



i-Ready Diagnostic Tactile Graphics Guidance

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Section 1: Overview

The *i-Ready Diagnostic* includes user interface elements and test item images, including some complex graphics, that have been enhanced with alt text. Alt text tells viewers who are blind or have low vision the nature or contents of an image. This text does not appear on screen visually. It is read using supported screen-reader software (e.g., JAWS®, NVDA, and VoiceOver).

There are some instances when a student may request or require a tactile graphic to access a test item enhanced by alt text. Because *i-Ready Diagnostic* is a computer-adaptive assessment, each student's next item is selected in the moment based on their performance on previous items. Therefore, notification about the need for a tactile graphic cannot be provided to teachers before the assessment is administered.

This guidance brief provides educators with information about how to create tactile graphics on demand. The document includes information about:

- Types of alt text and tactile graphics in the *i-Ready Diagnostic*
- Preparing to create tactile graphics
- Labeling tactile graphic answer choices
- Common images by grade band and content area

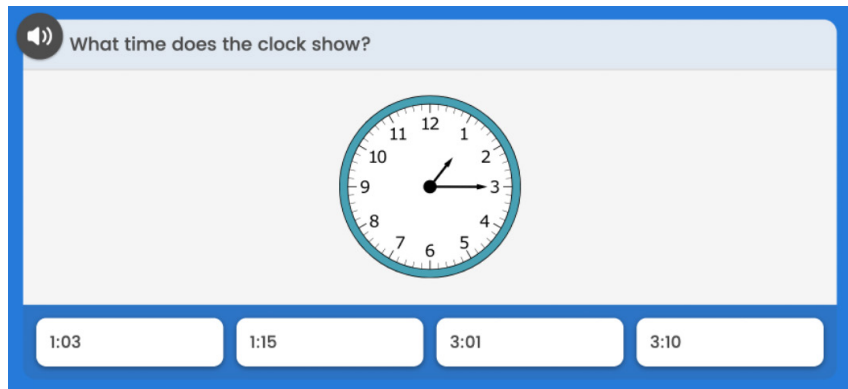
The Curriculum Associates Commitment

At Curriculum Associates, we believe every student has the potential for educational excellence. That's why we're dedicated to creating accessible materials that maximize usability for students with disabilities. We strive to ensure that accessibility and accommodation support considerations are incorporated into our product development process from the very beginning, and we've developed a continual improvement approach to accessibility that ensures we're always improving and learning.

Section 2: Types of Alt Text and Tactile Graphics in the *i-Ready Diagnostic*

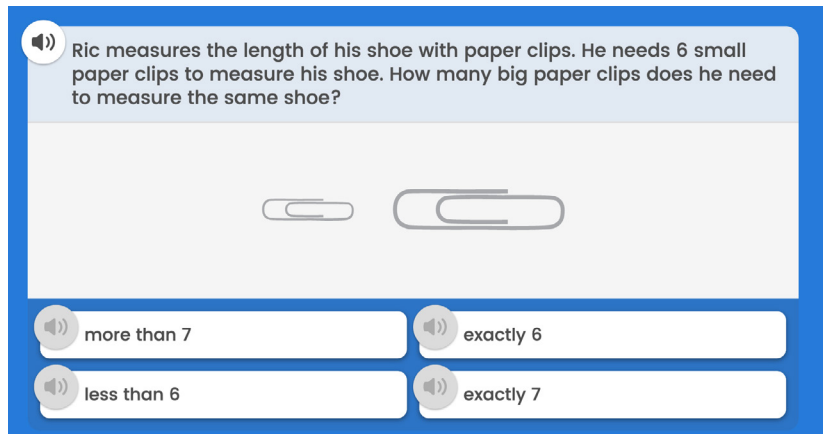
Many items in the *i-Ready Diagnostic* include images as stimuli. When the images are necessary to answer the question, they include descriptive alt text. When images are considered decorative or not necessary to answer the question, they do not contain alt text and are coded as silent to screen readers. Before beginning the assessment, familiarize the student with the three types of alt text they may encounter.

1. Alt text that fully describes the image



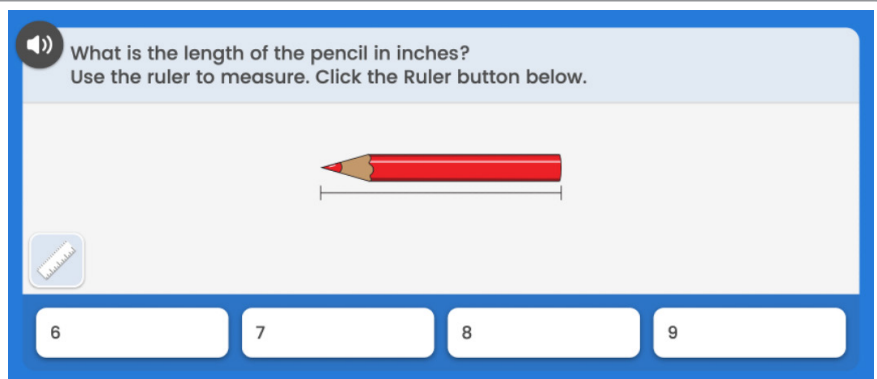
Alt text: The clock. The short hand points between 1 and 2. The long hand points to 3.

2. Alt text that fully describes the image but suggests that a tactile graphic may help to convey the spatial relationships in the image. In this case, the student may request the tactile graphic.



Alt text: A small paper clip next to a big paper clip. A tactile graphic may help with this question.

