Mathematics-At-Home Plan

Kindergarten through 5th Grade Resource for Families

Dear Parents/Guardians,

At Levy County School Board, we recognize the critical role that parents and families play in the education of their children. Your support and involvement are not only valued, but are essential to your child's success!

Mathematics is a foundational skill that opens doors to countless opportunities in both education and life. Our goal is to ensure that every student in our district becomes a fluent mathematician, confident in their ability to solve problems, think critically, and apply mathematical concepts in their everyday lives.

We know that the best learning often happens when students can see the relevance of what they are learning in the classroom to their lives at home. This is where your role as a parent or guardian is so important. By modeling mathematical thinking and engaging with your child in everyday math-related activities, you can reinforce the skills they are learning at school and show them that math is not just a subject, but a vital part of daily life.

Simple activities like discussing how you budget for groceries, measuring ingredients for a recipe, or estimating the time it takes to travel to a destination can make a big difference in helping your child understand and appreciate the value of mathematics. These everyday moments are opportunities to encourage mathematical thinking, problem-solving, and curiosity.

Our district is committed to providing high-quality math instruction that is aligned with Florida's B.E.S.T Standards for Mathematics and best practices. To support this effort, we will be offering resources and opportunities for you to stay involved in your child's math education. Whether through resources listed in this document, communication on your child's progress in math, or simple tips sent home, we aim to partner with you in making math a positive and successful experience for your child.

Thank you for your continued support and dedication to your child's education. Together, we can build a strong mathematical foundation that will serve our students well throughout their lives. If you have any questions or would like more information on how to support your child's math learning at home, please do not hesitate to reach out.

Sincerely,
Michelle Eastman
District Coordinator of Math and Science
michelle.eastman@levyk12.org

Overview of Florida's Benchmarks for Excellent Student Thinking (B.E.S.T) for Mathematics

Each grade level mathematics course has identified areas of emphasis to provide insight on major mathematical topics that will be covered within the course. These grade level areas of emphasis are listed below for your reference. For a more detailed description of each course, along with all the course aligned benchmarks, please visit Florida CPALMS.

Grade	Areas of Emphasis
K	(1) developing an understanding of counting to represent the total number of objects in a set and to order the objects within a set (2) developing an understanding of addition and subtraction and the relationship of these operations to counting (3) measuring, comparing and categorizing objects according to various attributes, including their two- and three-dimensional shapes
1	(1) understanding the place value of tens and ones within two-digit whole numbers (2) extending understanding of addition and subtraction and the relationship between them (3) developing an understanding of measurement of physical objects, money and time (4) categorizing, composing and decomposing geometric figures
2	(1) extending understanding of place value in three-digit numbers (2) building fluency and algebraic reasoning with addition and subtraction (3) extending understanding of measurement of objects, time and the perimeter of geometric figures (4) developing spatial reasoning with number representations and two-dimensional figures
3	(1) adding and subtracting multi-digit whole numbers, including using a standard algorithm (2) building an understanding of multiplication and division, the relationship between them and the connection to area of rectangles (3) developing an understanding of fractions (4) extending geometric reasoning to lines and attributes of quadrilaterals
4	(1) extending understanding of multi-digit multiplication and division (2) developing the relationship between fractions and decimals and beginning operations with both (3) classifying and measuring angles (4) developing an understanding for interpreting data to include mode, median and range
5	(1) multiplying and dividing multi-digit whole numbers, including using a standard algorithm (2) adding and subtracting fractions and decimals with procedural fluency, developing an understanding of multiplication and division of fractions and decimals (3) developing an understanding of the coordinate plane and plotting pairs of numbers in the first quadrant (4) extending geometric reasoning to include volume (5) extending understanding of data to include the mean

Overview of Mathematical Fluency

In mathematics, fluency builds on a foundation of conceptual understanding, strategic reasoning, and problem-solving to achieve automaticity. Students connect conceptual understanding (Stage 1) with strategies and methods (Stage 2) and use the methods in a way that makes sense to them (Stage 3). When students go through these stages to build fluency, they gain an understanding of the operations and the strategies and methods in their toolbox for solving them, and they become strategic thinkers who can efficiently compute arithmetic.

Fluency is often misunderstood as being able to quickly compute basic math facts, regardless of conceptual understanding, otherwise known as memorization. But being fluent in mathematics is more than memorization, accuracy, and speed. It involves:

- Conceptual understanding: Building a foundation of conceptual understanding
- Strategic reasoning: Using strategies and methods to solve problems
- Problem-solving: Using strategies and methods to solve problems
- Flexibility: Being flexible and accurate while performing procedures and mental calculations
- Efficiency: Selecting efficient and appropriate methods for solving problems
- Accuracy: Understanding and applying procedures carefully and checking to see if the answer makes sense

Stages of Mathematical Fluency

<u>Stage 1: Exploration</u>

- Students investigate arithmetic operations to increase understanding by using manipulatives, visual models, estimation, drawings, and engaging in rich discussion.
- Models help build on prior learning and make connections between concepts.
- Exercises classified as Stage 1 will prompt students to use a model to solve.

