Essential Components of Educational Programming for Students who are Blind or Visually Impaired
This document applies to grades 1–12 special education in public and separate school boards, including Francophone education regional authorities, but excluding charter schools, and is intended for:

| Teachers | ✓ |
| Administrators | ✓ |
| Parents | ✓ |
| General Public | ✓ |
| Other | ✓ |

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Introduction

Foreword

*Essential Components of Educational Programming for Students Who Are Blind or Visually Impaired* is intended for classroom teachers, resource personnel, administrators and parents. It is one of a series of documents developed to facilitate programming for students in grades 1 to 12 who have special education needs. Other topics in the series include programming for students who are deaf or hard of hearing, programming for students with autism spectrum disorders, and programming for students with behaviour disabilities.

**Essential Components**
The ten essential components listed in this document are contained in the *Standards for Special Education, Amended June 2004* and are therefore mandated by Alberta Education. Each component is considered essential to the provision of a comprehensive program. However, the manner in which the components are implemented may be affected by such practical considerations as availability of resources and needs of the particular student.

**Sample Indicators of Effective Programming**
The sample indicators are examples of effective practices that illustrate the implementation of the essential component. The indicators will vary because of the unique strengths and needs of individual students. It is not the intent to list all possible indicators or to require all listed indicators for every student.

**Purpose**
The purpose of this document is to:
- identify the essential components of appropriate programming that are mandated by Alberta Education for students with special education needs
- provide examples of effective practices
- establish a common understanding of the terminology associated with this specialized field
- clarify the meaning of *appropriateness*, taking into account what is reasonable for educational programming for students who are visually impaired or blind.

**Links to *Standards for Special Education, Amended June 2004***

*Standards for Special Education, Amended June 2004* requires school boards to identify students with special education needs in grades 1 to 12 and deliver effective programming for them. These standards promote consistent, high quality educational practices within Alberta.

The *Essential Components* series is directly linked to the appropriateness section of *Standards for Special Education, Amended June 2004* in order to ensure appropriate programming related to professional standards, individualized program planning, implementation, evaluation and parent involvement in decision making. *Appropriateness* means that “educational programming and services are designed around the assessed needs of the student and are provided by qualified staff who are knowledgeable and skilled” (*Standards for Special Education, Amended June 2004*, page 2).
Guiding Principles

The essential components of programming for students who are blind or visually impaired are guided by the following principles.

- Programming is an active process that is based on the student’s assessed abilities and needs and is continuously monitored and adjusted.
- Students who are blind or visually impaired should participate in the regular curriculum to the fullest extent possible.
- In the absence of other disabilities, students are expected to perform at a level consistent with provincial standards.
- Students who are visually impaired have different needs than those who are blind.
- Programming should be based on an individual student’s needs.
- The essential components of educational programming overlap; they are processes that work together.
- Staff and students should have access to materials, instruction and services provided by specialized teachers.
- Meaningful parent and family involvement is intrinsic to all of the essential components.

The Students and Their Unique Educational Needs

Students described as blind or visually impaired have diverse needs even though they share a common trait of some degree of vision loss. Any student who has limited access to visual information will experience difficulties in any number of daily activities. From an educational perspective, the degree of vision loss is only one of several aspects for consideration in assessment and program planning. These students display varying cognitive abilities, levels of independence and physical agility, and may or may not have additional disabilities.

Because visual impairment and blindness are low-incidence disabilities, a student with vision loss may be the only student with this disability in his or her school or community. Intervention for students who are blind or visually impaired is based on the degree to which they can access, incorporate and respond to sensory information.

Without vision, students cannot access information beyond those things that they can touch or hear. Without this information, students are unable to organize their environment or develop concepts that are important in understanding connections in their world. Students who are blind or visually impaired need to access information through direct experiences and hands-on, tactile exploration facilitated by qualified professionals who can address these unique needs.

Accessing the program of studies is often challenging for students with visual impairment or blindness. In order to participate fully within the educational environment, these students require instruction from a trained professional in such disability-specific skills as braille literacy and numeracy, assistive technology skills, use of low-vision devices, career and life management skills, social interaction skills, independent living and personal management skills, and orientation and mobility skills.