3. Alt text that requires a tactile graphic. In this case, the image requires students to interpret spatial relationships, and an image description would hint at or give away the correct answer. The student will need a tactile graphic to answer the question.



Alt text: A colored pencil and a line that is the same length as the pencil. Ask your teacher for a tactile graphic.

Note: The images provided are not final quality. We apologize for any distortion.

Section 3: Preparing to Create Tactile Graphics

As mentioned in Section 1, the *i-Ready Diagnostic* is a computer-adaptive assessment, so it is not possible to preview the items students will be served. The tables in this document show common images that appear in the *i-Ready Diagnostic* and suggest supplies for creating on-demand tactile graphics for similar images. Before the student begins the test, gather the materials listed for the student's grade band. Because students may also get items that are above or below their grade level, you may wish to review the sample images in adjacent grade bands.

Section 4: Labeling Tactile Graphic Answer Choices

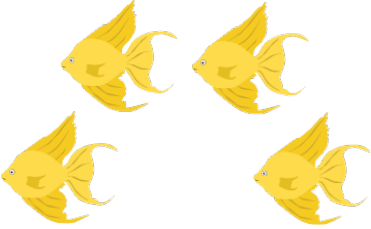
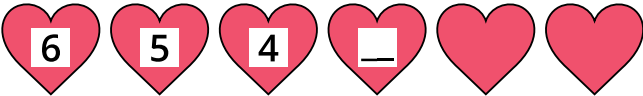
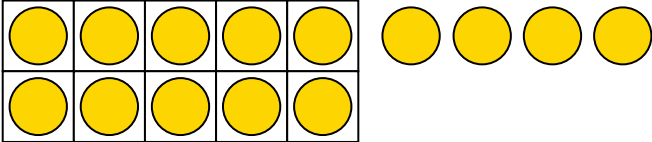
When tactile graphics appear in the answer choices, the alt text associated with each answer choice includes an *i-Ready* character name (e.g., Plory, Yoop, Snargg, or Victor) or a letter label (e.g., A, B, C, or D). The specific set of answer choice labels is dependent on the grade level, as described below. Because students may also receive items that are above or below their grade level, you may wish to plan for both types of labels.

Before administering the *i-Ready Diagnostic*, decide how you will label tactile graphics and familiarize the student with the labels you choose.

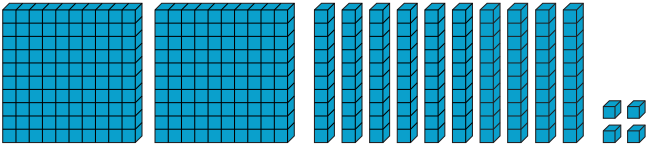
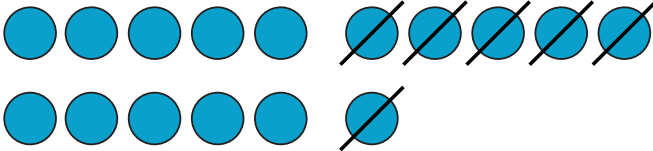
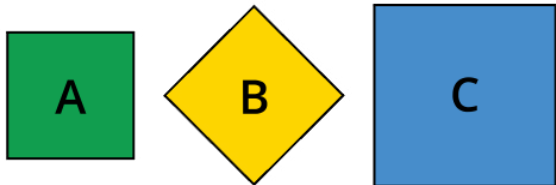
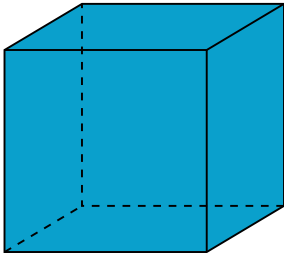

Grades K–2	Grades 3–4	Grades 5–8
<ul style="list-style-type: none">• Answer choices are labeled with the <i>i-Ready</i> character names Plory, Yoop, and Snargg. For example, the alt text may say, "Snargg's shape. Ask your teacher for a tactile graphic."• Consider the student's reading ability when deciding how to represent these names. Options include the full character names in Braille, the initials P, Y, and S, or stickers with contrasting textures.	<ul style="list-style-type: none">• Answer choices are labeled with the <i>i-Ready</i> character names Plory, Yoop, Snargg, and Victor. For example, the alt text may say, "Victor's line plot. Ask your teacher for a tactile graphic."• Consider the student's reading ability when deciding how to represent these names. Options include the full character names in Braille, the initials P, Y, S, and V, or stickers with contrasting textures.	<ul style="list-style-type: none">• Answer choices are labeled with the letters A, B, C, and D. For example, the alt text may say, "Graph A. Ask your teacher for a tactile graphic."

Section 5: Common Images by Grade Band and Content Area



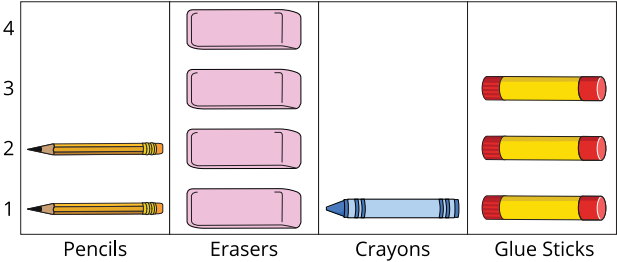
The lists of suggested materials below were produced in consultation with teachers of students with visual impairments. Some are common classroom manipulatives or craft supplies. Others are specialized tools that can be purchased from the [American Printing House for the Blind](#) (APH) with federal quota funds. The materials that are best for each student will vary based on the student's individual needs and preferences, the resources available, and the teacher's preferences.

