

## Board/Authority Authorized Course: Braille 11

<b>School District/Independent School Authority Name:</b> North Vancouver School District	<b>School District/Independent School Authority Number (e.g. SD43, Authority #432):</b> SD44
<b>Developed by:</b> Betty Nobel (NVSD Vision Teacher) and Adam Wilton, PRCVI Provincial Resource Centre for the Visually Impaired (PRCVI) in collaboration with BC Teachers of Students with Visual Impairments	<b>Date Developed:</b> January – June 2017
<b>School Name:</b> Learning Services: District	<b>Principal's Name:</b> Vince White, PhD
<b>Superintendent Approval Date (for School Districts only):</b>	<b>Superintendent Signature (for School Districts only):</b>
<b>Board/Authority Approval Date:</b>	<b>Board/Authority Chair Signature:</b>
<b>Course Name:</b> Braille 11	<b>Grade Level of Course:</b> 11
<b>Number of Course Credits:</b> 4	<b>Number of Hours of Instruction:</b> 120

### Board/Authority Prerequisite(s):

None.

### Special Training, Facilities or Equipment Required:

This course requires a qualified teacher of students with visual impairments who is proficient in braille and assistive technologies. The students are taught using direct instruction on an individual basis (one-on-one) as there is usually only one student with a visual impairment in each school. Braille is scheduled as one of the electives and the teacher of students with visual impairments meets with the student on a regular basis and supports the integration of braille skills in all other curricular areas.

### Course Synopsis:

This course has been developed for students to develop competencies in braille reading and writing. The student will be able to read literary and technical material in Unified English Braille (UEB), produce braille using a variety of low- and high-tech devices, use braille-related assistive technologies, and reflect on their learning and connect with mentors who are proficient braille readers.

**Goals and Rationale:**

This course has been developed for students to develop competencies in braille reading and writing, and to be able to access and enjoy literacy materials in an accessible format.

This course will allow students a tactile reading medium to access the BC curriculum. Students will learn braille and apply it in other curricular areas as they explore curriculum themes, develop projects, and research topics of personal interest. Students must learn the tools, technology, and related skills for reading and writing braille at a high level of proficiency.

**Aboriginal Worldviews and Perspectives:**

While the Braille 11 course is primarily designed to provide a meaningful framework within which braille instruction at the secondary level can unfold, the course also touches upon deeper issues and understandings that align with several First Peoples Principles of Learning.

- 1) Learning is embedded in memory, history, and story.

By learning the braille code, the student becomes part of a proud tradition of individuals gaining independent access to the written word which dates back over two centuries. Course content emphasizes a historical study of braille as well as an examination of the role of braille in contemporary life. The addition of this content to the updated course will enable the student to feel better connected to the story of braille and the difference that it has made in the lives of individuals with visual impairments.

- 2) Learning requires exploration of one's identity.

For a learner to acquire the braille code at the secondary school level, it is likely that the student, or someone close to the student, has experienced a significant change to their sensory profile that now requires non-visual access to learning materials. Learning the braille code does not happen in isolation from the socioemotional implications that vision loss can have for people. This course emphasizes a grounded approach to learning braille by examining how braille is represented in our society, and provides learners with the information and perspective needed to speak to their families and peers with confidence about the importance of braille. The course also emphasizes the importance of experienced mentors who read braille – not only to provide technical support but to also provide learners with a positive model.

- 3) Learning involves recognizing that some knowledge is sacred and only shared with permission and/or in certain situations.

One of the key features of Braille 11 is that the course is taught by a qualified teacher of students with visual impairments. Knowledge and fluency in the use and instruction of the braille code requires intense study and practice. In this way, the content of the course is shared only in the context of the relationship between the learner and the teacher.

