Provincial Resource Centre for the Visually Impaired
Unified English Braille (UEB) from K-3

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With assistance from PRCVI transcribers and the BC UEB Implementation committee
Introduction

• In this presentation, we will cover the changes to Braille relevant for Grades K to 3

• Cover Literary and Math content

• This is a hands-on workshop, please braille the examples

• To show the changes, we have some examples in English Braille, American Edition (EBAE) and UEB
Spacing

Follow print spacing of words. Do not join (or "cuddle") words.

and, for, of, the, with

The Queen of Hearts went for a ride with the dog and the rabbit.

EBAE

UEB
Braille these sentences

I like the shirt with the stripes and the dots

I looked everywhere for the missing sock.

None of the shoes fit.
Braille these sentences

I like the shirt with the stripes and the dots

I looked everywhere for the missing sock.

None of the shoes fit.
Contractions

Contractions no longer used in UEB:

- ble
- com
- dd
- ally

at

to

into

by

o'clock.
Activity

Which contractions are no longer in use in this sentence?

By 3 o’clock, Sally blew her gum into a bubble for her Daddy.
Braille these sentences

I am not able to help you.

Can you come and play?

Mommy and Daddy went on vacation.
Braille these sentences

I am not able to help you.

Can you come and play?

Mommy and Daddy went on vacation.
More Practice

I really like ice cream.

I had fun playing soccer.

Maggie carried the computer table into the house.

I go to bed by nine o’clock.
More Practice

I really like ice cream.

I had fun playing soccer.

Maggie carried the computer table into the house.

I go to bed by nine o’clock.
Prefixes and Roots

The cells preceding the root are called prefix.

For example:
A capital letter is made up of a root (the letter) preceded by a prefix (the capitalized letter indicator).

Prefixes have always been used in Braille:
Will
word
work
world
The following are examples of punctuation that have been changed in UEB:

- single quotes ‘ ’
- double quotes “ ”
- parentheses ( )
- brackets [ ]
- braces { }
Practice

She said, “UEB ‘Rocks!’”

Answer the question [Yes] or [No].

I picked up my (tea) cup.
Practice

She said, “UEB ‘Rocks!’”

Answer the question [Yes] or [No].

I picked up my (tea) cup.
Dots and Dashes

ellipse ...  
dash —  
long dash ———  
hyphen -  
underscore _

A dot is a dot is a dot. (period, decimal point, ellipsis and dot as in a web address)
Braille the examples

The winner is...

www.prcvi.org

I like merry-go-rounds.

Fill in the ________.

Oh dear——it’s raining—we’ll get wet!

Use a long dash in braille only when print uses both a short and long dash.
Braille the examples

The winner is...

www.prcvi.org

I like merry-go-rounds.

Fill in the ________.

Oh dear———it’s raining—we’ll get wet!

Use a long dash in braille only when print uses both a short and long dash.
Symbols

The following symbols have been changed in UEB

degree \( \degree \)
percent \( \% \)
bullet \( \bullet \)
dollar \( \$ \)
cent \( \cent \)
at sign \( @ \)
check mark \( \checkmark \)

Transcriber’s note opening

Transcriber’s note closing

We have only covered a few examples for K-3 students. For a full list of UEB symbols, check the Rules of UEB.
Braille the examples

5°

$10.50

82¢

I like PB&J sandwiches.

Put a √ beside each sentence.
Braille the examples

5°  ⍟ 5°
$10.50  ⍟ $10.50
82¢  ⍟ 82¢

I like PB&J sandwiches.

Put a √ beside each sentence.
More Practice

Ingredients:
  • sugar
  • egg

My e-mail is my_inbox@me.com.

I got 100%!
More Practice

Ingredients:

• sugar
• egg

My e-mail is my_inbox@me.com.

I got 100%!
Capitalization Indicators

- Capitalized letter
- Capitalized word
- Capitalized passage
- Capitalization terminator

A passage is three or more words/symbols-sequences and it may include non-alphabetic symbols.

Place after the last word/symbol in the capitalized passage.
Grade 1 Indicators

Symbol
Word
Passage
Terminator

Used to set Grade 1 mode when the Grade 1 meaning of symbol could be confused with a contraction or number.

The vowels are a, e, i, o, and u.

My class is in portable 1a.

My class is in portable 1a.
The numeric indicator also sets grade 1 mode.

See the Rule Book for complete details.

E-mail me at gr8invention@example.com!
Braille These Examples

He shouted, “S-T-O-P!”

G-g-g-g-g-go!

The sign said: SCHOOL WILL BE OUT UNTIL FURTHER NOTICE.
He shouted, “S-T-O-P!”

G-g-g-g-g-g-go!

The sign said: SCHOOL WILL BE OUT UNTIL FURTHER NOTICE.
Typeface Indicators

- Can you identify the root and the prefix?