Mathematics (Grades K–2)	
Common Images	Suggested Materials to Create Tactile Graphics
<p>Numbers</p> <p>60</p>	<ul style="list-style-type: none"> • Braille labeling tools <p>OR</p> <ul style="list-style-type: none"> • Math Window®
<p>Objects for Counting or Sorting</p> 	<ul style="list-style-type: none"> • Stickers or adhesive foam dots in various sizes, shapes, and textures • Paper <p>OR</p> <ul style="list-style-type: none"> • APH MathBuilders, Unit 1: Matching, Sorting, and Patterning Manipulative Kit
<p>Number Patterns with Objects and Blank Spaces</p> 	<ul style="list-style-type: none"> • Stickers or adhesive foam dots in various sizes, shapes, and textures • Braille number stickers • Paper
<p>Counters in Ten Frames</p> 	<ul style="list-style-type: none"> • A reusable raised-line drawing of a ten frame • Removable stickers or adhesive foam dots <p>OR</p> <ul style="list-style-type: none"> • APH Tactile Ten Frames

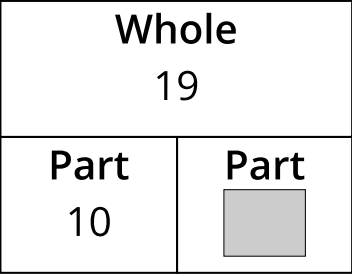



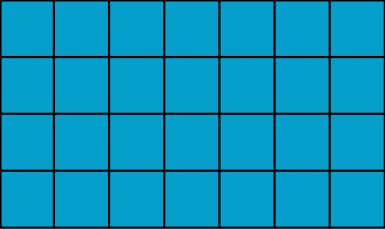
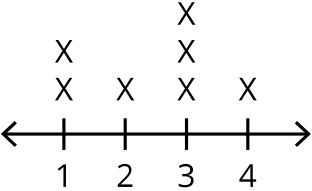
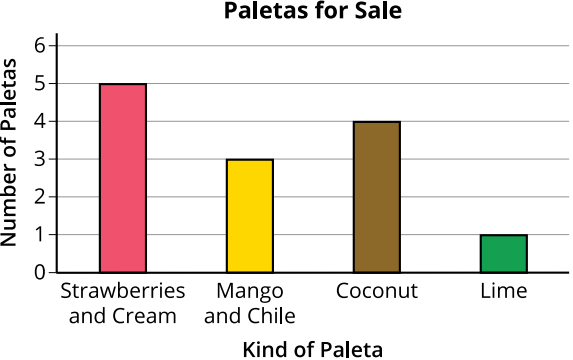
Mathematics (Grades K–2), Cont’d.

Common Images	Suggested Materials to Create Tactile Graphics
<p>Base-Ten Models for Numbers</p> 	<ul style="list-style-type: none"> • Base-ten blocks (10 hundred flats, 20 ten rods, 30 unit cubes) • A nonslip surface, such as Dycem®
<p>Objects That Model Computation</p> 	<ul style="list-style-type: none"> • Stickers or adhesive foam dots in various sizes, shapes, and textures • Wikki Stix®, thin graphic art tape, or dried hot glue to show objects being subtracted • Paper
<p>Basic 2D Figures</p> 	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Braille letter stickers <p>OR</p> <ul style="list-style-type: none"> • APH MathBuilders, Unit 1: Matching, Sorting, and Patterning Manipulative Kit
<p>Basic 3D Figures</p> 	<ul style="list-style-type: none"> • A set of 3D shape manipulatives, including a sphere, cylinder, cone, pyramid, rectangular prism, cube, and triangular prism • Cardstock or thin cardboard, scissors, and tape to form uncommon 3D solids <p>OR</p> <ul style="list-style-type: none"> • APH MathBuilders, Unit 6: Geometry Manipulative Kit
<p>Real-World Objects That Model 3D Shapes</p> 	<ul style="list-style-type: none"> • Common real-world objects in the form of cylinders, cones, cubes, and spheres (e.g., a ball, a soup can, a toilet paper roll) <p>Note: If the specific object in the item is not available in the classroom, use another object with the same shape.</p>


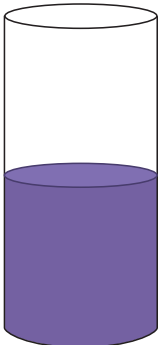

Mathematics (Grades K–2), Cont’d.

Common Images	Suggested Materials to Create Tactile Graphics
<p>Region Fraction Models</p> 	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Thin graphic art tape or Wikki Stix to emphasize dividing lines • Adhesive textured paper or dried hot glue to represent shaded areas • Scissors <p>OR</p> <ul style="list-style-type: none"> • APH MathBuilders, Unit 7: Fractions, Mixed Numbers, and Decimals Manipulative Kit
<p>Objects for Measuring or Comparing Length</p> 	<ul style="list-style-type: none"> • Real-world objects, such as paper clips, crayons, pencils, pens, ribbons, and sticks • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Graphic art tape in various widths • Scissors • Centimeter and inch rulers to ensure the tactile graphic is the correct length (where necessary) • Braille centimeter and inch rulers for the student’s use <p>Note: Where possible, use the real-world objects that appear in the image. Alternatively, create simple, solid-line raised outlines of the objects. Graphic art tape may be used to represent rectangular figures.</p>
<p>Picture Graphs with Single-Unit Scale</p> 	<ul style="list-style-type: none"> • Raised-line graph paper • Braille labeling tools • Stickers or adhesive foam dots in various sizes, shapes, and textures <p>OR</p> <ul style="list-style-type: none"> • APH MathBuilders, Unit 8: Data Collection, Graphing, and Probability–Statistics Manipulative Kit

