



Teaching Students with Fetal Alcohol Syndrome/Effects

A LEARNING RESOURCE *for* TEACHERS
1996



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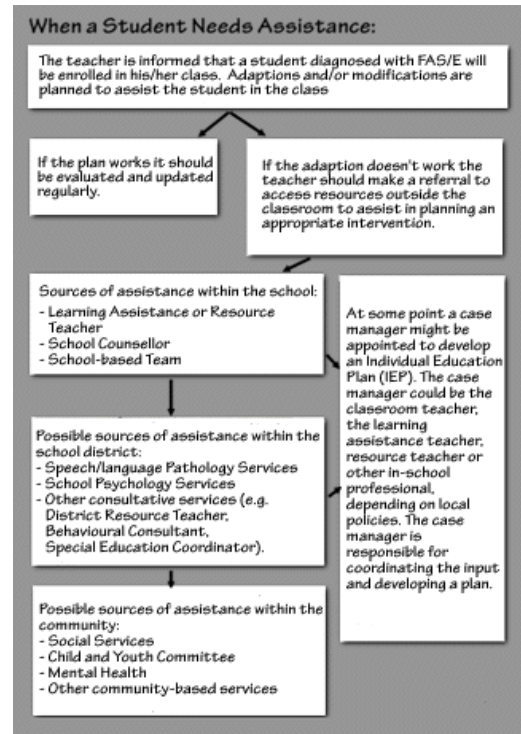
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Teaching the Student with FAS or FAE

If you are a classroom teacher who, for the first time, is about to teach a student with Fetal Alcohol Syndrome or Fetal Alcohol Effect (FAS/E), this guide can be helpful. Many of the strategies are general and may be appropriate for use with students who are not diagnosed with FAS/E, but who do share some of the learning needs of students with FAS/E. This resource guide is organized around areas of concern identified by experienced classroom and integration support teachers. Its goal is to provide teachers with a clear understanding of the needs of students with FAS/E by:

- defining Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE),
- describing the common learning and behavioural characteristics of Children with FAS/E, and
- suggesting strategies that may be helpful in meeting the challenges these children present in the classroom.



Initial feelings of concern, anxiety, frustration or uncertainty often accompany the news that you will be teaching a student whose particular needs are unfamiliar to you. In the case of children with FAS/E, information and assistance are available to you, and these students will often come to you with a support system already in place. If a support system is not in place, this guide can direct you to others who can help form an educational team to work with you and your student.

“The primary goal of the British Columbia School system is to support the intellectual development of students, with the support of families and the community. Enabling students to achieve the goals of human social and career development is a responsibility shared by schools, families and the community. These goals apply to all students, including students with special needs.”

A Manual of Policies, Procedures and Guidelines Special Education Services B.C. Ministry of Education



It is important to recognize that the effects of FAS/E cause a variety of complex challenges for children. As a result, no two children with FAS/E will learn and function in exactly the same way. Therefore, it is your knowledge and experience, guidance and encouragement that the pupil needs most. Preparing for your student requires:

- getting ready to talk with parents and the student in the first interview,
- learning to get help when you need it,
- knowing how best to communicate with your student, getting to know your student and his or her needs and goals,
- becoming aware of what adjustments may be necessary in your planning, and
- sharing responsibility for directing the student's educational program in cooperation with other professionals on the team.

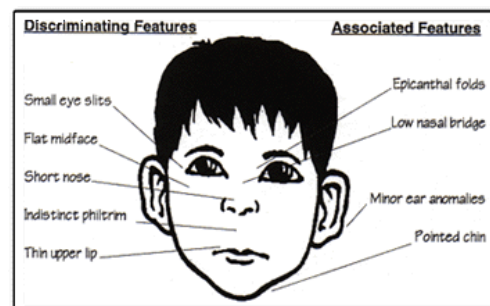
Like all students, your new student will be looking to you for understanding as well as recognition and support. When fostered, these expectations can lead to remarkable learning relationships in the classroom. Preparation, cooperative planning and positive communication in the first few days build the groundwork for effective teaching and learning. Building on a strong relationship with your students helps to optimize the physical and emotional environment and curriculum for individual students. By working together, you can create an intellectual, physical, social and emotional environment in which to foster the student's development in skills, knowledge, communication, responsibility, self-reliance, self-esteem and lifelong learning.

What are FAS and FAE?

Since antiquity, people have suspected that alcohol can harm a developing fetus. Through the ages, references to this concern have appeared in written form, in art, and in oral traditions. It was not until 1973, however, that the scientific community recognized the distinctive pattern of delayed growth, intellectual and behavioural disabilities, and facial characteristics caused by alcohol abuse during pregnancy and gave it the name, Fetal Alcohol Syndrome. Since that time, public awareness of this neurological disorder has been growing.

The first reported cases of FAS in Canada occurred in B.C. in the late 1970s. Since then, public education campaigns have been delivered in an effort to prevent the condition. Many of the children diagnosed with FAS today were born at a time when physicians were not aware that drinking alcohol during pregnancy can be harmful to the fetus. No one advised mothers not to drink.

FAS is often called a "hidden" disability because its physical characteristics can be subtle and may go unrecognized. Many children with FAS are endearing and affectionate, and these qualities can mask the seriousness of this lifelong neurological disability. Students with FAS can display learning patterns and behaviours that baffle their teachers. It is very difficult to diagnose prenatal exposure to alcohol. FAS and FAE are medical conditions that must be diagnosed by a



physician. A diagnosis of FAS is made when there is known, significant prenatal exposure to alcohol and the child exhibits three characteristics:

1. **Delayed prenatal and/or postnatal growth**

The delay must result in height and/or weight below the tenth percentile.

2. **Central nervous system involvement**

This can result in one or more of the following conditions being observed in the child:

- head circumference below the third percentile,
- developmental delay or intellectual disabilities, and/or
- learning disabilities, or attention deficit/hyperactivity disorder.

Other, less prevalent conditions may also be observed.

3. **Characteristic facial features**

These include short eye slits, elongated mid-face, long and flattened nose and upper lip, thin upper lip and flattened facial bone structure. These facial features are most noticeable during early childhood. They are sometimes not evident in infancy and may change during adolescence. Even though the physical characteristics may be less evident in adulthood, the child has not “outgrown” FAS. Teachers should keep in mind that some children may have these characteristic facial features without other indicators of FAS and are therefore not likely to have the syndrome.

The term FAE has been used when there is a documented history of prenatal alcohol exposure and the presence of some, but not all, of the diagnostic criteria for FAS. FAE is not a milder form of FAS. For both FAS and FAE there is a continuum of effects on physical development and learning that depend on the amount of alcohol consumed, the timing of the drinking, and other metabolic and genetic factors. Other terminology for FAE, as noted to the left, will gradually come into popular usage. This resource guide uses the term FAS/E, referring to the familiar terms FAS and FAE.

In some cases the characteristics of FAS/E may be confused with other medical conditions. These include:

- prenatal exposure to the anti-convulsant drug Dilantin,
- fragile x syndrome,
- Cornelia deLange syndrome, or
- Neonatal Abstinence Syndrome (NAS) caused by prenatal exposure to drugs which results in withdrawal at birth.

Any of these diagnoses can accompany other conditions that affect a child’s ability to learn. For example, children with FAS can also be diagnosed with autism, Tourette Syndrome, or other medical conditions.

The teaching strategies presented in this guide focus on the needs of children with FAS/E, but can be useful in meeting the needs of children who have been diagnosed with other medical conditions. They are based on the understanding that students with FAS/E respond favorably to environmental modification, input from the student whenever possible, and specific educational strategies coordinated to help learning take place in the home and at



school. With these things in place, students with FAS/E have overcome many obstacles to master tasks formerly considered impossible.

Terminology

Due to the confusion regarding the FAE, the U.S. Institute of Medicine has recommended the term be replaced by two terms:

- Partial FAS referring to the collective presence of some facial characteristics and physical or neuro-developmental abnormalities, and
- Alcohol related neuro-developmental disorder (ARND), referring to the presence or only neuro-developmental abnormalities

Characteristics of Students with FAS/E

Students with FAS/E are as different from each other as any group of children. They come from all socioeconomic backgrounds. Each child presents a complex individual portrait of competencies and delays. Students with FAS/E must be recognized as individuals rather than as members of a homogeneous group.

FAS/E can affect individuals in varying degrees, from mild to severe in the following areas:

Cognitive Functioning

The intellectual abilities of students with FAS/E can vary greatly. Many students with FAS/E have graduated from high school with minimal extra support and adaptations. To date, a wide range of IQ has been documented: 29 to 120 for FAS and 42 to 142 for FAE.

Other conditions commonly observed in children with FAS/E include:

- Learning Disabilities (LD),
- Attention Deficit/Hyperactivity Disorder (AD/HD),
- difficulty with sequencing,
- difficulty with memory,
- difficulty understanding cause/effect relationships, and/or
- weak generalizing skills.

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 for 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. - 1994, Debra L. Evenson, M.A.



Social/Emotional Functioning

Students with FAS/E 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 the student or others in the group. A young child with FAS/E may have severe temper tantrums and find it hard to adjust to change. Many adolescents with FAS/E are prone to depression, poor judgment and impulsivity. They are often described as innocent, immature and easily victimized.

Other responses commonly observed in children with FAS/E 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, and/or
- perseverative or “stubborn.”

Physical Functioning

Basic physiological responses may be abnormal in students with FAS/E. This may present in one or more of the following ways:

- A high threshold for pain which can result in the student not being aware of a serious injury or infection.
- No perception of hunger or satiation.
- Difficulty perceiving extreme temperatures.
- Difficulty with visual/spatial perception and balance.

Some children with FAS/E excel in individual sports that require gross motor coordination such as swimming, skiing and roller-blading. Others have significant delays in gross and fine motor skill development which can affect all areas of functioning. In mild cases, delays in motor abilities can influence the acquisition of skills such as tying shoelaces and printing neatly. In more severe cases, children with FAS/E may have had problems learning to chew and swallow food.

Students with FAS/E have a higher than average incidence of a number of other medical concerns. These include:

- difficulties with vision,
- difficulties with hearing,
- heart problems,
- growth deficiency,
- neurological conditions such as seizure disorders, and/or
- impaired bone and/or joint development.



Teachers should be alert to the fact that a number of these health concerns can directly impact the student's ability to achieve success in the classroom. In some cases, a student's medical report will include recommendations for the school that may assist in program planning.

The student with FAS/E can bring gifts to your classroom, including a sense of humor, 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 student's strengths to support his or her educational needs. It is important to think about where the child has started from, where he or she is today, and the long term goals for tomorrow. An essential ingredient throughout the process is developing and supporting the student's self-esteem. Nothing lights up a child's face more than achieving something through a learning experience. It is important to set up a classroom where this can take place as often as possible.

Organizing Sandra

Sandra, a Grade 8 student with FAE and high/average IQ, was consistently late to her first class, even though her mother drove her to school on time. The teachers and school counsellor 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 counsellor 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 increase, Sandra became increasingly agitated as she attempted to screen out the distractions and 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 her homework. After searching for more than 10 minutes she burst into tears, alone in the hallway. Fortunately, the counsellor 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. - 1994, Debra L. Evenson, M.A.



Aaron Learns by Doing

Aaron is in Grade 9 and has FAS. 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 FAS 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 practicing the rules and even took some pictures of him so he could review them later.

Aaron was suspended only two times the rest of the school year, neither time for lunch behaviour. - 1994, Debra L. Evenson, M.A.

Preparing to Teach Students with FAS/E

If you have a student with FAS/E in your class, or have been informed that one may be joining your class soon, we hope your concerns are addressed in this resource 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 special education administrator can assist you to access specialized personnel in your district.

Step 1: Collect Information

Ask the question: "What is 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,
- a summary of topics discussed at home/school conferences,
- summaries of recommendations from psychological, speech/language and/or medical reports,



- family and medical background information, and
- a recent Individual Education Plan (IEP).

Talk to the Student Informally

Some students with FAS/E can provide useful insights into their own strengths and needs and their input can assist teachers to determine which strategies have worked successfully in the past. Students can also provide helpful information about the level of support previously provided, their interests, friendships and concerns, that can help in planning successful learning experiences.

