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In keeping with our philosophy to provide access to information for people who are blind or visually impaired, the American Printing House for the Blind offers this document in one or more of the following alternative formats: electronic file, braille, large print, and audio recording.

This initiative is made possible through the generosity of individuals who support the mission of APH. For more information, please call 1-800-223-1839.
iv - Pre-Braille Concepts
Acknowledgements

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Special thanks to 11-year-old Matt Poppe for recording hundreds of quiz scripts needed for this product.

Special thanks to 18-year-old Jessica Owens for recording the introduction to each overlay.
INTRODUCTION

IntelliTactiles Pre-Braille Concepts®, developed by the American Printing House for the Blind, includes seven tactile overlays that can be used with the commercially-available IntelliKeys® keyboard, or as stand-alone “worksheets,” to develop young children’s tactile discrimination skills, shape recognition ability, and understanding of many spatial/positional concepts. Although the overlays would be beneficial to any child, the overlays are especially ideal for children with visual impairments and blindness.

The overlays included in this package comprise the following:

- Texture Recognition 1
- Texture Recognition 2
- Four Shapes
- Six Shapes
- Nine Shapes
- Texture/Shape Recognition
- Braille Cell

The IntelliKeys keyboard, related software, and standard overlays are available exclusively from IntelliTools. Questions regarding these products should be directed to IntelliTools at:

1720 Corporate Circle • Petaluma, CA 94954
Phone 707-773-2000 • Fax: 707-773-2001
Email: info@intellitools.com • Web site: www.intellitools.com
This User’s Guide provides the quiz scripts recorded for each of the overlays to allow teachers/parents to use the overlays apart from the IntelliKeys keyboard. Keep in mind that the usefulness of the overlays can be extended by the instructor by simply creating new quizzes, or rotating the stand-alone overlay in another direction so that additional questions can be generated based upon the new orientation.

The overlays are designed to slip securely under the ledges of the IntelliKeys keyboard. When using the overlays as stand-alone worksheets, consider placing the overlays on top of non-skid material, such as Dycem®, in order to provide a stable working surface for the young child. A sturdy work/play tray can also be used.

Teachers/parents are encouraged to use the overlays in combination with other pre-braille materials and activities [see Braille Cell Overlay and References for suggestions]. The sequence and presentation of the overlays should be chosen based upon an individual child’s needs, skill level, concept understanding, and vocabulary. Adult assistance will be required for inserting the overlays into the IntelliKeys board, selecting the desired quizzes, and providing additional feedback along with the recorded responses.

A checklist of the concepts introduced throughout the guidebook and via recorded quizzes is provided on page 38. Use this checklist to chart a child’s progress during the use of IntelliTactiles: Pre-Braille Concepts overlays.
Getting Started

To begin using IntelliTactiles: Pre-Braille Concepts insert the CD into the CD-ROM drive. When you open up the CD you will see the following 4 folders.

PC with Windows® displays:

- IntelliPics Player
- Mac IntelliTactiles
- Overlay Sender
- PC IntelliTactiles

Macintosh® displays:

Important Note: You will need to install IntelliPics Player and Overlay Sender if these program applications are not already available on your computer.
Installation of IntelliPics Player and Overlay Sender

If you are installing *IntelliPics Player* and *Overlay Sender* using a Macintosh operating system you have two options:

1. Open the Mac folder and drag the IntelliPics Player 1.2d to your hard drive.

2. If you have *Stuff-It Expander* installed on your computer, you can double click on the IPicsPly.sit icon and it will automatically install to your hard drive.

3. To install *Overlay Sender*, drag Overlay Sender 2.2b to the hard drive.

If you are installing *IntelliPics Player* using a Windows operating system, first open the IntelliPics Player folder. Once inside this folder, open the folder called “Windows version” and double click on the “Setup.exe” icon. Follow the onscreen directions to install *IntelliPics Player*.
To install *Overlay Sender* using a Windows operating system, open the Windows version folder and double click the SETUP icon.

**Important Note:** If you are using Windows 2000 or Windows XP, it is necessary to copy the PC IntelliTactiles folder from the CD to your computer.

