

Math

Is your child having problems in math?



Is your child:

- Hating math?
- Saying he is bad at math?
- Understanding conceptually but still getting the answers wrong?
- Not remembering addition or multiplication facts?
- Requiring lots of help with homework?
- Becoming easily frustrated on math assignments?
- Studying hard but still failing math tests?
- Crying at the table over long division homework?
- Getting good grades in Language Arts but failing math?

LET'S TALK ABOUT IT

Math is more than just a part of academics; it is essential for everyday life. We often think that math is an innate skill, but it can be learned. It may be that your child loves school in general, but hates math. He or she may study hard, but still fail math tests. You may have repeatedly reviewed math facts with your child, but he still cannot remember them. It may be that your child is proficient in math calculation, but struggles

with story problems. Alternatively, your child may possess a conceptual understanding of story problems, but fail math tests due to mistakes in calculation. Your child needs not only to understand math concepts in order to solve them, but also to explain his reasoning.

CLINICAL DESCRIPTION

Challenges in math may be due to a number of factors. Some children are proficient in math calculation, but struggle with the language and conceptual aspects of explaining their thinking. Most current math curriculums require student to describe how they arrived at their answers to receive full points. It is not enough to know the answer; one also must be able to apply the concepts to novel problems. Even mathematically inclined children may struggle with explaining their thinking processes.

It may be that your child possesses strength in understanding math concepts, but makes careless mistakes in calculation, resulting in wrong answers and much frustration. Finally, it could be that your child struggles with calculation and procedural math. This would mean that he may understand what is being asked, but cannot process the calculations or step-by-step procedures needed to get the right answer.

Your child's math skills should develop along a continuum, Just like the importance of language literacy, math skills are essential for academic success and functioning in life.

WHAT TO DO WHEN YOUR CHILD IS STRUGGLING IN MATH

Math is an important part of development and learning. Children who struggle in math are likely to have trouble with other academic areas. Though math is critically important, it is often not given the same attention as literacy.

The principles of one-to-one correspondence (counting while pointing to the correct object in the sequence), subitizing (seeing how many objects there are without counting them), and place value (knowing that in the number "10," the number "1" represents "10") are of just as much importance as knowing one's ABC's.

Math skills will serve your child throughout life, or they may hamper his or her success through school and beyond. If your child struggles with math beyond kindergarten or first grade, it is important to put interventions in place or have an assessment. If your child in elementary school cannot count with one-to-one correspondence, assess place value, or properly subitize, then you have adequate reason to be concerned.

Talk to your school about your child's problems in math. Your child scoring below the 12th percentile or approximately two grade levels behind peers may qualify him for special education services.

Alternatively, it may be that weekly tutoring or intervention in the classroom can meet your child's needs. Most public schools have a Response to Intervention program where

students are provided with evidence based interventions targeting the specific area of need. As a parent, you can request that your child be referred to the Rtl process. If your child's progress does not appear to be sufficient (and scores are significantly below the benchmarks), most schools will then consider an evaluation for special education services.

If you have significant concerns about your child's math skills, you can formally request an evaluation from your school or go to an outside clinic to have your child's academic abilities tested. If an outside evaluation reports learning problems, consider taking the formal report to your child's school to seek a comprehensive evaluation for services.

Keep in mind, special education services are by nature reserved for students with disabilities only. As such, many children who struggle in math will still not qualify for special education services. See Educationally Identified Disabilities article for more information on the special education process.

SIMILAR SYMPTOMS

If your child is struggling with a similar problem, not directly addressed in this section, see the list below for links to information about other related symptom areas.

