


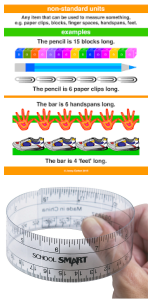



















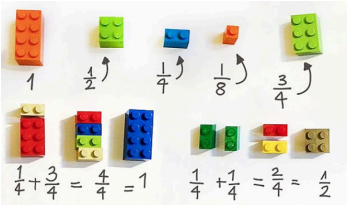
Non-Technology Tools and Options to Support Math Accessibility

Tool / Option	Photo	Subjects Supported	Suggested Grade Levels	Purpose	How Does the Tool Support Accessibility?	Estimated Cost (if Purchased)	Possible Inexpensive Alternatives
<div>Adaptive Clock and Time Mat</div> <div></div> <div><a href="#">(click for video)</a></div>		Math	PreK-2	Allows students to physically manipulate clock hands to learn to tell time.	<b>In Math:</b> Large numbers and easy grip hands make it easy to manipulate.	Estimate cost \$8.14 Amazon	Make your own <ul style="list-style-type: none"><li>cardboard circle,</li><li>two different colored popsicle sticks</li><li>a long brad</li></ul> <a href="http://iknowit.com">iknowit.com</a>
<div>Adaptive Rulers</div> <div></div> <div><a href="#">(click for video)</a></div>		Math	PreK-8	Provides visual and physical support when measuring	<b>In Math:</b> provides multiple supports such as large print, flexibility, adaptability, pliability, and alternative means of measurement	Available in most school supply rooms	Students can measure with hands, feet, shoes, paper clips, popsicle sticks, legos, or other readily available items   
<div>Alternative Work Boards</div> <div></div> <div><a href="#">(click for video)</a></div>		Reading Writing Math	PreK-2	Students to practice writing and spelling, phonemic awareness, and math skills	<b>In General:</b> Various work boards used for subject skill practice in many areas	\$1-\$10  Check with site for whiteboards and clear sleeves	Cookie sheets, work mats, whiteboard, clear sleeves 


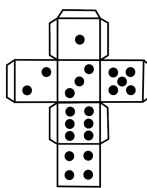



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<b>Primary Bucket Balance</b>   <a href="#">(click for video)</a>		<b>Math</b>	<b>PreK-3</b>	Provides tactile learning to understand the difficult math concept of balance. Students learn through project-based activities that incorporate this tool, exploring volume and comparing solids and liquids.	<b>In Math:</b> students can build observation skills and gain deeper understanding of mass measurement.		
<b>Coins and Coin-U-Lator</b>   <a href="#">(click for video)</a>		<b>Math</b>	<b>PreK-8</b>	Provides real world opportunity to practice counting with real coins.	<b>In Math:</b> students are able to recognize coins, practice counting, compare cost values, skip count	Check on site for coin manipulatives	Print & copy money templates 
<b>Color Overlays</b>   <a href="#">(click for video)</a>		<b>Reading Writing Math</b>	<b>PreK-8</b>	Color overlays placed on top of text may help improve the contrast of print against white backgrounds.	<b>In General:</b> Color overlays placed on top of text may help improve the contrast of print against white backgrounds.	Around \$10-20 for a twelve pack of color overlays in different colors.  Around \$15-20 for colored sheet protectors	<ul style="list-style-type: none"> <li>- Colored sheet protectors</li> <li>- Highlighters</li> <li>- Printing worksheet on different color paper</li> </ul>
<b>Connecting Cubes</b>		<b>Reading Writing Math</b>	<b>PreK-3</b>	Colorful interlocking cubes that help children learn letter and math concepts	<b>In Math:</b> Creates a visual and physical representation of numbers, patterns	Check site for interlocking cubes  Construction paper can be found in supply closet	Paper Chains

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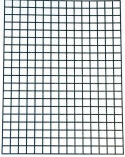