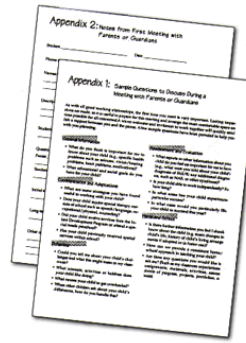
Involve Parents

The parents or guardians of a school-age child with FAS/E may have valuable information about the strengths and needs of their child and what has worked at home to communicate, motivate and manage behaviour. They can act as a liaison for a child who is making a transition between schools or programs, and as a communication link between school and various other professionals and agencies who have contact with the child. Taking time to listen to the parents is an important first step in establishing a trusting educational partnership. Sample questions to discuss during a meeting with parents or guardians are included in Appendices 1 and 2.

Observe the Student in the Classroom

Observing how the student functions in the classroom can assist the teacher to determine and prioritize the student's educational needs and to begin planning strategies to meet these needs. Some questions to keep in mind while observing are:

- What part of the day appears to be most productive for this student? Least productive?
- What skills and interests are most developed 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 instructional strategies and assignments be adapted to accommodate his/her needs? In which areas will modifications be required?
- How does this student interact with his/her peers in the classroom? With which students is he/she 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?



Appendix 1: Sample Questions to discuss During a Meeting with Parents or Guardians.

Appendix 2: Notes from First Meeting with Parents or Guardians



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 publications include detailed sections 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 FAS/E. Other resources that teachers may find useful are listed at the back of this document.

- Teaching Students with Intellectual Disabilities: A Resource Guide for Teachers, BC Ministry of Education, 1995.
- The Individual Education Plan: A Resource Guide for Teachers, BC Ministry of Education, 1996.
- Teaching Students with Learning and Behavioural Differences A Resource Guide for Teachers, BC Ministry of Education, Skills and Training, 1996.

Consult with Professional Peers

Classroom teachers can consult with the following professionals when planning classroom interventions for students with FAS/E:

- Other teachers and administrators who have previously worked with students with FAS/E.
- In-school special education teachers including learning assistance teachers, resource teachers and integration support teachers.
- School- and district-based counsellors.
- District-based consultants, coordinators and administrators of special education.
- School psychologists.
- Speech/language pathologists.

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 adaptations and/or modifications that will be used to support the student.

Step 3: Evaluate the Plan

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

If the plan is working, ask:

- Is the student comfortable working with the supports provided?
- How do the parents feel about the plan?
- Will the plan continue to be effective on its own?
- Can these supports be paired or alternated with others to lengthen the period of effectiveness?
- How often will the plan’s effectiveness be evaluated?

If the plan is not wholly successful:



- Can the plan be adjusted to be more successful?
- Do you have other ideas you would like to try?
- Should the learning assistance or resource teacher be involved in program planning for this student?
- Should the student be referred to the school-based team?
- Should the student be referred for additional assessment such as speech language, medical or psycho-educational testing?

Step 4: Make a Referral

Following in-class intervention, the classroom teacher should decide whether or not to make a formal request for additional support. 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 Learning Assistance Teacher, Resource Teacher, School Counsellor and/or School-Based Team.

After this in-school consultation has taken place, further consultation with parents may result in referrals to:

- district-based services such as a speech/language pathologist, occupational/physical therapist, school psychologist or learning or behavioural consultant/coordinator.
- medical professionals, and/or
- community-based services such as a Child and Youth Committee, Social Services or Mental Health.

Because FAS/E is a lifelong disability, it is the responsibility of the family, the school and the community. The integrated efforts of a multi-disciplinary, and often cross-ministerial, community team will be most successful when the support is built on past experience and incorporates planning for the future.

Understanding the Needs of the FAS/E Student

Behaviours which result from the effects of FAS/E can be challenging and often try the patience of the most dedicated and experienced educators. The response of children with FAS/E to corrective methods can be frustrating since these students are often inconsistent. In one circumstance they may respond positively to feedback. On the next occasion the same feedback may elicit a negative response. Contributing to this frustration is that the student with FAS/E often has difficulty with “cause and effect” reasoning and with adjusting to new or unfamiliar situations. This tendency often results in the teacher or caregiver misinterpreting the student’s behaviour and responding in a way that may create a more difficult situation. See **Appendix 3** for a list of common misinterpretations of typical behaviours.

Focused observation of the student is important in order to gain an understanding of how the child experiences stress, relieves tension, copes with obstacles and reacts to change. It provides valuable information on how the child meets his or her needs, how hard the child is actually trying, how to facilitate success, and how to build a supportive environment that will lead 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 allows the



student the greatest opportunity for understanding. Curriculum is often best taught in the context of the student's daily life. A calm, nurturing, learning environment is vital.

Each student with FAS/E presents a different set of conditions for which a teacher can plan appropriate teaching strategies. Many of the strategies that are successful with other students with special needs are also successful with students with FAS/E. This document is designed to assist teachers in planning appropriate interventions by identifying many of the specific challenges these students face in the different subject and skill development areas. From mathematics to social skills, this document supplies suggestions that have been tried and found to be successful by teachers in B.C. classrooms.

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

Appendix 3: Common Misrepresentations of Normal Responses in Students with FAS/E

Attentional Difficulties

Some students with FAS/E 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.

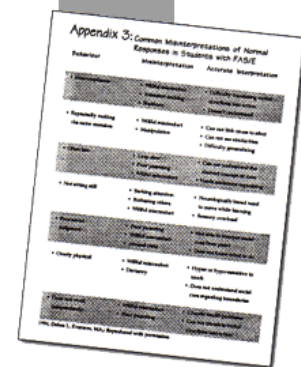
To reduce visual distractions, materials not in use should be stored in boxes or cupboards, not on counter tops. Spinning mobiles hanging from the ceiling are not a good idea. The brightness of the lighting may need to be adjusted. For some students, even a pencil smudge on the paper can be a distraction 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 deal with the problem, the teacher's voice should be at least 10 to 12 decibels louder than the background noise level. It also helps to seat the 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, the student 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 the student with a signal to be used to tell the teacher when time out is needed. Eventually the student may learn to self-regulate. Students who cannot cope in an open classroom often do well one-on-one.

**"Don't teach
them fast,
teach them
slow."**

An FAS student



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 over-stimulation.

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.

Strategies for Classroom Teachers

- Teach the student to use "self-talk" to help stay focused (e.g., "The first thing I have to do is ...") and to 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 (e.g., the use of stop hand-signals) to help the student change problematic behaviour such as "calling out" in class.
- Consequences for inappropriate behaviour need to be immediate.
- A student who needs 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 the student 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?"

Attentional Difficulties

A student with FAS/E may experience difficulty with:

- Being over and under responsive to stimuli,
- Remaining seated, fidgeting or squirming, and/or
- Acting without thinking.

Cause and Effect Thinking

Teachers and parents report that children with FAS/E make the same mistakes over and over no matter how many times they are corrected and given consequences. On the positive side, each day is a new beginning for children with FAS/E. Such children 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, with frequent, patient reminders of the reasons for them.



Why is there such a problem perceiving consequences? There are a number of possible reasons. First, the behaviour is often impulsive: children with FAS/E simply do not think about the possibility of a consequence, or the implications of their action. 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 FAS/E 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 FAS/E may not generalize from the behaviour in one setting to the same or similar behaviour in another setting. Sometimes such children generalize too well: instead of remembering the rule, they remember the one-time-only exception to the rule. Students with FAS/E often have a very rigid and egocentric notion of what is fair.

Strategies for Classroom Teachers

- Take time to talk with the child with FAS/E — you will find out how the child thinks. This can help you decide on what to do to help the student to formulate an appropriate strategy.
- Decide what is most important and what is within the control of the child; ignore the rest.
- Be as consistent as possible in imposing consequences, make them as immediate as possible and remind the student what the consequences are for.
- Help the student 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 the student can follow the course of the conversation.
- Help the student take another person's point of view.
- Consider the student's verbal and memory limitations in working through an incident with the student and deciding what the consequence should be.
- Anticipate and prevent problems through close supervision or partnering with peers (i.e., buddy system, peer tutor).

Cause and Effect Thinking

A student with FAS/E may experience difficulty with:

Understanding consequences and what they are for,

Generalizing behaviour from one setting to another,

Predicting outcomes of different behaviours in new settings, and/or

Working within a rigid and egocentric notion of what is fair.



Social Skills

Students with FAS/E are often socially immature compared to their peers. Because of their small stature, we may expect them to act like younger children. They often choose to play with younger children because they have the same interests. However, they have a strong desire to be accepted by their peers. They can be sensitive and caring. Yet, eventually, their behaviour becomes unacceptable: bugging people, going too far, or acting silly.

Social Skills

A student with FAS/E may experience difficulty with:

Understanding personal boundaries and ownership,

Perceiving social cues and rules, emotions of others,

Making and keeping friendships, and/or

Being suggestible, easily lead by others.

With Attention Deficit/Hyperactivity Disorder, they may be unable to wait their turn or be overly intrusive. They do not perceive the social cues from others that say, "I'm getting angry" or "you're being inappropriate." Whatever happens is perceived as "somebody else's fault." They may misinterpret other peoples' emotions, and they exhibit the wrong emotion for the situation. Often, they do not realize the implications of their actions on others. As a result, they need help in making and keeping friends. Helping the other students in the classroom through teaching acceptance of differences, creating circles of friends for students with FAS/E, and giving specific and immediate feedback may help to develop classroom relationships.

At all ages, many children with FAS/E are overly friendly. They are too easily approached by strangers — anyone who talks to them at a bus stop is instantly their best friend. Their desire to be accepted, and their difficulty making good choices, means their peers or adults can easily lead them into inappropriate behaviour. This means that at all ages, these students require greater supervision than their peers.

Our long-term goal for all our students is for them to learn to take responsibility. This is not something that anyone can impose on them; it comes about only through a long process of maturation and learning. The neurological disability of FAS/E makes taking responsibility particularly difficult. Many schools offer social-skills training programs, which are appropriate because they systematically promote pro-social behaviour. In the long run, good judgment, social skills, and adaptive skills are the most important preparation for independent living.

Some students with FAS/E have had unstable family situations, multiple home placements, and a background of possible abuse or neglect. In order to provide positive and consistent support, it is important to understand the student's social-emotional history and to work with other professionals involved in his or her care. The goal should be to help develop the child's positive self-esteem, which is a critical ingredient for success at all levels.



Strategies for Classroom Teachers

- Give the student direct and immediate feedback about unacceptable behaviour, how it is affecting others and how it is affecting the student. Label unacceptable behaviour specifically. "The way you are poking the student next to you, that is not acceptable. You need to stop doing that right now!"
- "Be aware that negative behaviour may be a symptom of unmet needs.
- Provide direct instruction in social behaviour skills. (See box at left)
- Allow the student to make mistakes. Help the student see their value in terms of what can be learned from these mistakes.
- Include the student as often as possible in the process of developing solutions to problems.
- Play turn-taking games. Pass an object around and when a student has the object it is that student's turn.
- Set limits and consistently follow them. Don't debate or argue over classroom rules or infractions of those rules.
- Encourage the student to use positive self-talk. "I can do this." "I am able to pay attention right now." "I can figure this out."
- Develop a plan with the student, which can be followed when the student is feeling overwhelmed by people, sound, light, movement, things.
- Develop with the student an entrance and exit routine for the day, or for each class.
- Encourage and permit the student to lead in child/young adult play on a regular basis.
- Encourage the child to "help" as a valued member of the classroom.
- Encourage decision making by giving the student choices and allowing the student to carry through with the choices they make.
- Use a variety of art forms as a means of communication regarding emotion, self-esteem, body image.

Teaching Social Skills

The process of teaching social behaviour skills involves three steps:

- Modelling a behaviour.
- Practicing the behaviour with guidance.
- Reinforcement of the behaviour outside the training situation.

The teacher may begin by modelling a certain social behaviour with an individual student. The student could also be asked to demonstrate this skill to another student, and then practice with that student, with the teacher available for guidance.