Incorporating the teaching of these skills into a student’s program expands the concept of core curriculum. These disability-specific skills incorporated into program planning are referred to as the expanded core curriculum, which is described in Appendix A.
Essential Components

1. **Learning Team**  
   *(Standards for Special Education, Amended June 2004, pages 4, 8, 10)*

   All students who are blind or visually impaired should have learning teams who work together to plan, implement, monitor and evaluate programming and services. A certificated teacher must direct and lead the learning team in developing goals and objectives that are educationally relevant.

   **Sample Indicators of Effective Programming**
   - Members of the learning team include classroom teachers, parents, administrators, teachers trained in educating students who are blind or visually impaired (specialized teachers), orientation and mobility instructors (O&M), other professionals involved with assessment and/or programming, and, when appropriate, students.
   - Additional members are added to the learning team as needed. These may include professionals such as occupational therapists, speech and language pathologists, physiotherapists, school psychologists, behaviour specialists, career counsellors, adapted physical education specialists, nurses, social workers, or assistive technology consultants.
   - The roles and responsibilities of learning team members are clearly identified in the student’s individualized program plan (IPP).
   - The learning team develops goals and objectives for the student’s IPP at the beginning of each school year. Progress is routinely monitored and evaluated. Changes to an IPP are made in response to student progress during the academic year.

2. **Meaningful Parent and Family Involvement**  
   *(Standards for Special Education, Amended June 2004, pages 3, 5, 6–10, 12, 14)*

   Parents are valued and contributing members of the learning team and their input influences all aspects of their child’s education.

   **Sample Indicators of Effective Programming**
   - Parents contribute to the identification of goals and objectives incorporated in their child’s IPP.
   - The family has the opportunity to access the information that the learning team acquires specific to the impact of vision loss and the acquisition of disability-specific skills.
   - The family receives information about opportunities for training that would help them facilitate the child’s use of disability-specific skills at home and in the community.
3. Disability-specific Skills
(Standards for Special Education, Amended June 2004, pages 9, 10)

Students with visual impairments should receive instruction in disability-specific skills. With disability-specific skills, they can be expected to achieve learning outcomes consistent with their peers.

Sample Indicators of Effective Programming
• Specialized teachers identify programming needs through assessment, educate learning teams about the impact of visual impairment or blindness on learning and development, set appropriate expectations for progress and performance, provide strategies to address assessed learning needs, and provide direct instruction in disability-specific skill areas, also known as the expanded core curriculum (See Appendix A).
• Orientation and mobility (O&M) instruction is an integral part of the expanded core curriculum. Students should receive O&M training from qualified professionals (specialized teachers or qualified O&M instructors) who work with the teacher to integrate their instruction into the educational environment. O&M instruction teaches students concepts about how the environment is structured and organized (e.g., where room numbers are typically located) and how to move safely from one place to another both in and out of school. Together, the O&M instructor and the teacher incorporate this information into the student’s IPP, taking into account daily routines in the home, school and community environments.
• Students who use braille receive regular braille literacy and numeracy instruction from specialized teachers, particularly in the first four years of school. In those areas where a braille teacher is not available, the school should look at other ways to access this service, such as video-conferencing.
• Staff working with students who are blind or visually impaired have opportunities to access professional development to ensure they stay abreast of new programming and research information.
• The level of service that a student receives from a specialized teacher is directly related to student needs and direct instruction required for each student.

4. Assessment
(Standards for Special Education, Amended June 2004, pages 3, 5, 7–8)

Programming and services should be determined through assessments conducted by a specialized teacher and other professionals identified by the learning team.

Sample Indicators of Effective Programming
• Specialized teachers and O&M instructors routinely assess students who are blind or visually impaired in all areas of the expanded core curriculum.
• Students receive functional vision assessments that identify their optimal means of access to visual information prior to the start of formal reading and writing instruction. A learning team is established to design, implement and evaluate the student’s IPP, and to examine and analyze assessment results to make informed decisions about the materials and strategies to be used.
• Assessment is ongoing and decisions are re-evaluated yearly, or more frequently if decisions are tentative or problems arise.
• Students participate in the same academic assessments as their classmates, including provincial achievement tests and diploma examinations.
• Students with additional disabilities receive assessments from qualified professionals identified by the learning team.

5. Individualized Program Plan (IPP)
(Standards for Special Education, Amended June 2004, pages 4, 7, 10–11, 12)

An IPP is required for each student coded for special education needs. The IPP includes essential information for planning, implementing, monitoring and evaluating the student’s educational program. IPPs are working documents for learning teams to use throughout the year.

