Unified English Braille (UEB) from 4-7

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With assistance from the PRCVI Transcribers
Introduction

• In this presentation, we will cover the changes to braille relevant for grades 4 to 7

• Covers Literary, Math and Science 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
Module 1
Typeforms

You learned about using bold, italic and underlined in UEB K-3 presentation. Here is one more typeform for script text (e.g., handwriting).

Symbol

Word

Passage

Terminator
She opened the note and read: *I love you.* It was signed *P.*

**EBAE**

*She opened the note & read: I love you.*

**UEB**

*She opened the note & read: I love you.*
Braille these Sentences

My favourite pet is a: cat.

He filled in his name: Joe Smith.
Transcriber-defined Typeform Indicators

The transcriber-defined typeform indicators are listed on the special symbols page or in a transcriber’s note giving the print format(s) it represents.

Use for significant print typeform changes such as different-sized type, coloured type, crossed-out type, etc.
Transcriber-Defined Typeform Indicators

First transcriber-defined typeform indicator:
Symbol  ⋚
Word  ⋚
Passage  ⋚
Terminator  ⋚

Second transcriber-defined typeform indicator:
Symbol  ⋚
Word  ⋚
Passage  ⋚
Terminator  ⋚

See the Rules of UEB section 9.5 for more symbols.
Examples

Cross out the odd word: hat, coat, glove, apple.

When scientists originally studied thermodynamics, they were really studying heat and thermal energy.
Dot Locator for “Mention”

Dot locator for mention: ➋➋➋ (followed by a braille symbol)

Use a dot locator for “mention” to set apart a braille symbol which is under discussion, as in a symbols list or a transcriber’s note.

When the dot locator for mention is used, the symbol has no effect on the surrounding text.

Example:
Square □ ➋➋➋
Transcriber’s Note Indicators

Opening transcriber’s note indicator
Closing transcriber’s note indicator

Use the opening and closing transcriber’s note indicators to enclose a transcriber’s note.

“Stop! I am confused.”
Canada is located in the northern hemisphere.

Type `define amobae` into Google to get the definition.
I live in a house, castle, boat.

Maggie wore a blue dress.
Accent Signs

In UEB, if a word has an accented letter, the accent can be represented by the following symbols (which apply to the next letter):

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Accent Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>á</td>
<td>acute</td>
<td>áo</td>
</tr>
<tr>
<td>ç</td>
<td>cedilla</td>
<td>çé</td>
</tr>
<tr>
<td>ę</td>
<td>circle</td>
<td>ęn</td>
</tr>
<tr>
<td>ç</td>
<td>circumflex</td>
<td>çö</td>
</tr>
<tr>
<td>ò</td>
<td>diaeresis/umlaut</td>
<td>òë</td>
</tr>
<tr>
<td>ô</td>
<td>grave</td>
<td>ôë</td>
</tr>
<tr>
<td>ò</td>
<td>tilde</td>
<td>òë</td>
</tr>
</tbody>
</table>

These common accents are made up of a prefix followed by a root. The accent sign immediately precedes the letter.
Some Examples:

Marie had a tête-à-tête.

Comme ci comme ça...

Ångström
Practice

His name is Señor Gomez.

I am très fatigué.

I’ll meet you at the café.
Foreign Language in English Text

Use contracted braille for foreign anglicized words when they occur in English text unless there is an accent within the contraction.

Use uncontracted braille where foreign words are shown in a distinctive typeform.
Some Examples

*Bonjour*, how are you today?

We rendezvous at 9 o’clock.
We were greeted by the maître d’.

“Willkommen in Deutschland!” we were greeted when we arrived in Germany.

She always bought clothes from The Bon Marché.
Handling Foreign Languages

In a book intended for language instruction such as French or Spanish, the accent signs for that language may be used instead of the UEB two-cell accent signs.

Note that UEB punctuation and other signs are still used, unless the entire text is in a foreign language.

Étude = study

Étude = study
Module 2
Algebra

\[ y = x + 4c \]

\[ 2x + 3 = 13 \]

Be aware that algebra questions may look different depending on whether a grade 1 indicator (symbol, word, passage) is used!

Remember that the numeric indicator also sets grade 1 mode.

Refer to the UEB Rulebook section 2.6 for more information about the “Standing Alone” rule.
Practice

\[ y = x + 4 \]

\[ 2x = 2a - 4 \]

\[ 5k + 1 \quad \text{for} \quad k = 3 \]

\[ d + ab = ac \]
Emphasis of Digits

If you use a typeform indicator with a digit, you need to repeat the numeric indicator before the next number (see Technical Guidelines section 2.7).