After sufficient practice, the student is then asked to go and demonstrate the social skill outside the classroom, if not the school setting itself, in order to practice positive peer interactions, to improve perception of social cues and to display appropriate emotions

Ideally, students should be reinforced for spontaneously using the new skill. Key social behaviour skills are:

- How to negotiate for what you want.
- How to accept criticism.
- How to show someone you like them.
- How to get someone's attention in a positive way.
- How to handle frustration, disappointment, fearful situations.
- How to ignore someone who is bothering you.



Personal Skills

Students with FAS/E have fewer inner resources for coping with the normal stresses and pressures of everyday living. At school, they may be frustrated by being unable to do what the teacher expects.

Students with FAS/E are often eager to learn.

Teachers must adapt the learning environment in order to meet the students' needs and to prevent the students from feeling frustration because they can not meet the expectations of the teacher. They may be easily overwhelmed by too much noise, too much commotion and too much stress. The response to pressure can take a range of forms: crying, withdrawal, acting out, disruptiveness and refusals. Sometimes after a day at school, they release their frustration at home. Recognize that challenging behaviours can be interpreted as a form of frustration. A child may knock over his or her desk. The behaviour may be saying: "I do not know what to do. I do not know how to do it. The pressure is too great, I cannot handle it!" That is the time to back off and look at what the student needs from you right now.

Personal Skills

- A student with FAS/E may experience difficulty with:
- Being easily overwhelmed by noise, commotion and stress,
- Taking responsibility for own actions,
- Adapting to changes in physical or emotional environment, routines, transitions, and/or
- Rigidity, black and white thinking

Often students with FAS/E have more difficulty than most children adapting to simple changes, such as changes in the physical environment (e. g., the location of desks), in the daily routine, or in the transitions of the day. They may be most comfortable with structure and routine and become anxious and upset in new situations — even ones most children find exciting or fun. They have trouble making choices. Their behaviour may become inflexible or perverse when under stress. They get stuck on an activity and when the teacher tries to move them on to something else, they resist or have an outburst. When a teacher tries to get them to hurry up, they often shut down and refuse to cooperate. The best approach is to anticipate problems. Give the student time. Introduce a dose of humour rather than end up in a power struggle.

Strategies for Classroom Teachers

The Physical Environment of the Classroom

- Organize classroom materials in closed boxes or in cabinets to avoid clutter. Use in/out baskets for work.
- Keep all the student's work in one binder rather than in several separate notebooks and colour code the materials.
- Use photographs to show where things belong.
- Define and organize a space that belongs to the student. Have all the students sit on mats on the floor and use masking tape to define an individual area for each one (do not single out the student with FAS/E differently from the other students).
- Make a quiet working area like a carrel or an office.
- Arrange desks to minimize distractions, but do not only move the desk of the student with FAS/E.
- Avoid harsh lighting; utilize full spectrum lighting.
- Moderate heating and ventilation.
- Use soothing colours; remove distractions.



Appendix 4:
Adaptive Skills Checklist



Planning the Day: Maximize Structure and Routine

- Have a consistent, predictable schedule of activities.
- Help the student to look at a schedule and look forward to what will be happening in the day. At the end of the day, look over the day's activities and talk about what went on. Where there was a change in routine, talk about how the student coped.
- Whenever possible, prepare the student in advance for changes in routine (e.g., a field trip or a substitute teacher), such as letting the parents know so they can talk about it at home.
- Have consistent routines (sequences) for activities, such as getting ready for P.E.
- Have a few simple rules, starting with language which is very concrete. For example, "If you hit, you sit." is more concrete than "respecting others," which is very abstract.
- Have consistent and immediate consequences for breaking a rule.
- Plan for transitions between activities by letting the student know how much time is left (verbal reminders, sand timer, watch with an alarm feature).
- Reduce the stress of too many things to choose from, too much to complete.
- Make sure the student is not spending too much time on homework.
- Watch for signs of irritability and fatigue.
- Constantly monitor that the student is doing what is expected; work towards the goal of student self-monitoring.
- Do not expect too little, but do not demand too much — that is the challenge. Set reasonable learning expectations based on the student's abilities and learning goals.
- For students with FAS/E, provide the external structure that the students need while helping them to develop and depend on their own inner resources: "I can do this!"

Memory Skills

Students with FAS/E often have memory problems. Like many students with learning disabilities, they may learn a concept one day, but the next day it is gone, only to reappear unexpectedly at some time in the future. Parents report that their child studies for hours for a social studies test, only to earn a failing mark the next day. Children with FAS/E may be able to recall the details of a camping trip from long ago, but not be able to remember what they had for lunch. They may be able to remember hockey statistics, but not multiplication tables. If they drop a pencil while working on a math sheet, they may have forgotten what they were doing or get lost in the middle of a problem by the time they get the pencil back. Even late in the school year, they may not remember their teacher's name.

Memory Skills

A student with FAS/E may experience difficulty with:

- Retaining and using information,
- Retrieving previously stored information,
- Utilizing sequences of information, and/or
- Following through on instructions from others.

Memory can fail at the level of the sensory register (information is not attended to or perceived accurately), storage (short-term or long-term memory strategies are not used effectively to remember), or retrieval (the information is recorded, but cannot be retrieved). Remember that it can be upsetting to students with FAS/E to realize they can not remember something that is easy for others.

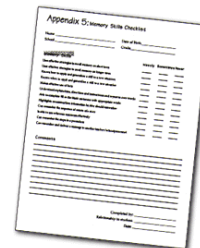
Some memory problems may be specific to remembering and using sequences of information: reciting the letters in the alphabet or the days of the week, finding a certain



page number in the middle of a book, getting the steps of a procedure in the right order, opening a combination lock, or telling the events of a story in a logical way. Often, memory for visual information is stronger than memory for information presented orally.

Strategies for Classroom Teachers

- Provide one instruction at a time until the student can remember two instructions; provide two instructions at a time until the student can remember three; and build up the amount from there.
- Provide opportunities for the student to practice oral direction and/or instruction, i.e., in each classroom, write what is going to happen each day/in each lesson, on the board.
- When the student appears to have learned a rote-skill, continue practising and aim for over-learning.
- Help the student recognize when and how to apply and generalize a skill to a new situation by employing something that has been learned over time and space.
- Concepts presented in a concrete fashion (i.e., with examples) will be easier to learn and retain than abstract concepts.
- Concepts are easier to learn and retain when they are presented in a familiar context or in a context in which the skill will be used.
- Concepts paired with a visual representation may be easier to learn and retain.
- Learning through art and music activities may use the student's strengths and is often an area where a student with FAS/E will shine.
- Aspects of memory that involve paying attention can be enhanced through memory games and teaching memory strategies.
- Provide practice in sequencing events, such as creating a photo story.
- Assess the student's learning more frequently, and on shorter units of work, than for other students; then continue to reinforce the concepts.
- Use recognition questions rather than open-ended ones.
- Use language that is familiar to the student.
- Use cuing (i.e., hinting) or prompting to help the student recall details.
- Teach the students strategies for remembering (e.g., make a list; note on a calendar) to the extent that they can manage the strategies at their own level of development.
- Develop a system with the parents or guardians regarding homework. For example, use a school/home book for assignments; make sure the student has written assignments down accurately.
- Have the student hand in homework immediately on arriving at school in the morning.
- Give feedback to students so that they can get some insight into their behaviour and how it affects themselves and other learners.
- Use one workbook or three-ring binder, with separate colour coded duotangs and colour coding for subject areas.
- When giving verbal instruction, write down the main points on an overhead or on a board.



Appendix 5: Memory Skills Checklist



Language Development

Children with FAS/E usually show some degree of language disability or delayed language development. They often have significant problems in communicating regardless of whether or not their general development is delayed. This difficulty with language affects social communication and academic learning.

Expressive Language Development

Children with FAS/E 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.

Children with FAS/E may have impaired oral-motor ability (articulation) and have difficulty producing sounds (e.g., “s,” “th” and “r”). They may have a more general speech problem that makes it difficult for them to speak intelligibly. Peers may ignore or tease a child with speech problems, and this can exacerbate problems with the development of social skills. Articulation problems are often identified before a child starts school, but more subtle problems with language expression may not become apparent until the child is faced with the challenges in the classroom. The teacher may want to consult with the speech/language pathologist to determine how best to assist the student at home and school. Speech and language therapy is essential for more severe problems.

The pragmatics of language refers to the use of language for social communication. Children with FAS/E 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 facility with language can mask problems with listening and with understanding language. Some children with FAS/E are very chatty, to the point of being intrusive, but communication problems can be serious. It is important to give these students feedback about their expressive language abilities in order to help them see what they are doing and to create insight into how this affects others in a group.

Receptive Language Development

FAS/E is sometimes described as a problem of processing information: receiving information accurately, interpreting and remembering it correctly, and then acting on that information. Problems with central auditory processing (listening) encompass many aspects that impact the student’s ability to follow directions and complete tasks:

Language Development

A student with FAS/E may experience difficulty with:

- Distinguishing between talking and effectively communicating,
- Understanding sequential verbal instructions, retrieving words, drawing conclusions,
- Going beyond stereotypic utterances, and/or
- Going “off-topic” in conversation and classroom discussion.



- 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 pay attention to.
- Memory — Immediate and long-term.

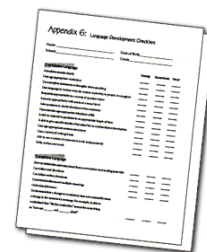
Students with FAS/E may not be able to keep up with the normal pace and complexity of the language of instruction and discussion, remember what has been said, and translate that into action. Younger students may have trouble following when the teacher reads a story unless it is accompanied by pictures or a concrete representation (e.g., puppets or models). Students with FAS/E may understand language messages in a concrete and literal way. They may not respond when the teacher says, “Get ready for P.E.” or “Settle down” or “Get ready to start your lab.” They may respond to more explicit instructions such as “Put on your gym shoes, now” or “Lips together” or “Get out your lab book and then look at me for instructions.”

Students with FAS/E may have trouble interpreting 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 with no referents or give so few details that a story does not make sense.

Students who have problems not knowing how to respond, or what to respond to, may experience many conflicts in a day. The students’ anxiety may increase, and they may have outbursts. Students who seem to be refusing to comply with a request may actually be unable to understand the request. What appears to be wilful disobedience may be actually be an inability to translate verbal directions into action.

Strategies for Classroom Teachers

- Choose simple material with illustrations.
- Use a plain piece of paper to put under each line of reading material.
- Tape record stories so the student can listen and read along.
- Use a picture dictionary to aid in vocabulary development.
- Use cues and aids to assist the student in following verbal instructions.
- Use verbal cues, such as songs or mnemonics to remind the student what to do next.
- Do not use figures of speech, euphemisms, sarcasm. Be concrete in communicating with the student.
- Avoid “why” questions and essay type questions with these students.
- Help the student to learn a skill by teaching it in the environment in which the student is expected to perform the skill.



Appendix 6: Language Development Checklist



- Give instructions one step at a time, repeat information as needed. Check for understanding by asking the student to repeat directions in own words, or by checking understanding with a partner.
- Develop a peer tutor to work with the student for reading practice, reviewing lessons, studying for tests, editing procedures, proofreading.
- Create key word and sight word cards for vocabulary building, phonetic strategies, etc. Encourage the student to develop a vocabulary card index.
- Provide a photocopy or audio tape of important information.
- Use cut-up sentence strips to assist with word identification and story understanding.
- Use rhythm techniques such as slow rhythmic clapping to focus attention, and to reinforce learning.
- Match your communication level to the student, then introduce speech expanding techniques very gradually by adding one or two words at a time to what the student is saying.
- Use multi-modal strategies (visual, auditory, tactile, kinesthetic). For example, expose students to letters in a variety of situations.
- Use art projects to make abstract concepts more concrete.
- Consider alternative demonstrations of knowledge, such as videotaping, audio recording, computer graphics applications.
- Teach and encourage the use of electronic spell-checkers, tape recorders, word processing
- Allow the student to write about own experiences to facilitate organization of thoughts.

Reading and Writing

Reading problems may be associated with underlying language disabilities. 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, to make inferences when the facts are not stated directly, and to make predictions. For a student with FAS/E who is slow to develop abstract thinking and problem-solving skills, these all become problem areas that require specific planning in the student's educational program.

