

MATH GUIDE FOR PARENTS

When to Help and How to Help Your Child in Math



12 SIGNS YOUR CHILD IS STRUGGLING IN MATH

BY JORDAN NISBET

1. Expresses negative comments about math -

When your child says things like “I hate math” or “I’m not good at math,” and tries to avoid math-related activities, it’s usually a sign that they are struggling with the subject.

2. Gets anxious around math - Be it during a class, a test or working on a homework assignment, your child grows increasingly anxious when it’s time to do math. Even though they may understand the concepts, math anxiety results in them forgetting what they’ve learned or how to apply them when the time comes.

3. Grades that are lower in math but higher in other subjects - Lower math grades may lead them to focus on subjects they’re already succeeding in, and spend little time practicing or studying math.

4. Trouble connecting math families - As students learn more math facts, they should begin to see the relationship between certain numbers and equations (for example, $2+3=5$ and $5-3=2$).

5. Difficulty managing time - Pay attention to see if your child has any trouble judging increments of time, adhering to set schedules, or reading clocks – analog or digital.

6. Trouble applying math concepts to real-world problems - Your child may grasp math concepts, but have a hard time seeing how they apply to things outside of the classroom.

7. Mental math difficulty - While it can be helpful in early years, working out math problems using fingers to count could be a sign your child is struggling with math.

8. Doesn’t try to find alternative approaches to problems - Your child may get discouraged and move on to the next problem before thinking about – or trying – another potential solution.

9. Trouble with basic math concepts and fact recall - Despite having been taught foundational math concepts and facts in the past, your child has trouble remembering and applying them appropriately.

10. Trouble learning advanced math concepts and facts - Having difficulty when building upon earlier math concepts will limit a child’s ability to anchor new math skills in a meaningful, long-lasting way.

11. Difficulty paying attention - If your child gets fidgety, loses their place in a problem, or seems mentally tired when doing math, they may be struggling with (the particular way they’re doing) math.

12. Not hitting milestones - Generally, children hit certain math milestones around the same age – but sometimes, they have trouble developing these skills at the same rate and fall behind. (See graphic on next page)

TOP 5 MATH STRATEGIES FOR STRUGGLING STUDENTS

BY JAMIE GOODWIN

Math class moves fast! After introducing a new concept, there is little time to master it before the teacher builds on it or moves to the next concept. Because of this, students who struggle may quickly fall behind. If your child is struggling, you need effective math strategies to help them understand the concepts and master them. Check out these top 5 math strategies you can use.

- **Master the Basics First** - Can your child quickly tell you the sum of $7 + 8$, or the product of 7×8 ? If not, it's time to master these basics.
- **Help Them Understand the Why** - In most cases, students excel by learning the reason behind the math concept. So teach your child why addition properties are true, why a theorem works, or why the equation is done a certain way.
- **Make It a Positive Experience** - Find ways to make it fun! Stay encouraging through positive reinforcement.
- **Use Models and Learning Aids** - When it comes to a difficult math topic, help visual learners through the use of models and learning aids, like manipulatives, calculators, protractors, and other learning aids.
- **Encourage Thinking Out Loud** - Learning how to think about a problem is an important step when solving math equations. Describing the process is a great way to help children think through the process and discover areas that they might be struggling to understand still.

MATH MILESTONES

What to Expect as Kids Grow Up

0-12 MONTHS

- Begin to predict the sequence of events
- Start to understand basic cause and effect
- Begin to classify things in simple ways
- Start to understand relative size
- Begin to understand words that describe quantities

AGES 3-4 YEARS

- Recognize shapes in the real world
- Start sorting things by color, shape, size, or purpose
- Compare and contrast using classifications like height, size, or gender
- Count up to at least 20 and accurately point to and count items in a group
- Understand that numerals stand for number names
- Use spatial awareness to put puzzles together
- Start predicting cause and effect

1ST AND 2ND GRADERS

- Predict what comes next in a pattern and create own patterns
- Know the difference between two- and three-dimensional shapes and name the basic ones
- Count to 100 by ones, twos, fives, and tens. Write and recognize the numerals 0 to 100, and the words for numbers from one to twenty
- Do basic addition and subtraction up to 20
- Read and create a simple bar graph
- Recognize and know the value of coins

4TH AND 5TH GRADERS

- Start applying math concepts to the real world
- Practice using more than one way to solve problems
- Write and compare fractions and decimals and put them in order on a number line
- Compare numbers using greater and less than symbols
- Start two- and three-digit multiplication
- Complete long division, with or without remainders
- Estimate and round