67845

_67845

#FG~2#HDE

67845

_67845

#FG~2#HDE

67845

_67845

#FG~2#HDE

67845

_67845

#FG~2#HDE
Practice

Right now, it is 3:05 pm. You are late!

King Henry VIII passed away in 1547, not in 1500.
Signs of Comparison

Less than or equal to $\leq$

Greater than or equal to $\geq$

Not equal to $\neq$

Approximately equal $\doteq$

Note that the $\neq$ and $\doteq$ are composed of the $=$ sign plus symbols for “cross through” and “dot over” the previous item—these are covered in more detail in the Technical Guidelines, Section 12.
Examples

\[ \frac{1}{5} \geq 0.25x \]

\[ 3 \leq y \]

\[ \frac{1}{7} \neq \frac{3}{14} \]

\[ \frac{99}{100} \equiv 1 \]
Practice

\[ \frac{1}{4} + 5 \geq 3.5b \]

\[(4+8) + (-3-10) \leq y + 100\]

\[7 \times 5 \neq 36 \div 4\]

\[0.555555 \neq 1.0\]
Simple Arrows

Arrow indicator

Right (simple) →

Left (simple) ←

Up (simple) ↑

Down (simple) ↓

For more information about different kinds of arrows, please check the Guidelines for Technical Material section 13 and the UEB Rulebook section 11.6.
Practice

London ➔ Paris

Follow the arrow to East wing ➔

To get to the moon, you go up ↑

Treasure is this way ↓
Remember: You may or may not need to use a grade 1 indicator!

The points $X_1$ and $X_2$

The formula for water is $H_2O$. 

The points $X_1$ and $X_2$
CO$_2$ is Carbon dioxide.

To solve this question, you need to find points A$_1$ and A$_2$

Solve $2^8$
More Symbols

Crosshatch/hash/pound # ☐

Asterisk (star) * ☐

Pi π ☐

Euro sign € ☐

Square root √ ☐

Pound sign £ ☐

Open radical ☐

Close radical ☐

For more symbols, see the UEB Rulebook page 20.
Practice

Use the hashtag #braille4ever

You need to type “book*” in the search box.

The hat cost €15.00, which is £11.08.

\[ \pi = 3.14 \]

\[ \sqrt{x} \] is 2

### Answer

- **Use the hashtag #braille4ever**
- **You need to type “book*” in the search box.**
- **The hat cost €15.00, which is £11.08.**
- \[ \pi = 3.14 \]
- \[ \sqrt{x} \] is 2
Module 3
Shapes

Shape indicator  ⤓

Filled shape indicator  ⤓⢹

Shaded shape indicator  ⤓⡃

Shape terminator  ⤓

Remember, the shape indicator followed by a space requires a grade 1 indicator.

For rules for shapes, refer to the Rulebook section 11.7 and the Technical Guidelines section 14.
What is the angle of $\triangle DEF$?
Braille the Examples

△ ABC

What is the next shape?
{□, ▲, ■, ○, …}

What is the next shape?

A ○ has no sides.
Multiplication and Division

Begin horizontal line mode

Vertical line segment

See Technical Guidelines, Section 4 for more information.
Long Multiplication

\[
\begin{array}{c}
123 \\
\times \phantom{12} \\
\hline
\end{array}
\]

\[
\begin{array}{c}
246 \\
123 \\
\hline
1476
\end{array}
\]
Braille this Problem

8123
X  12
_____
16246
8123
_____ 
97476
Long Division

\[
5 \longdiv{93}
\]

\[
\begin{array}{c}
465 \\
45 \\
15 \\
15 \\
0
\end{array}
\]
Braille this problem

\[
\begin{array}{c}
3) \ \ \ 120 \\
\hline
3 \ \ \ \ \ \ \ \ 360 \\
3 \ \ \ \ 60 \\
\hline
60 \\
60 \\
\hline
0
\end{array}
\]
Tally Marks

Tally mark :

4 tally marks with strike through:

Here is the example:

Thirteen

It is the same as vertical line segment.

See Technical Guidelines Section 4.2 for more information.
y = x - 5

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>-6</td>
</tr>
<tr>
<td>0</td>
<td>-5</td>
</tr>
<tr>
<td>1</td>
<td>-4</td>
</tr>
<tr>
<td>2</td>
<td>-3</td>
</tr>
</tbody>
</table>
Now Your Turn

\[ y = x + 1 \]

<table>
<thead>
<tr>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>-1</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Number Lines

Number line example
You have come to the end of this presentation on UEB from 4 to 7

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