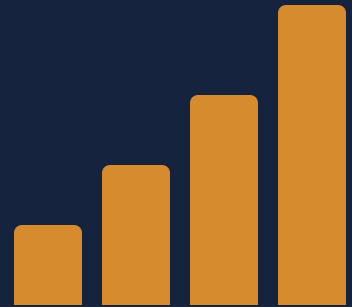


FREE PARENT GUIDE

The Dyscalculia Survival Guide for Parents

What our tutors check first, the tools that actually help, what to say at home, and how to tell if it's working.



Built from interviews with Alexander Tutoring tutors **Krishann McConico** (classroom teacher), **Jake Gerhardt** (teacher of gifted and differently-abled students), **Caleb Nastasi** and **Albert Meng**, and founder **Sean Alexander**, who taught algebra and geometry at The Stanbridge Academy, a school for neurodivergent students.

This guide is educational, not medical. Only a qualified evaluator can diagnose dyscalculia.

START HERE

A diagnosis isn't a ceiling

Dyscalculia is the common name for a specific learning disorder with impairment in mathematics. It's real, it's under-diagnosed, and students who have it can learn math.

"A diagnosis tells you that something's missing, but it doesn't tell you that they can't succeed."

Sean Alexander, founder

What it is

The American Psychiatric Association describes dyscalculia as trouble with number concepts, learning arithmetic facts, and calculating accurately and fluently. Two parts of the definition matter for parents:

- The difficulty has to last **at least six months despite targeted help**.
- It can't be explained by other causes, including **a lack of instruction**.

How common it is

A study of nearly 2,500 children in Northern Ireland estimated that about 6% of primary school children have it, yet a child with dyslexia was more than 100 times as likely to get an official diagnosis.

What we see most

Whether or not a student has the diagnosis, the thing holding them back is usually the same: math facts and rules that were never fully learned, and then built on for years.

"Dyscalculia is a real diagnosis, but in my experience it's almost always given to a student who is missing foundations. They were afraid to say they didn't know their times tables or couldn't add negatives, and it carried all the way to algebra. Then the label arrives and they're excused from learning those foundations."

Sean Alexander

The plan in this guide: find the missing foundations, rebuild them with the right tools, practice a little every day, and give it time. Expect more time, not lower expectations.

STEP 1

The fundamentals to check first

Sit with your child for a few problems of each kind. You're not testing them. You're looking for where things break.

Arithmetic (Caleb's first three)

- ☐ **One-digit subtraction.** Addition is usually fine. Subtraction is where students slip.
- ☐ **Sign rules.** Adding a negative is subtracting. Subtracting a negative is adding. A negative times a positive is negative.
- ☐ **Simplifying fractions.** Can they find common factors and cancel them?

Reading the math (Jake's first three)

- ☐ **Interpretation.** Can they read the math symbols correctly?
- ☐ **Process.** Can they set the problem up and see where things go?
- ☐ **Technique.** Can they say what each symbol is telling them to do?

Look for the repeated mistake

Krishann McConico watches for the same wrong answer to the same kind of question, or digits that are right but flipped.

"If I see that same pattern, then I know, oh, they're seeing it differently. Let's find a resource or tool that can make this work for them."

Krishann McConico

Where students usually get stuck next

- **Word problems.** A student sees "how many more" and adds, when the full question asks for a difference.
- **Multi-step problems.** Every step is a chance for a number to get lost.
- **Fractions and decimals,** and what they actually mean.
- **Times tables,** which show up everywhere from fractions to factoring.

Write down what you see. "Mixes up signs when subtracting negatives" is far more useful to a tutor, teacher or evaluator than "bad at math." Jake's rule of thumb: notice whether trouble shows up in *specific areas*, or in *everything* they do. Either way, share it with your child's school or an evaluator. It isn't a diagnosis.

STEP 2

Five tools that actually help

These come straight from how our tutors teach. Printable versions of the first two are on the next pages.

1. A labeled place-value chart

Krishann's favorite. Ones, tens, hundreds and thousands are named, and grouped by period, so every digit has a place to live when adding and subtracting. "A labeled place value chart goes a long way."

2. A multiplication chart, pulled back slowly

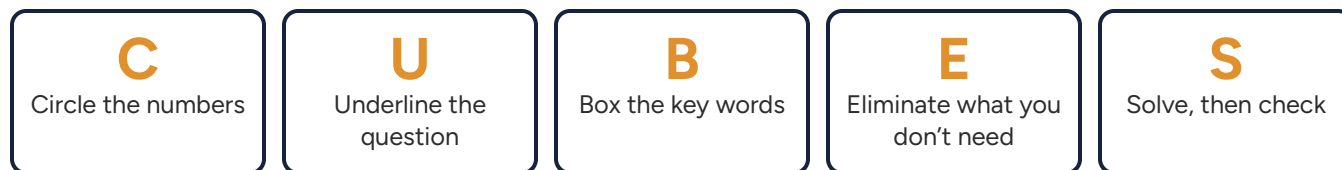
Let your child use the chart while fluency is being built, then cover a row or two at a time as the facts stick.

