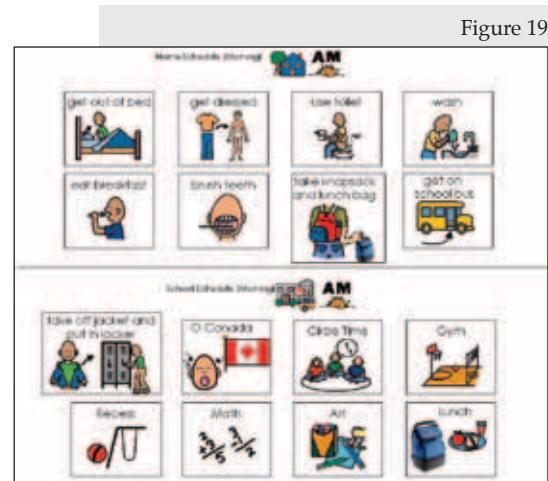
Pragmatics of language refers to the ability to use language appropriately. Examples include such things as a child's ability to take turns, understand conversational rules, greet people appropriately and ask and answer questions correctly. Children with FASD are often described as having cocktail party conversation - speech that is fluent, but empty of content. They may have difficulty starting a conversation and may not respond appropriately in conversational dialogue. Superficial language can mask problems with listening and understanding language. Some children with FASD can have very serious communication deficits but seem very chatty, to the point of talking excessively. It is important to give these students feedback about their expressive language abilities to help them see what they are doing and create insight into how this affects others in a group.

Speech Sound Development

Children with FASD may have articulation problems that make it difficult for them to be understood in conversational speech. This may cause problems with the development of social skills. Articulation problems are often identified before a child starts school. Speech and language therapy is essential for more severe problems. Teachers may want to consult with the speech/language pathologist to determine how best to assist students at home and school.

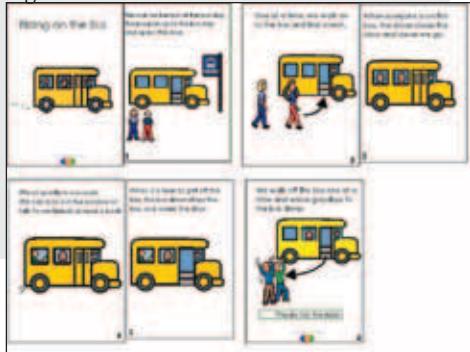
STRATEGIES

- Choose simple materials with illustrations.
- Speak face-to-face with the student; use the student's name.
- To help ensure that a student has understood a verbal request, the teacher can ask the child to **show them** what needs to be done instead of just asking them to verbally repeat the instructions.
- Use a plain piece of paper to put under each line of reading material.
- Tape-record stories so students can listen and read along.
- Use a picture dictionary to aid in vocabulary development.
- Use cues and aids to assist students in following verbal instructions.
- Use verbal cues, such as songs or chants to remind students what to do next.
- Avoid using figures of speech, euphemisms, and sarcasm. Abstract language often is very difficult for students with FASD to understand.
- Limit the number of questions you ask. Questions can often be abstract and difficult to answer.
- Help students learn a skill by teaching it in the environment in which they are expected to perform the skill.
- Give instructions one step at a time. Repeat information as needed. You may need to re-teach information multiple times.
- Break large tasks into smaller steps. Remember to keep instructions simple and concrete, and use the same key words or phrases for particular tasks.
- Create key word and sight word cards for vocabulary building, phonetic strategies, etc. Encourage students to develop a vocabulary card index.
- Post information that you want students to remember on, or close to, their desk so that they can refer to it. This includes daily schedules, items that need to be taken home at the end of the day, etc. (Figure 19)
- Use multi-modal strategies (visual, auditory, tactile, kinesthetic). For example, expose students to letters in a variety of situations.
- Use art to make abstract concepts more concrete. For example, have students draw a picture to illustrate an abstract concept like respect each other. This will help them understand what this abstract concept means to them.
- Social stories are often very useful in helping students understand certain situations or events that otherwise may be too overwhelming or difficult. Social stories provide a visual personalized story that helps walk students through a given situation. They provide reassurance and predictable texts



Marjorie Guertin.
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Figure 20



Marjorie Guertin.

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Aaron Learns by Doing

Aaron is in Grade 9 and has FASD. He has been suspended from school 15 times between September and early December. Thirteen of the 15 suspensions were due to his uncooperative behaviour during lunch time. Aaron has received special education assistance to manage his emotional disturbances on an ongoing basis.

When a specialist familiar with the challenges of FASD asked Aaron to tell her about school, he replied, "Mr. Williams doesn't like me. He always yells at me in front of the kids at lunch. I hate him."

The specialist asked Aaron to recite the rules for lunchtime behaviour, which he did promptly and perfectly. On a hunch, she walked with Aaron to the empty lunch room and said, show me. Aaron was unable to demonstrate the correct behaviour, even missing where he was supposed to sit. The specialist spent the rest of their session actually practising the rules and even took some pictures of him so he could review them later. Aaron was suspended only two more times the rest of the school year, neither time for lunch behaviour.

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that help students' understanding of a given situation. Videotape them acting out the social story, so students can watch themselves successfully complete a task. This can be very powerful. The following is an example of a social story for an every day task:

How Tommy rides the school bus to school (Figure 20)

I take a school bus to school every morning.

I wait for the bus on my front steps at my home.

When the bus stops completely, I can get on the bus.

When I get on the bus, I say good morning to the bus driver. I find my seat in the front row and sit down.

I put my backpack on my lap and use my hands to hold my backpack.

While I am on the bus, I use my inside voice.

While I am on the bus I will use my hands to hold my backpack on my lap.

While I am on the bus, I will sit in my seat until it is time to get off the bus. This will keep me safe.

When the bus comes to my school, I take my backpack and walk off of the bus and wait for the grown-up on the sidewalk.

I walk with the grown-up into the school, with my backpack in my hand.

I like riding the school bus to school each morning.

A mother told how her daughter, Joan, was termed a "disruptive" child in the first grade. Her teacher said when she talked with Joan at her desk, Joan would suddenly sweep her desk clear of all objects with her arms, fold her arms on her desk and put her head down. The teacher was unaware that Joan has an auditory processing delay-she's bright and she 'listens slowly'. She becomes overwhelmed and frustrated when she can't keep up with what is being said. Unfortunately, when Joan didn't understand spoken instructions, the teacher would do what she thought was appropriate- she would repeat the instructions over and over, using more words rather than fewer. After Joan's auditory processing delay was identified, her teacher used fewer words, provided visual cues, and was able to help prevent frustration. The key for success was understanding behaviors.

• Source unknown

Academic Achievement

Reading and Writing

A student with FASD may experience difficulty with:

- learning sound/symbol associations
- identifying main ideas, making inferences, making predictions
- getting started, organizing thoughts and details, and putting them in written form
- understanding figurative language, some forms of humour

Students may not learn sound / symbol associations easily without systematic and repeated instruction. By the intermediate grades, comprehension levels may reach a plateau (not advance, or advance more slowly) and students in secondary school frequently require adapted reading materials. At the secondary school level, students are expected to read more, to be able to identify the main idea of a story, make inferences when the facts are not stated directly and make predictions. For students with FASD, who are slow to develop abstract thinking and problem-solving skills, these become problem areas that require specific planning in their educational programs.

Students with FASD may have difficulty getting started writing, organizing thoughts in a sequential manner, knowing details to include and translating their ideas to written form. At a basic level, students may have difficulties with spelling, capitalization and punctuation. The reference resources that students need to use (such as encyclopedias and websites) often have reading levels that are too advanced for students with a reading disability. Teachers need to select materials that will be meaningful for the students.

STRATEGIES

- Keep the number of instructions, and the explanations, short.
- Use graphic organizers, and word webs.
- Stop at key points to check for comprehension.
- Make sure students understand what to do. Having students repeat back the instruction verbatim does not ensure understanding; it is better to have them explain the instructions in their own words or demonstrate what they should do.
- Give instructions in more than one way: verbal and visual.
- Use lists, such as a print or pictorial checklist for daily routine or daily work. Students need to learn how to use a list.
- Slow the tempo and wait at least 10 seconds for students to process and organize a response.

- Use gestures and visual signals; exaggerate the signals when the message is important.
- Use visual aids to accompany language messages.
- Be concrete and specific; show students what is expected and how to begin the task. Non-compliance may mean that the message was too ambiguous.
- Recognize that students may not understand or may misunderstand complex language (e.g., negatives, passive verb construction).
- Enlarge font and spacing on academic worksheets. Reduce the amount of text and put few questions on a page.
- Help students to feel comfortable asking questions (and asking again, if necessary) when they do not understand.
- Use sequential, repetitive teaching strategies which build on students' prior knowledge base.
- Check in periodically with students to ensure that they understand the task.
- Where available, consult with a reading clinician.

Mathematics Skills

A student with FASD may experience difficulty with:

- understanding symbolism, meanings of symbols
- responding to a large number of computations on a single page
- learning multiplication tables and other mathematical concepts and operation
- Memorizing math facts

Many students with FASD have difficulty learning mathematical concepts. They may have problems with computations and problem-solving and with the life-skills concepts of time and money. Progressing through the mathematics curriculum involves:

- developing a number concept
- rote knowledge for facts and algorithms (how to re-group to subtract, multiply, etc.)
- moving from computations with concrete materials to mental problem-solving
- translating word problems into the correct sequence of computations

Vocabulary

Mathematics also has its own vocabulary. The words, and their meaning, need to be specifically taught, and reviewed continually, as students are unlikely to learn them incidentally.