Reading and Writing

A student with FAS/E may experience difficulty with:

- Learning sound/symbol associations easily,
- Identifying main ideas, making inferences, making predictions,
- Getting started, organizing thoughts and details, and putting them in written form, and/or
- Understanding figurative language, some forms of humour.

Students in the intermediate grades are expected to write more. A student with FAS/E may have difficulty getting started writing: organizing thoughts in a sequential manner, knowing details to include, and then translating those ideas to written form. At a basic level, the student may have deficiencies in spelling, capitalization and punctuation. The library resources that students need to use (such as encyclopedias) often have reading levels that are too advanced for a student with a reading disability. The teacher needs to select materials that will be meaningful for the student.



Strategies for Classroom Teachers

If you suspect that a student has language disabilities, consult with the learning assistance teacher and the speech and language pathologist for specific interventions to develop language skills. If the language problems are severe, the student may need one-on-one assistance to explain, to remind, and to keep him or her on task. Use the following techniques to help the student compensate for language difficulties:

- Speak face-to-face with the student; use the student's name.
- Keep the number of instructions and the explanations short.
- Stop at key points to check for comprehension: be alert to "losing the student" (that glazed-over look).
- Make sure the student understands what to do. Having a student repeat back the instruction verbatim does not ensure understanding; it is better to have a student explain the instructions in his or her own words.
- Give instructions in more than one way: verbal and visual.
- Use lists, such as a checklist for daily routine or a checklist for daily work. The student needs to learn how to use a list.
- Slow the tempo and wait for the student 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; non-compliance may mean that the message was too ambiguous.
- Recognize that the student may not understand or may misunderstand complex language (e.g., negatives, passive verb construction).
- Help the student feel comfortable asking questions (and asking again, if necessary) when he or she does not understand.
- Use sequential, repetitive teaching strategies which build on the prior knowledge base of the student.

Motor Skills

Some children with FAS/E excel in motor skills, particularly in individual sports such as swimming, skiing and roller-blading. Success in these areas is a great way to build self-esteem and develop lifelong leisure pursuits. Other children with FAS/E have significant problems with gross and fine motor skill development. In their early childhood, people may have used terms such as "mild cerebral palsy." In more severe cases, children with FAS/E may have had problems with chewing, swallowing and drooling. The coordinated movements required for physical activities — running, riding a bike and playing ball games — may be delayed. Physical therapy can help; so can physical activities such as swimming, dancing and gymnastics provided that the goals set for the student in these activities are appropriate.

The delayed development of some fine motor skills, such as tying shoelaces and handwriting, can cause additional stress for a school-aged child. One of the neurological outcomes of FAS can be poor muscle tone. The child may not have the strength to perform

Motor Skills

A student with FAS/E may experience difficulty with:

- Poor coordination, small and large muscle tone, eye-hand coordination,
- Physical clumsiness or apparent carelessness, and/or
- Interpreting sensory input from visual and auditory stimuli



activities such as pouring milk from a carton. Some children have a condition that prevents them from rotating their wrists and elbows. This makes handwriting cumbersome and tiring. These children have difficulty sustaining the motor activity required in a typical school day without adaptation to reduce the demands on their muscles.

As children learn motor skills, the motor skills become automatic, but it often takes longer for children with FAS/E to reach this automatic state. 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 the word.

Strategies for Classroom Teachers

- Reduce the amount of copying required (e.g., from the chalkboard), provide a carbon or photocopy for the students to use at their desks, or use a buddy system for copying.
- Help the student to learn to visually transport information.
- Allow extra time for writing, but recognize the student's difficulty in sustaining the motor activity of writing, even if more time is available.
- Notice whether spelling improves when you ask the student to spell out loud rather than in written form. If this is the case, it might be because the motor skills involved in writing are not fully automatic.
- Provide extra practice in handwriting; in the intermediate grades decide whether to encourage cursive or continue with manuscript form.
- Watch to see if the student grips the pencil too tightly, which is tiring; use soft, slide-on grippers.
- Encourage the early development of keyboarding skills for word-processing.
- Consult the physiotherapist or occupational therapist for activities that will improve strength and coordination in fine and gross motor skills.
- Encourage participation in physical activities to improve coordination.



Appendix 7:
Motor Skills Checklist

Mathematical Skills

Many students with FAS/E have difficulty learning mathematical skills. 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, and
- translating word problems into the correct sequence of computations.

Mathematical Skills

A student with FAS/E may experience difficulty with:

- Understanding symbolism meanings of symbols,
- Responding to a large number of computations on a single page, and/or
- Learning multiplication tables and other mathematical concepts and operations



Vocabulary

Mathematics also has its own vocabulary. The words and their meaning need to be specifically taught as the student is unlikely to learn them incidentally.

Directionality

Some problems are worked right to left, and others left to right. The student with directional confusion may need both specific teaching to establish directionality and cues to remember directional rules for use in mathematics.

Functional Ability

Compared to other students, students with FAS/E need more practice (over-learning) to learn basic computations and continuous practice in order to make those skills automatic. Some students with FAS/E have become skilled and quick in mental arithmetic while others require a calculator for the simplest of computations, in spite of repeated practice. The student 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 FAS/E. An IEP that emphasizes practical/applied mathematics at a very functional level is appropriate.

Temporal Concepts

Many students with FAS/E 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 are all the same. The 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 a student learns how to count by fives to determine the time, the student may still read 3:20 as 3:4. The student may even be lost in the day, not knowing whether it is before lunch or after lunch. Using calendars and written schedules can reinforce time sequences. Concrete representations, such as sand timers or stop watches, and emphasizing how much time it takes to complete certain activities in the day can help the student develop a sense of time.

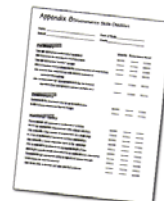
Money Concepts

A student with FAS/E 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. The student 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 parents have reported serious problems when their young adult has access to a bank ATM or a credit card. Some young people with FAS/E may always need a degree of assistance in the management of their money.



Strategies for Classroom Teachers

- The student may need to continue using number lines and concrete materials.
- The student may need to practice math facts daily for short periods throughout the school year in order for the facts to become automatic.
- Be alert to the possibility of the student “freezing” under pressure to work fast in timed tests. Make allowances for extended time on tests and assignments.
- Reduce the number of problems on the page so that the student is not overwhelmed.
- 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 the student know what to do, such as where to start and where to stop.
- A student with problems in spatial organization can use graph paper to keep columns and figures straight.
- Allow the student 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 the student will use it.
- Find ways to help the student in getting organized and taking 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 delivery of instruction. For example, use kinesthetic learning, scripting, or role playing.



Appendix 8:
Mathematics Skills Checklist

Science Skills

Many students with FAS/E 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 FAS/E. 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.

Science Skills

A student with FAS/E may experience difficulty with:

- Using/understanding science vocabulary,
- Demonstrating abilities in the areas of recording, interpreting and discussing observations, and/or
- Moving from computations with concrete materials to mental problem solving.

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), and



- 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 the student is unlikely to learn them incidentally.

Experimentation

Students with FAS/E may lack the well-developed fine motor skills necessary to independently manipulate microscopes. 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 FAS/E may need advanced practice with the equipment, specialized directions, and time to practice, 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 the student begins to tackle the tasks of learning the science curriculum.

Enquiry

Compared to other students, students with FAS/E need more practice (over-learning) to learn basic tasks and continuous practice in order 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 facilitate concept formation. By secondary school, part of the science curriculum can be too abstract and complex for some students with FAS/E. An IEP that emphasizes practical/applied science at a very functional level is appropriate.

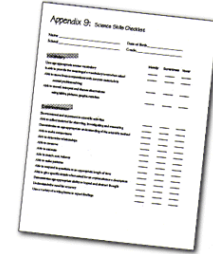
For students with FAS/E there needs to be a compelling reason to learn science; there needs to be an answer to a personal question "Why?" Developing awareness of the personal meaning science has for each student and tying this meaning to the larger context will increase motivation. On a personal level, students with FAS/E 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 the student with FAS/E a reason, you will alleviate the stress and frustration and will foster a better understanding of why they behave and think the way they do.

Strategies for Classroom Teachers

- 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 in new contexts with new sub-issues.
- Use alternate texts at an easier reading level.
- Use activities-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 a safety checklists for use of any equipment.
- Be alert to the possibility of the student “freezing” under pressure to work fast in timed tests. Make allowances for extended time on tests and assignments.
- Use a highlighter to help the student know what to do, such as where to start and where to stop.
- Allow the student to use a calculator for basic computations.
- Find ways to help the student in getting organized and taking on responsibility.
- Use multi-modal teaching strategies for delivery of instruction. For example, kinesthetic learning, scripting, or role playing.
- Provide a variety of ways for students to practice new vocabulary and tasks, such as team games, software programs that provide drill and feedback, worksheets, peer coaching and short daily quizzes.
- Provide opportunities for paraphrasing test questions and instructions as required.
- Allow various ways for students to demonstrate their understanding of scientific concepts such as performing experiments, creating displays and models and tape recording observations.
- Adapt assessment tools such as paper and pencil tests to include options such as oral tests, open-book tests, and tests with no limit.
- Use peers, student tutors, or volunteers to assist.
- Use teacher assistants to work with small groups of students, as well as with an identified student with FAS/E.
- Use consultants and support teachers for problem solving and to assist in developing strategies for science instruction.



Appendix 9:
Science Skills Checklist

Fine Arts

Students with FAS/E can bring creative, musical and artistic gifts to your classroom. Although the participation of the student with FAS/E may sometimes be limited by the child's 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 a student with FAS/E 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, and
- increasing the variety of contexts and media in the expression of an expanding range of thoughts, images and feelings.

Fine Arts Skills

A student with FAS/E may experience difficulty with:

- Using/understanding fine arts vocabulary;
- Sustaining interest until the completion of a project and/or;
- Improvising with materials, props, costumes, music and voice.

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 the student with FAS/E to perceive, explore, communicate and reflect upon thoughts, feelings, images and ideas without necessarily having to express them in written form.

Dance

Dance education provides a student with opportunities to transform images, ideas and feelings into gesture and movement sequences. Dance can also give the student with FAS/E another “language” for communication. Some children with FAS/E may have significant delays in gross and fine motor skill development which can influence their acquisition of skills; however, given some freedom to adapt their movements, dance education also provides opportunities to develop the student’s self-expression, cooperation skills and appreciation of their own and other’s abilities.

Drama

Drama education provides a student with opportunities for creative expression and to understand and appreciate the differences between people. For the student with FAS/E, drama can be an appropriate outlet and important area for personal and social development. Role-plays, skits, 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.

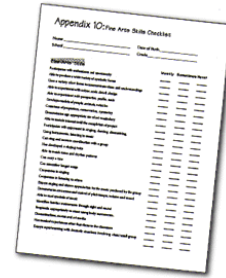
Visual Arts

Visual arts education provides a student with opportunities to both create and experience the power of the visual image. Given the opportunity to create and communicate through images, students with FAS/E can produce remarkable self-portraits and descriptive designs.



Strategies for Classroom Teachers

- Provide students with cooperative 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 for delivery of instruction. For example, use kinesthetic learning, scripting, or role playing.
- Use visual and tactile modalities to augment listening.
- Provide direct teaching on social skills and etiquette for performance and audience.
- Provide students with advance organizers of key concepts.
- Adapt the pace of activities.
- Exemplify ideas through the use of concrete materials such as models.
- 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 the student in getting organized and taking on responsibility.
- Provide a variety of ways for students to practice new vocabulary and tasks, such as team games and software programs.
- Use peers, student tutors, or volunteers to assist.
- Use teacher assistants to work with small groups of students, as well as with an identified student with FAS/E.
- Use consultants and support teachers for problem solving and to assist in developing strategies for fine arts instruction.



Appendix 10:

Fine Arts Skills Checklist

Developing an IEP: Case Studies

Jonathan - Grade 4 Student

At an early age, Jonathan's parents and teachers recognized that he had special needs. He had delayed speech and language development and noticeable problems with fine motor skills. He was not formally diagnosed with Fetal Alcohol Syndrome (FAS) until he was eight years old.