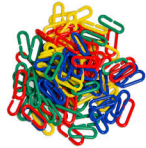


						<p>Eggs seasonally available at the Dollar Store.</p>   <p>Plastic Easter Eggs</p>  <p>Legos</p> 
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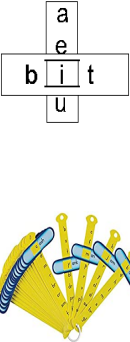
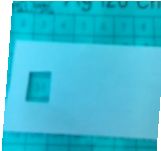
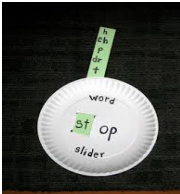



Dice		Reading Writing Math	PreK-8	Brings hands-on spontaneity into the classroom with either numbers or letters.	<b>In Math:</b> Allows students to physically manipulate the parts of math problems they are attempting to solve.	Available at most school sites  Can be purchased for less than \$10.	Dice can be copied on cardstock and folded/glued for use.    Jenga Blocks  
Individual Whiteboards		Writing Math	PreK-8	Provides students with a different textural surface when solving problems.	<b>In Math:</b> Students can use boards for problem solving. Can take teacher example back to their desks. <b>In General:</b> Can be used for any assignment.	Typically found on site in the inventory	Write and Wipe Sleeves    Sheet Protector with White Paper inside





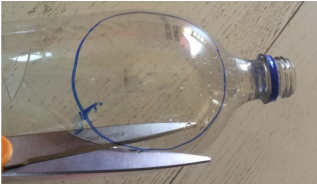
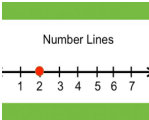
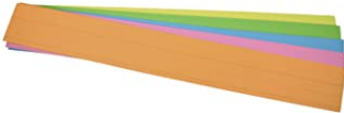

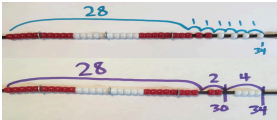
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<b>Graphing Paper</b>		<b>Reading Writing Math</b>	<b>PreK-8</b>	Provides spaces for information in an organized manner	<b>In Math:</b> Helps students write math problems/notes in an organized and legible way	Available in all school supply rooms	Creating tables on word docs to print grids in various sizes
<b>Grips and Cushions</b>   <a href="#">(click for video)</a>		<b>Reading Writing Math</b>	<b>PreK-2</b>	Supports students with fine motor difficulties.	<b>In General:</b> Pen and pencil grips support proper finger positioning for writing tasks in all subjects.	48 grips for \$7.00	Co band wrapped around pencil  
<b>Lacing Cards Number</b>		<b>Math</b>	<b>PreK-2</b>	Allows students to navigate numbers for numeral recognition/practice and eye-hand coordination.	<b>In General:</b> Lacing assists with strength and dexterity of students' hands. (Fine motor skills) <b>In Math:</b> Lacing allows students to practice the design of each number while hearing/saying the name of each.	\$10+	Make your own set using die cut machine and hole punch (cardboard or cardstock/laminated).  
<b>Learning Links</b>		<b>Math</b>	<b>PreK-2</b>	Colorful interlocking links that help children learn math concepts	<b>In Math:</b> patterns, measurement, visual number representation <b>In General:</b> Provides 1:1 correspondence.	Check on site for  Bucket of 1,000 on Amazon \$34.99	Paper Chains  Playdough  Paper Clip Links

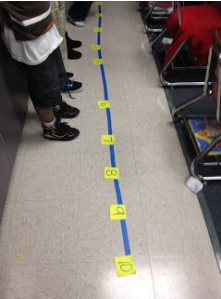



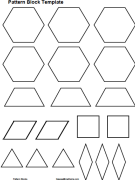
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Letter Guide Tracking Device/ Word Slide		Math	PreK-2	Assist with focusing on individual letters/words. Allows for visualizing word patterns.	In Math: Word problems	No cost, teacher made  Word Family Set of 30: \$34.49 on Amazon	Homemade index card   Paper Plate & Paper Strip 
Magnetic Numbers and Objects  <a href="#">(click for video)</a>		Math	PreK-3	Gives students the opportunity to manipulate concrete objects to better understand abstract concepts	In Math: Magnetic numbers allow students to physically manipulate the parts of an equation, or the numbers for counting In General: Allows students to experience relationships with real objects in order to prepare them for understanding the same relationships abstractly	Available at most school sites  Can be purchased for \$10-\$20 for an entire set	Number tiles made from card stock with each number written/printed on each square or line   Legos