**Playing the Quizzes**

Once the *IntelliPics Player* and *Overlay Sender* are installed on your computer, you are ready to begin using the activities. Select the folder with the activity you want to use and double click on the *IntelliPics* icon for that activity. As the activity opens, the corresponding overlay will automatically be sent to your *IntelliKeys* keyboard.

Once the activity opens you will receive verbal output that tells you which *IntelliPics* activity you have opened. You will then be prompted to select “Play Quiz” from the menu bar.

**PC with Windows displays:**

If you want to use the shortcut or “hotkey” command to begin the quiz on the Macintosh, push the “Command” key (sometimes referred to as the “Open Apple”) and the question mark (?) key at the same time. For the PC, push the “Ctrl” key and the question mark (?) key at the same time.
Once you select “Play Quiz,” a dialog box will appear giving you a choice of quizzes to select.

Use the up and down arrow key to select the quiz you wish to use and press the Enter key or click on the “Play” button. [Please note that at this current stage of development, selection of quizzes is not accessible with speech output on the computer and requires memorization of the order of quizzes or someone to visually read the list.]

Once you select a quiz to play, the questions will play in a systematic order. After a student has become familiar with the activity, you may choose to shuffle the questions so they are asked randomly. This will ensure that the student has mastery of the concepts and has not memorized the order of the questions.
To shuffle the questions so they are presented randomly, follow the steps below. NOTE: You must have the application program IntelliPics installed on your computer in order to access the option to “Create.”

1. First choose “Create” from the menu bar and then select “Quizzes.”

PC with Windows displays:  Macintosh displays:

![PC with Windows display](image1.png)  ![Macintosh display](image2.png)

2. Once you select “Quizzes,” you will see a list of all quizzes for that activity. Select the quiz you want to shuffle and click on “Edit.”
3. Once you click on “Edit” you will be presented with a dialog box for the selected quiz. At the bottom of the dialog box, on the left, you will have the option to “Shuffle Questions Randomly.” Click the Check Box to select this option and then click OK.
IntelliTactiles: Texture Recognition 1

Purpose of Overlay
The Texture Recognition 1 overlay is intended to introduce and reinforce the following concepts:

- Square
- Rough
- Bumpy
- Soft
- Bottom
- Top
- Row
- Left
- Right
- Above
- Below
- Beside

Instructions
Insert the overlay under the ledges of the IntelliKeys keyboard with the diagonally-cut corner positioned at the upper right-hand corner of the keyboard. The overlays may also be used
apart from the IntelliKeys keyboard using the quiz scripts listed below. Randomize, reduce, or expand quizzes to address a child’s individual needs and vocabulary. If using the overlay as a stand-alone worksheet, you might like to change the orientation of the overlay to facilitate further concept practice; simply rotate the overlay in any direction and create new questions.

**TIP:** The overlays can be positioned on top of a piece of non-skid material, such as Dycem®, to provide a stable working surface. A sturdy work play tray can also be used.

**Quiz Scripts**

**Quiz #1: Texture**

Find the rough square.

Find the bumpy square.

Find the smooth square.

Find the soft square.

Find the rough square in the top row.

Find the bumpy square in the bottom row.

Find the soft square in the bottom row.

Find the smooth square in the top row.
Quiz #2: Left/Right
Find the top left shape.
Find the top right shape.
Find the bottom left shape.
Find the bottom right shape.
Find the square to the left of the smooth square.
Find the square to the right of the soft square.
Find the square to the right of the rough square.
Find the square to the left of the bumpy square.

Quiz #3: Above/Below/Beside
Find the square above the soft square.
Find the square above the bumpy square.
Find the square below the rough square.
Find the square below the smooth square.
Find the square beside the smooth square.
Find the square beside the bumpy square.
Find the square beside the rough square.
Find the square beside the soft square.
Purpose of Overlay

The Texture Recognition 2 overlay introduces and reinforces the following concepts:

- Square
- Rough
- Bumpy
- Smooth
- Soft
- Bottom
- Top
- Row
- Left
- Right
- Above
- Below
- Beside
- Middle

Instructions

Insert the overlay under the ledges of the IntelliKeys keyboard with the diagonally-cut corner positioned at the upper right-hand corner of the keyboard. The overlays may also be used
apart from the IntelliKeys keyboard using the quiz scripts listed below. Randomize, reduce, or expand quizzes to address a child’s individual needs and vocabulary. If using the overlay as a stand-alone worksheet, you might like to change the orientation of the overlay to facilitate further concept practice; simply rotate the overlay in any direction and create new questions.