Directionality

Some problems are worked right to left, others left to right. Students with directional confusion may need both specific teaching to establish directionality and cues to remember directional rules for use in mathematics. Drawing an arrow above a question and having the arrow point in the direction the question needs to be done, is one strategy.

Functional Ability

Compared to other students, students with FASD need more practice (over-learning) to learn basic computations and continuous practice to make those skills automatic. Some students with FASD have become skilled and quick in mental arithmetic while others require a calculator for the simplest of computations, in spite of repeated practice. Students may be overwhelmed by a large number of computations on a single page, or have problems if there are several types of problems on the same page. By secondary school, the mathematics curriculum can be too abstract and complex for most students with FASD. An individual education plan that emphasizes practical/applied mathematics at a very functional level may be appropriate.

Temporal Concepts

Many students with FASD have trouble with temporal concepts such as before/after, yesterday/tomorrow, telling time and judging the passage of time. Telling a student there are five minutes left to complete the work can be meaningless: five minutes and five hours may mean the same to them. Certain vocabulary can be confusing: quarter to...; half-past; 9:45 is the same as quarter to 10; 9:59 is almost 10 o'clock. Even when students learn how to count by five minute intervals to determine the time, they may still read 3:20 as 3:40. Students may even become lost in the day, not knowing whether it is before lunch or after lunch. Using calendars and written schedules can reinforce time sequences. Concrete visual representations, such as sand timers, or stop watches emphasizing how much time it takes to complete certain activities in the day can help students develop a sense of time. In addition, relating time to popular television shows and TV schedules can help some students with FASD to understand time.

Money Concepts

Students with FASD may have problems handling money concepts such as the names and values of coins, computing the value of a pile of change, knowing how much change to get back for a purchase and judging the value of items. They may be at risk of being taken advantage of by others because of this problem. In secondary school, banking and budgeting are an important emphasis in the curriculum and are important skills for independent living. Many adults with FASD continue to need a degree of assistance in the management of money throughout their life.

STRATEGIES

- Students may need to continue using number lines and concrete manipulatives
- Students may need to practise math facts daily for short periods throughout the school year for the facts to become automatic.
- Be alert to the possibility of students freezing under the pressure of working fast in timed tests. Make allowances for extended time on tests and assignments.
- Reduce the number of problems on the page so students are not overwhelmed.
- Enlarge the font size and spacing of the questions.
- Put all the problems of one kind on one page and add different kinds of problems to the same page gradually.
- Use a highlighter to help students follow instructions, such as where to start and where to stop.
- Students with problems in spatial organization can use graph paper to keep columns and figures straight.
- Allow students to use a calculator for basic computations.
- Be creative in presenting math concepts and problem solving with concrete representations (including time and money).
- Focus on practical, functional math especially in the context in which students will use it. Flyers and other print materials from retail outlets are useful. They provide both pictorial and numerical cues of typical everyday items common in a student's life.
- Find ways to help students get organized and take on responsibility.
- Use other means of technology for presentation. For example, use books on tape, overhead projectors or computer resources.
- Use multi-modal teaching strategies for instruction delivery. For example, use kinesthetic learning, scripting or role playing.
- Use songs or poems to help teach math concepts.

Science Skills

Students with FASD may experience difficulty with:

- using/understanding science vocabulary
- demonstrating abilities in recording, interpreting and discussing observations
- moving from computations with concrete materials to mental problem-solving

Many students with FASD have difficulty learning science skills and processes. They may have problems with conducting experiments, using equipment and problem-solving with an emphasis on deduction and inference. However, science, particularly activity-based science, is an ideal area for including students with FASD. Science classes provide students with the benefits of concrete, real-world experiences, opportunities to work effectively in group situations and opportunities for observation and experimentation.

Progressing through the science curriculum involves:

- developing a science vocabulary in a real-life context
- knowledge of facts and scientific experimentation (the scientific method, scientific theory)
- moving from theoretical understanding to generalized application to concrete, specific, problem-solving in a real world context

Vocabulary

Science has its own vocabulary. The words and their meaning need to be specifically taught as students with FASD are unlikely to learn them incidentally.

Experimentation

Students with FASD may lack the fine-motor skills necessary to independently manipulate scientific equipment (eg. a microscope). Such activities as slide preparations, staining, adjusting mirrors, focusing and orienting the image in the visual field may present great difficulties for some students. Some students may have difficulty understanding oral instructions/directions concerning what to look for, and may have some difficulty describing their observations.

As learning laboratory techniques and using laboratory equipment are primary objectives in science, students with FASD may need advanced practice with the equipment, specialized directions, and time to practise, perhaps with the help of a peer. Issues of safety in the laboratory, difficulty reading lab manuals, and special adaptations for laboratory equipment must be faced before students begin to tackle the tasks of learning the science curriculum.

Enquiry

Compared to other students, students with FASD need more practice (over-learning) to learn basic tasks and continuous practice to make those tasks automatic. Try to build on understanding by reintroducing information in new contexts with new sub-issues. Use of concrete materials as examples of scientific ideas may not only heighten motivation but also help concept formation. By high school, part of the science curriculum can be too abstract and complex for some students with FASD. An IEP that emphasizes practical/applied science at a very functional level is appropriate.

On a personal level, students with FASD feel the frustration and stress of being different, but do not know or can not explain why. Through a carefully guided exploration of such topics as the human body and how it functions, and the human brain and how it functions, these students may be helped to understand their individual physical, behavioural, and thinking differences. By giving students with FASD a reason, you will alleviate stress and frustration and will foster a better understanding of why they behave and think the way they do.

STRATEGIES

- Allow an alternate setting to complete work or tests.
- Provide students with advance organizers of key scientific concepts.
- Adapt the pace of activities.
- Exemplify scientific ideas through the use of concrete materials such as models.
- Foster personal involvement through the study of areas of science that directly affect the student, such as eating and nutritional needs, the nervous system, the brain and how it functions and rehabilitative technology.
- Arrange for specialized adapted laboratory equipment, such as lower lab tables and specialized microscopes.
- Build on understanding by reintroducing information and vocabulary in new contexts with new sub-issues.
- Use alternate texts at an easier reading level.
- Use activity-oriented materials which require less vocabulary, less independent reading and less written work.
- Keep work samples for student reference.
- Use computer programs that provide opportunities for scientific practice and recording results.
- Establish a computerized lab report format.
- Clearly label all material and equipment.

- Develop, post and/or provide material safety data sheets as well as safety checklists for use of any equipment. Use pictures on the checklist to augment comprehension.
- Be alert to the possibility of students freezing under the pressure of working fast in timed situations. Make allowances for extended time on tests and assignments. Assistance may be required with experiments where procedures are time limited, eg. working with plaster that hardens quickly.
- Use a highlighter to help students follow instructions, such as where to start and where to stop.
- Allow students to use a calculator for basic computations.
- Find ways to help students get organized and take on responsibility.
- Use multi-modal teaching strategies to deliver instruction. For example, kinesthetic learning, scripting, or role playing.
- Provide a variety of ways for students to practise new vocabulary and tasks, such as team games, software programs that provide drill and feedback, worksheets, peer coaching and short daily quizzes.
- Use cooking and other food related activities to augment science curriculum outcomes.

Fine Arts

A student with FASD may experience difficulty with:

- using/understanding fine arts vocabulary
- sustaining interest until the completion of a project
- improvising with materials, props, costumes, music and voice

Students with FASD can bring creative, musical and artistic gifts to your classroom. Although the participation of students with FASD may sometimes be limited by their special needs, teachers can develop creative ways to include these individuals in the study of all fine arts subject areas. Many activities are as naturally integrative as the subject areas are to each other. Dance, drama, music and the visual arts are so rich in their experiences and forms of communication that students with FASD should be included as much as possible.

Progressing through the fine arts curriculum involves:

- developing the expressive experience
- knowledge of facts and principles of artistic design gained through ongoing active participation
- using fine arts literacy to extend skills in creating and performing
- increasing the variety of contexts and media in the expression of an expanding range of thoughts, images and feelings

Music

Music education enables the student's body, mind and spirit to interact with sound. As a form of communication, creating, performing and listening to music can help students with FASD to perceive, explore, communicate and reflect on thoughts, feelings, images and ideas without necessarily having to express them in written form. Some students with FASD may need added support in music class due to space issues. Often students in music classes are expected to sit or stand in groups and do not have a clearly defined area of personal space in the music room. In addition, music activities may be too noisy and over-stimulating for some students. Remembering lyrics for songs or notes to play may be frustrating. Musical instruments can also be challenging in their use and the noise they produce.

Dance

Dance education provides students with opportunities to transform images, ideas and feelings into gesture and movement. Dance can also give students with FASD another language for communication. Some children with FASD may have significant delays in gross and fine motor skill development which can influence their acquisition of skills. Given some freedom to adapt their movements, dance education also provides opportunities to develop their self-expression, co-operation skills and appreciation of their own and others' abilities. Dance can also be used to enhance sensory integration and gross motor activities.

Drama

Drama education provides students with opportunities for creative expression and to understand and appreciate the differences between people. For students with FASD, drama can be an appropriate outlet and important area for personal and social development. Role-plays, skits and short plays are powerful instructional techniques for both exploring and examining situations, experiences (both positive and negative) and roles. They can be used to make choices, resolve conflicts and encourage taking responsibility for one's own actions in a safe and supportive environment. Drama education provides an opportunity to teach the difference between appropriate and inappropriate social and interpersonal behaviours, communication skills and work behaviours. In this way, students can be prepared for present and future challenges.

Visual Arts

Visual arts education provides students with opportunities to both create, and experience, the power of the visual image. Given the opportunity to create and communicate through images, students with FASD can produce remarkable self-portraits and descriptive designs. Visual art activities can also provide opportunities for classmates to establish a sense of community and find commonalities with each other. Various art mediums such as

cutting with scissors, creating collages and colouring strengthen fine motor skills. Some activities, such as paper mache, using clay or plasticene can address various sensory needs and be very calming for some students. However, due to sensory issues the use of some art media may not be as successful as others. This can be determined through trial and error.