- [Inflexibility or Rigid Behavior](#): needing things just so and not being flexible to try new things may lead to problems in math because a child may refuse new approaches to solving problems
- [Reading problems](#): many children who struggle with symbolic representations also have trouble in math
- [Learning problems](#): problems in organization and planning will likely impact math skills
- [Executive Functioning](#): problems with metacognition and logical reasoning will affect math skill development because a child may not know how to organize and plan out an approach to a problem
- [Intelligence](#): children with cognitive problems may struggle in math, particularly as math moves from the more concrete to the more abstract because of the cognitive complexity of the task
- [Non-Verbal IQ](#): challenges with logic and pattern processing will impact math calculation

POTENTIAL DISABILITIES

*Children who have significant problems in this area **may** have any of the following potential disabilities. *Note, this information does **not** serve as a diagnosis in any way. See the 'Where to Go for Help' section for professionals who can diagnose or provide a referral.*

- [Dyscalculia \(Diagnosed clinically\)](#): significant learning disability in math that affects skills like math calculation, math facts, and pattern processing

- [Specific Learning Disability in Math Calculation or Math Fluency \(Educationally Identified Disabilities\)](#): math problems as defined by the school. Generally, skills are in the 12th percentile or below, and performance is two grade levels behind*
- [ADHD](#): inattention and disinhibition, and impulsivity can impact math skills.
- [Intellectual Disability](#): Children with low IQ and adaptive functioning are likely to struggle in math.

**Note: a diagnosis of a learning disability does not necessarily mean that the child is eligible for services at school. See [Educationally Identified Disabilities](#) to learn more about qualification criteria*

WHERE TO GO FOR HELP

If your child is struggling with this symptom to the point that it is getting in the way of his learning, relationships, or happiness, the following professionals could help; they may offer diagnosis, treatment, or both.

- [CLEAR Child Psychology](#): to obtain a *customized profile* of concerns for your child, *consult 'live'* with a psychologist
- [Psychologist](#): to conduct a full assessment to look at symptoms in mental health context and determine diagnoses and recommendations. Challenges need to be treated differently based on the diagnosis.
- [School Psychologist](#): to assess challenges with math within the context of overall achievement and on the developmental continuum. If math skills fall at or below the 12th percentile and/or two grade levels behind peers, the child may qualify for Special Education services. * See [Educationally Identified Disabilities](#) for more information on identification for services on an Individualized Education Program (IEP).
- [Occupational Therapist](#): to consider problems with handwriting or motor skills that may be impacting performance in all written work, including letter and number formation
- [Learning Specialist](#): to potentially provide small group or 1:1 intervention to improve math skills

These professionals may recommend the following tests for this symptom:

- [Key Math](#): diagnostic math test
- [TOVA](#): a continuous performance test of sustained attention and focus that may affect math ability
- [WISC-V](#): intelligence test. Can be used to establish a baseline of intellectual abilities, particularly non-verbal skills, which impact math

- [WIAT](#): academic test to consider overall skills in terms of achievement in multiple subjects, including math
- [Work samples](#): an analysis of math skills based on homework and math tests in class

LEARN MORE

[1] Linder Ed.D., Toni & Petersen-Smith Ph.D., Ann (2008) Administration Guide for TPBA2 & TPBI2 (Play-Based Tpba, Tpbi, Tpbc). Paul H. Brookes, Inc. Amazon:

<https://www.amazon.com/Administration-Guide-TPBA2-TPBI2-Play-Based/dp/1557668736/>

[2] Marsico Institute <http://www.du.edu/marsicoinstitute/>: 2016 STEM Symposium at white house Washington, DC - April 21st, 2016: Marsico's Co-Executive Director Dr. Douglas Clements was honored to be a featured speaker at the White House for an Early Childhood STEM (Science, Technology, Engineering, and Math) Symposium, where he spoke to a packed audience about the vital role that math education plays in early learning and cognitive development...sharing that, early exposure to STEM "has positive impacts across the entire spectrum of learning."

[3] Sumdog: www.sumdog.com. Fun math games web site for kids in elementary grade levels.

[4] Old-fashioned flash-card intervention may still be the best-practice intervention for math facts issues. *Math War Addition and Subtraction Game Cards* (April 15, 2015) School Zone Publishing Company Staff.

www.amazon.com/Math-Addition-Subtraction-Game-Cards/dp/0887432735/

[5] Ixl: www.ixl.com. Math and language arts practice using on-line skill progression by grade level, grades K-12.

[6] Multiplication baseball. <http://prongo.com/math/multiplication.html>. Electronic games for memorizing multiplication facts.

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How-to-help-your-child-with-math

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