**BIG IDEAS**

<p>Braille reading and writing take place in social, cultural and historical contexts and are connected to feelings and attitudes toward visual impairment and its impact on the individual.</p>	<p>Learners can use multiple sensory modalities (vision, hearing, touch) to gather information in the learning environment.</p>	<p>Learning to use technology for braille reading and writing is vital to people’s ability to access and analyze information in the home, school, community, and workplace.</p>	<p>Connections to the braille-reading community contextualize and enrich braille usage for the individual learner.</p>
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**Learning Standards**

Curricular Competencies	Content
<p><i>Students are expected to do the following:</i></p> <p><b>Problem Solving and Critical Thinking</b></p> <ul style="list-style-type: none"> <li>• Students will engage in problem solving when applying the rules of UEB in their reading and writing.</li> <li>• Students will use critical thinking and analysis to determine which braille writing/production tool or device best meets their needs when completing a given writing task.</li> <li>• Students will determine which advocacy techniques are appropriate for articulating their accessible alternate format requirements at school and in the community.</li> </ul> <p><b>Comprehend and Connect (Reading, Writing, Drawing)</b></p> <ul style="list-style-type: none"> <li>• Students will work through a sequential process to learn the UEB code and rules.</li> <li>• Students will use systematic tactile strategies to explore and interpret various tactile graphics, diagrams, and drawings.</li> <li>• Students will experiment with various methods and materials to create tactile drawings and diagrams.</li> </ul>	<p><i>Students are expected to know the following:</i></p> <p><b>Unified English Braille (UEB) Code Knowledge</b></p> <ul style="list-style-type: none"> <li>• Signs/notation and usage rules.</li> <li>• Basic formatting rules and guidelines.</li> </ul> <p><b>Braille Technology</b></p> <ul style="list-style-type: none"> <li>• Low tech, manual braille production.</li> <li>• Higher tech digital file access/production with refreshable braille display.</li> </ul> <p><b>Social and Historical Contexts of Braille</b></p> <ul style="list-style-type: none"> <li>• The story of Louis Braille and how the code has developed over the last two centuries.</li> <li>• The implications of braille on early advances in education for learners with visual impairments.</li> <li>• Braille in our world.</li> <li>• Looking ahead to new developments and trends.</li> </ul>

### Reflect and Project

- Students will reflect on the role of braille in their own learning process and will critically examine how braille reading and writing will factor into their projected (future) plans.
- Students will reflect on new technological developments in braille reading and writing in a socio-historical context.
- Students will expand their usage of UEB beyond academic tasks by connecting with mentors and peers who read braille, and by exploring options for leisure reading and working in an online environment in braille.

### Personal Connections

- Understand how braille fits into students' own toolkit for accessing learning content.
- Understand how braille reading and writing will factor into plans for the future (e.g., postsecondary, workplace).
- Advocacy – understanding how to advocate for accessible format needs at the school, community, and workplace levels.

## Curricular Competencies – Elaborations

### Unified English Braille (UEB) Code Knowledge

- Signs/notation and usage rules.
  - Introduction of the alphabet, contractions, and code rules through a systematic program to promote literacy in braille.
- Basic formatting rules and guidelines.
  - Proficiency in braille formats for learning materials at the secondary level (e.g., poetry, drama). Awareness of the braille music code.
  - Guided practice in creating tactile images, diagrams, and graphs according to technical material guidelines.

### Advocacy Techniques

- Understanding how to advocate for accessible format needs at the school, community, and workplace levels.
  - Guided practice in articulating arguments that support the provision of accessible alternate format materials. Students may create a short presentation on braille and what it means for them, which can be shared with teachers, administrators, etc.

### Various methods and materials to create tactile drawings and diagrams:

- Manual Perkins braillewriter
- The slate and stylus
- Handheld braille labellers

## Content – Elaborations

### Braille Technology

- Low tech, manual braille production.
  - Proficiency in the use of the manual Perkins braillewriter, the slate and stylus, and handheld braille labellers. The student will also be familiar with adapted learning tools such as the braille ruler, models with braille labels, etc.
- Higher tech digital file access/production with refreshable braille display.
  - Students should be familiarized with a braille notetaking device, including both online and offline functions. From a production standpoint, the student should know the required steps to connect their notetaking device or laptop to a braille embosser, and the steps required to emboss independently.