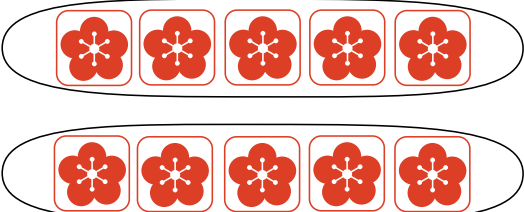
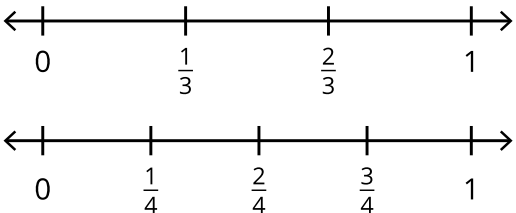
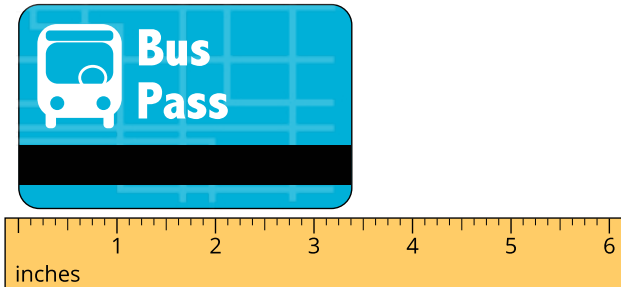
Mathematics (Grades K–2), Cont’d.

Common Images	Suggested Materials to Create Tactile Graphics		
<p>Bar Models</p>  <p style="text-align: center;">Whole 19</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">Part 10</td> <td style="text-align: center;">Part </td> </tr> </table>	Part 10	Part 	<ul style="list-style-type: none"> Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat Braille labeling tools
Part 10	Part 		
<p>Rectangles Composed of Unit Squares</p> 	<ul style="list-style-type: none"> Raised-line graph paper Scissors 		
<p>Line Plots with Whole Number Scales</p> <p style="text-align: center;">Length of String (in Inches)</p> 	<ul style="list-style-type: none"> Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat Braille labeling tools <p>Note: Use raised X symbols, not Braille Xs, to represent data points.</p>		
<p>Bar Graphs with Single-Unit Scales</p> 	<ul style="list-style-type: none"> Raised-line graph paper Braille labeling tools Adhesive textured paper Scissors <p>OR</p> <ul style="list-style-type: none"> APH MathBuilders, Unit 8: Data Collection, Graphing, and Probability–Statistics Manipulative Kit 		

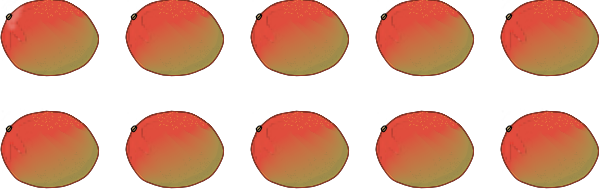
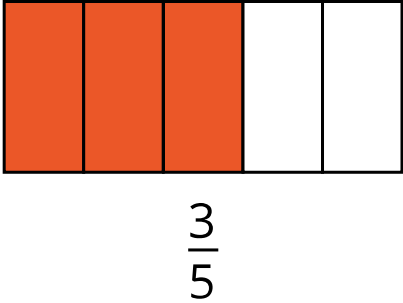
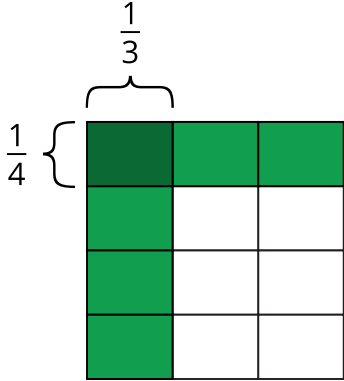
Mathematics (Grades K–2), Cont'd.

Common Images	Suggested Materials to Create Tactile Graphics
<p data-bbox="116 268 552 304">Vertical Computation Problems</p> $\begin{array}{r} 93 \\ -34 \\ \hline \end{array}$ 	<ul data-bbox="820 273 1088 346" style="list-style-type: none">• Braille labeling tools• Paper <p data-bbox="820 367 860 394">OR</p> <ul data-bbox="820 409 1015 441" style="list-style-type: none">• Math Window
<p data-bbox="116 672 682 745">Containers Partially Filled with Liquid for Estimating Volume</p> 	<ul data-bbox="820 672 1510 892" style="list-style-type: none">• Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat• Adhesive textured paper or dried hot glue to represent liquid• Scissors <p data-bbox="820 913 860 940">OR</p> <ul data-bbox="820 955 1274 1029" style="list-style-type: none">• Beakers, cups, and other containers• Water
<p data-bbox="116 1171 194 1207">Coins</p> 	<ul data-bbox="820 1171 1477 1245" style="list-style-type: none">• Real or play coins, including quarters, dimes, nickels, and pennies