- Boldface symbol
- Boldface word
- Boldface passage
- Boldface terminator

- Italic symbol
- Italic word
- Italic passage
- Italic terminator

- Underlined symbol
- Underlined word
- Underlined passage
- Underlined terminator
Braille these sentences

I am so *excited*!

Is the *e* in *red* a short or long vowel?

Underline the correct answer.

*Have a great summer vacation!* she said.
Braille these sentences

I am *so excited!*

Is the e in *red* a short or long vowel?

*Underline* the correct answer.

*Have a great summer vacation!* she said.

*Underline* a *great summer vacation!* she said.
Don’t forget to call home …

604-264-5052
604 283 5069

You can put a space within number using a numeric space indicator.
My mom’s office is on the 21\textsuperscript{st} floor.

You can no longer use contractions following ordinal numbers.
Braille the example

573-5739 19th Street
Vancouver, BC
CANADA
V4K 8E2

Phone: 604-375-3253
Braille the example

573-5739 19th Street
Vancouver, BC
CANADA
V4K 8E2

Phone: 604-375-3253
Mathematics

All numbers in UEB are brailed in the upper portion of the cell, even in technical material.
### Basic Math Symbols

<table>
<thead>
<tr>
<th>Operation</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plus (+)</td>
<td>$4 + 3 = 7$</td>
</tr>
<tr>
<td>Minus (-)</td>
<td>$7 - 2 = 5$</td>
</tr>
<tr>
<td>Equals (=)</td>
<td></td>
</tr>
<tr>
<td>Multiplication (×)</td>
<td>$2 \times 3 = 6$</td>
</tr>
<tr>
<td>Division (÷)</td>
<td>$10 \div 2 = 5$</td>
</tr>
</tbody>
</table>
Braille These Problems

1 + 1 = 2

181 – 104 = 77

3x5 = 15

27 ÷ 3 = 9
Braille These Problems

1 + 1 = 2

181 – 104 = 77

3 × 5 = 15

27 ÷ 3 = 9
More Math Symbols

Greater Than >  
Less Than <  
Forward Slash /  
Superscript $^2$

24/7
Is 5 > 3?  
2$^2$

Is 2 < 1?  
$cm^2$
More Practice!

The number is > 5 but < 10.

$2^3$ is the same as $2 \times 2 \times 2$.

01/25/14
More Practice!

The number is > 5 but < 10.

2^3 is the same as 2 x 2 x 2.

01/25/14
Fractions

Simple fraction line \(\frac{\phantom{a}}{\phantom{b}}\)

Forward Slash / \(\frac{\phantom{a}}{\phantom{b}}\)

Simple Numeric Fraction
\[
\frac{1}{2} \\
\frac{1}{4}
\]

Mixed number
\[
6 \frac{3}{4}
\]

Fractions in linear form
\[
\frac{7}{11}
\]
One quarter is written as $\frac{1}{4}$.

\[ \frac{1}{8} \]

\[ 5 \frac{1}{2} \]

\[ 24/7/365 \]
One quarter is written as $\frac{1}{4}$.

$\frac{1}{8}$

$5 \frac{1}{2}$

$24/7/365$
Measurement

There are two ways to show feet and inches depending on whether the print uses straight or directional symbols.

6’ 5’10”  X” long
9’ 4’ 11”

For K-3 students, we suggest using the directional symbols.
Now Your Turn

I asked for a 50” TV for my 10th birthday.

My daddy is 6’ 3” tall.
I asked for a 50” TV for my 10\textsuperscript{th} birthday.

My daddy is 6’ 3” tall.
In spatial calculation, you may use a numeric passage indication and a numeric terminator. This sets numeric and grade 1 mode.

- Numeric passage indicator :.
- Numeric terminator :.
- Cancellation indicator :.

In a numeric passage, any lower-case letters (a to j) is proceeded by grade 1 indicator.
Spatial Calculation Examples

\[ \begin{align*}
400 &+ 25 \\
\underline{1000} &- 899 \\
425 &\underline{101} \\
\end{align*} \]
PRACTICE

7 12 4 16

1. \[ \frac{8256}{2347} = 5909 \]
PRACTICE

1. \[ \begin{array}{c}
7 & 12 & 4 & 16 \\
- & 2 & 3 & 4 & 7 \\
\hline
5 & 9 & 0 & 9 \\
\end{array} \]
Once a student knows how to read problems using the cancellation indicator, they can complete spatial problems without it for speed and efficiency.
You have come to the end of this presentation on UEB from K to 3.

We hope you have enjoyed it and found it helpful.

Let us know if you have any questions.

For further reference refer to the Rules of UEB and Technical Guidelines [http://www.iceb.org/ueb.html](http://www.iceb.org/ueb.html)