STRATEGIES

- Provide students with co-operative and other forms of group learning.
- Connect new concepts to the real world of experience.
- Use multi-sensory experiences in activities.
- Use multi-modal teaching strategies to deliver instruction. For example, use kinesthetic learning, scripting or role playing.
- Provide direct teaching on social skills and etiquette for performance and audience.
- Provide students with advance graphic organizers of key concepts.
- Adapt the pace of activities (slow down).
- Use concrete materials such as models or pictures.
- Foster personal involvement through the study of areas of fine arts that directly affect the student.
- Keep work samples for student reference.
- Find ways to help students get organized and take on responsibility.
- Provide a variety of ways for students to practise new vocabulary and tasks, such as team games and software programs.
- Use peers, student tutors or volunteers to assist.
- Use educational assistants to work with small groups of students, as well as with an identified student with FASD.
- Use consultants and support teachers for problem-solving and to assist in developing strategies for fine arts instruction.
- Use art to label and teach language of the tasks and the emotional context of the situation.
- Provide written words or pictures for songs and notes.

Memory Skills

Memory skills are often a major concern for children with FASD. In the classroom these students may not be able to respond to questions, they may forget how to do a task that they've done a hundred times before, it may take a week of daily practice to memorize a poem, or they may get into trouble on the playground because the rules weren't followed. Each of these scenarios represents a different problem with the memory process and each has strategies that will improve learning. If we find the right approach children with FASD can learn in spite of their memory challenges. The memory process requires that students focus on, and select, the relevant material to be learned (encoding), then organize the material utilizing short-term and long-term strategies (storage) and then access the material when it's needed (retrieval). Problems can occur at any stage of this process. It is important for teachers to carefully observe to ensure that the specific problem area has been accurately identified. For example, some students with FASD may be viewed as having behaviour problems when in fact they need daily reminders and visual pictures to help them remember the rules. Other students may have good memories, but need strategies to better organize the material so it can be retrieved more easily . . . much like a library with a lot of books but disorganized and not in order.

In general, students with FASD are concrete learners and remember better when they use their senses - touch, sight, taste and hearing. Experiential learning has been shown to be very effective and visual learning is generally more effective than oral learning. Abstract material is usually the most difficult for students with FASD to learn and remember.

Kevin and the Math Quiz

Kevin, a third grade boy with FAS, completed his multiplication facts with 100 per cent accuracy on Monday and received lots of praise from the teacher and his peers. Two days later, on a new, but similar assignment Kevin missed almost half of the facts.

His teacher, familiar with the learning differences of students with FAS, knew that spotty or intermittent learning and retrieval is normal. She was able to reassure Kevin he was okay and began the process of reteaching. Kevin likes his teacher, feels safe in such a stress-free environment and continues to look forward to coming to school.

Debra L. Evensen, 1994.
Used with permission.

STRATEGIES

- Sequencing, categorizing and organizing information is a skill which must be taught and reviewed with each assignment.
- Routine, structure and repetition are the mainstay approaches found to be effective in addressing FASD memory issues.
- Hands-on activities, field trips and interaction around everyday events are more likely to become stored in long-term memory than orally presented or abstract information.
- New material needs to be presented at a slower rate and linked to previous information for best recall.
- Pre-teaching, post-teaching and reminders all help students with FASD to better access and link material. For example, keep past learnings on the wall, create a personal dictionary. Use digital pictures of the student involved with their learning in their personal dictionary.
- Help students learn how to locate what they need rather than memorize it. Encourage them to develop and use their own personal reference books, provide reference materials in the classroom
- Use mnemonic memory strategies and help students find the strategy that works best for them.

Executive Functioning and Abstract Reasoning

Executive functioning refers to higher-order cognitive processes including inhibition, flexibility of thinking, working memory, planning, fluency of thought, predicting, connecting cause and effect, judgement, strategy employment and organization. Executive functioning has been identified as a particular area of weakness for children with FASD and is considered to be a separate brain domain than intelligence or cognition. Children with FASD may have average intelligence, however do not have the capacity to apply this intelligence to everyday functioning at home and in the classroom. Executive functioning can be referred to as common sense which is often affected in children with FASD.

Teachers and parents report that children with FASD make the same mistakes over and over no matter how many times they are corrected and given consequences. They seem to have difficulty connecting cause and effect and changing behaviour as a result of consequences. This does not mean that imposing consequences is useless, but parents and teachers may need to make extra efforts to apply consequences consistently and immediately, along with reminders of the reasons for them. Imposing consequences at home for something that the child did at school, or vice versa, will not be effective in teaching the child due to challenges in generalizing from one environment to another.

40.12

"Every teacher, principal, superintendent and school board must ensure a pupil's special needs, if any, are taken into account when deciding whether to suspend, expel or otherwise discipline the pupil."

*The Education Administration Act
(Regulation 156/2005)*

A word of caution concerning consequences: they must be directly related to the behavior and used as a means of correcting and not punishing. One must use a positive attitude in applying consequences. They must be short, concrete and applied in context. Be aware of the impact applying consequences has on students. If students are confused about the consequence, and it leads to isolation, this may affect their self esteem and give them the message that they are being bad. Keep in mind that students with FASD may not necessarily learn from the consequence, or may forget this learning from one moment to the next. This must not be seen as defiant or intentional behavior or personally directed at the adult, rather a result of their abnormal brain functioning. One would never consider punishing the blind child for refusing to read the blackboard as this is a physical disability beyond personal control. Instead, environmental adaptations would be made to help the child succeed in the classroom. **Using a more proactive, preventative approach to behavior before it happens often alleviates the need for imposing consequences.**

Why is there such a problem perceiving consequences? There are a number of possible reasons. First, the behaviour is often impulsive: children with FASD do not think about the possibility of a consequence, or the implications of their actions. Certain rewards or consequences are often effective in the beginning, but then lose their effectiveness. Second, consequences are often uncertain. They are used to prevent an outcome that may happen: "If you throw a snowball somebody might get hurt." "Do not

run out in front of traffic because you might get hit." There are many times (fortunately) when dangerous behaviour does not have a consequence, or at least a natural consequence. Nobody gets hurt. The child runs out in the street in front of the truck and does not get hit. At times, it seems that it is not enough to warn children with FASD about what might happen; they need to experiment and find out for themselves. This can lead to serious outcomes. Third, situations are never exactly the same. Children with FASD may not generalize from the behaviour in one setting to the same or similar behaviour in another setting. Sometimes they generalize too well: instead of remembering the rule, they remember the one-time-only exception to the rule. Students with FASD often have a very rigid and egocentric notion of what is fair.

Students with FASD may display a variety of atypical responses to unfamiliar or frustrating situations. Increased anxiety may result in withdrawal, outbursts or other acting-out behaviours that may be harmful to themselves or others. A young child with FASD may have severe temper tantrums and find it hard to adjust to changes. Many adolescents with FASD are prone to depression, poor judgement and impulsivity. They are often described as innocent, immature and easily victimized.

Other responses commonly observed in students with FASD include:

- stealing, lying and defiance
- difficulty predicting and/or understanding the consequences of behaviour
- easily manipulated and led by others
- difficulty making, and keeping friends
- overly friendly and affectionate, easily approached by strangers
- perseverative or stubborn
- poor ability to organize themselves in class, bring the correct materials to class or bring the correct books and homework from home to school and vice versa

"The exceptional learning needs of a student must be considered when disciplining students. Students with disabilities may not understand why they are being suspended or expelled and in some cases the behaviour may be directly related to the exceptional learning needs. These factors and other alternative forms of discipline should be considered" (Manitoba Education, Citizenship and Youth).

STRATEGIES

- Take time to talk with students with FASD. You will find out how they think. This can help you develop an appropriate strategy. Invite them into the process of formulating a strategy.
- Decide what is most important and what is within students' control. Ignore the rest.
- Be as consistent as possible in imposing consequences. Make them as immediate as possible and remind students what the consequences are for, keeping in mind that they may not retain this information.
- Help students to problem solve: "Where did the problem start?" "What did I do?," "Who did I affect?," "What else could I have done?" and "What else could I do next time?" Write down what is said so that they can follow the conversation. Social stories or cartoon captions work well.
- Help students take another person's point of view.
- Consider the students' verbal and memory limitations in working through an incident and deciding what an appropriate, natural consequence should be. Invite students into this process, asking for their feedback as to what they feel might work for them.
- Allow a cooling down period in a safe, calming space in the classroom or at home, prior to debriefing with them. Be careful not to use too much language as students may find this too difficult to process and may tune out. Using fewer words and more visual cues or demonstration works best.
- Anticipate and prevent problems through close supervision or partnering with peers (i.e., buddy system, peer tutor).
- Provide strategies for organization in the classroom. For example, detailed daily schedules (visual or written depending on the ability of the student), help in organizing school supplies, desk, locker, breaking down a task or set of instructions into smaller, more easily attainable steps in written or pictorial form to ensure understanding and success.

Attention Deficit/Hyperactivity

Some students with FASD have serious problems maintaining the focus of their attention which makes it difficult for them to learn. The regular classroom can be overstimulating. This does not mean that the classroom should be barren and uninteresting, but it does mean that the teacher should try to keep visual and auditory distractions to a minimum.