Socially, Jonathan usually chooses to play with younger children. He often bugs and pokes other children to get their attention and then cannot understand why they are angry with him.

Jonathan attended a special needs preschool where, with therapy, he made good progress. After Jonathan entered elementary school, speech therapy continued through Grade 3. Jonathan still has some problems with articulation that make his speech difficult to understand at times. He usually says, "never mind," if people ask him to repeat what he has just said.

Results of previous assessments were available when Jonathan entered elementary school and were updated in kindergarten and at the end of Grade 3. Jonathan is now beginning Grade 4. Results of ability testing indicate a large discrepancy between Verbal Reasoning (low average range) and Abstract/Visual Reasoning (slow learner range). Short-term



memory is low (slow learner range) for both auditory and visual memory. He has greater difficulty remembering sequences than remembering a whole configuration.

Results of language testing pinpoint problems with processing complex language, difficulty in word-finding and weakness in language syntax. Jonathan's teacher has noticed that in classroom discussions his comments are often off-target or unrelated to the topic. He often does not understand what to do after receiving oral instructions, even though he appears to be paying attention. Jonathan loses track of what he is doing in the middle of an activity and frequently fails to finish things. However, he thinks he is finished and argues with his teacher about it.

In Grade 4, he is struggling with studying novels. Jonathan has strong word-decoding ability, but his comprehension scores are two years delayed for his grade placement. When answering comprehension questions, his responses often reflect his own experience, or what he wishes would happen, rather than what has been stated or implied in the story. By the time he gets to the end of a chapter, he cannot remember what has happened at the beginning and he cannot remember from one day to the next what is happening in the story.

Jonathan's mother has remarked that he cannot "follow" the dialogue and sequence of a television program. He annoys family members by constantly asking questions during the show about what is happening. If a video has to be paused midway, he cannot pick up the story from the middle and needs to restart the video from the beginning. Jonathan's skill level for arithmetic computations is at the beginning Grade 2 level. He continues to need concrete materials or his fingers to perform simple addition and subtraction. He is not yet able to tell time on the hour and half-hour. He also does not have a good sense of time: at one o'clock in the afternoon, he may ask, "Have we had lunch yet?" He does not have a solid concept of the sequence of numbers. He cannot find a page number in the middle of his textbook unless he pages through the book from the beginning. He confuses the temporal concepts "yesterday" and "tomorrow."

Jonathan's fine-motor skills are improving, but they are still weak for his age. Jonathan's printing is messy in the formation and spacing of the letters. He doesn't know how to organize his work on a page. He has difficulty copying from the blackboard. He grips his pencil tightly, holding it with his thumb over his forefinger. He makes his letters quite large to help control a slight tremor. He cannot rotate his wrists. His hand gets tired and cramped easily and he cannot sustain writing for any length of time. His longest journal entry to date is two lines. Jonathan cannot think about what he wants to say and write it down. He does, however, have a vivid imagination.

In contrast to his weak handwriting, Jonathan is very artistic and draws elaborate robot men. Jonathan is a whiz at computer games and the computer is always his first choice during "centre" time. His gross motor skills are appropriate for his age, and he likes to ski — fast!

Socially, Jonathan usually chooses to play with younger children. He often bugs and pokes other children to get their attention and then cannot understand why they are angry with him. He is disruptive in class: calling out, making odd noises and bothering other students. He has trouble learning and remembering the rules of games. As a result, his friends constantly accuse him of cheating. His impulsive behaviour makes it unsafe for Jonathan to



cross the street on his own or to walk alone in a parking lot. He acts without thinking and puts himself or others in dangerous situations by climbing and jumping from high places, throwing things and skating recklessly on his skateboard. He is constantly “getting into trouble.” At times, this is because he follows what older kids tell him to do. He has been banned from the school bus because he is disruptive and poses a safety risk. Detentions seem to make no difference. Jonathan has a high pain threshold. He once broke his arm falling from a jungle gym and did not tell anyone it was hurt. He is overly friendly with adults and is easily approached by strangers.

Jonathan is often overwhelmed by too much going on around him. This can result in temper tantrums, during which he will throw objects across the room, or withdrawal, which may result in him crawling under his desk. This tends to happen more often in the afternoon when he is tired, when there is an abrupt change in activities, and when he is frustrated by the difficulty of the work. When the classroom aide breaks down the work step by step, and guides him through it, Jonathan can complete his assignments successfully.

Jonathan has been identified as a student with Severe Learning Disabilities (SLD). In addition, he has a processing disorder and Attention Deficit/Hyperactivity Disorder (AD/HD).



Individual Education Plan

Student Name:	Jonathan	Birth Date:	86/10/15	Date:	June 12, 1996
		School:	Pinewood Elementary	Grade/Class:	Four
Parents/Guardians	Nan and Hal Parent	Address:	444 Airth Street	Home Phone:	559-3313
				Work Phone:	649-2233
Previous School Attended:					
Sunshine Development Centre (Pre-school, 1990)					

Assessment / Planning Information

See School Psychologist report in student record; October, 1994

- speech / language and fine motor skills delay
- significant discrepancy between verbal reasoning and abstract visual reasoning
- language processing difficulties (receptive and expressive)
- problems with short term auditory and visual memory / sequencing
- impulsive, difficulty staying on task
- difficulty coping with class expectations and routine changes
- poor social skills, negative attention seeking

See Language Arts and Math assessments in school record, 1996

- shows strength in decoding, reading comprehension at beginning Grade 2 level
- math at beginning Grade 2 level
- weak fine motor skills, awkward pencil grip

Strengths:

- vivid imagination
- drawing skills / artistic
- expert at computer games
- strong gross motor skills

Needs:

- to reduce disruptive behavior
- to expand attention span
- to increase task completion
- to improve reading skills
- to develop written language skills
- to develop compensatory techniques
- to improve social skills
- to develop oral comprehension and expression

IEP Review

Dates:

(First report)	October 15, 1996	(Other)	
(Second report)	February 1, 1996	(Year end)	June 10, 1997



Individual Education Plan

STUDENT NAME: Jonathan		
Goal:	Date Established	Team Member(s) Responsible
Increase appropriate behaviour and reduce disruptive behaviour	September 3, 1996	Teacher, Teacher Assistant and Counsellor

SHORT TERM OBJECTIVES	STRATEGIES AND RESOURCES	ASSESSMENT PROCEDURES
Develop appropriate ways to get attention.	Social skills training group - practice social cue reading / modeling and role play	Increase in 1. Positive social interactions with peers and, 2. following classroom rules (Establish baseline rate each month and chart frequency.)
Develop empathy for others.	Discuss emotions with counsellor ("How do you feel now? How does your friend feel?")	
Increase following of classroom rules.	Use time on computer as reinforcement for following classroom rules.	
RESULTS		

Goal:	Date Established	Team Member(s) Responsible
Expand attention span	September 3, 1996	Teacher, Teacher Assistant

SHORT TERM OBJECTIVES	STRATEGIES AND RESOURCES	ASSESSMENT PROCEDURES
Increase time in seat.	Reinforce self-monitored time in seat. (Jonathan will keep record of personal clock)	Increase in time on task (documented at intervals by teacher assistant)
Increase attention to group activities.	Praise and acknowledgment.	
Increase time on independent tasks.	Use of private study carrel to reduce distraction.	
Start task when assigned.	Support understanding of task by explaining directions and ensuring Jonathan understands.	
RESULTS		



Goal:	Date Established	Team Member(s) Responsible
Increase assignment completion	September 3, 1996	Teacher, Teacher Assistant and Parents

SHORT TERM OBJECTIVES	STRATEGIES AND RESOURCES	ASSESSMENT PROCEDURES
Increase awareness of when tasks are complete	in and out baskets for all assignments - each marked by adult - as immediate as possible feedback.	Rate of task completion will increase to 50% by first report in October (goal for June is 75%).
Develop "self talk" steps to organize and complete activity.	"I can do this", "First, I have to..."etc.	
	Teacher develop checklist for assignments	
Paraphrase instructions to process steps	Teacher assistant asks to paraphrase at beginning of task time.	
Develop regular homework routine.	Parents will accompany Jonathan at 30 min. daily homework schedule each evening.	
RESULTS		



Individual Education Plan

STUDENT NAME: Jonathan		
Goal:	Date Established	Team Member(s)
Responsible Develop reading skills to Grade 3 level	September 3, 1996	Teacher

SHORT TERM OBJECTIVES	STRATEGIES AND RESOURCES	ASSESSMENT PROCEDURES
Develop reading comprehension.	Discuss passages and have Jonathan summarize orally short passages at current reading level.	Use Alberta Reading Inventory - pre and post assessment. (September '96, January '97, June '97) (Resource teacher act as resource to find adapted materials at Jonathan's level in Science and Social Studies and use peer assistance as needed.)
Participate in Grade 4 class novel study.	Use of peer reader or adaptation using audio tapes of novel	
Develop sequence and cause/effect in reading	Use "Choose Your own Adventure" series	
RESULTS		

Goal:	Date Established	Team Member(s)
To develop written language skills to Grade 3 level		Responsible Teacher and Resource Teacher

SHORT TERM OBJECTIVES	STRATEGIES AND RESOURCES	ASSESSMENT PROCEDURES
Improve handwriting	Directed teaching - practice size, shape, spacing (10 minutes a day)	Handwriting will become more legible (January '97). Stories will increase to one page in length.
Develop compensatory computer skills.	Use word processing on computer in class and resource room.	
Expand ideas and length in written work.	Jonathan will tape stories and have them transcribed by teacher, use drawings to elicit ideas for stories.	
RESULTS		

Goal:	Date Established	Team Member(s)
Improve demonstration of knowledge using adapted strategies		Responsible Teacher and Resource Teacher

SHORT TERM OBJECTIVES	STRATEGIES AND	ASSESSMENT PROCEDURES
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	RESOURCES	
(Socials, Science)		Jonathan will earn "C" with adapatations on core subject tests.
To increase performance achievment on subject assessment (tests, quizzes, etc.)	Oral tests; make test adaptations to matching items; allow extra time and separate setting if needed for consentration	
RESULTS		



Individual Education Plan

STUDENT NAME: Jonathan		
Goal:	Date Established	Team Member(s) Responsible
To master outcomes in Grade 2 curriculum (see IRP)	September 3, 1996	Teacher

SHORT TERM OBJECTIVES	STRATEGIES AND RESOURCES	ASSESSMENT PROCEDURES
Add accurately whole numbers to 100 with regrouping.	Use concrete materials and place value manipulations.	Weekly monitoring of activities and anecdotal records of concepts and operations mastered by observing Jonathan's activities at math centre and desk.
Improve concept of time.	Use sand timer.	
Subtract whole number's to 100, recognize number pattern	Reinforce concept of number line for sequence and patterns.	
Use manipulations to demonstrate understanding of multiplication and division. (See Grade 2 outcomes)		
RESULTS		

Goal:	Date Established	Team Member(s) Responsible
Develop oral language expression and comprehension (INTERIM)	September 3, 1996	Teacher, Speech and Language Pathologist

SHORT TERM OBJECTIVES	STRATEGIES AND RESOURCES	ASSESSMENT PROCEDURES
Increase Jonathan's risk taking to be understood.	Allow Jonathan extra time to arrange response.	(Consultation with Speech/Language Pathologist set up for October 5/96; program to follow consultation.)
Increase understanding of oral information.	Use visual and concrete aids to supplement oral information; keep instructions concrete and short.	
Encourage Jonathan to stop and think before he speaks.		
RESULTS		



Goal:	Date Established	Team Member(s) Responsible

SHORT TERM	OBJECTIVES STRATEGIES AND RESOURCES	ASSESSMENT PROCEDURES
RESULTS		



Individual Education Plan

TEAM MEMBERS

List people responsible for carrying out the IEP	For example: classroom teacher, teacher assistant, resource teacher, counsellor, behavioural consultant, speech language pathologist, physical therapist and/or learning assistance teacher
IEP Team Coordinator: Resource Teacher or Case Manager	

Year End Review:	Date:		
Comments:			
<p>Recommendations:</p> <p style="text-align: center;">To be determined through the course of the year - IEP is an ongoing, living document of the program of Jonathan.</p>			
Transition Plans:			
_____ IEP Team Coordinator	_____ School Administrator	_____ Parent	_____ Student (if appropriate)



Jane - Grade 10 Student

Jane was diagnosed as a child with fetal alcohol syndrome (FAS) when she was nine years old. She is now 16 and in Grade 10 at a junior secondary school. Jane has been receiving special education services since Grade 3. She has consistently had difficulty completing the academic outcomes for her age and grade and meeting the behaviour expectations of school. Her teachers of last year describe Jane as a generally curious learner. She is unable to independently decode and understand grade level print resources. She has good recall of mathematics facts, but has difficulty applying them to practical situations.