Sample Indicators of Effective Programming
• The IPP is a collaborative effort of all members of the learning team.
• The learning team gathers information from assessment pertinent to the development of the student's IPP. The learning team uses this information to develop an IPP that meets the needs of the student.
• Essential information in the IPP includes:
  − assessment data
  − relevant medical information
  − current level of performance and achievement
  − measurable goals and objectives
  − procedures for evaluating student progress
  − identification of coordinated support services
  − required classroom accommodations
  − transition plans
  − year-end summary.
• The IPP includes goals and objectives specific to the student’s unique learning needs, the expanded core curriculum, modifications or accommodations necessary to ensure access to the regular curriculum, and/or individualized programming necessary to address other disability-specific needs.

6. Access to Programs and Services
(Standards for Special Education, Amended June 2004, pages 6, 9–11)

All students who are blind or visually impaired, regardless of the presence and severity of additional disabilities, should have access to the programming and services provided by specialized teachers and orientation and mobility instructors.

Sample Indicators of Effective Programming
• Student goals and objectives addressing areas of the expanded core curriculum are integrated within the student’s individualized program and daily routines.
• When deemed appropriate by members of the learning team, specialized teachers provide consultation to parents and educators as well as direct instruction in areas of the expanded core curriculum.
7. Accessibility of Alternate Format Materials  
*(Standards for Special Education, Amended June 2004, pages 6, 9–11)*

Members of the learning team should identify alternative-format materials for students. These materials must be provided at the same time as print materials are made available to sighted peers. Students should have the opportunity to request materials in the format of their choice.

**Sample Indicators of Effective Programming**
- Students receive library books, Alberta Education-approved curriculum materials, teacher-prepared materials, leisure reading, school notices/announcements and report cards in their required alternative format.
- The production and distribution of materials in alternative format are coordinated by Alberta Education’s Materials Resource Unit to ensure efficient access.
- Students receive materials in alternative format at the same time as classmates receive standard materials.

8. Assistive Technology  
*(Standards for Special Education, Amended June 2004, pages 6, 9–11)*

Assistive technology, such as braille note-taking devices or computerized dictionaries, should be made available for use in school, with an appropriate level of technical support for students to use the technology in everyday activities.

**Sample Indicators of Effective Programming**
- Comprehensive assistive technology assessments are completed to determine the needs of students.
- Specialized teachers, classroom teachers and parents receive information and training in the use of assigned assistive technology to ensure students have support to master its use.
- Students receive the appropriate version of assigned assistive technology to ensure the maximum level of access.
- Students are using assistive technology to move them toward independence in the school and community environments.

9. Programming Options  
*(Standards for Special Education, Amended June 2004, page 6)*

Students should have a full array of programming options, including short-term intensive training opportunities to address areas of the expanded core curriculum.

**Sample Indicators of Effective Programming**
- Students have opportunities to access short-term intensive training options, particularly in areas of the expanded core curriculum (e.g., learning how to use the internet, using voice-access technology, applying their orientation and mobility skills to navigate their community).
- Program placement decisions are based on the assessed needs of students, the recommendations of school-based planning teams and input from parents.
10. Planning for Transition

*(Standards for Special Education, Amended June 2004, pages 4, 5)*

Comprehensive transition planning should occur on an ongoing basis and should identify skills that students require as they move to different learning environments.

**Sample Indicators of Effective Programming**

- Transition-planning teams comprising parents, specialized teachers, orientation and mobility instructors, educators, representatives from other organizations involved with students (e.g., Canadian National Institute for the Blind), and students, where appropriate, meet to plan students’ new placements.
- Students’ transition plans include information pertinent to the skills necessary to succeed in new environments (e.g., orientation and mobility, independent living skills, scholarships).
- Students are prepared for transitions to new environments.
- Transition-planning goals are identified early in the program planning process. They are proactive and flexible.
Appendix A

In order to participate fully within the educational environment, students who are blind or visually impaired require instruction in disability-specific skills. These disability-specific skills are known as the expanded core curriculum when they are incorporated into program planning.