To reduce visual distractions, materials not in use should be stored in boxes or cupboards, not on counter tops. Avoid spinning mobiles hanging from the ceiling and similar distracting decorations. The brightness of the lighting may need to be adjusted. For some students, even a pencil smudge on the paper can be a distraction when they are trying to complete a math problem. Distractibility increases with the difficulty of the task. Students with problems of auditory selective attention must have as little competing noise as possible to concentrate. To deal with the problem, the teacher's voice should be louder than the background noise level. It also helps to seat students near the source of the information. A hearing specialist may be able to give advice on the use of technologies to amplify the teacher's voice. Use nonverbal cues to reduce the amount of talking in the classroom.

Over time, students should learn to recognize when there are too many distractions and go to a quieter working area. It should be clear, however, that this is not a punishment. The teacher needs to anticipate problems before problem behaviour escalates. One way to do this is to provide students with a signal to be used to tell the teacher when time out is needed. Eventually students may learn to self-regulate. Students who cannot cope in an open classroom often do well one-on-one.

For students who are hyperactive, the teacher must think of ways to allow some movement without disrupting other students. For some students, periods of physical activity followed by quiet activity helps. For others, however, the physical activity only causes overstimulation. Students who are hyperactive are usually impulsive. They may say, "I knew I shouldn't do it, but I couldn't help myself." They may strike out verbally or physically at the least provocation. At times they place themselves in danger: not looking before dashing into the street or leaping into the deep end of the pool. Part of the solution is to teach self-control through verbalization, but the greater part of the solution is close supervision. Hyperactivity often diminishes during adolescence, but the attentional difficulties remain.

For some students, medication is a possible solution, but only in combination with classroom support. It is important to note that because of the brain differences in children with FASD, medications often do not work in the same way, or with the same dosages, as for other individuals. It may take a long time to find effective medications.

STRATEGIES

- Teach students to use self-talk to help stay focused (the first thing I have to do is...) and curb impulsive behaviour (e.g. stop and think). Model this behaviour in order to encourage the student to do this.
- Teach the student to curb impulsive behaviour by knowing how to initiate action, when to initiate action and how to inhibit behaviours until things are thought through.
- Use concrete reinforcements or reminders (the use of stop hand-signals) to help students change problematic behaviour such as calling out in class.
- Consequences for inappropriate behaviour need to be immediate.
- Students who need the stimulation of movement could do some activities, such as reading, in a rocking chair.
- Try meeting the need for physical stimulation by taping sandpaper to the underside of the desk or attaching a squeezing (and strength-increasing) ball to the desk.
- Some students are calmed by quiet, background music.
- Arrange a quiet area to use when distractions are too great.
- Rhythmic activities such as choral reading, spelling and math chants are effective at holding attention.
- Establish a signal to indicate frustration.
- Teaching concepts through music can be effective.
- Make each activity brief.
- Ask students for feedback about helpful learning behaviours and not-so-helpful learning behaviours. For example, “what can we do to make this work?” and “if this was not helpful, why not?”

Adaptive Skills

Students with FASD may experience difficulty functioning independently and acquiring daily living skills.

The term adaptive skills refers to the ability to perform skills necessary to function independently in everyday life. In Manitoba, the Adaptive Behavioural Assessment System (ABAS) or the Vineland Adaptive Behaviour Scale are examples of measuring brain function in this domain. The assessment measures conceptual, social and practical adaptive skills and is used to determine how an individual is responding to daily demands. A student can have an average I.Q. but score low on adaptive behavioural assessments. The information from this type of assessment is critical in determining education goals for students with FASD.

Adaptive skills may include but are not limited to:

- eating; feeding self, using utensils, ordering a meal at a restaurant
- table manners
- performing basic hygiene; bathing, brushing teeth, grooming
- using the toilet
- taking care of clothing and dressing appropriately
- sense of direction
- the safe use of transportation
- crossing the street safely
- using the telephone, placing and answering a call, using a telephone book and taking a message
- knowing your home address and telephone number
- taking care of money, saving, budgeting, banking and shopping
- literacy skills such as basic reading, speaking, and spelling
- basic housecleaning tasks and care of possessions
- being on time for school, appointments and work

Adaptive skills need to be taught, and the nature of the neurological challenges students with FASD face may make it particularly difficult to master these skills. No matter how effective, creative or prolonged the instruction, there is no guarantee that students with FASD will be able to use what is taught without support. It is imperative this area be addressed with expectations that match students' ability.

Students with FASD may also require more supervision than their peers to ensure their safety as they learn adaptive and social skills, such as road safety and talking to strangers.

The ultimate goal is to help develop children's self-esteem, a critical ingredient for success and resilience. Self-esteem is built when students have concrete evidence of their own competence in terms of either performing the task independently or knowing how to ask for support to achieve the task.

Teaching Adaptive Skills

The process of teaching adaptive skills involves:

- modeling, role playing
- guided practice
- use of consistent language and process between home and school
- re-teaching
- immediate, direct feedback
- when possible, videotaping the student performing the skill
- praise for all successes, guidance when difficulties are encountered

STRATEGIES

- Include students in the process of developing solutions to problems.
- Set limits and consistently follow them.
- Encourage students to use positive self-talk. "I can do this." "It's okay to ask for help."
- Develop a plan with the student, which can be followed when the student is feeling overwhelmed by the environment. Help students learn to identify when they are becoming overwhelmed, and what to do.
- Develop consistent routines for each part of the school day.
- Review and demonstrate classroom rules as needed.
- Encourage students to help as valued members of the classroom.
- Be aware that unwanted behaviour is a cue that some element of the environment needs to be adapted. Since students with FASD are unable to change their neurological challenges, it is up to the educator to make the necessary changes.
- Mistakes are opportunities for the educator to make further adjustments to the learning environment.

Social skills

According to the Learning Disabilities Association of Canada, social skills are defined as the skills we use in every environment that includes two or more people.

The National Association of School Psychologists state that social skills include but are not limited to:

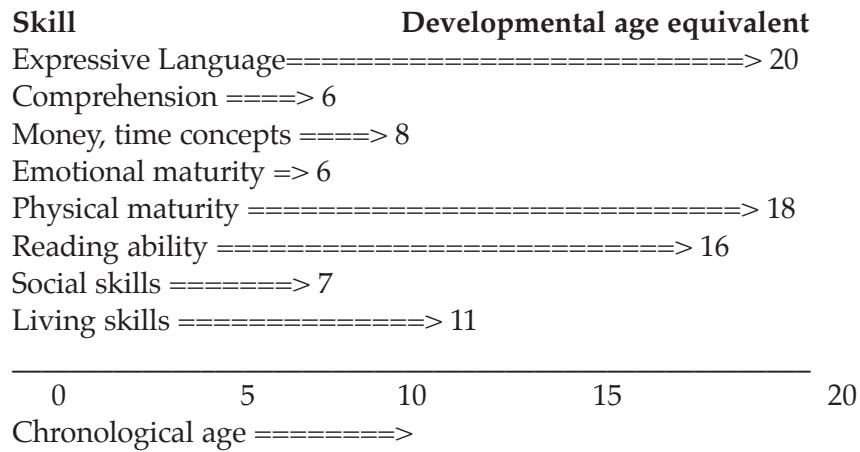
- politely asking permission or asking for help
- listening
- reading social cues
- following directions
- maintaining focus
- sharing
- having manners, for example, saying please and thank you
- waiting patiently
- taking turns
- apologizing
- accepting consequences
- problem solving
- resolving conflict
- dealing with feelings

Chronological versus Developmental Ages

There are brain-based reasons children with FASD have difficulty with social skills. Children with FASD are often developmentally younger than their chronological age, and as a result their behaviour may be misinterpreted. The following chart is an example of the developmental timeline for one individual with FASD. It is intended to show the variation in abilities that can exist, and how some challenges may be masked by other strengths (i.e., emotional immaturity may be hidden by strong expressive language skills).

The following is only an example - the profile of maturation and strengths varies significantly between people with FASD.

Actual age of individual: 18



Source: Adapted from research findings of Streissguth, Clarren et al. Diane V. Malbin 1994.
Used with permission of Diane V. Malbin.

Conflict can develop when it is assumed that students' development matches their chronological age, when they are actually developmentally much younger.

Here is an example:

Due to memory deficits, the inability to predict future events and impulsivity, Johnny, a fifth grade student often experiences conflict with classmates. In one instance Johnny grabbed a pencil away from a classmate. This behaviour created conflict with the classmate and the teacher. At Johnny's age the teacher expected Johnny to know how to politely ask to borrow the pencil. However, due to brain differences, he is unable to perform this social skill consistently. This behaviour is frustrating for Johnny, his classmates and his teacher.

It is necessary to look at difficulties with social skills through an FASD lens and reframe behaviours to determine appropriate expectations, teaching approaches and intervention strategies.

Using the chart on the next page we can begin to reframe behaviour to determine how best to educate and support students.

