Lesson 4 Objectives
Participants will be able to:
1. Locate and use formatting resources
2. Format the following:
   • Centered headings
   • Braille page numbers
   • Directions
   • Problems
3. Make decisions on when to use manipulatives instead of simple tactile graphics
Formatting Materials for Young Students

Predictable materials allow students to:

• Develop efficiency
• Focus on content
• Quickly scan the page with their hands and learn what is included in the document.

Resources to Use in Formatting Materials for Young Students

• Braille Formats: Principles of Print-to-Braille Transcription, 2016 referred to as “Braille Formats.”
  • http://brailleauthority.org/formats/formats2016.html
• BANA Guidelines for the Transcription of Early Educational Materials from Print to Braille
  • https://www.brailleauthority.org/early-learning-materials
• Both of these resources are available from the Braille Authority of North America (BANA) and are available in print and braille. Although written for transcribers, TSVIs need to understand many of the concepts explained.
Line Spacing

• Double-space materials for young learners.
• Exceptions, single space:
  • Puzzles
  • Spatially aligned problems
  • Tables
  • Titles of tactile graphics

Print Worksheet Example

Title
Addition Practice
Add.
Worksheet 1

<table>
<thead>
<tr>
<th>3</th>
<th>1</th>
<th>2</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 2</td>
<td>+ 0</td>
<td>+ 2</td>
<td>+ 3</td>
</tr>
</tbody>
</table>
Centered Headings

• Center the title of a worksheet.
• Place the title on the first line of the page, and leave two blank lines after the heading.
• Divide long headings across multiple lines.
• Follow print capitalization when brailling headings.
• Changes in typeform that are just “pretty” are not needed in braille.

How to Center a Heading

• Begin by counting the number of cells needed to transcribe the title in braille.
• Count:
  • Letters
  • Contractions
  • Spaces
  • Punctuation
  • Indicators (e.g., capital indicator)
• Subtract the number of cells needed for the title from the number of cells in a line (usually either 32 or 40).
• Divide the difference by 2 and then begin in this cell.
Example of a Centered Heading (continued)

- The title is centered.
- Two blank lines follow the title.
- Notice only 1 blank line is needed after the directions.
- Print capitalization is followed.

Activity 4A

Decide if each statement is true or false.
1. The title of a worksheet always begins in cell 5.
2. Long titles can be divided across two or even three lines when necessary.
3. Follow print capitalization when brailling headings for a kindergarten student.
4. Most materials for students in first grade are triple-spaced.
Activity 4A: Answer Key

1. False – The title of a worksheet is centered.
2. True – Long titles can be divided across two or even three lines when necessary.
3. True – Follow print capitalization when brailling headings for a kindergarten student.
4. False – Most materials for students in first grade are double-spaced.

Directions Preceding Unnumbered Problems

- When directions precede unnumbered problems, directions begin in cell 3 with runover lines beginning in cell 1.
- Since the problems are spatially aligned, there is a blank line after the directions.
Directions Preceding Numbered Problems

- When directions precede numbered problems, they begin in cell 5 with runover lines beginning in cell 5.
- There are two blank lines between the title and directions.
- There is only one blank line after the directions.

Numbered Problems with No Answer Choices

Begin in cell 1 with runover in cell 3.
1. How many tens are in 45?
2. What is the sum of 2, 5, 10, and 15?
3. Which is more, 9 – 6 or 11 – 5?
Numbered Problem with Answer Choices

1. $7 + \underline{\text{__}} = 12$
   a. 6
   b. 7
   c. 5
   d. 9

   • Begin problem in cell 1 with runover in cell 5.
   • Answer choices begin in cell 3 with runover in cell 5.

Example of a Numbered Problem with Answer Choices

4. My cousins made cupcakes. Maria made 6 cupcakes, and Jorge made 3. Which equation shows how many cupcakes they made altogether?
   a. $6+3 = 8$
   b. $3+8 = 11$
   c. $6+3 = 10$
   d. $6+3 = 9$
Example of a Numbered Problem with Answer Choices (continued)

17: My cousins made cupcakes. Emma made 76 cupcakes. Jorge made 84 cupcakes. Mia made 18 cupcakes. We equally divided the cupcakes. Each of us made 18 cupcakes.

- Double space this problem for a young student. This example is not double spaced so the problem fits on the slide.
- The problem begins in cell 1 with runovers in cell 5.
- Answer choices begin in cell 3.

Numbered Spatial Problems Across a Line

- BANA does not have established rules about how to space spatial problems across a line in UEB Math/Science.
- The Project INSPIRE team recommends leaving 2 blank cells between problems for students in PK–1st grade.
- Use consistent spacing for spatial problems on the entire worksheet or test.
- Be sure the student can distinguish the problem number from the content of the problem.
- Be consistent in placement of the problem numbers, so that the student can find them.
- Remember to leave a blank line above and below each row of spatial problems.
Numbered Spatial Problems Across a Line – Print Example

Addition and Subtraction Worksheet
Find the answers.

1.  6 + 8
2.  7 - 3
3.  9 + 2

4.  13 - 4
5.  14 + 5
6.  11 - 7
Numbered Spatial Problems Across a Line – Alternate Numeric Passage Layout

The line above and below spatial calculation must either be blank, or must only contain the numeric passage indicator or terminator.

Activity 4B
Transcribe the following worksheet using the layout of your choice.

Add or Subtract
Solve.
1. $5$ 2. $6$ 3. $8$ 4. $12$ 5. $13$ 6. $10$
   $+7$ $+2$ $-1$
   $-3$ $-4$ $+6$
Activity 4B: Answer Key Layout 1

Add or Subtract
Solve.
1. 5 + 7
2. 6 + 2
3. 8 − 1
4. 12 − 3
5. 13 − 4
6. 10 + 6

Activity 4B: Answer Key Layout 2

Add or Subtract
Solve.
1. 5 + 7
2. 6 + 2
3. 8 − 1
4. 12 − 3
5. 13 − 4
6. 10 + 6
Braille Page Numbering

• You must leave 3 braille cells between the text on the line and the page number.
• The braille page number is placed at the end of the last line on each page.
• Braille page numbers are consecutive: 1, 2, 3, etc.

Example of Braille Page Numbering
Activity 4C
Transcribe the worksheet below:

Addition Fun

Fill in the missing number.
1. 1 + 5 = ___
2. 1 + 7 = ___
3. 2 + 4 = ___

Write your answer. You may use your counting bears.

4. There are 3 girls and 4 boys in the bus. How many children are there altogether?

Activity 4C: Answer Key
Consistency Helps Students Navigate Braille Materials Easily and Quickly

• Be consistent in formatting materials, regardless of grade level.
• Depending on the needs of young students, teachers may elect to include a space before and after signs of operation in horizontal problems.
• Follow print formatting for spatial problems, including where signs of operation are placed. For example, if the plus sign is to the left of the second addend, braille the plus to the left of the second addend.

Special Considerations

• When pre-kindergarten and kindergarten students are given pictures of objects to count, use manipulatives such as:
  • Counting bears
  • Base ten blocks
  • Digi-blocks
• Use simple tactile shapes (e.g. circles, squares) on worksheets.
Interlining

• Interline braille material by writing above the braille.
• Interlining above the braille, allows the student’s hands to be on the braille and the adult to see the print.