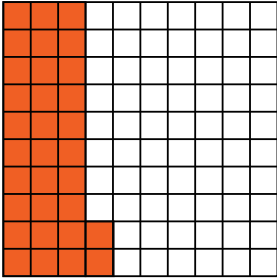
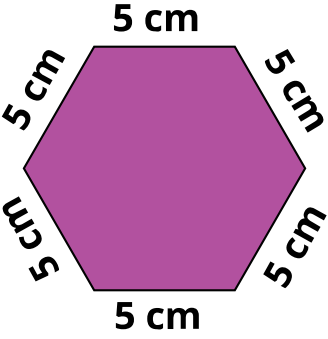
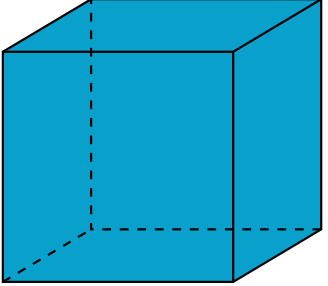
Mathematics (Grades 3–5)

Common Images	Suggested Materials to Create Tactile Graphics
<p>Numbers</p> <h1>71,429,190</h1>	<ul style="list-style-type: none"> • Braille labeling tools <p>OR</p> <ul style="list-style-type: none"> • Math Window
<p>Objects for Counting</p> 	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Stickers or adhesive foam dots in various sizes, shapes, and textures • Paper
<p>Number Lines That Show Fractions</p> 	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat, or graphic art tape and Wikki Stix • Adhesive foam dots to represent plotted points • Braille labeling tools or APH Number Line Device
<p>Objects for Measuring Length</p> 	<ul style="list-style-type: none"> • Real-world objects, such as paper clips, crayons, pencils, pens, ribbons, and sticks • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Graphic art tape in various widths • Scissors • Centimeter and inch rulers to ensure the tactile graphic is the correct length (where necessary) • Braille centimeter and inch rulers for the student's use <p>Note: Where possible, use the real-world objects that appear in the image. Alternatively, create simple, solid-line raised outlines of the objects. Graphic art tape may be used to represent rectangular figures.</p>

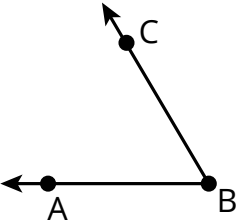
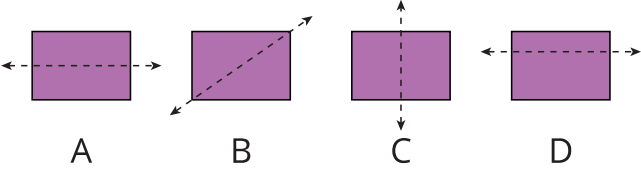
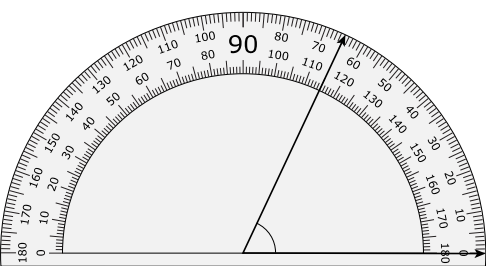
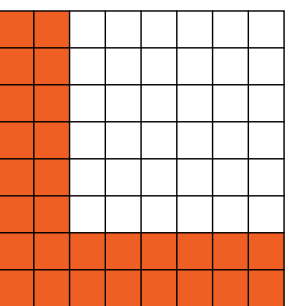
Mathematics (Grades 3–5), Cont’d.

Common Images	Suggested Materials to Create Tactile Graphics									
<p>Arrays of Objects</p> 	<ul style="list-style-type: none"> • Stickers or adhesive foam dots in various sizes, shapes, and textures • Paper 									
<p>Area Models for Multiplication and Division</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <tr> <td style="padding: 5px;"></td> <td style="padding: 5px; text-align: center;">10</td> <td style="padding: 5px; text-align: center;">8</td> </tr> <tr> <td style="padding: 5px; text-align: right;">10</td> <td style="border: 1px solid black; padding: 10px; text-align: center;">100</td> <td style="border: 1px solid black; padding: 10px; text-align: center;">80</td> </tr> <tr> <td style="padding: 5px; text-align: right;">2</td> <td style="border: 1px solid black; padding: 10px; text-align: center;">20</td> <td style="border: 1px solid black; padding: 10px; text-align: center;">?</td> </tr> </table>		10	8	10	100	80	2	20	?	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Braille labeling tools
	10	8								
10	100	80								
2	20	?								
<p>Region Fraction Models</p> 	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Thin graphic art tape or Wikki Stix to emphasize dividing lines • Adhesive textured paper or dried hot glue to represent shaded areas • Scissors • Braille labeling tools <p>OR</p> <ul style="list-style-type: none"> • APH MathBuilders, Unit 7: Fractions, Mixed Numbers, and Decimals Manipulative Kit 									
<p>Region Fraction Models for Multiplication of Fractions</p> 	<ul style="list-style-type: none"> • Raised-line graph paper • Adhesive textured paper in two textures • Scissors • Braille labeling tools 									

Mathematics (Grades 3–5), Cont'd.