Reframing Social Behaviour

Social skill	Requires the ability to	What you might see	Support suggestions
Asking for help or asking for permission	* Generalize * Interpret cause and effect relationships * Predict outcomes	* Grabbing items away from others * Interrupting * Negative behaviour	* Check in with the student frequently to avoid behaviour challenges * A visual cue that the student requires assistance
Listening	* Process auditory information * Filter sensory information * Store and retrieve information	* Lack of focus * Poor eye contact * Fidgeting * Distracting others	* Using listening tools * Reduction of environmental distractions
Following directions	* Remember what is said * Translate auditory or visual information into appropriate action	* Lack of follow-through * Non-compliance * Defiance	* Break tasks into small steps. * Repeat * Visual cues
Reading social cues	* Generalize * Interpret body language * Process visual information	* Acting silly * Inappropriate responses * Laughing at the wrong time	* Assist with interpretation of non-verbal communication. * Concrete representations for emotions. * Social scripting
Manners	* Generalize * Interpret cause and effect relationships * Remember	* Rude behaviour * Defiance * Inappropriate responses	* Guided practice * Teach and re-teach * Prompt * Praise good use of manners * Social stories
Waiting patiently	* Understand and internalize the concept of time * Attend for extended periods of time	* Impulsivity * Disruptive behaviour	* Reduce waiting times * Use of a visual timer
Sharing/taking turns	* Understand the concept of turn taking * Not be impulsive	* Disruptive play * Arguments	* Guided practice * Visual cues * Demonstration * Supervision * Social stories
Apologizing	* Understand abstract concepts. * Understand and process the issue * Understand and process cause and effect reasoning	* Defiance * Insincerity * Refusing to apologize	* Explain the incident concretely * Social scripting * Demonstration * Guided practice * Social stories
Problem-solving and resolving conflict	* Hold opposing views and weigh options * Reasonably predict what may happen * Understand and process abstract thought * Be empathic * Understand and process cause and effect	* Conflicts with peers and adults * Inappropriate responses to situations * Frustration	* Guided intervention to assist in working through problem-solving * Supervision to prevent conflict

What Students Want their Teachers to Know

The following is a presentation created by Joe, a middle school student with FASD, to help his teachers better understand his learning needs. This is what works for Joe and is just an example. Not all students have these same strengths and challenges.

There are all kinds of minds . . .

Some minds learn best by looking . . .

Some minds learn best by doing . . .

Some minds learn best by listening or talking . . .

Some minds learn best when you do several things at once
(listen, do, see . . .)

This is my kind of mind

- Some things are easy and some things are tricky.
- What's easy for me is reading, math, phys ed., and making and keeping friends.
- What's tricky for me is writing, handwriting, and keyboarding, getting my ideas down on paper.

What my brain really likes is . . .

1) figuring things out by looking

- I am excellent at designing and making, building, or drawing things.
- I am also excellent at understanding what I see (puzzles, maps, pictures, games, knowing where things are).

This means showing me things is a good way to teach me.

2) my brain is also excellent at understanding what I hear

- if it is interesting
- if I am tuned in before you start talking
- if you keep the talking short . . . too many words and my brain tunes out

3) my brain is also good at learning by doing

- I am good working with my hands
- I like to keep busy and am good at some sports
- I am good at making things and drawing or designing with a pencil

I am an amazing visual hands-on learner!

What is tricky for my brain is . . .

- paying attention and staying tuned-in during class time (especially when people are talking lots)
- remembering what I see and hear (sometimes when you don't tune in long and strong enough it is hard to remember new things)

Joe's ideas for school:

- Let me use a computer for writing and stories unless I feel like handwriting
- Sometimes letting me talk while someone else writes it down works (let me try this with key words written down or a drawing, diagram or chart)
- **Talk less and show me more** about what I am supposed to do
- **Give me things to look at** when you are teaching or to help me remember (pictures, maps, drawings, charts, notes, write it on the board, lists, computer programs . . .)
- Make sure I am **tuned into you** before you give important directions or information
 - you can use my name or say "this is important"
 - you can sit me up-close
 - you can give me a good work space without lots of junk or clutter
 - you can ask me if I understood it
 - make sure I am looking at you before you start talking

What Parents Want Teachers to Know

Parents as Members of the Team

Open communication goes a long way in building strong relationships. Parents need to know that their children are safe in your care and that you support their children and the family unit. The following is a list of helpful hints for school staff generated by parents in Manitoba raising children with FASD.

- A team approach to supporting a child with FASD works best. Parents know their children better than anyone and want to be included as working members of the school team. Parents want to give the school information that will be helpful in creating a learning environment that works for their child. It may take time and practice for a team to work well together. Parents will need time to learn school language and the school will need time to learn the parent's language. Ideally, parents and school staff will learn from each other.
- Planning for success helps reduce stress for the child, the family and the school. Parents want to be part of a proactive approach to avoid problems and unwanted behaviour. Behaviour is a sign that the environment needs to be adapted to accommodate the needs of the child. It is often most helpful to look at patterns of behaviour instead of the details of an isolated incident. A parent usually knows the triggers for some behaviours and can help the school to avoid them.
- When an issue occurs with the child at school, parents ask that the school communicate with them. Many children with FASD have poor short-term memory, and the inability to link cause with effect. Often children with FASD will forget bad behaviour before they leave school for the day. Let parents know when a significant issue occurs. If you have a concern, and plan to invite professional resources in, include parents in this decision. Build relationships with honesty and open communication.
- Acknowledge struggles. Educating children with FASD is both rewarding and challenging. No two children are alike and strategies will change regularly with some children. Parents ask that you include them in the problem-solving process. No one expects the school to have all the answers.
- Greet parents with the successes of the day as often as possible. No matter how small the success, it can be celebrated. Happy notes are incredible self-esteem builders for the children.

- Share resources. Parents often have information about FASD that may be useful to the school team or the school team may have information and resources that would be helpful to the family.
- Parents ask that their children be allowed to participate in field trips and fun activities. Parents want to help the school devise ways to allow children with FASD to be included.
- Teaching the other students in the classroom about acceptance and the importance and value of socializing with children with disabilities is important learning.
- Parents can be strong advocates and are trying as best they can to support their children and their family.

The Paradigm Shift*

The shift is from seeing a child as one who
won't do something, to one who possibly can't.

The shift includes moving from:

FROM SEEING

CHILD AS:

won't
bad
lazy
lies
doesn't try
mean
doesn't care, shut down
refuses to sit still
fussy, demanding
resisting
trying to make me mad
trying to get attention
acting younger
thief
doesn't try
inappropriate
not trying to get the obvious

TO UNDERSTANDING

CHILD AS:

can't
frustrated, defended, challenged
tries hard
confabulates/ fills in
exhausted or can't start
defensive, hurt, abused
can't show feelings
overstimulated
oversensitive
doesn't get it
can't remember
needing contact, support
being younger
doesn't understand ownership
tired of always failing
may not understand proprieties
needing many reteachings

PERSONAL SHIFT FROM:

hopelessness
fear
chaos, confusion
anger
power struggles
frustration
exhaustion
no good outcomes
isolation

TO FEELINGS OF:

hope
understanding
organization, meaningfulness
reframing perceptions, defusing
working with, rather than at
trying differently, not harder
re-energized, new options to try
seeing, supporting strengths
networking, collaboration

PROFESSIONAL SHIFT FROM:

traditional
applying consequences
traditional interventions
changing people

TO:

recognizing brain differences
preventing problems
expanding professional options,
develop effective strategies
changing environments

“Beliefs dictate behaviours. The belief that many primary learning and behavioural characteristics associated with [FASD] are the result of willful, volitional or intentional behaviours often leads to punishment of these symptoms. The key... is linking the idea of brain dysfunction with presenting behaviours, reframing perceptions, and moving from punishment to support.”

*Source: Copyright © 2002, 1999, Diane V. Malbin.

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Secondary Disabilities*

In the field of FASD, it is common to hear the terms primary disabilities and secondary disabilities.

Primary disabilities are those that a child was born with, and are a result of the damage done to the brain by alcohol. They reflect differences in brain structure and function, such as those discussed in the previous section *Understanding the Needs of the Student with FASD*.

Secondary disabilities are disabilities that develop over time when there is a mismatch between the person and his or her environment. They are disabilities that the individual was not born with, and which may be improved through better understanding and appropriate early interventions. Some examples of secondary disabilities include:

- fatigue, frustration
- anxiety, fearfulness
- rigid, resistant, argumentative behaviour
- becoming overwhelmed, shut down (withdrawn)
- a poor self concept, feelings of failure, and low self-esteem
- isolation
- acting out, aggression
- family and/or school problems
- depression and other mental health problems
- trouble with the law
- drug and alcohol problems
- problems with employment
- homelessness

When students with FASD are provided with appropriate supports, it is possible to reduce, and in some situations even eliminate some secondary disabilities. The challenge for educators is to foster the skills, strategies, and techniques students need to live as independent a life as possible.

*Source: Adapted from Manitoba Education, Training and Youth. *Towards Inclusion: Tapping Hidden Strengths: Planning for Students Who are Alcohol-Affected*. Winnipeg, MB: Manitoba Education, Training and Youth, 2001. 1.7.

John is an adult who lives with FASD. For John this means that he faces daily challenges in his passionate attempt to accomplish his dreams. As an adult he struggles most intensely with money management, impulsivity and a disconnection between his actions and understanding that there will be consequences for those same actions. Through several difficult years with drugs, alcohol and conflict with the law, John has come to understand how FASD affects his life and keeps identifying that it is important for him to fortify himself with appropriate supports and surroundings. Currently, John has 14 hours of staff support per day. This support focuses on eliminating environmental situations that trigger detrimental impulsive decisions, providing respectful reminders of the consequences for contemplated actions and providing assistance in accomplishing desired tasks. For example, John now accepts money-management advice from staff. Together, John and staff have set up a system where there is limited handling of cash, direct deposits of all pay checks and regular accompanied trips to do banking and shopping to avoid impulsive purchases like drugs and alcohol. With this kind of structure and support in all areas of life, John has managed to completely furnish his own apartment, find and maintain meaningful employment, successfully complete his probation order and become deeply involved in the life of his new born baby.

What Educators Need to Know

Preparing for School

If you have a student with FASD in your class, or have been informed that one may be joining your class soon, we hope your concerns are addressed here and that you will be directed to other people who can be of assistance. No one expects you to do it all alone. Consider the following process in preparing for, and working with, your student. Your principal or resource teacher can help you access specialized personnel in your division.

Step 1: Collect Information

Ask the question: What are the student's learning strengths and needs?

Check the Student's History.