**Expanded Core Curriculum**
Reprinted with permission from *Canadian National Standards for Children and Youth Who Are Blind or Visually Impaired, Including Those with Additional Disabilities* (National Coalition for Vision Health, 2003)

**Compensatory or Functional Academic Skills**
These are skills needed to access the regular curriculum presented in the regular classroom (i.e., compensatory skills), skills needed by students with multiple disabilities to enhance their ability to participate in home (i.e., functional skills), school and community, and an array of communication skills. “Communication needs of students with visual impairments will vary depending on the degree of functional vision, the effects of additional disabilities and the task to be done. Students may communicate through braille, large print, print with the use of optical aids, regular print, tactile books, a calendar system, sign language, recorded materials or combinations of these means.” (Hatlen, 1996) Examples of other compensatory or functional academic skill areas might include concept development, spatial awareness, keyboarding skills, listening skills, organizational skills, use of the abacus, or tactile discrimination skills. The acquisition of everyday concepts and practical knowledge usually acquired through incidental learning by students who are sighted requires specific instruction for students who are blind or visually impaired to ensure they are building their knowledge base on accurate information.

**Orientation and Mobility**
This is an area of instruction focusing on students’ ability to know where they are in relation to their environment and to travel safely, efficiently, purposefully and independently throughout this environment. Good orientation and mobility skills are highly correlated with the degree of independence achieved by students later in life. Developing body awareness, directionality, spatial awareness and practical knowledge associated with the characteristics of a given environment increases the probability that students will be actively involved in age-appropriate activities with peers. Problem-solving strategies essential to travel in both familiar and unfamiliar environments, urban and rural areas and in various kinds of weather are essential to the development of independence and self-esteem. Students who have low vision need to learn to interpret both visual and auditory information, and may require optical devices to access information. The use of a white cane is essential for some students who cannot rely upon the accuracy of the visual information they receive or for those who are blind. Students who are blind or visually impaired with additional disabilities need to have orientation and mobility instruction that addresses the specific needs of their daily routines. Orientation and mobility is taught by professionals who have completed certified programs in this very specialized area.

**Social Interaction Skills**
These skills are essential if students are to develop friendships with their classmates and participate in activities typically associated with school-age students, whether educational or extracurricular. Having effective interpersonal communication skills is also highly correlated with employability in adults. For students who are sighted, social skills are primarily learned incidentally through interaction with family members and peers. Most of this learning occurs through observation, imitation and incidental experiences that are part of everyday routines.
For students who are blind or visually impaired, this information must be provided through timely, insightful, and sequential instruction. Information associated with non-verbal communication (e.g., gestures, body language, facial expressions) or cultural practices (e.g., how close to stand to the person with whom you are speaking) must be made available to students who are blind or visually impaired. Furthermore, peers of students who are blind or visually impaired require specific instruction to increase their awareness of the implications of vision loss on social interaction if they are to become both comfortable in their interactions with their classmate who is blind or visually impaired and knowledgeable about how to include this student.

**Independent Living Skills and Personal Management Skills**
These skills are highly correlated with the achievement of lifelong goals for students who are blind or visually impaired. “This area encompasses all the tasks and functions people perform, according to their abilities, in order to live as independently as possible.” (Hatlen, 1996)
Curriculum designed to address the development of independent living skills includes instruction in such areas as personal hygiene, food preparation, money and time management, home management, and organization of personal belongings and space to accommodate the lack of visual input. While similar skills may be taught within the public school curriculum, they do not provide sufficient opportunity for the meaningful and frequent practice required for students who are blind or visually impaired. The content of the regular curriculum is often based on the assumption of the presence of a basic level of knowledge acquired incidentally through vision. As with the skills of social interaction, students who are blind or visually impaired cannot learn these skills without direct, sequential instruction by knowledgeable people.

**Recreation and Leisure Skills**
These skills and experiences provide the same benefits for students who are blind or visually impaired as they do for their peers who are sighted (e.g., healthy lifestyle, fitness, shared peer interests). However, without modifications and/or specific instruction to master prerequisite skills, students who are blind or visually impaired are frequently excluded from such activities. Many of the motor skills learned during the rough and tumble play of childhood activities do not develop naturally in students who are blind or visually impaired. As well, if initial exposure to specific activities is cumbersome or their level of participation or success below that of their peers, students who are blind or visually impaired may become easily discouraged. The provision of specific, timely instruction and opportunities to practice newly acquired skills will ensure students derive pleasure from participation in an array of recreational and leisure activities.

