

## The Difference Between Dyslexia and Dyscalculia

By Peg Rosen

Both dyslexia and dyscalculia can make it hard for kids to learn math. While they can occur together, they're very different learning issues. And the connection between them isn't yet clear.

Evidence suggests they have certain brain-based weaknesses in common. A central one is poor working memory. But there are other challenges at work when kids have these issues.

Dyslexia is better known than dyscalculia. That may be why some people refer to dyscalculia as "math dyslexia." This nickname isn't accurate, however. Dyscalculia is not dyslexia in math. This chart shows how dyslexia and dyscalculia differ, and what can help with each.

	<b>Dyslexia</b>	<b>Dyscalculia</b>
<b>What is it?</b>	<p><b>A learning issue that mainly involves difficulty with reading.</b></p> <p><b>Kids may have trouble isolating sounds, matching them to letters and blending them into words.</b></p> <p><b>Dyslexia can affect writing and spelling. It can also have an impact on math.</b></p>	<p><b>A learning issue that makes it hard to make sense of numbers and math concepts.</b></p>

	<b>Dyslexia</b>	<b>Dyscalculia</b>
<b>Signs you may notice</b>	<ul style="list-style-type: none"> <li>• Struggles with reading</li> <li>• Has trouble sounding out words</li> <li>• Has difficulty memorizing sight words</li> <li>• Has weak working memory; can't remember items on a shopping list, phone numbers or game scores</li> <li>• Avoids reading aloud</li> <li>• Has poor spelling and grammar</li> <li>• Doesn't understand what he has read</li> <li>• Confuses the order of letters</li> <li>• Spells the same word differently in the same essay</li> </ul>	<ul style="list-style-type: none"> <li>• Has trouble learning to count</li> <li>• Has trouble with doing basic computation</li> <li>• Doesn't automatically recall math facts</li> <li>• Doesn't "get" math concepts such as "greater than" and "less than"</li> <li>• Struggles to make sense of graphs and charts</li> <li>• Has weak working memory; can't remember items on a shopping list, phone numbers or game scores</li> <li>• Avoids games that involve numbers and counting, such as Candy Land</li> <li>• Continues use of fingers for counting, even after more sophisticated strategies have been introduced</li> <li>• Struggles to apply math skills in daily life, such as making change or figuring out a tip</li> </ul>
<b>Possible social and emotional impact</b>	<p>Struggling with reading can make kids feel inferior to their peers and can impact self-esteem. Kids with dyslexia may be embarrassed to read aloud.</p> <p>Kids with dyslexia may have a hard time understanding jokes or sarcasm. Taking extra time to come up with words or to answer questions can make fitting in hard, too. Learn more about how dyslexia can impact kids' social life.</p>	<p>Ongoing challenges in math class can shake kids' confidence. That can make kids question their abilities in other subject areas.</p> <p>Kids might also avoid playing games or sports that involve math and keeping score. See more ways dyscalculia can affect kids' social life.</p>

	<b>Dyslexia</b>	<b>Dyscalculia</b>
<p><b>Specialized instruction or technology that can help</b></p>	<ul style="list-style-type: none"> <li>• <b>Specific instruction on identifying sounds, understanding how letters represent sounds in speech and <u>decoding</u> words</b></li> <li>• <b>Specialized instruction, either one-on-one or in a small group</b></li> <li>• <b>A reading program that focuses on using all the senses to learn (a number of programs use a multisensory approach)</b></li> <li>• <b>Text-to-speech tools</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Specific instruction on learning and retrieving math facts</b></li> <li>• <b>Being taught procedural strategies and how to apply them to different math problems</b></li> <li>• <b>Specialized instruction, either one-on-one or in a small group</b></li> <li>• <b>Tutoring with a multisensory approach to help master math basics and practice skills (may also offer alternative ways to help a child grasp and use math concepts)</b></li> <li>• <b>Hands-on math tools like a multiplication pegboard to boost mental math skills</b></li> </ul>

	<b>Dyslexia</b>	<b>Dyscalculia</b>
<b>Accommodations that can help</b>	<ul style="list-style-type: none"> <li>• <b>Extra time on tests</b></li> <li>• <b>Extra time for reading and writing</b></li> <li>• <b>Access to the teacher's notes from the lesson to reduce the amount of note-taking</b></li> <li>• <b>Simplified directions</b></li> <li>• <b>Using audiobooks</b></li> <li>• <b>Shortened assignments</b></li> <li>• <b>Pictures of directions and schedules</b></li> <li>• <b>Providing sentence starters so the child knows how to begin a written response</b></li> <li>• <b>Allowing a student to show comprehension in different ways (oral reports, video presentations, etc.)</b></li> <li>• <b>Allowing a student to respond in different ways, such as answering verbally, having larger spaces for writing or circling answers instead of filling in blanks</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Extra time on tests</b></li> <li>• <b>Access to a chart of math facts or multiplication tables</b></li> <li>• <b>Using a calculator when not being tested on computation</b></li> <li>• <b>Having worksheets broken down into sections</b></li> <li>• <b>Using manipulatives like coins and blocks for in-class learning</b></li> <li>• <b>Graph paper to help line up numbers and problems</b></li> <li>• <b>Access to a list of math formulas taught in class</b></li> <li>• <b>Separate worksheets for word problems and number problems</b></li> <li>• <b>Highlighting key words and numbers on word problems</b></li> <li>• <b>Daily review of math skills; pre-teaching new and important concepts</b></li> </ul>

	Dyslexia	Dyscalculia
<p><b>What you can do at home</b></p>	<ul style="list-style-type: none"> <li>• Read aloud so your child hears stories above his reading level.</li> <li>• Encourage your child to listen to audiobooks.</li> <li>• Help your child use spell-check programs designed for people with dyslexia.</li> <li>• For younger kids, recite nursery rhymes and sing memory songs.</li> </ul> <p>Explore more strategies to help kids with dyslexia at home.</p>	<ul style="list-style-type: none"> <li>• Use small objects, such as cereal pieces, to solve simple math problems.</li> <li>• Introduce board games, card games and computer games that provide math practice.</li> <li>• Break down math homework into smaller, more manageable chunks. For example, have your child do five problems, take a short break, then move on to the next five.</li> </ul> <p>Explore more strategies to help kids with dyscalculia at home.</p>

Find out what to do if you're concerned your child may have dyslexia or dyscalculia. No matter what learning or attention issue your child has, there are many ways you can help.

Learn more about accommodations for dyslexia and for dyscalculia. Read about how to help kids who are good at math but struggle with word problems. Discover ways you can help your child improve working memory. And explore Tech Finder for recommendations on apps that can help kids with reading and math.

## About the Author



**Peg Rosen** writes for digital and print, including *ParentCenter*, *WebMD*, *Parents*, *Good Housekeeping* and *Martha Stewart*.

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