The student's permanent record may include vital information indicating previously identified strengths and needs of the student. Sources of information could include:

- report cards from previous years
- summaries of assessments / recommendations from clinical and medical reports
- family
- a recent Individual Education Plan (IEP)

Involve Parents

The parents or guardians of a school-age child with FASD have valuable information about the strengths and needs of their child. They are an integral part of the school team and essential to the planning of the Individualized Education plan. Listening to the parents is an important first step in establishing a trusting educational partnership. (Appendix 1)

Questions to Ask

The following are questions you may want to ask parents, previous years teachers, or others familiar with the student. These questions may assist you in planning strategies to meet his/her needs:

- What part of the day appears to be most productive for this student? Least productive?
- What skills and interests are strengths for this student?
- Which class activities does this student enjoy the most? Can these activities be alternated with those he/she finds more difficult?
- To what extent is this student able to follow classroom routines independently? How can he/she be assisted to develop more independence in this area?
- To what extent is this student able to work towards the learning outcomes of the provincial curriculum? In which areas can the instruction and assignments be adapted to support the students learning?
- How does this student interact with their peers in the classroom? With which students is their able to work most productively?
- What kinds of events or activities seem to cause the most anxiety for this student? How can the student be helped to cope with these situations?
- What are the student's triggers? What helps the student to calm down?
- Are transitions hard for the student?
- Is the student sensitive to sensory issues?

Step 2: Make a Plan and Carry It Out

Ask the question: What does the student need to achieve success in the classroom?

Access Print Resources

The following MECY publications include detailed information about meeting the needs of students with a variety of special needs. Many of the instructional strategies found in these guides can be used effectively with students with FASD.

- Manitoba Education, Training and Youth, *Towards Inclusion: Tapping Hidden Strengths: Planning for Students Who Are Alcohol-Affected*. Winnipeg, MB: Manitoba Education, Training and Youth, 2001. <<http://www.edu.gov.mb.ca/k12/specedu/fas/>>.
- Manitoba Education and Training. *Individual Education Planning: A Handbook for Developing and Implementing IEPs, Early to Senior Years*. Winnipeg, MB: Manitoba Education and Training, 1998. <<http://www.edu.gov.mb.ca/k12/specedu/iep/>>.
- Manitoba Education and Training. *Success for All Learners: A Handbook on Differentiating Instruction: A Resource for Kindergarten to Senior 4 Schools*. Winnipeg, MB: Manitoba Education and Training, 1996. (Print only)
- Manitoba Education and Training. *A Thinking Framework: Teaching Thinking Across the Curriculum: A Resource for Schools, Kindergarten to Senior 4*. Winnipeg, MB: Manitoba Education and Training, 1996. (Print only)

Consult with Professional Peers

Classroom teachers can consult with professionals when planning classroom interventions for students with FASD such as:

- Other teachers and administrators who have previously worked with students with FASD
- In-school special education/resource teachers/school counsellors
- Division-based consultants, co-ordinators and administrators

Try Something

Prioritize the student's needs from most to least important and select activities that will address the most important needs first. Record the supports to be provided.

Step 3: Evaluate the Plan

Ask the question: Is the student achieving success in the classroom?

If the plan is working, ask:

- How do the parents and student feel about the plan?
- Will the plan continue to be effective on its own?
- Can these supports be paired with others to lengthen the period of effectiveness?
- How often will the plan's effectiveness be evaluated?

If the plan is not successful:

- what part of the plan *is* working and why?
- Do you have other ideas you would like to try?
- Should the resource teacher be involved in program planning for this student?
- Should the student be referred to the school-based team for additional assessment?

Step 4: Make a Referral

If the student continues to struggle in the classroom after adjustments have been made, the teacher, in consultation with the parents, may decide to refer the student to other in-school personnel such as the resource teacher, to initiate a formal Individual Education Plan.

Step 5: Develop an Individual Education Plan

After the referral process the school team including the parents may begin a formal IEP process based on the assessments results and other new information provided by team members. The appropriate programming will be developed to meet the individual needs of the student based on a continuum of supports and services.

Continuum of supports and services

All students are unique, and as learners have individual areas of strength and weakness, as well as individual interests and preferences. In Manitoba all students, including those with FASD, have a right to appropriate educational programming. The effects of FASD may range from mildly to severely disabling in each of the developmental domains that are examined during the diagnostic process. As a result, educational programming for

students with FASD may range from the provincial curricula to highly individualized programming but for most students with FASD teachers will need to accommodate special learning needs.

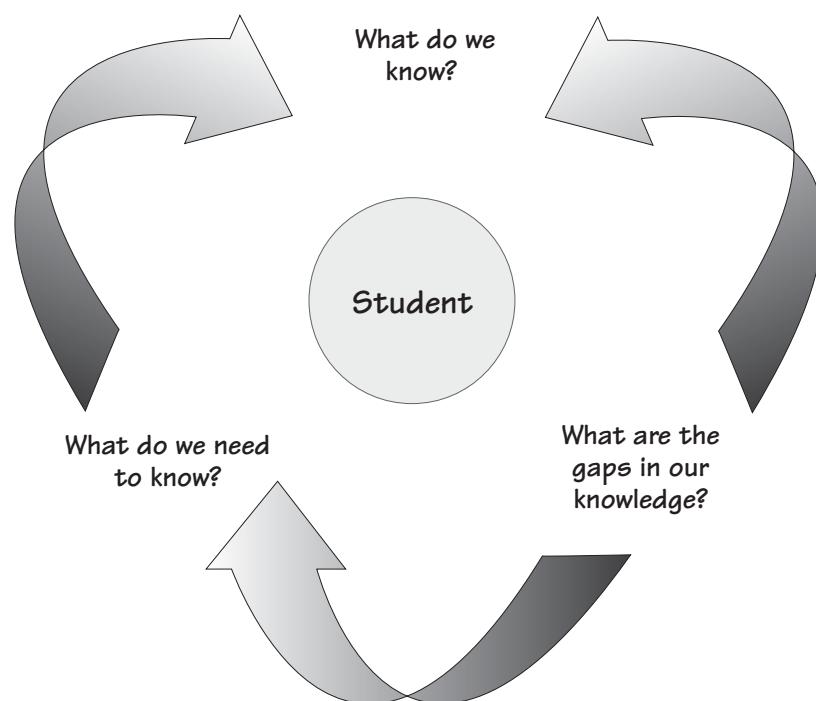
All schools have a variety of supports and services that can be used to meet the individual requirements of all students. Schools need to articulate the types of supports and services that are available to students diagnosed with FASD and clearly outline for teachers and parents a team process for accessing them.

This process of supports and services may proceed as necessary through in-school support teams to external community supports. A team is built on this continuum of supports and services to ensure that every child receives the level of support necessary for his or her success.

When a teacher is informed that a student diagnosed with FASD will be enrolled in his/her class, they should begin the I.E.P. process by gathering information to develop a student profile (Appendix 2). A student profile is a summary of what is known about a student, including current and historical information. The student profile should clearly outline the student's strengths and challenges and will be used to identify priority learning needs that will guide the team in determining appropriate educational programming options. Again, students with FASD will be similar in some ways (because they share characteristic features) and quite different in other ways.

The team compiles current information about the student, identifies gaps in current knowledge, and determines the information necessary to prepare the student profile. Team members assess the student according to their area of expertise.

Gathering information involves these questions:



Inclusion is a way of thinking and acting that allows every individual to feel accepted, valued, and safe. In Manitoba, we embrace inclusion as a means of enhancing the well-being of every member of the community. By working together, we strengthen our capacity to provide the foundation for a richer future for all of us.

- Manitoba Education, Citizenship and Youth

Possible sources of information to develop a student profile, as well as assistance for programming, may include the following:

Individuals within the school:

- principal
- resource / classroom teacher
- school counselor
- school-based team – including parent(s)

Individuals within the school division:

- speech/language, occupational therapy and physiotherapy services
- school psychology services
- other consultative services (e.g., divisional consultants, behavioural consultant, student services administrator).

Individuals and agencies within the community:

- the student's family
- social services
- child and youth committee
- mental health
- youth justice
- Manitoba Education, Citizenship and Youth consultants
- other community based services

The primary goal of the team is to work together to develop appropriate educational programming based on a philosophy of inclusion that allows the student with FASD to participate as fully as possible in the life of the school, family and community.

Classroom teachers are responsible for the instruction of all students in their class. In collaboration with the support team, the classroom teacher plans for the needs of all students. If differentiated teaching and adaptations do not adequately support the student in meeting curriculum outcomes, the teacher should access resources and assessments outside of the school team to plan more appropriate interventions.

The team, including the child's parents, must take the opportunity to explore factors that are effecting the student's learning and plan appropriate interventions.

The team should review the student's current level of performance (including cognitive) and priority learning needs and select the programming option(s) that match the student profile. In Manitoba, programming options include:

- provincial curricula incorporating differentiated instruction
- adaptations
- curricular modifications
- individualized programming
(refer to table A)

After determining the direction of programming, the team uses the information gathered in the student profile and continues the process of the ongoing development of an Individualized Education Plan (IEP) for the student.