### Social and Historical Contexts of Braille

- The story of Louis Braille and how the code has developed over the last two centuries.
  - Reading and discussing biographies of Louis Braille and examining the precursors to the braille code (e.g., night writing).
  - Knowledge of the “War of the Dots” – historical debate over North America’s official tactile code and the eventual predominance of the braille code in Canada and the United States.
  - Discussion and awareness of the development of braille codes around the world, as well as, the development of specialized codes in English (e.g., music braille).
  - The rationale for the adoption of UEB in Canada (effective, 2010) – the benefits of UEB and awareness of English Braille – American Edition and Nemeth codes which preceded UEB.
- The implications of braille on early advances in education for learners with visual impairments.
  - Reading and discussing biographies (e.g., Helen Keller) provide evidence of the impact of braille on the lives of historical figures.
  - Historical limitations on the availability of braille and inclusive education for learners with visual impairments as content for discussions on social justice and accessibility.
- Braille in our world.
  - Exploring texts and online content to learn about how braille is produced in other regions and countries. International perspectives provide opportunity for examination of global, national, regional, and local issues facing individuals with visual impairments. Students should be encouraged to formulate potential solutions to these issues.
- Looking ahead to new developments and trends.
  - Students should research the latest prototypes and speculative developments in braille technology and evaluate the prospective advantages and disadvantages to each. Connect to social justice and accessibility discussion – will this technology help to address the challenges facing braille readers in Canada and/or abroad?

### Personal Connections

- Understand how braille fits into students’ own toolkit for accessing learning content.
  - Presented with multiple modes of accessing learning material, the student will determine the combinations/intersections of each mode that will maximize comprehension and efficiency (e.g., a refreshable braille display paired with audio output).
- Understand how braille reading and writing will factor into plans for the future (e.g., postsecondary education, workplace).

**Recommended Instructional Components:**

- Exploration
- Analyze and Interpret
- Develop and produce braille work
- Read with speed and accuracy
- Connect with other Braille users
- Direct instruction
- Demonstrations
- Modelling
- Experiential Learning
- Self-Reflection

**Recommended Assessment Components:**

## Performance Methods

- Braille code knowledge
- Projects
- Portfolio/binders/computer files
- Braille products evaluation
- Presentation of completed works
- Maintaining assignments on note taker

## Personal Communication

- Student/instructor/mentor dialogue
- Logbook reflection
- Self-evaluation
- Teacher evaluation

## Other

- Weekly assessment
- Teacher anecdotal records
- Teacher log

- Checklists
- Rubrics
- Rating scales

**Learning Resources:**

Provincial Resource Centre for the Visually Impaired (2017). Expanded Core Curriculum (ECC-VI) For Students with Visual Impairments: Braille 11.

Retrieved from [www.prvci.org](http://www.prvci.org)

Farrenkopf, C. (2015). Assessment of Braille Literacy Skills: UEB and EBAE. (3rd Ed.). Houston, TX: Region 4 Education Service Center.

Holbrook, M. C. & D'Andrea, F. M. (2014). Ashcroft's Programmed Instruction: Unified English Braille. Germantown, TN: SCALARS Publishing.

International Council on English Braille (2014). Guidelines for Technical Material. Retrieved from

[http://www.iceb.org/guidelines\\_for\\_technical\\_material\\_2014.pdf](http://www.iceb.org/guidelines_for_technical_material_2014.pdf)

International Council on English Braille (2013). Rules of Unified English Braille. (2nd Ed.). Retrieved from

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Wormsley, D. P. (2016). I-M-ABLE: Individualized Meaning-Centered Approach to Braille Literacy Education. Louisville, KY: American Foundation for the Blind.

**Additional Information:**