<u>Stage 2: Procedural Reliability</u>

- Students utilize skills from the exploration stage to develop an accurate, reliable method that aligns with the student's understanding and learning style.
- Students may need the teacher's help to choose a method, and they are learning how to use a method without help.
- Students choose any method to solve problems independently. Then students are asked to describe their method to ensure that they understand the method and why it works.

<u>Stage 3: Procedural Fluency</u>

- Students build on their conceptual understanding from Stages 1 and 2 and use an efficient and accurate procedure to compute an operation, including the standard algorithms.
- Students are no longer asked to describe their method because they are proving that they can solve accurately and without assistance.

Note: Embedded within Stages 1-3 is Automaticity. Automaticity is the ability to act according to an automatic response which is easily retrieved from long-term memory. It usually results from repetition and practice.

Grade Level Fluency Expectations

Grade	Counting and Place Value	Addition and Subtraction	Multiplication and Division	Measurement
K	Recite numbers to 100 by ones and tens Count backward within 20 Locate, order and compare whole numbers up to 20	*Procedural Reliability:* Two one-digit whole numbers with sums from 0 to 10 and related subtraction facts		
1	Count forward and backward within 120 by ones Skip count by 2s to 20 and by 5s to 100 Plot, order and compare whole numbers up to 100	*Recall:* Two whole numbers with sums from 0 to 10 and related subtraction facts *Procedural Reliability:* Two whole numbers with sums from 0 to 20 and related subtraction facts		Length of an object to the nearest inch or centimeter
2	Round whole numbers from 0 to 100 to the nearest 10 Plot, order and compare whole numbers up to 1,000	*Recall:* Two whole numbers with sums from 0 to 20 and related subtraction facts *Procedural Reliability:* Two whole numbers with sums up to 100 and subtract a whole number from a whole number, each no larger than 100		Length of an object to the nearest inch, foot, yard, centimeter or meter
3	Round whole numbers from 0 to 1,000 to the nearest 10 or 100 Plot, order and compare whole numbers up to 10,000 and fractional numbers with the same numerator or the same denominator	*Procedural Fluency:* Multi-digit whole numbers, including using a standard algorithm	*Procedural Reliability:* Multiplication of a one-digit whole number by a multiple of 10 up to 90 or a multiple of 100 up to 900 *Procedural Reliability:* Two whole numbers with factors from 0 to 12 and related division facts	Length of an object to the nearest centimeter and half or quarter inch Volume of a liquid within a beaker to the nearest milliliter and half or quarter cup Temperature to the nearest degree
4	Round whole numbers from 0 to 10,000 to the nearest 10, 100 or 1,000 Plot, order and compare multi-digit whole numbers up to 1,000,000, decimals up to the hundredths,	*Procedural Reliability:* Two fractions with like denominators, including mixed numbers and fractions greater than 1	*Recall:* Two whole numbers with factors up to 12 and related division facts *Procedural Reliability:* Multiplication of a whole number up to three digits by a whole number up to two digits	Length of an object Volume of a liquid within a beaker Weight of an object Mass of an object Temperature of an

	fractions with different numerators and different denominators, including mixed numbers and fractions greater than 1		*Procedural Fluency:* Multiplication of a two-digit whole number by a two-digit whole number, including using a standard algorithm *Procedural Reliability:* Division of a whole number up to four digits by a one-digit whole number	object
5	Round multi-digit numbers with decimals to the nearest hundredth, tenth or whole number Plot, order and compare multi-digit numbers with decimals up to the thousandths	*Procedural Fluency:* Multi-digit numbers with decimals to the thousandths, including using a standard algorithm *Procedural Reliability:* Fractions with unlike denominators, including mixed numbers and fractions greater than 1	*Procedural Fluency:* Multiplication of multi digit whole numbers, including using a standard algorithm *Procedural Fluency:* Division of a whole number up to five digits by two digits, including using a standard algorithm *Procedural Reliability:* Multiply a multi-digit number with decimals to the tenths by one-tenth or by one-hundredth *Procedural Reliability:* Multiplication of a fraction by a fraction, including mixed numbers and fractions greater than 1	

Why is mathematical fluency important?