Table A: A Summary of Programming Options

Support									
<p>Provincial Curricula</p> <p>Provincial curricula are provided to educators by Manitoba Education, Citizenship and Youth.</p> <p>Reference: <i>Provincial Curriculum Documents*</i></p> <p>Differentiated Instruction</p> <p>Instruction that responds to the diverse learning needs of all students is called differentiated instruction. It includes a wide range of instructional strategies a teacher may use to support students in groups or as individuals. A teacher will often use differentiated instruction when planning lessons, teaching, and assessing and evaluating progress.</p> <p><i>Differentiated instruction is appropriate for all students. Its flexibility offers opportunities to engage students with FASD by using instructional strategies, materials, and assessment processes that complement their particular interests and strengths.</i></p> <p>Reference: Manitoba Education and Training. <i>Success for All Learners: A Handbook on Differentiating Instruction: A Reference for Kindergarten to Senior 4 Schools</i>, 1996.* (Print only)</p>									
<p>Adaptations</p> <p>Adaptation is the act of making changes in the teaching process, assessment process, instructional materials, or student products. These include changes to</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; padding-right: 10px;">• physical environment</td> <td style="width: 33%; padding-right: 10px;">• social environment</td> <td style="width: 33%;">• presentations</td> </tr> <tr> <td>• tests and assessments</td> <td>• assignments and projects</td> <td></td> </tr> <tr> <td>• organizational supports</td> <td>• time required to achieve provincial outcomes</td> <td></td> </tr> </table> <p><i>Adaptations are used when students with FASD are able to meet the same learning outcomes as their peers but need one or more of the adaptations listed above. Like differentiated instruction, adaptations offer the flexibility to adjust learning processes to the student's individual interests and strengths. Adaptations are specific to individual students and should be documented.</i></p> <p>Reference: Manitoba Education, Training and Youth. <i>Supporting Inclusive Schools: A Handbook for Student Services</i>, 2001.**</p>	• physical environment	• social environment	• presentations	• tests and assessments	• assignments and projects		• organizational supports	• time required to achieve provincial outcomes	
• physical environment	• social environment	• presentations							
• tests and assessments	• assignments and projects								
• organizational supports	• time required to achieve provincial outcomes								

Curricular Modification

Modification means that the number, essence, or content of provincial learning outcomes are changed or simplified to fit the student's current level of cognitive/adaptive development.

Curricular modification is used with students with FASD who may benefit from participation in the provincial curricula. While the process for Senior Years students is outlined in the document referenced below, modification may be used with younger students with significant cognitive/adaptive disabilities.

A final note on adaptation and modification: While these terms are often used interchangeably, they represent very different practices and policies in Manitoba. Adaptations are changes made to the process of instruction or the product of learning (i.e., how the student demonstrates skill or knowledge); modifications are changes made to what the student is taught.

Reference: Manitoba Education and Training. *Towards Inclusion: A Handbook for Modified Course Designation, Senior 1-4: A Resource for Senior Years Schools*, 1995.**

Individualized Programming

Individualized programming consists of educational experiences that are functionally appropriate and highly individualized to take into account the unique learning requirement of the student with FASD. The Individual Education Plan (IEP)/Individual Transition Plan (ITP) serve as the basis for an individual curriculum for the student.

Individualized programming is provided for students with severe cognitive and adaptive disabilities that do not allow them to benefit from provincial curricula. While the process for Senior Years students is outlined in the document referenced below, individualized programming may be used with younger students with severe cognitive/adaptive disabilities.

Reference: Manitoba Education and Training. *Towards Inclusion: A Handbook for Individualized Programming Designation, Senior Years: A Resource for Senior Years Schools*, 1995.**

* A copy of these documents may be obtained from the Manitoba Text Book Bureau (1-866-771-6822) or <http://www.mtbb.mb.ca>.

** A copy of these documents may be downloaded from <http://www.edu.gov.mb.ca/k12/specedu/documents.html>.

Individual education planning is the process by which the team plans for students who require a range of supports using the information in the student's profile. The Individual Education Plan (IEP) that results from this process describes how the student's educational programming will be provided. The purpose of an IEP is to help students attain the skills and knowledge needed to progress to the next logical level of personal performance.

Before the IEP process begins, a case manager (eg. resource teacher, special education resource teacher, classroom teacher) is appointed to record these adaptations, modifications and/or individualized curriculum programming. Case managers also ensure timely meetings are held to review and evaluate the student's programming. The case manager could be any member of the student's team such as, the classroom teacher, the resource teacher, or other in-school professional, depending on local policies.

Programming should be developed with attention to all aspects of the student's life, especially social and communication development. This is particularly important for students who are able to achieve some or all of the prescribed learning outcomes in the provincial curricula. These students may be comparable to their peers in academic achievement, but they may experience great difficulty with social and communication demands of school and community life.

Further information on developing IEPs can be found on the Manitoba Education, Citizenship and Youth (MECY) website at <<http://www.edu.gov.mb.ca>>.

Planning occurs throughout the student's time in school, from school entry to community transition upon graduation. Examples of planning processes used by school teams and outside agencies are summarized in the following table. These transition planning processes were developed in partnership with other government departments and agencies to support timely and appropriate transitions for children and youth throughout their school life.

Table 3.2: A Summary of Planning Tools

Stage	Planning Tool	Participants
Transition to School (Preschool to Early Years)	Transition Action Plan (TAP) Reference: Manitoba Education and Training, and Children and Youth Secretariat. <i>Guidelines for Early Childhood Transition to School for Children with Special Needs</i> , 2002.	<ul style="list-style-type: none"> • parents • preschool/daycare/nursery staff • representatives from outside agencies • representatives from receiving school division and school
School	Individual Education Plan (IEP) Reference: Manitoba Education and Training. <i>Individual Education Planning: A Handbook for Developing and Implementing IEPs, Early to Senior Years</i> , 1998	<ul style="list-style-type: none"> • in-school team, including parents and student • support team • representatives from outside agencies
Transition to Adult Life (Senior Years to community)	Individual Education Plan (IEP) Individual Transition Plan (ITP) Reference: Healthy Child Manitoba, and Manitoba Education, Citizenship and Youth. <i>Bridging to Adulthood: A Protocol for Transitioning Students with Exceptional Needs from School to Community</i> , 2008.	<ul style="list-style-type: none"> • in-school team, include parents and student • support team • representatives from outside agencies

A copy of these documents may be downloaded from
<http://www.edu.gov.mb.ca/k12/specedu/documents.html>.

Teaching FASD Prevention

Some teachers may be interested in educating students about FASD and the prevention of FASD. There are several resources that have been developed in Manitoba for use in schools with various age groups.

The Manitoba Liquor Control Commission has developed a video and resource package called the *With Child – Without Alcohol Facilitator Resource Package* for teachers of Grades 9 and 10 students. In 2005, all high schools were provided with a copy. Ask your resource teacher for your school's copy, or contact:

Manitoba Liquor Control Commission

1555 Buffalo Place, P.O. Box 1023
Winnipeg, MB R3C 2X1
Phone: (204) 284-2501
e-mail: www.mlcc.mb.ca

Making the Right Choices: A Grade 5 – 8 Fetal Alcohol Syndrome Prevention Curriculum is a teacher-friendly document prepared for teachers, by teachers. Each lesson has been tried, tested, refined and approved by real children. The goals, objectives and outcomes are clear and build on each other through the four grades. Each grade level is composed of 4 – 8 lessons that will utilize 12 to 15 class periods. Each period is based on an average of 40 -45 minutes. Each grade level begins with the general outcomes and brief lesson summaries. The appendices and overheads required for each grade level follow the individual lessons. For more information please contact:

Frontier School Division

Library Services
1402 Notre Dame Avenue
Winnipeg, MB R3E 0P6
Phone: (204) 775-9741

The Addictions Foundation of Manitoba has three educational resources on FASD designed for individuals who have not had the opportunity to develop strong reading skills. *Healing Choices* includes a prevention pamphlet, a teaching booklet and a support card featuring cartoon-like pictures and simple text. The booklet can be used one-on-one or with a small group. Copies are available from:

Addictions Foundation of Manitoba
William Potoroka Memorial Library
1031 Portage Avenue
Winnipeg, MB R3G 0R8
Phone: (204) 944-6279
e-mail: library@afm.mb.ca

Appendix 1:

Teachers can provide the following questionnaire for parents to complete and bring to a team IEP meeting.

Parent Education Planning for Students with Special Needs*

Student Name _____

Parent Name _____

To develop the best possible program, we need your assistance and knowledge of your child. Below are some questions for you to think about in preparation for the IEP meeting. You may wish to write down your thoughts for future reference by the IEP team.

- What do you feel are your child's strengths?
- What do you feel are your child's weaknesses (i.e., areas that may be frustrating or that you feel your child has a particular need to improve in)?
- How do you think your child learns best? (What kind of situation makes learning easiest?)
- Please describe educational skills that your child practises at home regularly (e.g., reading, making crafts, using the computer).
- Does your child have any behaviours that are of concern to you or other family members? If so, please describe the behaviour(s).
- What are your child's favourite activities?
- What are your child's special talents or hobbies?
- Does your child have any particular fears? If so, please describe.
- How does your child usually react when upset and how do you deal with the behaviour?
- Do you have any particular concerns about your child's school program this year? If so, please describe.
- What are your main hopes for your child this year?
- Is there other information that could help us gain a better understanding of your child?
- Are there any concerns that you would like to discuss at the next IEP meeting?

Thank you for contributing valuable parental insights.

Sincerely

(IEP team coordinator)

* Source: British Columbia Ministry of Education. *IEP Planning Sheet for Parents*. Available online at <<http://www.bced.gov.bc.ca/specialed/iepssn/iepplan.htm>>. Copyright © Province of British Columbia. All rights reserved. Adapted with permission of the Province of British Columbia. <www.ipp.gov.bc.ca>.

Appendix 2:

Sample Student Profile Form*

The Layout and Categories of Information in Student Profile Forms will vary.
This form is provided as a sample only.

Background History	Diagnostic Summary (e.g., medical, cognitive, adaptive)	Interests, Strengths, Learning Approaches
Current Level of Performance (Subject to Subject or Domains)		Needs

*Source: Manitoba Education and Training. *Individual Education Planning: A Handbook for Developing and Implementing IEPs, Early to Senior Years*. Winnipeg, MB: Manitoba Education and Training, 1998. 5.56.