"If this is the tool that you need to have it, cool, but eventually I can start pulling back."

Krishann McConico

3. Read the story before the numbers

Albert Meng has students cover the numbers in a word problem and say what it's about first: "Okay, what was this movie about? ... Okay, now we can uncover the numbers." Then use CUBES:



4. Check it backwards

If $22 + 29$ comes out as 15, running it in reverse shows the problem immediately. "Go backwards. Does it make sense? Just check it and slow down." (Krishann)

5. Get it out of their head and onto paper

Write formulas, reference facts and in-between answers on the side of the page, so working memory isn't carrying them. (Albert)

Labeled place-value chart

Write one digit per box. Line up the ones column before adding or subtracting, and carry or borrow one column at a time.

Millions			Thousands			Ones		
Hundred millions	Ten millions	Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones

Try it: $4,305 - 1,278$. Write each number in the chart, ones under ones. Start at the ones column: $5 - 8$ needs a borrow. The tens column has a 0, so the borrow comes from the hundreds. Checking backwards: $3,027 + 1,278 = 4,305$.

Tip from our tutors: laminate this page or slide it into a sheet protector and use a dry-erase marker.

PRINTABLE

Multiplication chart

Use it freely at first. As facts stick, cover one row at a time with a sticky note. The shaded squares (1×1, 2×2 ...) are a good first set to memorize.

×	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

STEP 3

Ten minutes a day at home

Consistency matters more than length. Short, regular practice is what makes it stick.

"The main thing is consistency. If we're consistent at the same thing over and over, even if it's the same subject over and over for a month, I know it's gonna stick."

Krishann McConico

Minutes 1–3: check in

Jake's routine. Ask, and listen:

- What's going well in math class?
- What's hard right now?
- How do you feel about it?

Minutes 4–10: one quick fact round

Caleb's routine. Pick one set (say, one-digit multiplication), set a 2-minute timer, and count how many they get right. The goal is beating last time, not perfection.

Fact-round log

Date	Fact set	Correct in 2 min	Notes (what tripped them up?)

Bring this log to your child's teacher, tutor or evaluator. Steady improvement over a few weeks is useful information. So is no change.

STEP 4

When they say “I can’t do math, I have dyscalculia”

What you say in that moment matters more than any worksheet.

TRY SAYING

“Yes, this is hard. Hard isn’t the same as impossible.”

“It’s okay if you don’t get it the first time. Let’s keep trying.”

“Remember when you didn’t make the team the first year, and then did?”

“You have dyscalculia. It’s part of you, not all of you.”

AVOID SAYING

“Me too, I was never a math person.”

“This is easy” or “You’ll get this right away.”

“Don’t worry, you have a diagnosis, so you don’t need to learn this.”

Anything that agrees they’re stupid, even as a joke.

“Maybe agreeing that math is hard is OK, but don’t agree that it’s OK to be bad at it.”

Caleb Nastasi

“If they’re a track star, I’m like, you love to run. If one day you twist your ankle, do you stop being a track star?”

Krishann McConico

“Sometimes kids hear that and they’re like, oh, this is supposed to be easy and I don’t get it. I must be stupid then.”

Jake Gerhardt, on “this is easy”

The goal is perseverance. Jake: “Teaching them how to be perseverant means teaching them to be okay with failing, but to not be okay with quitting.”

STEP 5

Accommodations, tutors and timelines

Accommodations: just enough

Use the accommodations your child's school provides, like a calculator, extra time or a fact chart. Jake's rule for any accommodation is "just enough accommodation for them to be able to succeed like other students." Two things to watch:

- **Is your child still being assessed?** You need real information about progress, not just a pass.
- **Is an accommodation replacing the learning?** Jake once had a student excused from turning in homework who stopped doing it. For another student, the same accommodation might be exactly right. Ask whether the skill underneath is still being taught.

"The accommodation is time. Go slow. But they can always do it."

Sean Alexander

Questions to ask a tutor

- ☐ What is your experience with students like my child, who have this diagnosis?
- ☐ How will you find the specific foundations that are missing?
- ☐ How will you help this stop being a problem in class, not just tonight's homework?
- ☐ How will you tell me what you're working on, and how it's going?

And tell the tutor up front. As Caleb puts it, a good tutor will then keep you posted on the arithmetic and mental math they're working on.

How long until it gets better?

Every student is different. With consistent weekly work on the right foundations, our tutors typically see real progress in **about four to five weeks** (Jake), or **about a month** (Krishann). Believing they can do math sometimes takes a little longer, a couple of months for some students.

Want help finding the gaps?

Your first lesson with Alexander Tutoring is risk-free and includes a skills assessment that shows exactly which foundations are missing, plus a 30-day plan that's yours to keep. One-on-one, online, with the same tutor every week. alexandertutoring.com/learning-differences/dyscalculia-math-tutoring

Sources: American Psychiatric Association, "What is Specific Learning Disorder?"; Morsanyi et al., Queen's University Belfast (2018), via the BPS Research Digest. This guide is educational and doesn't replace an evaluation by a qualified professional.