HIGH-SCHOOLERS

- Understand that numbers can be represented in many ways like fractions, decimals, bases, and variables
- Use numbers in real-life situations like calculating a sale price or comparing student loans
- Begin to see how math ideas build on one another
- Begin to understand that some math problems don't have real-world solutions
- Use mathematical language to convey thoughts and solutions
- Use graphs, maps, or other representations to learn and convey information

AGES 1-2 YEARS

- Understand that numbers mean "how many"
- Begin reciting numbers, but may skip some of them
- Understand words that compare or measure things
- Match basic shapes
- Explore measurement by filling and emptying containers
- Start seeing patterns in daily routines and in things like floor tiles

AGE 5 YEARS

- Add by counting the fingers on one or both hands
- Identify the larger of two numbers
- Copy or draw symmetrical shapes
- Begin to understand basic time concepts
- Follow multi-step directions
- Understand the meaning of words like unlikely or possible

3RD GRADERS

- Move from using hands-on methods to using paper and pencil to work out math problems
- Work with money
- Do addition and subtraction with regrouping
- Understand place value well enough to solve problems with decimal points
- Know how to do multiplication and division, with help from fact families
- Create a number sentence or equation from a word problem

MIDDLE-SCHOOLERS

- Begin basic algebra with one unknown number
- Use coordinates to locate points on a grid, also known as graphing ordered pairs
- Work with fractions, percentages, and proportions
- Work with lines, angles, types of triangles, and other basic geometric shapes
- Use formulas to solve complicated problems and to find the area, perimeter, and volume of shapes



Sources:

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<http://education.more4kids.info/46/homeschooling-math-concepts-and-skills-by-age/>

OTHER WAYS TO HELP YOUR CHILD WITH MATH



- Talk about math in a positive way. A positive attitude about math is infectious.
- Encourage persistence. Some problems take time to solve.
- Encourage your child to experiment with different ways to solve a math problem.
- Encourage your child to talk about and show a math problem in a way that makes sense (i.e., draw a picture or use material like macaroni).
- When your child is solving math problems ask questions such as: Why did you...? What can you do next? Do you see any patterns? Does the answer make sense? How do you know? This helps to encourage thinking about mathematics.
- Connect math to everyday life and help your child understand how math influences them (i.e. shapes of traffic signs, walking distance to school, telling time).
- Play family math games together that add excitement such as checkers, junior monopoly, math bingo and uno.
- Computers + math = fun! There are great computer math games available on the internet that you can discover with your child.
- Talk with your child's teacher about difficulties he/she may be experiencing. Ask questions about potential learning disabilities. When teachers and parents work together, children benefit.
- Practice math daily with your child. It can be flash cards, weighing fruit at the grocery store, or completing a math page in a workbook.



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If you are struggling to help your child yourself, then search for professional help - Get a TUTOR! Education Exchange LLC has licensed teachers that can help in grades K-12 and college.

## 5 RESOURCES FOR PARENTS WHO ARE STUMPED BY MATH HOMEWORK

BY JENNIFER HOGAN



### OTHER HELPFUL LINKS

<https://magoosh.com/math/>

has video lessons and articles about how to help your child in math for Grades 2 and up

<https://www.nwea.org/blog/2018/parent-strategies-for-improving-their-childs-math/>

long list of ideas covering all math strands, as well as general mathematics skills

<https://blog.reallygoodstuff.com/wp-content/uploads/2013/10/11-Free-Math-Sites-for-Kids.pdf>

blog explains the math skills games kids can do at each site, with a printable that lists the name and address of sites and web address (written by Brandi Jordan of THE RESOURCE LOUNGE)

<http://www.nea.org/home/59862.htm>

\*printable version available - how to help with homework, explains problem-based math, and lots of resources to support your child's math interests at home

- **Learn Zillion:** This video-based website teaches math concepts in short, student-centered lessons. You can search a concept and watch different videos that will teach you and your child how to understand math ideas and strategies. The videos are very child friendly! Recommended for 2nd grade and up.
- **K-5 Math Teaching Resources:** It's full of games and activities for each math standard that allow you and your child to better understand different topics being taught in the classroom. There are different categories to choose from: number sense, geometry, and measurement and data. Recommended for Kindergarten through 5th grade.
- **Khan Academy:** This site focuses on interactive videos and practice exercises that support your child's learning at her own pace. The activities are simple enough for your child to do on her own but also challenging enough to push her to learn more. Recommended for Kindergarten and up.
- **NCTM Illuminations:** There are lessons, interactive games, and brainteasers that are all helpful with homework and extra practice at home. Recommended for PreK and up.
- **K 5 Learning:** This is a wonderful parent-support for math help at home. It offers online support and numerous printable worksheets to support you and your child's learning at home. There are even parent progress reports if you chose to assess your child's progress. Recommended for Kindergarten through 5th grade.

# Information Sources

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