TIP: The overlays can be positioned on top of a piece of non-skid material, such as Dycem®, to provide a stable working surface. A sturdy work play tray can also be used.

**Quiz Scripts**

**Quiz #1: Texture/Position**

Find the rough square in the top row.
Find the soft square in the top row.
Find the bumpy square in the bottom row.
Find the smooth square in the top row.
Find the smooth square in the bottom row.
Find the rough square in the bottom row.
Find the first square in the top row.
Find the second square in the top row.
Find the third square in the top row.
Find the first square in the bottom row.
Find the second square in the bottom row.
Find the third square in the bottom row.
Quiz #2: Above/Below/Beside
Find the square above a smooth square.
Find the square above a rough square.
Find the square above a bumpy square.
Find the square below a smooth square.
Find the square below a rough square.
Find the square below a soft square.
Find the rough square beside a smooth square.
Find the smooth square beside a bumpy square.
Find the soft square beside a smooth square.
Find the rough square beside a bumpy square.
Find the smooth square beside a rough square.
Find the bumpy square beside a rough square.
Find the smooth square beside a soft square.
Find the bumpy square beside a smooth square.

Quiz #3: Top/Bottom/Left/Right
Find the top left shape.
Find the top right shape.
Find the bottom right shape.
Find the bottom left shape.
Find the middle square in the top row.
Find the middle square in the bottom row.
Find the square to the right of a rough square.
Find the square to the right of a bumpy square.
Find the square to the left of a soft square.
Find the square to the left of a smooth square.
Find the square to the left of a rough square.
Find the square to the left of a bumpy square.
IntelliTactiles: Four Shapes

Purpose of Overlay
The Four Shapes overlay presents basic shapes without texture and is intended to introduce and reinforce the following concepts:

- Square
- Triangle
- Rectangle
- Circle
- Above
- Below
- Beside
- Top
- Bottom
- Left
- Right

Instructions
Insert the overlay under the ledges of the IntelliKeys keyboard with the diagonally-cut corner positioned at the upper right-hand corner of the keyboard. The overlay may also be used apart from the IntelliKeys keyboard using the quiz scripts.
listed below. Randomize, reduce, or expand quizzes to address a child’s individual needs and vocabulary. If using the overlay as a stand-alone worksheet, you might like to change the orientation of the overlay to facilitate further concept practice; simply rotate the overlay in any direction and create new questions.

TIP: The overlays can be positioned on top of a piece of non-skid material, such as Dycem®, to provide a stable working surface. A sturdy work play tray can also be used.

**Quiz Scripts**

**Quiz #1: Find the Shape**
Find the circle.
Find the rectangle.
Find the square.
Find the triangle.

**Quiz #2: Above/Below/Beside**
Find the shape above the circle.
Find the shape above the rectangle.
Find the shape below the square.
Find the shape below the triangle.
Find the shape beside the square.
Find the shape beside the circle.
Find the shape beside the triangle.
Find the shape beside the rectangle.
Quiz #3: Left and Right
Find the top left shape.
Find the top right shape.
Find the bottom left shape.
Find the bottom right shape.
IntelliTactiles: Six Shapes

Purpose of Overlay
The Six Shapes overlay presents basic shapes without texture and is intended to introduce and reinforce the following concepts:

- Square
- Triangle
- Rectangle
- Star
- Oval
- Diamond
- Top
- Middle
- Bottom
- Left
- Right
- Row
- First
- Second
- Third
- Above
- Below
- Between

Instructions
Insert the overlay under the ledges of the IntelliKeys keyboard with the diagonally-cut corner positioned at
the upper right-hand corner of the keyboard. The overlay may also be used apart from the IntelliKeys keyboard using the quiz scripts listed below. Randomize, reduce, or expand quizzes to address a child’s individual needs and vocabulary. If using the overlay as a stand-alone worksheet, you might like to change the orientation of the overlay to facilitate further concept practice; simply rotate the overlay in any direction and create new questions.