Jane is frequently confused by the sequential nature of events, the managing of elapsed time, and the difference between reality and fantasy. She has a tendency to fixate on issues and often needs help to focus on positive outcomes. Adults who work with her and her classmates have described Jane as functioning like a much younger person. She has been fully integrated in regular classes with significant adaptations and modifications since kindergarten.

Jane is easily distracted and has a short attention span. Jane's social skills are not well developed, particularly with peers. She has a pattern of seeking power through aggressive behaviour. She can, however, behave in a very socially appropriate way with adults, particularly if the setting is informal.

Jane's behaviour is unpredictable. She feels a strong sense of pride in a job well done and her sense of humor is a gift to the classroom and is usually appropriate. Yet, Jane has difficulty with changes in routines. She has a strong desire to be in control of her own decisions, but needs to develop decision-making skills and the self confidence to use them. For academic tasks she operates best in a structured, predictable environment.

Jane's parents, and people who have worked with Jane both in the community and school, say she can be very creative and imaginative. She is able to voice her concerns and share her feelings with adults, but has difficulty with her peers. She expresses herself well in role play and loves to take part in drama where she has demonstrated insight with ideas and people.

Teachers have adapted materials and substituted easier to read resources to assist her in class activities. She has used enlarged texts and taped materials. Although she is reluctant to read silently, she will read aloud to others. Music is a strong preference and is both soothing and therapeutic for Jane. Teachers have worked collaboratively with the special education support teacher to modify learning outcomes and adapt materials in order for Jane to be as successful as possible.



Individual Education Plan

STUDENT INFORMATION DATE:	January 20, 1996
Name: Jane	Date of Birth: 80/06/21
Parents: Mr. and Mrs. Parent	Placement: Grade 10
Address: 160 Broad St	
School: Elm Street Secondary School	
Case Manager: Mr. Support Teacher	

ASSESSMENT HISTORY (See school file for Assessment reports)		
Date	Agency	Purpose
1988	Children's Hospital	Psycho-educational assessment
Oct. 19, 1990	School District	Functional vision assessment
Nov. 19, 1995	School District	Psycho-educational assessment

LONG TERM FOCUS

- Jane will believe she is a capable and significant human being who is an asset to the community.
- Jane will be able to accept responsibility for the choices she makes.

IEP PLANNING TEAM:

- Parents
- Respite care givers
- Teacher assistant
- Teacher
- District Helping Teacher
- Social worker (not able to be present at IEP meeting)
- Physiotherapist

PARENT INVOLVEMENT:

Meeting Dates:	December 1, 1995 January 12, 1996
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STUDENT INVOLVEMENT:

Meeting Dates:	November 10, 1995, December 15, 1995 Review of I.E.P. with Jane to be arranged early in February, 1996
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Overall Learning Strengths/Interests:

is not very motivated to read - but can read silently and can be persuaded to read aloud, is then an expressive reader.

- reads book - preferably with large print preferring short stories - can get lost if there is too much text; enjoys taped text.
- has good recall and understanding of things she has read.
- is very sociable with adults in a social setting.
- asks questions and is curious about how things work - enjoys experiments.
- has good basic concepts for basic math facts - can work quickly and verbally.
- has an incredible sense of fantasy - is very creative - and uses this in writing.
- is very curious about things and interested in doing some photography and cinematography.
- enjoys shopping, going for drives, walks and horseback riding.
- is good with children with special needs, especially children with low verbal skills.
- enjoys swimming, cooking and table games (especially with money) and loves nintendo and computers generally.
- is learning some basic sewing skills on a computerized sewing machine, and is proud of achievements.
- enjoys music and finds some music soothing and therapeutic.
- has a real sense of pride when she accomplishes something.
- can understand goal setting and making agreements - and can often stick with the agreement.
- loves drama - and is confident presenting her ideas to people.
- can voice her concerns and share feelings and is insightful.
- wants to be in control of her life.
- has a delightful sense of humour.

Learning Needs:

- to continue to develop organizational skills.
- to learn to concentrate and stay focused - is easily distracted.
- to know what is real and fantasy - is confused over amount of time elapsed and sequences of events.
- to refocus towards positive outcomes - has great determination.
- to take responsibility for own choices.
- to develop boundaries, trust and safety.
- to have a structured consistent environment.
- to develop feelings of security.
- to have clear consequences and to deal with aggression - both verbal and physical - often tests the limits.
- to redirect her creative abilities.
- to be redirected - when fixating on issues.
- to feel she is independent and an individual in her own right.
- to improve socialization skills, particularly with peers.
- to see any support person as helpful (a footstool as opposed to a doormat).
- to develop - self-confidence and capabilities.
- to meet fine motor skill level through adapted assignments in arts and textiles.



AREA OF CONCERN: Social and Emotional Skills

GOAL: Jane will develop confidence in her capabilities and increase her self esteem.
Jane will develop appropriate social interaction skills

- Observations that support this goal:
wants to feel in control of behaviour
- can come up with solutions to problems

Objectives: will be able to ...	Assessment Strategies
<ul style="list-style-type: none"> • have opportunities to experience success • develop increased self-awareness, self-confidence • develop feelings of personal safety • develop clear boundaries • develop trusting relationships • continue developing her social interaction skills 	<p>Interviews with teachers and helping adults about Jane's behaviour</p> <p>Discussions with Jane each month around her goals</p>
Interventions/Strategies	People Responsible
<ol style="list-style-type: none"> 1. to work through issues regarding boundaries and trust with T.A. and social worker. 2. to have clear boundaries <ul style="list-style-type: none"> • using the bubble to establish personal space. • to be consistent with expectations regarding boundaries by cuing to bubble. 3. to use reality therapy and natural consequences. 	All team members
<ol style="list-style-type: none"> 4. to have a room which she can feel is her base when she needs to work in a safe setting. 	All team members - home / school
<ol style="list-style-type: none"> 5. to use a communication book - blue book including the behaviour score for the day which she may access after school to discuss her day with parents/respice workers. 6. (to have reinforcers school-based as far as possible, earning trips into the community as trust is developed). 7. phone calls and other privileges used as reinforcers for age appropriate behaviour both at home and school. 8. to use humour when she is using 	All team members



fantasy to bring her back to reality.	
<p>9. to have her paraphrase what has happened and explain the consequences evoked by her behaviour..</p> <p>10. to use "I" statements with her and encourage her to use "I" statements to express her feelings of anger or frustration</p> <p>11. putting onus on Jane to deal with issues, to put responsibility back on her - we know she is capable of problem solving or fixing a situation.</p>	All team members
12. to have visits from parent - to update how she is getting on, approximately every two weeks; to be arranged and preferably toward the end of the day.	Parents

AREA OF CONCERN: Integration

GOAL: Jane will see herself as a learner and participate in class activities. Observations that support this goal:

- has been able to participate in sewing for an increased amount of time
- can goal set around what work needs to be achieved each day

Objectives: will be able to ...	Assessment Strategies
<ul style="list-style-type: none"> • with assistance, participate in activities of interest within the school setting 	Monitor time spent in regular class environment and chart rate
Interventions/Strategies	People Responsible
<p>1. to participate in visual arts in G block for as long as she is able to each day - with T.A. supporting her or supporting other students when not needed</p> <p>2. participating in H block - clothing and textiles; again, for as long as is practical</p> <p>3. Jane will enter class five minutes later after class is settled and teacher has time to give individual instructions if this proves necessary</p> <p>4. having short lengths of time when Jane is left in class without support, and times when T.A. supervises other students in her class, so she does not become totally</p>	Teacher/Teacher assistant Classroom Teachers



<p>dependent/possessive</p> <ol style="list-style-type: none"> 5. to develop keyboarding skills using typing tutor 6. to continue with word processing - Use program called "Invest" - beginning intermediate math 7. using math in local community - budgeting, shopping, banking etc. 8. read books of high interest and low vocabulary, preferably with small amount of large text on each page 9. discuss meaning and develop opinions about what was read 10. use tape recorder to record ideas 11. writing reports or journalling on things she has been doing, or creative story writing - possibly producing something for a younger student 12. reading about local/world issues in paper and discussing them 13. researching a topic of interest: brainstorm ideas and prioritize according to how useful, interesting and practical - and choose topic 14. goal set - periods of non-negotiable work and activities of choice 	
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AREA OF CONCERN: Lifeskills

GOAL: Jane will develop meaningful lifeskills

Observations that support this goal:

- has been able to participate in sewing for an increasing amount of time
- can goal set around what work needs to be achieved each day

Objectives: will be able to ...	Assessment Strategies
<ul style="list-style-type: none"> • develop lifeskills both within the school and community 	Anecdotal records of observations of Jane's progress in each of 6 areas below; feedback from parents
Interventions/Strategies	People Responsible
<ol style="list-style-type: none"> 1. planning trips and researching bus schedules etc. 2. accessing the community as behaviour allows — swimming, museum, shopping, banking, library, park 	Teacher Assistant
<ol style="list-style-type: none"> 3. focus on personal hygiene and healthy living - meet school nurse - talk about community resource 	Parents



people 4. cooking: - planning, shopping, food prep.	
5. ordering/sequencing events - reviewing day together what came first, second etc... 6. explore options for next year including possibility of some work experience.	District Helping Teacher

AREA OF CONCERN: Gross Motor Skills

GOAL: Jane will explore various physical activities with a view to their becoming life long pursuits.

Observations that support this goal:

- likes playing raquetball / squash
- enjoys swimming, and walking

Objectives: will be able to ...	Assessment Strategies
explore what is available out in the community and discover things that may interest maintain an adequate level of physical activity	Jane will develop a fitness / recreational activity which she participates in independently.
Interventions/Strategies	People Responsible
1. Use room 227 - for doing Tai Chi.	Teacher Assistant
2. Have a consultation with physiotherapist regarding insoles.	District Helping Teacher
3. Participate in free swim program 9 a.m. Mondays and Wednesdays or swim with the younger students who go 9:45 - 10:30 a.m. on Wednesdays and be a role model / volunteer.	Social Worker and Teacher Assistant
4. Consult with a fitness instructor at Recreation Centre regarding fitness programs and proper use of equipment	District Helping Teacher and Physiotherapist



Appendix 1: Sample Questions to discuss During a Meeting with Parents or Guardians

As with all good working relationships, the first time you meet is very important. Lasting impressions are made, so it is useful to prepare for this meeting and arrange the most comfortable space and time possible for all concerned. A warm welcome and invitation to work together will quickly establish a rapport between you and the parent. A few sample questions have been provided to help you with you planning.

General Information

- What do you think is important for me to know about your child (e.g., specific health problems such as seizures, vision/hearing problems, heart problems, medications)?
- What educational and social goals do you have for your child?

Communication and Adaptations

- What are some strategies you have found useful in working with your child?
- Does your child require special therapy outside of school such as speech/language, occupational/physical, counselling?
- Did your child receive services from the Infant Development Program or attend a special needs preschool?
- Has your child previously received special services within school?

Behaviour

- Could you tell me about your child's challenges and what this might mean in my classroom?
- What interests, activities or hobbies does your child like doing?
- What causes your child to get overloaded?
- When other children ask about your child's differences, how do you handle this?

Assessment and Evaluation

- What reports or other information about your child do you feel are important for me to have (e.g., what were you told about your child's diagnosis of FAS/E; any additional diagnosis, such as NAS, or other syndrome)?
- Is your child able to work independently? For how long?
- In what areas has your child experienced particular success?
- In what areas would you particularly like your child to succeed this year?