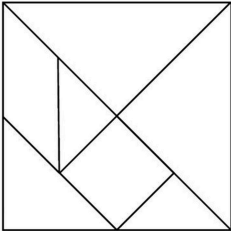
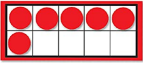
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Magnifying Bar		Reading Writing Math	K-8	Lays over text to enlarge a portion to be read by the student.	<b>In General:</b> Increases print size and enables clearer focus	About \$10	Ruler that also magnifies DIY magnifying glass 
Number Lines		Math	PreK-8	Allows students to see visually what they are counting, adding, or subtracting.	<b>In Math:</b> visual representation makes it easier to concretely see the numbers in sequence.	\$10	Sentence strips   Paint stick & Clothes Pins   Beads & Pipe Cleaners 


Non-Technology Tools and Options to Support Math Accessibility

							<div>Physical Number Line</div> <div></div> <div>Hula-Hoop &amp; Pool Noodles</div> <div></div>
<div>Pattern Shapes</div> <div></div> <div><a href="#">(click for video)</a></div>	<div></div>	<div>Math Reading Writing</div>	<div>PreK- 3rd</div>	<div>Allows students to physically manipulate shapes or patterns.</div>	<div>In Math:</div> <div><ul style="list-style-type: none"><li>- A physical representation of shapes</li><li>- Construct shapes physically when learning geometry topics</li><li>- A tool where one can write on shapes in order to solve math problems</li><li>- A tool where one can use to count</li></ul></div>	<div>Estimated cost:</div> <div>\$15-20 for a a pattern shapes set</div> <div><i>*school sites possibly have this in their curriculum resource areas</i></div>	<div>Make your own:</div> <div><ul style="list-style-type: none"><li>- Use construction paper, index cards</li><li>- Cut shapes similar to what's in a Pattern Shapes pack</li></ul></div> <div></div>

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					values (counting, fractions, etc)		
<div>Slant Board</div> <div></div> <div><a href="#">(click for video)</a></div>		Reading Writing Math	PreK-8	Portable, angled writing surfaces that encourage improved posture and positioning during writing	<b>In General:</b> Reduces the fatigue and discomfort of writing, and improves wrist extension, writing posture and paper positioning	About \$25	Large 3-ring binders or Corrugated plastic cut and bent to form the slant 
<div>Tangrams</div> <div></div>		Math Reading Writing	K- 3rd	Allows students to physically manipulate and create a shape with seven figures to create new images.	<b>In Math:</b> <ul style="list-style-type: none"><li>- A physical representation of shapes</li><li>- Construct shapes physically when learning geometry topics</li><li>- A tool where one can write on shapes in order to solve math problems</li><li>- A tool where one can use to count values (counting, fractions, etc)</li></ul>	<b>Estimated cost:</b> \$10-15 for a a tangrams set  <i>*school sites possibly have this in their curriculum resource areas</i>	Make your own: <ul style="list-style-type: none"><li>- Use construction paper</li><li>- Cut shapes similar to what's in a Pattern Shapes pack</li></ul> 
<div>Ten-Frame Tiles</div> <div></div>		Math	PreK-5	Allows students to physically place objects in spaces for concretely representing place value.	<b>In Math:</b> allows students to physically move objects making concepts clear.	10-Frame mat should be on site- check with coach  Amazon: 10 for \$5.99	Ice Cube Trays

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