Common Images	Suggested Materials to Create Tactile Graphics				
<p>Decimal Models (Partially Shaded 10 × 10 Grids)</p> 	<ul style="list-style-type: none"> • Raised-line graph paper • Raised-symbol stickers to represent shading 				
<p>Bar Models</p> <p>Books about animals <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px; text-align: center;">8</td></tr></table></p> <p>Books about people <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td style="width: 20px; height: 20px; text-align: center;">8</td><td style="width: 20px; height: 20px; text-align: center;">8</td><td style="width: 20px; height: 20px; text-align: center;">8</td></tr></table></p>	8	8	8	8	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Braille labeling tools
8					
8	8	8			
<p>Basic 2D and 3D Geometric Figures, with or without Labeled Dimensions</p>  	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Cardstock or thin cardboard, scissors, and tape to form uncommon 3D solids • A set of 3D shape manipulatives, including a sphere, cylinder, cone, pyramid, rectangular prism, cube, and triangular prism • Braille letter and number stickers • Braille labeling tools 				

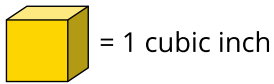
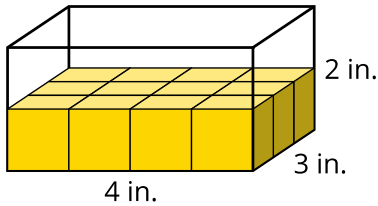
Mathematics (Grades 3–5), Cont’d.

Common Images	Suggested Materials to Create Tactile Graphics
<p>Angles, Lines, and Line Segments, with or without Labels</p> 	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat, or graphic art tape and paper • Braille labeling tools • A protractor to ensure angles are the correct size (where necessary)
<p>Figures with Lines of Symmetry Drawn</p> 	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Braille letter stickers • Thin graphic art tape or Wikki Stix, if necessary, to emphasize lines of symmetry
<p>Angles Drawn on Protractors</p> 	<ul style="list-style-type: none"> • A Braille protractor • Adhesive foam dots • Wikki Stix
<p>Rectilinear Figures Drawn on Grids or Composed of Unit Squares</p> 	<ul style="list-style-type: none"> • Raised-line graph paper • Raised-symbol stickers to represent shading • Scissors

Mathematics (Grades 3–5), Cont'd.

Common Images

Rectangular Prisms Composed of or Partially Filled with Unit Cubes, with or without Labeled Dimensions



Suggested Materials to Create Tactile Graphics

- Plastic linking cubes
- Cardstock or thin cardboard, scissors, and tape to form partially filled prisms
- Braille letter and number stickers or Braille labeling tools and tape

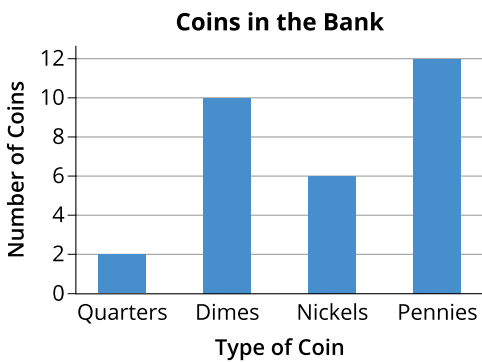
Tally Tables

Languages We Speak at Home

Language	Number of Students
Mandarin	
Spanish	
English	
Hindi	

- Tools to create a raised table and raised tally marks, such as a tactile drawing board, [APH Quick-Draw Paper](#), or a blunt writing instrument, paper, and a rubber mat
- [Wikki Stix](#) or graphic art tape and scissors for making tally marks
- Braille labeling tools

Scaled Bar and Picture Graphs



Taco Choices

Al Pastor	
Carne Asada	
Chicken	

Key: Each = 3 tacos

- Raised-line graph paper
- Braille labeling tools
- Stickers or adhesive foam dots in various sizes, shapes, and textures
- Textured adhesive paper to represent bars
- Scissors

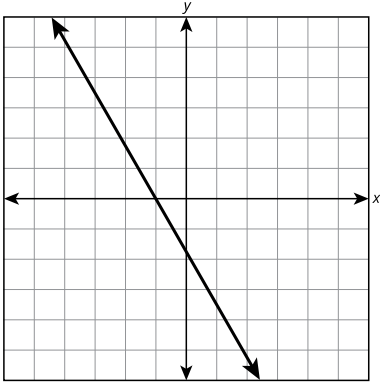
Mathematics (Grades 3–5), Cont'd.

Common Images	Suggested Materials to Create Tactile Graphics
<p>Line Plots with Whole Number and Fractional Units</p> <p style="text-align: center;">Lengths of String (in Inches)</p>	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Braille labeling tools <p>Note: Use raised X symbols, not Braille Xs, to represent data points.</p>
<p>Maps on Unlabeled Coordinate Grids</p>	<ul style="list-style-type: none"> • Raised-line graph paper • Adhesive foam shapes • Braille labeling tools
<p>Labeled and Unlabeled Points and Polygons Plotted on First-Quadrant Coordinate Grids with Dimensions Up to 10 × 10</p>	<ul style="list-style-type: none"> • A reusable, 10 × 10 labeled, raised-line coordinate grid • Removable adhesive foam dots • Wikki Stix • Braille labeling tools and removable tape

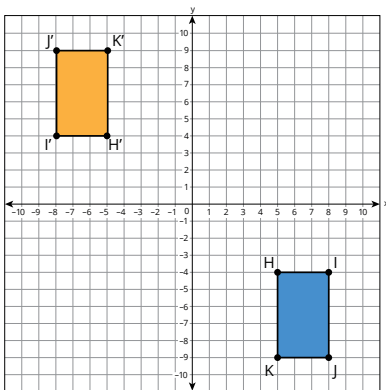
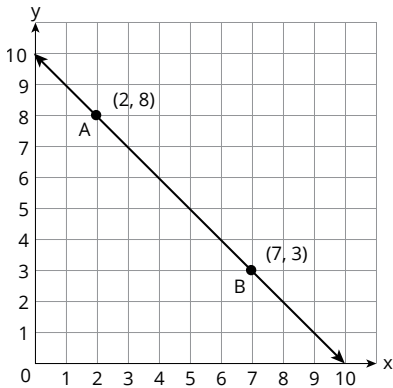
Mathematics (Grades 6–8)