TIP: The overlays can be positioned on top of a piece of non-skid material, such as Dycem®, to provide a stable working surface. A sturdy work play tray can also be used.

**Quiz Scripts**

**Quiz #1: Find the Shape**

Find the square.

Find the oval.

Find the diamond.

Find the star.

Find the triangle.

Find the rectangle.

Find the square in the top row.

Find the oval in the top row.

Find the diamond in the top row.

Find the star in the bottom row.

Find the triangle in the bottom row.

Find the rectangle in the bottom row.
Quiz #2: Top/Bottom/Middle
Find the top left shape.
Find the top right shape.
Find the bottom left shape.
Find the bottom right shape.
Find the shape in the middle of the top row.
Find the shape in the middle of the bottom row.
Find the first shape in the top row.
Find the first shape in the bottom row.
Find the second shape in the top row.
Find the second shape in the bottom row.
Find the third shape in the top row.
Find the third shape in the bottom row.

Quiz #3: Left/Right/Above/Below
Find the shape to the right of the square.
Find the shape to the right of the oval.
Find the shape to the left of the diamond.
Find the shape to the left of the oval.
Find the shape to the right of the star.
Find the shape to the right of the triangle.
Find the shape to the left of the rectangle.
Find the shape to the left of the triangle.
Find the shape above the star.
Find the shape above the triangle.
Find the shape above the rectangle.
Find the shape below the square.
Find the shape below the oval.
Find the shape below the diamond.
Find the shape between the square and the diamond.
Find the shape between the star and the rectangle.
Purpose of Overlay

The Nine Shapes overlay is intended to introduce and reinforce the following concepts:

- Square
- Triangle
- Circle
- Rectangle
- Star
- Oval
- Diamond
- Top
- Middle
- Bottom
- Left
- Right
- Row
- First
- Second
- Third

Instructions

Insert the overlay under the ledges of the IntelliKeys keyboard with the diagonally-cut corner positioned at the upper right-
hand corner of the keyboard. The overlay may also be used apart from the IntelliKeys keyboard using the quiz scripts listed below. Randomize, reduce, or expand quizzes to address a child’s individual needs and vocabulary. If using the overlay as a stand-alone worksheet, you might like to change the orientation of the overlay to facilitate further concept practice; simply rotate the overlay in any direction and create new questions.

TIP: The overlays can be positioned on top of a piece of non-skid material, such as Dycem®, to provide a stable working surface. A sturdy work play tray can also be used.

**Quiz Scripts**

**Quiz #1: Shapes**

Find the star in the top row.
Find the rectangle in the top row.
Find the oval in the top row.
Find the diamond in the middle row.
Find the circle in the middle row.
Find the square in the middle row.
Find the square in the bottom row.
Find the triangle in the bottom row.
Find the star in the bottom row.
Quiz #2: Left/Right
Find the shape to the right of the rectangle.
Find the shape to the left of the rectangle.
Find the shape to the right of the circle.
Find the shape to the left of the circle.
Find the shape to the left of the triangle.
Find the shape to the right of the triangle.
Find the shape above the diamond
Find the shape below the diamond.
Find the shape above the circle.
Find the shape below the circle.

Quiz #3: First/Second/Third
Find the first shape in the top row.
Find the second shape in the top row.
Find the third shape in the top row.
Find the first shape in the middle row.
Find the second shape in the middle row.
Find the third shape in the middle row.
Find the first shape in the bottom row.
Find the second shape in the bottom row.
Find the third shape in the bottom row.
IntelliTactiles: Texture/Shape Recognition

Purpose of Overlay
The Texture/Shape Recognition overlay combines basic shape concepts with the four basic textures encountered in other IntelliTactiles: Pre-Braille Concepts overlays. This overlay is especially useful for introducing and reinforcing the following concepts:

- Square
- Triangle
- Circle
- Rectangle
- Soft
- Rough
- Smooth
- Soft
- Top
- Middle
- Bottom
- Left
- Right
- Row
- Between
- First
- Second
- Third
Instructions

Insert the overlay under the ledges of the IntelliKeys keyboard with the diagonally-cut corner positioned at the upper right-hand corner of the keyboard. The overlay may also be used apart from the IntelliKeys keyboard using the quiz scripts listed below. Randomize, reduce, or expand quizzes to address a child’s individual needs and vocabulary. If using the overlay as a stand-alone worksheet, you might like to change the orientation of the overlay to facilitate further concept practice; simply rotate the overlay in any direction and create new questions.