**Career and Life Management Skills**
These skills provide students with information about the world of work, career options, and an overview of the skills necessary to be successfully employed. For students who are blind or visually impaired, there are many additional program components which need to be addressed (e.g., accommodations required to complete specific jobs, access to appropriate assistive technology, self-advocacy skills, and those to deal effectively with negative attitudes toward individuals with disabilities). Frequently, students who are blind or visually impaired are unaware of the array of career options because they do not see the variety of workers in their environment or because adults around them are uninformed. Employment statistics from both Canada and the United States show that individuals who are blind or visually impaired are both underemployed and have unacceptably high rates of unemployment. Without specific and timely intervention to address career development issues, students who are blind or visually impaired encounter significant barriers to successful employment.
**Assistive Technology**
This technology enables students to access information, participate in age-appropriate activities, or complete a task independently or with minimal assistance. The term “assistive technology” refers to a broad range of devices, such as video magnifiers (i.e., closed circuit televisions), low vision devices, computers with Braille input/output, Braille embossers, software used to vary print size, large screen monitors, talking calculators, etc. Instruction in the use of assistive technology begins in the preschool years and evolves as the needs of students change. Mastery of assistive technology contributes to the development of literacy and academic success, social interaction among peers, independence and the potential of future employment.

**Visual Efficiency Skills**
These skills are used to accurately interpret visual information and complete visual tasks as efficiently and effectively as possible. Students’ ability to interpret visual information is affected by many variables (e.g., the type and severity of vision loss, cognitive ability, experiential knowledge and environmental factors, such as lighting). However, with comprehensive, systematic training and practice, most students can learn to use their remaining vision more effectively and efficiently. Visual efficiency training may include blur interpretation, scanning and location skills, strategies to improve visual efficiency (e.g., use of appropriate lighting or wearing tinted lenses to reduce glare), and strategies which enhance a given student’s access to visual information. Students learn about their particular eye condition, its implications on access to visual information, and how to explain their visual needs to others.
Additional Resources

For more information and sample strategies, refer to the following Alberta Education resources. Unless otherwise indicated, you may download resources at no cost from www.education.gov.ab.ca/k_12/specialneeds, or purchase print copies from the Learning Resources Centre at www.lrc.education.gov.ab.ca or telephone (780) 427-5775, toll free in Alberta by first dialing 310-0000.

*Individualized Program Planning: ECS to Grade 12 (2006), Book 3 of the Programming for Students with Special Needs series*


*Teaching Students with Visual Impairments (1996), Book 5 of the Programming for Students with Special Needs series*
Glossary of Key Terms

Access – Students with special needs are entitled to have access in a school year to an education program in accordance with the School Act. Students with special needs receive adapted/modified programs that enable and improve learning.

Adapted program retains the learning outcomes of the prescribed curriculum and adjustments to the instructional process are made to address the special needs of the student.

Braille is a code that presents written information. It is equivalent to print. The alphabet, numbers, music notation, and any other symbol that appears in print can be replicated in braille by arranging combinations of the six dots of the braille “cell”. Braille is read by touch, usually using the first finger on one or both hands.

Compensatory academic skills are skills needed to access the regular curriculum presented in the regular classroom. They include skills in the areas of communication, concept development, spatial awareness, keyboarding, listening, organization, use of the abacus and tactile discrimination.

Expanded core curriculum is a disability-specific curriculum that identifies skills in the following areas: braille literacy, assistive technology, career and life management, social interaction, independent living, orientation and mobility, recreation and leisure, visual efficiency, and personal management.

Functional skills are skills needed by students to participate in the home, school and community. While some skills, such as those related to communication, are almost always functional, the functionality of others, such as vocational and independent-play skills, will vary depending on the age of the individual and the setting.

Learning team refers to a team that consults and shares information relevant to the individual student’s education, and plans special education programming and services as required. Under the direction of a certificated teacher, the team may consist of parents, the student (where appropriate), other school jurisdiction or program staff, and others as required.

Modified program has learning outcomes that are significantly different from the provincial curriculum and are specifically selected to meet the student’s special needs.

Orientation and mobility (O&M) is an area of instruction that focuses on students’ ability to know where they are in relation to their environment and to travel safely, efficiently, purposefully and independently throughout this environment. Developing body awareness, directionality, spatial awareness and practical knowledge associated with the characteristics of a given environment are examples of orientation and mobility skills.

Specialized teacher is a qualified teacher who has additional training in the area of teaching students with a specific disability.

Visually impaired describes any degree of vision loss that interferes with accessing visual information.
References


Hatlen, P.H. *Core Curriculum for Blind and Visually Impaired Children and Youths, Including Those with Additional Impairments*. Austin, TX: Texas School for the Blind and Visually Impaired, 1996.