Common Images

Lines on Simple, Unlabeled X/Y Coordinate Planes



Graphs on X/Y First-Quadrant and Four-Quadrant Coordinate Planes with Varying Scales



Suggested Materials to Create Tactile Graphics

- Tools to create quick raised-line drawings, such as a tactile drawing board, [APH Quick-Draw Paper](#), or a blunt writing instrument, paper, and a rubber mat
- Raised-line graph paper
- [Wikki Stix](#)
- Braille labeling tools

OR

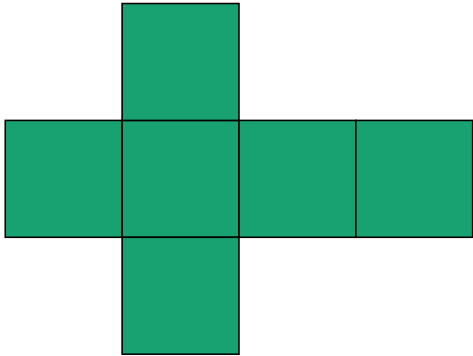
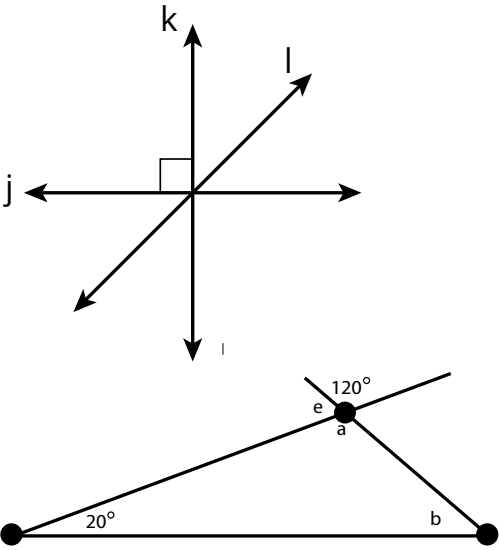
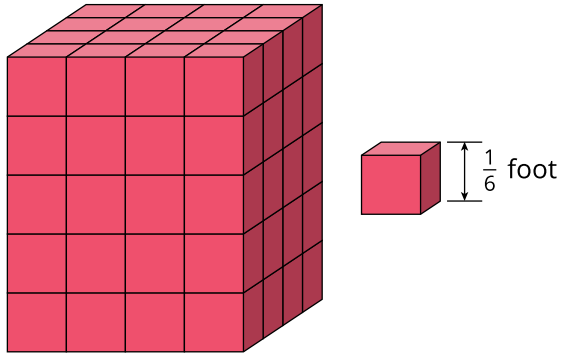
- [APH Graphic Aid for Mathematics](#)

- A reusable, 10 × 10 labeled, raised-line coordinate grid
- Raised-line graph paper to create coordinate grids with other dimensions
- [Wikki Stix](#)
- Removable adhesive foam dots
- Tactile adhesive paper to represent shaded areas
- Braille labeling tools and removable tape
- Scissors

OR

- [APH Graphic Aid for Mathematics](#)

Mathematics (Grades 6–8), Cont'd.

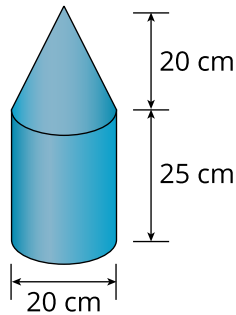
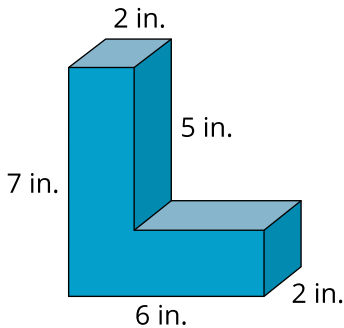
Common Images	Suggested Materials to Create Tactile Graphics
<p>Nets for Solids</p> 	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat
<p>2D and 3D Geometric Figures, with or without Labeled Dimensions</p> 	<ul style="list-style-type: none"> • Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat • Wikki Stix • Measurement tools (e.g., protractor and ruler) to ensure tactile graphics are the correct size (where necessary) • Braille labeling tools
<p>Rectangular Prisms Composed of Unit Cubes</p> 	<p>Linking cubes</p>

Mathematics (Grades 6–8), Cont'd.