Home and School

- Is there further information you feel I should know about the child (e.g., recent changes in child's life, history of child's living arrangements if adopted or in foster care)?
- How can we provide a consistent home/school approach in teaching your child?



- Are there any questions you would like to ask me? (Such as my classroom expectations, assignments, materials, activities, assessments of progress, projects, portfolios, or tests)



Appendix 2: Notes from First Meeting with Parents or Guardians

Student: _____

Date: _____

Home Phone _____ Work Phone _____

Names and phone numbers of key people who are working with this child

Description of student's educational needs _____

Student's interests, hobbies, strengths _____

Questions and concerns: Parent _____

Questions and concerns: Teacher _____

Initial short-term goals _____

Long-term goals _____

Other information / suggestions _____



Appendix 3: Common Misinterpretations of Normal Responses in Students with FAS/E

Behaviour	Misinterpretation	Accurate Interpretation
<ul style="list-style-type: none"> • Noncompliance 	<ul style="list-style-type: none"> • Wilful misconduct • Attention seeking • Stubborn 	<ul style="list-style-type: none"> • Difficulty translating verbal directions into action Doesn't understand
<ul style="list-style-type: none"> • Repeatedly making the same mistakes 	<ul style="list-style-type: none"> • Wilful misconduct • Manipulative 	<ul style="list-style-type: none"> • Cannot link cause to effect • Cannot see similarities • Difficulty generalizing
<ul style="list-style-type: none"> • Often late 	<ul style="list-style-type: none"> • Lazy, slow • Poor parenting • Wilful misconduct 	<ul style="list-style-type: none"> • Cannot understand the abstract concept of time • Needs assistance organizing
<ul style="list-style-type: none"> • Not sitting still 	<ul style="list-style-type: none"> • Seeking attention • Bothering others • Wilful misconduct 	<ul style="list-style-type: none"> • Neurologically based need to move while learning • Sensory overload
<ul style="list-style-type: none"> • Poor social judgment 	<ul style="list-style-type: none"> • Poor parenting • Wilful misconduct • Abused child 	<ul style="list-style-type: none"> • Not able to interpret social cues from peers • Does not know what to do
<ul style="list-style-type: none"> • Overly physical 	<ul style="list-style-type: none"> • Wilful misconduct • Deviancy 	<ul style="list-style-type: none"> • Hyper or hypo-sensitive to touch • Does not understand social cues regarding boundaries
<ul style="list-style-type: none"> • Does not work independently 	<ul style="list-style-type: none"> • Wilful misconduct • Poor parenting 	<ul style="list-style-type: none"> • Chronic health problems • Cannot translate verbal directions into action

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Appendix 4: Adaptive Skills Checklist

Name: _____

Date of Birth: _____

School: _____

Grade: _____

Attentional Abilities	Mostly	Sometimes	Never
Completes classroom assignments during class time			
Prepares for assigned activities (test, quiz, reading assignment)			
Uses age appropriate organizational skills			
Is able to give specific details when asked for an explanation or description			
Understands nonverbal cues			
Follows the course of a conversation			
Follows directions from teachers and other school personnel			
Thinks before acting			
Knows how and when to initiate appropriate actions			
Responds appropriately to the stimulation of the classroom			
Able to stay on topic during a discussion			
Can self-regulate behaviour in a classroom setting			
Cause/Effect Linking	Mostly	Sometimes	Never
Demonstrates concern about classroom performance			
Demonstrates age-appropriate ability to take another's point of view			
Can articulate the implications of an action before undertaking it			
Understands consequences and what they are for			
Is able to change behaviour as result of consequences			
Is able to generalize from the behaviour in one setting to the same or similar behaviour in another setting			



Social Skills	Mostly	Sometimes	Never
Follows the school's rules			
Follows the classroom's rules			
Demonstrates age-appropriate self-control			
Exercises good judgment in decision-making and behaviour			
Can take responsibility for actions			
Is able to wait for a turn to speak or to do something			
Is able to share possessions or materials appropriately			
Able to make and keep friendships			
Normally associates with age-appropriate peers			
Responds appropriately to redirection in an academic situation			
Responds appropriately to redirection in a social situation			
Demonstrates appropriate emotional response to a given situation			
Personal Skills			
Interacts appropriately with the teacher on an instructional level			
Reacts appropriately to praise and recognition			
Reacts appropriately to constructive criticism			
Responds appropriately to environmental cues			
Takes responsibility for own actions			
Adapts to increases in noise and stress			
Appropriately responds to pressure			
Responds appropriately to changes in task or assignment			
Is able to accept changes in established routines			
Adaptable to changes in physical environment, routines, transitions			
Adaptable to changes in emotional environment, routines, transitions			

Comments _____

Completed by: _____

Relationship to student: _____

Date: _____



Appendix 5: Memory Skills Checklist

Name: _____

Date of Birth: _____

School: _____

Grade: _____

Attentional Abilities	Mostly	Sometimes	Never
Uses effective strategies to recall memory on short term			
Uses effective strategies to recall memory on longer term			
Knows how to apply and generalize a skill to a new situation			
Knows when to apply and generalize a skill to a new situation			
Makes effective use of lists			
Understands explanations, directions and instructions and repeats in own words			
Able to complete fill in the blank sentences with appropriate words			
Highlights or summarizes information he/she should remember			
Can remember the sequence of events of a story			
Is able to use reference resources effectively			
Can remember the steps in a procedure			
Can remember and deliver a message to another teacher/school personnel			

Comments _____

Completed by: _____

Relationship to student: _____

Date: _____



Appendix 6: Language Development Checklist

Name: _____

Date of Birth: _____

School: _____

Grade: _____

Expressive Language	Mostly	Sometimes	Never
Articulates sounds clearly			
Uses age appropriate vocabulary			
Uses complete statements or thoughts when speaking			
Uses language in various ways (to reason, to predict, to project, to imagine)			
Responds appropriately to a variety of question types			
Interacts appropriately with peers on a social level			
Asks questions to clarify directions when necessary			
Demonstrates age-appropriate telephone skills			
Is able to respond to questions in an appropriate length of time			
Is able to give specific details when asked for an explanation or description			
Uses age appropriate sentence structures			
Uses a variety of writing forms			
Able to use a variety of resources to write independently			
Edits, revises own work			
Receptive Language			
Derives satisfaction and enjoyment from conversation and reading materials			
Can follow oral directions			
Can follow written directions			
Understands idioms and multiple meanings			
Understands humour			
Understands that a change in vocabulary does not necessarily mean a change in the content of a message. For example, is able to understand that "list the similarities" means the same thing as "how are _____ and _____ alike?"			
Active in the classroom listening to others, and reacting to ideas			
Can clearly discriminate between sounds			
Makes associations and generalizations by category, function or physical similarities			



Expressive Language	Mostly	Sometimes	Never
Shows an interest in and enjoyment of books			
Demonstrates age-appropriate reading strategies			
Recognizes main points and important facts in reading material			
Shows increasing awareness of facts, details, feelings and values			
Can recall events in sequence			
Can focus on important information, rather than on other stimuli			
Can appreciate author's purpose and style			

Comments _____

Completed by: _____

Relationship to student: _____

Date: _____



Appendix 7: Motor Skills Checklist

Name: _____

Date of Birth: _____

School: _____

Grade: _____

Motor Skills	Mostly	Sometimes	Never
Shows interest in putting thoughts down in print			
Able to print and write with ease			
Interested in and enjoys physical activity (e.g. walking., skipping, throwing)			
Demonstrates age-appropriate ability in physical activity (as above)			
Able to move, balance, handle materials			
Participates in activities to develop upper body strength			
Can control stops, starts, changes of direction at different speeds			
Develops patterns of action using the body/equipment alone			
Develops patterns of action using the body/equipment with a partner			
Participates effectively in group games			
Shows agility, confidence, ingenuity and precision in fine motor skill activities			
Shows agility, confidence, ingenuity and precision in gross motor skill activities			
Demonstrates agility, confidence, ingenuity, and control in using body/equipment to solve problems requiring coordination of thought and physical activity			

Comments _____

Completed by: _____

Relationship to student: _____

Date: _____



Appendix 8: Mathematics Skills Checklist

Name: _____

Date of Birth: _____

School: _____

Grade: _____

Vocabulary	Mostly	Sometimes	Never
Uses age appropriate mathematical vocabulary			
Able to provide the meaning of a vocabulary term			
Uses age appropriate "number" concept			
Able to translate word problems into the correct sequence of computations			
Able to move from computations with concrete materials to mental problem solving			
Able to demonstrate age-appropriate knowledge for facts and algorithms (how to re-group to subtract, multiply, etc.)			
Directionality			
Understands the directional rules for use in mathematics			
Is able to keep columns and figures straight			
Functional Ability			
Shows age-appropriate computational skills without calculator			
Able to handle a large number of computations on a single page			
Is aware of mathematical operations and their relationships			
Able to handle a variety of question types on the same page			
Able to respond to questions in an appropriate length of time			
Able to give specific details when asked for an explanation or a description			
Demonstrates age-appropriate ability in logical and abstract thought			
Understands the need for accuracy			
Able to use skills to develop and solve practical problems			



Temporal Concepts	Mostly	Sometimes	Never
Uses age appropriate time vocabulary			
Is able to judge the passage of time			
Can tell time on request			
Understands that a change in time means a change in the content of a message. For example, that "before" means something different than "after."			
Money Concepts	Mostly	Sometimes	Never
Can clearly identify the names and values of coins and currency			
Able to work with whole numbers, decimals and fractions			
Can give change in a monetary transaction			
Can receive change in a monetary transaction			
Is able to judge the value of an item			
Understands banking and money management			
Understands budgeting and money management			

Comments _____

Completed by: _____

Relationship to student: _____

Date: _____



Appendix 9: Science Skills

Name: _____

Date of Birth: _____

School: _____

Grade: _____

Vocabulary	Mostly	Sometimes	Never
Uses age appropriate science vocabulary			
Is able to provide the meaning of a vocabulary term when asked			
Able to move from computations with concrete materials to mental problem solving			
Able to record, interpret and discuss observations using tables, pictures, graphs, notation			
Experimentation			
Shows interest and enjoyment in scientific activities			
Able to collect material for observing, investigating and measuring			
Demonstrates an age-appropriate understanding of the scientific method			
Able to make comparisons			
Able to determine relationships			
Able to conserve			
Able to estimate			
Able to match, sort, balance			
Able to make patterns			
Able to respond to questions in an appropriate length of time			
Able to give specific details when asked for an explanation or a description			
Demonstrates age-appropriate ability in logical and abstract thought			
Understands the need for accuracy			
Uses a variety of writing forms to report findings			



Enquiry	Mostly	Sometimes	Never
Is curious about the environment			
Is curious about scientific principles and processes			
Can hypothesize and predict the effects of change			
Demonstrates an understanding about self and others			
Able to reflect upon own observations			
Can apply observations to new or different situations			
Demonstrates an understanding of patterns and relationships among natural things, manufactured things and people			

Comments _____

Completed by: _____

Relationship to student: _____

Date: _____



Appendix 10: Fine Arts Skills Checklist

Name: _____

Date of Birth: _____

School: _____

Grade: _____

Fine Arts Skills	Mostly	Sometimes	Never
Participates with enthusiasm and spontaneity			
Able to produce a wide variety of symbolic forms			
Uses a variety of art forms to communicate ideas and understandings			
Able to experiment with colour, scale, detail, design			
Able to experiment with perspective, profile, scale			
Develops models of people, animals, vehicles			
Conscious of proportion, conservation, symmetry			
Demonstrates age appropriate use of art vocabulary			
Demonstrates age appropriate use of art vocabulary			
Able to sustain interest until the completion of project			
Participates with enjoyment in singing, dancing, dramatizing			
Using instruments, listening to music			
Can sing and move in coordination with a group			
Has developed a singing voice			
Able to match tones and rhythm patterns			
Can carry a tune			
Can remember longer songs			
Cooperates in singing			
Cooperates in listening to others			
Enjoys singing and shows appreciation for the music produced by the group			
Demonstrates awareness and control of pitch, tempo, volume and mood			
Able to read symbols of music			
Identifies familiar instruments through sight and sound			
Responds appropriately to music using body movements, dramatizations, stories and art media			
Has musical experiences other than those in the classroom			
Enjoys experimenting with dramatic situations involving class/small group			



Demonstrates sensitivity to the changing demands of drama (sometimes leads, follows, listens, but always stays involved.)			
Able to improvise with materials, props, costumes, music, voice and other sound effects			
Integrates fine art skills with other subjects			

Comments _____

Completed by: _____

Relationship to student: _____

Date: _____



Resources

Your work with students with FAS/E may lead to further questions and a desire for more information. The following sources will be able to provide you with current research and literature as well as lists of learning resources to support your student's learning.