TIP: The overlays can be positioned on top of a piece of non-skid material, such as Dycem®, to provide a stable working surface. A sturdy work tray can also be used.

Quiz Scripts

Quiz #1: Texture/Shape

Find the rough square.
Find the smooth triangle.
Find the smooth circle.
Find the bumpy circle.
Find the soft triangle.
Find the rough rectangle
Find the rough shape in the top row.
Find the smooth shape in the top row.
Find the soft shape in the top row.
Find the smooth shape in the bottom row.
Find the bumpy shape in the bottom row.
Find the rough shape in the bottom row.

Quiz #2: Ordinal/Top/Bottom
Find the first shape in the top row.
Find the second shape in the top row.
Find the third shape in the top row.
Find the first shape in the bottom row.
Find the second shape in the bottom row.
Find the third shape in the bottom row.
Find the top left shape.
Find the top right shape.
Find the bottom left shape.
Find the bottom right shape.
Find the shape in the middle of the top row.
Find the shape in the middle of the bottom row.

Quiz #3: Above/Below/Left/Right
Find the shape that is above the smooth triangle.
Find the shape that is above a bumpy circle.
Find the shape that is above a rough rectangle.
Find the shape that is below a rough square.
Find the shape that is below a smooth circle.
Find the shape that is below a soft triangle.
Find the shape that is to the right of a rough square.
Find the shape that is to the right of a smooth circle.
Find the shape that is to the right of a smooth triangle.
Find the shape that is to the right of a bumpy circle.
Find the shape that is to the left of a soft triangle.
Find the shape that is to the left of a smooth circle.
Find the shape that is to the left of a rough rectangle.
Find the shape that is to the left of a bumpy circle.
Find the circle that is between a rough square and a soft triangle.
Find the circle that is between a smooth triangle and a rough rectangle.
Purpose of Overlay

The Braille Cell overlay presents an enlarged Braille cell configuration that can be used to familiarize students with the arrangement and position of dots 1, 2, 3, 4, 5, and 6. Apart from introducing the Braille cell, this overlay can also be used to introduce and reinforce many of the concepts encountered on other IntelliTactiles: Pre-Braille Concepts overlays.

Instructions

Insert the overlay under the ledges of the IntelliKeys keyboard with the diagonally-cut corner positioned at the upper right-hand corner of the keyboard. The overlay may
also be used apart from the IntelliKeys keyboard using the quiz scripts listed below.

TIP: The overlays can be positioned on top of a piece of non-skid material, such as Dycem®, to provide a stable working surface. A sturdy work play tray can also be used.

**Quiz Scripts**

**Quiz #1: Dot Positions**
Find the top dot in the left column.
Find the middle dot in the left column.
Find the bottom dot in the left column.
Find the top dot in the right column.
Find the middle dot in the right column.
Find the bottom dot in the right column.

**Quiz #2: Dot Numbers**
Find dot 1 on the Braille cell.
Find dot 2 on the Braille cell.
Find dot 3 on the Braille cell.
Find dot 4 on the Braille cell.
Find dot 5 on the Braille cell.
Find dot 6 on the Braille cell.
Additional Practice

The Braille Cell overlay is best used in combination with other available APH braille training products such as the following:

- Swing Cell
- Peg Slate
- Big Cell
- Pop-A-Cell
- Tactile Discrimination Worksheets
- First level of the *Patterns* reading series.
- Touch and Tell: Volume III
- Perkins Braillewriter
Pre-Braille Checklist

Student’s name: __________________________________________
Teacher’s name: __________________________________________

Directions: Check (✓) the appropriate boxes if the student demonstrates knowledge of the concept.

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Comments:

Permission is given to make copies of this checklist as needed.
References