Common Images

Suggested Materials to Create Tactile Graphics

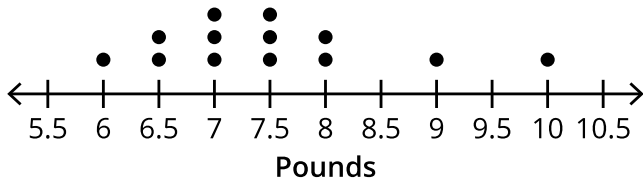
Composite 3D Shapes



- A set of 3D shape manipulatives, including a sphere, cylinder, cone, pyramid, rectangular prism, cube, and triangular prism
- Cardstock or thin cardboard, scissors, and tape to form uncommon 3D solids
- Braille letter and number stickers or Braille labeling tools and tape

Dot Plots and Line Plots with Whole Number and Decimal Scales

Infant Birthweights

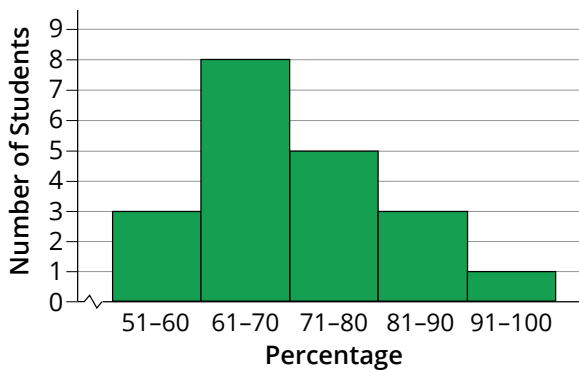


- Tools to create quick raised-line drawings, such as a tactile drawing board, [APH Quick-Draw Paper](#), or a blunt writing instrument, paper, and a rubber mat
- Braille labeling tools

Note: Use raised circles or X symbols, not Braille Xs, to represent data points.

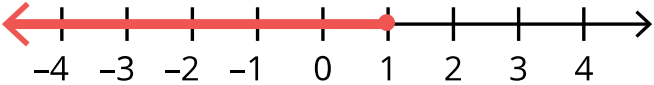

Histograms

Math Test Scores



- Raised-line graph paper
- Adhesive textured paper
- Scissors
- Braille labeling tools

Mathematics (Grades 6–8), Cont'd.

Common Images	Suggested Materials to Create Tactile Graphics
<p data-bbox="118 268 313 300">Number Lines</p>  <p data-bbox="123 344 773 428">A horizontal number line with arrows at both ends. The line is black with tick marks labeled from -4 to 4. A red arrow points to the left from the tick mark for 1.</p>	<ul data-bbox="820 268 1463 499" style="list-style-type: none">• Tools to create quick raised-line drawings, such as a tactile drawing board, APH Quick-Draw Paper, or a blunt writing instrument, paper, and a rubber mat• Wikki Stix or dried hot glue• Adhesive foam dots• Braille labeling tools
<p data-bbox="118 554 524 585">Geographic Maps with Scales</p>  <p data-bbox="123 632 578 1087">A map of California in orange. Major cities are marked with dots and labeled: San Francisco, San Jose, Los Angeles, and San Diego. The word 'California' is written in bold in the center. A scale bar at the bottom left is labeled 'Miles' and has markings for 0, 100, and 200.</p>	<ul data-bbox="820 554 1144 716" style="list-style-type: none">• Textured adhesive paper• Scissors• Adhesive foam dots• Braille labeling tools

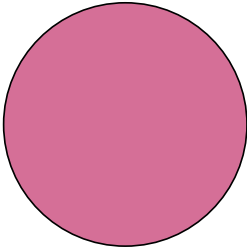
English Language Arts (ELA)

There are very few tactile graphics for ELA in the *i-Ready Diagnostic* for Reading.

ELA (Grades K–2)

Common Images

Simple 2D Shapes



Suggested Materials to Create Tactile Graphics

- Tools to create quick raised-line drawings, such as [APH Quick-Draw Paper](#), or a blunt writing instrument, paper, and a rubber mat

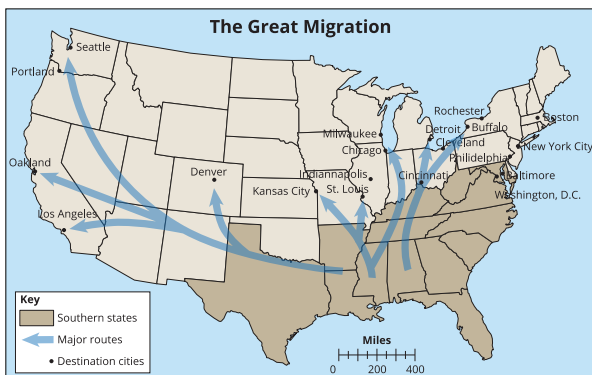
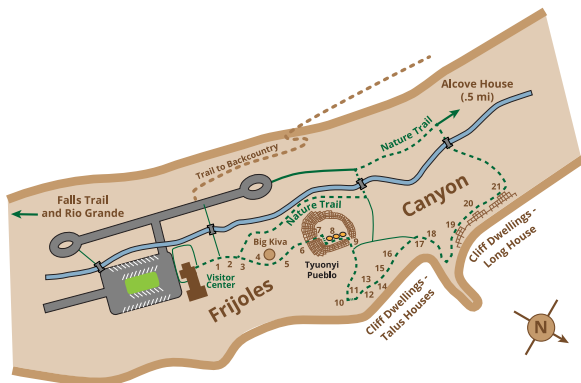
OR

- [Wikki Stix](#)

ELA (Grades 3–5)

Common Images

Maps on Simple, Unlabeled X/Y Coordinate Planes



Suggested Materials to Create Tactile Graphics

- Access to the [APH Tactile Graphics Image Library](#)
- Tools to create quick raised-line drawings, such as [APH Quick-Draw Paper](#), or a blunt writing instrument, paper, and a rubber mat
- Scissors
- Various types of textured adhesive paper
- Adhesive foam dots
- Braille labeling tools

Note: In most cases, a simplified version of a map will provide sufficient detail for the student to answer the question(s).



For more information about *i-Ready's* accessibility features and accommodations, please contact your partner success manager or educational sales consultant, or visit [i-Ready Central®](#).