Organizations

B.C. Aboriginal Network on Disability Society

17 - 1529 Cooper Road
Victoria, B.C. V9A 7A6
Phone: (604) 384-3144
Fax: (604) 380-1903

B.C. FAS/E Support Network

14326 Currie Drive
Surrey, B.C., V3R 8A4
FAS/E Warm Line: 589-1854
Phone: (604) 525-5069
Fax: (604) 521-1958 or 589-8438

B.C. FAS Resource Society

Sunny Hill Health Centre for Children
3644 Slocan Street
Vancouver, B.C., V5M 3E8
Phone: (604) 453-8300
Fax: (604) 453-8301

B.C. Prevention Resource Centre

Information Specialist
211 - 96 East Broadway
Vancouver, B.C. V5T 1V6
Phone: (604) 874-8452 or 1-800-663-1880
Fax: (604) 874-9348

FAS/FAE Information Service

Canadian Centre on Substance Abuse
National Clearinghouse on Substance Abuse
75 Albert Street
Ottawa, Ont. K1P 5E7
Phone: 1-800-559-4514
Fax: (613) 235-4048
internet: <http://www.ccsa.ca>

First Nations Education Steering Committee

207 - 1999 Marine Drive,
North Vancouver, B.C. V7P 3J3
Phone: (604) 990-9939 or 990-9949



Provincial FAS/E Prevention Coordinator

Sunny Hill Health Centre for Children
3644 Slocan Street
Vancouver, B.C. V5M 3E8
Phone: (604) 434-1331, Local 230
Fax: (604) 436-1743

SNAP!

Society of Special Needs Adoptive Parents
1150 - 409 Granville Street
Vancouver, B.C., V6C 1T2
Phone: (604) 687-3114 or 1-800-663-SNAP
Fax: (604) 731-7359

Vancouver YWCA Crabtree Corner

FAS Coordinator
FAS/NAS Prevention Project
101 East Cordova Street
Vancouver, B.C., V6A 1K7
Phone: (604) 689-2808
Fax: (604) 689-5469



Newsletters

The B.C. FAS Resource Society Newsletter

B.C. FAS Resource Society
Sunny Hill Centre for Children
3644 Slocan Street
Vancouver, BC, V5M 3E8

FAS/E Newsletter

Resource Centre for Parents and Children
1401 Kellum St.
Fairbanks, Alaska 99071
FANN: Fetal Alcohol Network News
158 Rosemont Ave.
Coatesville, PA 19320 - 3727

Growing with FAS

7802 S.E. Taylor
Portland, OR 97215

Iceberg — FAS/FAE Newsletter

P.O. Box 95597
Seattle, WA 98145 - 2597
Phone: (206) 543-7155



Teaching Kits

Brady, J.P. & Grollman, S. (1994). *Risk and Reality: Teaching Preschool Children Affected by Substance Abuse (Kit)*; Rockville, MD: U.S. Department of Health and Human Services and U.S. Department of Education, 76 p.

Brady, J.P. & Grollman, S. (1994) *Teaching Children Affected by Substance Abuse (Kit)*; Rockville, MD: U.S. Department of Health and Human Services and U.S. Department of Education.



Books

Bash, M.A., & Camp, B.W. (1985). *Think Aloud - Increasing Social & Cognitive Skills - A Problem-Solving Program for Children*; in three books: Gr. 1-2 (307 p.) Gr. 3-4 (277 p.), Gr. 5-6 (285 p.); Champaign, IL: Research Press.

Davis, D. (1994). *Reaching Out to Children with FAS/FAE: A Handbook for Teachers, Counselors, and Parents Who Work with Children Affected by Fetal Alcohol Syndrome and Fetal Alcohol Effects*; West Nyack, NY: The Centre for Applied Research in Education, 192 p.

Dorris, M. (1989). *The Broken Cord*; Harper & Row, NY.

Kleinfeld, J., & Wescott, S. (eds) (1994). *Fantastic Antone Succeeds! Experiences in Educating Children with Fetal Alcohol Syndrome*; Anchorage, AK: University of Alaska Press, 2nd Ed.

Odom-Winn, D., & Dunagan, D. (1991). *Prenatally Exposed Kids in School: What To Do, How To Do It*. Freeport, NY: Educational Activities Inc.

Schroeder, C.A. (1994). *Modern Concepts in Fetal Alcohol Syndrome and Fetal Alcohol Effects: Specific information on Fetal Alcohol Syndrome and Fetal Alcohol Effects, Strategies to Work with Affected Families, Tips for Support Professionals, Effective Educational Strategies, and Community Involvement Suggestions and Worksheets Including an In-Depth Guide*; Laramie, Wyoming: Creative Consultants, Inc.

Wunderlich, K.K. (1988). *The Teacher's Guide to Behaviour Interventions: Intervention Strategies for Behaviour Problems in the Educational Environment*; Columbia, Missouri: Hawthorne Educational Services Inc.



Guides / Booklets

Burgess, D.M., Lasswell, S.L., & Streissguth, A.P. (1992). *Educating Children Prenatally Exposed to Alcohol and Other Drugs*; Seattle, WA: Washington State Legislature; University of Washington, 37 p.

Gerring, L. (1993). *Children with Fetal Alcohol Syndrome: a Handbook for Caregivers*; St. Paul, MN: Human Service Associates, 29 p.

George, A. (1993). *FAS/FAE and NAS Community Prevention Guide: A Guide for Parents, Teachers and Others Caring for Children*; Vancouver: YWCA Crabtree Corner Fetal Alcohol Syndrome and Neonatal Abstinence Syndrome Prevention Project. YWCA: Finance Dept., 580 Burrard St., Vancouver, BC V6C 2K9

Los Angeles Unified School District, Division of Special Education. Prenatally Exposed to Drugs (PED) Program: *Today's Challenge: Teaching Strategies for Working with Young Children at Risk Due to Prenatal Substance Exposure*; Los Angeles, CA: Los Angeles Unified School District, 1990.

Osborne, J. (1994). *A Sourcebook of Successful School-based Strategies for Fetal Alcohol and Drug-Affected Students*; Portland, Ore.: Western Regional Center for Drug-Free Schools and Communities, 60 p.

Ottney, J. (1991). *Fetal Alcohol Syndrome: Facts and Choices; a Guide for the Teacher*; Wisconsin Clearinghouse, University of Wisconsin, Box 1468, Madison WI, 53701-1468, (second edition), 98 p.

Rathbun, A. (1993). *Alcohol/Drug Related Birth Defects (ARBD): An Overview of Symptoms and Strategies for Caregivers*; Portland, OR: Antonia Rathbun, 26 p.

Schenck, R., et. al. (1994). *Fetal Alcohol Syndrome, Fetal Alcohol Effects: Implications for Rural Classrooms*; In: Montgomery, Diane, Ed. Rural Partnerships: Working Together. Proceedings of the 14th Annual National Conference of the American Council on Rural Special Education (ACRES) Austin Texas, Mar. 23-26, 1994.

Shaskin, Rana, ed. F.A.S. (1994). *Fetal Alcohol Syndrome/Effects: Parenting Children Affected by Fetal Alcohol Syndrome - a Guide for Daily Living*. SNAP. Vancouver: Society of Special Needs Adoptive Parents, 1150-409 Granville St., Vancouver, BC, V6C 1T2, 26 p.

Wegmann, M., Colfax, L., & Gray, M. (1995). *Assessment & Resource Guide for FAS/E*; Jamestown S'Kallam Tribe: Port Angeles, WA, Pen Print Inc.: 230A East First Street, Port Angeles, WA. 98362



Articles

Burgess, D.M. & Streissguth, A.P. (1992). *Fetal Alcohol Syndrome and Fetal Alcohol Effects: Principles for Educators*. Phi Delta Kappan. 74(1).

Colvin, Melinda & McLaughlin, T.I. (1993). *Fetal Alcohol Syndrome and Fetal Alcohol Effect: Characteristics and Some Possible Effective Interventions for Educators*. Journal of Corrective and Social Psychiatry. 39(1/4).

Daley, A., & Booth, V. (1993). *FAS/E: A Collection of Articles on Education and FAS*. SNAP!

Evensen, D.L. (1994). *Integrated Active Learning and the Child with FAS/FAE: Help for Tired Teachers*; Homer, Alaska.

Herbst, K.A. (1995). *Fetal Alcohol Syndrome: Implications for Educators*. Thrust for Educational Leadership, 25(3).

Malbin, D.B. (1993). *Fetal Alcohol Syndrome and Fetal Alcohol Effect: Strategies for Professionals*; Center City, MN: Hazelden Education and Training.

Murphy, M.F. (1991). *Hope for the FAS/FAE Nowhere Child: An Educational Approach for Successes in the Classroom*; Bethel, Alaska: Lower Kuskokwim School District, pp. 19-22, 27.

Shelton, M., & Cook, M. (1993). *Fetal Alcohol Syndrome: Facts and Prevention*; Preventing School Failure, 37(3).

Smith, G.H. (1993). *Intervention Strategies for Children Vulnerable for School Failure Due to Exposure to Alcohol*. The International Journal of the Addictions. 28(13).



General Information Resources

Alberta Alcohol and Drug Abuse Commission (AADAC): *Fetal Alcohol Syndrome Reference Binder*; Edmonton, Alberta, 1994. AADAC: 200-10909 Jasper Ave., Edmonton, AB T5J 3M9.

Beairsto, B. (1994). *Fetal Alcohol Syndrome*; School District 38 (Richmond).

Berg, S., Kinsey, K., Lutke, J., & Wheway, D. (1995). *A Layman's Guide to Fetal Alcohol Syndrome and Fetal Alcohol Effects*; Surrey, B.C., The FAS/E Support Network.

de Martinez, B.J.S., ed. (1995). *Understanding Fetal Alcohol Syndrome*. Phi Delta Kappa.

Saskatchewan Institute on Prevention of Handicaps: *Fetal Alcohol Syndrome Resource Kit*, Saskatoon, Sask., 1993. Saskatchewan Institute on Prevention of Handicaps: 1319 Colony Street, Saskatoon, SK. S7N 2Z1.

Soby, J.M. (1994) *Prenatal Exposure to Drugs/Alcohol: Characteristics and Educational Implications*; Springfield, IL: C.C. Thomas.

Streissguth, A.P., Barr, H.M., Kogan, J., & Bookstein, F.L.: (1996). *Understanding the Occurrence of Secondary Disabilities in Clients with Fetal Alcohol Syndrome (FAS) and Fetal Alcohol Effects (FAE), Final Report to Centers for Disease Control and Prevention*, Seattle, Washington: University of Washington.

Streissguth, A.P., Ladue, R., & Randels, S. (1988) *A Manual on Adolescents and Adults with Fetal Alcohol Syndrome With Special Reference to American Indians*; Indian Health Service, Headquarters West, FAS Project, 5300 Homestead Rd. NE, Albuquerque, NM 87110.



Recommended Resources

Living with Fetal Alcohol Syndrome, B.C. Learning Connection Inc.

This video covers the characteristics of FAS, assessment and diagnosis, the Infant Development Program in British Columbia, preschool settings and the team approach for planning educational goals, educational planning, career planning and skills training. Recommended for grades K - 12.

What is FAS? B.C. Learning Connection Inc.

This video provides an overview of FAS. Recommended for K to 12.

Awareness of Chronic Health Conditions - What the Teacher Needs to Know (1995), Province of British Columbia, Ministry of Education. Catalogue #RB0057

This resource book contains information designed to assist classroom teachers in understanding the implications for classroom instruction and management of a number of chronic health conditions. This document includes a chapter on FAS.