Appendix 3:

Common Misconceptions About FASD

The following list outlines 10 commonly held misconceptions or myths about FASD and the individuals who live with this disability. Clarifying these misconceptions will help people better understand the true nature of fetal alcohol exposure.

1. MYTH: Children with FASD will outgrow it.

There is no known cure, and FASD does not go away over time. The characteristic facial and physical features that some children have may become less noticeable as they age and mature. But while the specific characteristics and challenges of FASD may change as the individuals age, those with FASD require a lifetime of supports.

2. MYTH: There is no benefit in receiving a diagnosis. This diagnosis will brand them for life.

Rather than labeling, a diagnosis provides an understanding of how to best support a child. A large part of the diagnostic process includes developing strategies and interventions, specifically designed for the unique needs of the child and the family, to help the child learn and succeed. A diagnosis may provide access to additional community supports and services.

Research has also shown that receiving a diagnosis may mitigate, or help reduce, the development of subsequent secondary disabilities such as unemployment, mental health problems, trouble with the law, inappropriate sexual behaviour, and disrupted school experience (Streissguth, Kanter et al. 1997).

Many individuals who have received a diagnosis express relief in discovering that there is a medical reason why they often struggle more than their peers, and that it isn't their fault or from lack of trying. This has helped many to develop a more positive self image.

3. MYTH: Diagnoses of pFAS and ARND aren't as serious as FAS.

Although individuals with pFAS and ARND do not display some of the physical or facial features that are present in someone with FAS, in all three cases, brain damage has occurred. The cognitive, learning and behavioural impacts will be different for all individuals because each person is uniquely affected by alcohol use, but any diagnosis means that the brain has been affected by alcohol use during pregnancy. Regardless of the specific diagnosis, children with special needs require accommodations.

4. MYTH: People with FASD have low IQ's.

This is sometimes true, but not always. FASD affects every individual differently and people will experience strengths and challenges in different

areas. Some individuals may have an average IQ, but experience difficulties with impulsivity, staying on task, judgment, problem-solving, relationships, sensory integration and/or time management. Many students with FASD score higher on IQ tests than is representative of their ability to function in the classroom or in real life situations.

5. MYTH: Children usually plateau at grade 4 in their ability to learn.

At about grade 4, there is a change in the way that all children learn in the classroom. The curriculum lessons become more abstract, children are expected to work more independently, and the method of teaching becomes less interactive and more lecture style.

The new materials, expectations and teaching approaches are very challenging for students with FASD and they may appear to stop progressing or learning. If teaching can remain interactive, visual and concrete, and support is provided, students with FASD can learn in all grades.

6. MYTH: The behaviour problems associated with FASD are a result of poor parenting.

No. Brain damage caused by prenatal alcohol exposure leads to information being processed differently. Memory difficulties, poor problem-solving abilities, sensory stimulation issues and a poor understanding of reality often lead to behaviour problems. Children may respond inappropriately to a particular situation and feel frustrated, embarrassed or angry.

7. MYTH: The mothers of these children must be alcoholics; social drinking wouldn't cause FASD.

We do not know how much alcohol a pregnant woman can safely drink. However, we do know that the more alcohol a pregnant woman consumes, the greater the risk to the developing fetus. Drinking regularly, even one drink daily, is considered to be high risk. Drinking five or more alcoholic beverages on one occasion, called binge drinking, is also high risk. Many women who aren't addicted consume these amounts of alcohol. There is no known safe amount of alcohol during pregnancy.

8. MYTH: FASD is only an issue for certain populations.

Women of all different backgrounds, ethnicities and income levels use alcohol.

The 2004 Canadian Addiction Survey found that 76.8 percent of all Canadian women use alcohol. A 1998 survey of Canadian university students found that 87.5 percent of female students used alcohol in the past 12 months, 41.1 percent of students reported harmful drinking, and 29.3 percent reported dependant drinking.

Women of all backgrounds, ethnicities and income levels use alcohol during pregnancy. A 2005 report by the Public Health Agency of Canada, *Report on Maternal and Child Health in Canada* found that roughly 14 percent of mothers reported drinking alcohol during pregnancy. Another study

found that women in the highest income brackets were most likely to have used any alcohol during their last pregnancy. Among those who used alcohol heavily (12 or more times per week) there were no age or income differences, (*Alberta Alcohol and Drug Abuse Commission, Windows of Opportunity: A Statistical Profile of Substance Use among Women in Their Childbearing Years in Alberta*, 2004).

Some women are treated differently by social service providers and researchers which has led to the assumption that certain groups have higher rates of FASD. For example, poor women and women of colour are more frequently screened for substance use when accessing perinatal care than are middle-class and Caucasian women (Nancy Poole and Colleen Anne Dell, *Girls, Women and Substance Use*, 2005).

9. MYTH: The mothers of children with FASD could have easily chosen not to drink during pregnancy. They damaged their children through callousness or indifference.

Alcohol addiction is often related to complex and long-term issues involving abuse, mental health problems and violence and is difficult to overcome. Pregnancy is a critical time for women to stop or reduce their use of alcohol. In order to do so, they need respect, understanding and caring support.

Many pregnancies are unplanned, and often women are unaware they are pregnant until they are well into their first trimester. Since most women drink alcohol regularly, the developing fetus may have already been exposed to alcohol. Discontinuing use of alcohol, ensuring adequate nutrition and reduction of stress will help to ensure the best possible outcomes.

10. MYTH: A woman who has FASD will have children with FASD.

The only cause of FASD is alcohol use during pregnancy. There is no genetic link for this disability. If a woman with FASD abstains from alcohol during her pregnancy, her baby will not have FASD.

Do you have more questions about FASD? Parents, caregivers and professionals are encouraged to phone this confidential, toll-free information line:

**1-866-877-0050
FASD Information Manitoba**

This phone line is staffed by professionals who can provide information on:

- understanding the strengths and challenges of FASD
- understanding children's behaviour in different environments
- strategies for managing at home, child care, school
- community resources available in your area
- how to support pregnant women
- substance use during pregnancy
- accessing a diagnosis.

Appendix 4:

General Guidelines: Caring for Children Affected by Alcohol

The following guidelines suggest an overall approach to supporting children affected by alcohol.

Observe the child to assess their developmental level and work with them at that level.

Adapt your expectations to correspond with their developmental level. Don't assume they will be able to do what other children their age can do.

Identify their strengths, skills and interests and use these to help them learn.

Change the way you interpret their behaviours - Recognize that their behaviour is a result of the brain damage they've suffered, they are not misbehaving on purpose because they're lazy or unwilling to follow directions.

Prepare for transitions which are often difficult for these children who don't like to change what they're doing.

Model appropriate behaviours so that the children have a visual and concrete example of how something should be done.

Keep instructions simple, concrete and give them one at a time to compensate for the short-term memory difficulties seen in most children with FASD.

Identify behaviours which indicate frustration (e.g., anger or avoidance), and help children find the source of the frustration and ways to deal with it.

Teach specific social skills by supervising the children with friends and by teaching appropriate responses in context.

Understand their various ways of communicating - They may not be able to tell you how they are feeling so you may need to interpret their behaviour (e.g., increased activity = overstimulation; aggression = frustration, difficulty understanding; withdrawal = feeling tired).

Encourage a multi-sensory, concrete approach to learning because if something is not understood through one of the senses, it may be understood through another. Learning must be hands-on.

Expose children to supportive environments where their strengths are recognized, so they can experience success.

Establish partnerships between home, child care program and school. This keeps things consistent for the child.

FASD Resources in Manitoba

If you have more questions about fetal alcohol spectrum disorder, call FASD Information Manitoba at 1-866-877-0050. This toll-free telephone line provides confidential information to callers throughout Manitoba. When you call this number between 9:00 a.m. and 4:30 p.m. from Monday to Friday, you will speak to a person who can respond to your questions.

People call with questions such as the following:

- What can I do about my child's/student's behaviour?
- How can we make our school a better place for students with FASD?
- What resources are available in our area?
- Can you send me printed information about FASD?
- Where can I refer parents for more support for their child?

The Healthy Child Manitoba website <<http://www.gov.mb.ca/healthychild/>> also maintains a listing of resources and agencies in Manitoba in the following areas:

- FASD diagnostic services
- Outreach and support services for children, youth and adults
- Family support services
- FASD prevention services
- FASD information and resources

Canadian Centre on Substance Abuse (CCSA)

www.ccsa.ca/fas

The CCSA maintains provincial directories for FASD related service and supports. They also post upcoming conferences and workshops and have research articles and other resources on prevention and intervention.

FAS Bookshelf Inc.

www.fasbookshelf.com

Provides a list of FASD videos and books for purchase, plus links to other websites.

FASD Connections

www.fasdconnections.ca

Find information on the latest research, articles and events, upcoming conferences and workshops related to adolescents and adults with FASD.

FASworld Canada

www.fasworld.com

A non-profit organization created and operated by parents of individuals with FASD, this website provides information for caregivers and professionals, offers counseling services for families and provides links to local support groups.

Fetal Alcohol Syndrome Consultation, Education and Training Services, Inc.

www.facets.org

FACETS is a non-profit organization which provides information, articles and training of professionals on developing appropriate programming and supporting individuals living with FASD.

Journal of FAS International

www.motherisk.org/JFAS

Launched in 2003 by Motherisk as the first ever scientific journal dedicated to Fetal Alcohol Syndrome, this online journal publishes peer reviewed original papers.

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* Available on the Manitoba Education, Citizenship and Youth website at <<http://www.edu.gov.mb.ca/k12/specedu/documents.html>>.

For copies of this resource contact:

Healthy Child Manitoba

Phone: 204-945-2266 or 1-888-848-0140
Fax: 204-948-2585