By building fluency in math, students can efficiently use foundational skills to solve deeper, more meaningful problems that they encounter in the world around them. For example, math fluency is useful for adding scores while playing a game, using mental math to decide the best buy while shopping at a grocery store, estimating a percent when determining a tip for a delivery driver, and so much more!

Supporting Mathematical Fluency At Home:

- Use the Explore Learning App in Clever to access your child's Reflex math account. Students play games to practice basic math facts.
- Use the i-Ready App in Clever to access your child's i-Ready account to play the Learning Games.
- Visit tangmath.com to play Greg Tang's math Skill Games and Learning Games
- Use flash cards to spend a few minutes each day practicing basic math facts.

Promoting Mathematical Thinking and Reasoning At Home

Florida's Mathematical Thinking and Reasoning Standards	What does that mean?	How can I support mathematical thinking at home?
MTR.1 Actively participate in effortful learning both individually and with others.	Cultivating a growth mindset in learners to overcome math challenges on our own or as part of a group. *In math today, I did not give up!*	Encourage your child to shift their thinking from statements like "I'm just not good at math" to "I can do this, I just need practice!" or "I can get better at this!" Create a comfortable, supportive learning environment at home where your child can focus on their math work. Celebrate their effort! Maybe the answer is incorrect, but we can encourage children with statements like "I'm proud of how hard you worked to solve the problem by trying each step!"
MTR.2 Demonstrate understanding by representing problems in multiple ways.	If a student can show you multiple ways to solve a problem, then you can be confident that the student has demonstrated understanding of that problem. *In math today, I tried more than 1 way to solve!*	Ask questions like: -How could you use a drawing, table, number sentence, graph, etc to show your thinking? -Which tool would be best for this problem? -How can you represent the problem with symbols and numbers? -Can you create a representation of the problem?
MTR.3 Complete tasks with mathematical fluency.	This MTR refers to the fluidity at which a student might move between strategies to solve problems and asks them to determine the most efficient strategy. *In math today, I thought about the best way to solve!*	Ask questions like: -Is this working, or do you need to change your model? -Can you find a shortcut to solve the problem? How would your shortcut make the problem easier? Practice math facts in a fun way by using games, flash cards, or incorporating it into your daily routines.
MTR.4 Engage in discussions that reflect on the mathematical thinking of self and others.	students must be able to communicate ideas, analyze others' thinking, compare strategies, recognize errors and propose solutions, justify results, and construct arguments. *In math today, I talked about my thinking!*	Model thinking aloud to solve problems and then have your child think-aloud to you for solving another problem. Ask questions like: -What is this problem asking? -How could you start this problem? -What are you having trouble with? -How can you check this? -How did you solve this problem?
MTR.5 Use patterns and structure to help understand and connect mathematical concepts.	connecting similarities and differences between big mathematical concepts (for example, the relationship between	Encourage your child to recognize patterns in everyday life such as arrangement of tiles, repeating design in nature (like pine trees in

	multiplication, division, fractions, and ratios). *In math today, I looked for patterns!*	rows), and daily routines. Practice with patterns in numbers by skip counting by 2s, 5s, 10s, or by even/odd numbers. Recognize patterns through playing board games that count steps or matching games, completing puzzles, or building with pattern blocks.
MTR.6 Assess the reasonableness of solutions.	students reflect upon their solution and decide if the answer is reasonable *In math today, I checked that my answer was right!*	Encourage your child to ask themselves the following questions: -Does my answer make sense? Why or why not? -How can I check this? -How do I know my answer is correct?
MTR.7 Apply mathematics to real-world contexts.	Math is more than numbers and problems on a page, we use it in our everyday lives. *In math today, I know why I learned what I did!*	Have your child apply math skills to everyday tasks like cooking, timing tasks, shopping/budgeting, counting out items, etc. Discuss with your child ways that you use math at home or at work. Involve math in conversations about your hobbies or planning events such as birthday parties.

Big Ideas Math, Our Core Curriculum for Elementary Mathematics

The School Board of Levy County adopted Big Ideas Math by Big Ideas Learning in 2023 as our core curriculum for elementary mathematics. Students have logins through their Clever accounts to access their grade level digital textbook, games, videos, and practice. Big Ideas Learning has also created Math-At-Home Support documents for each grade level giving families access to parent letters for each chapter, tips for homework help, the Skills Review Handbook, and Skills Trainer. These support documents can be accessed using the links below.

Kindergarten Math-at-Home Support
1st Grade Math-at-Home Support
2nd Grade Math-at-Home Support
3rd Grade Math-at-Home Support
4th Grade Math-at-Home Support
5th Grade Math-at-Home Support

Varsity Tutors Homework Help

The School Board of Levy County partners with Varsity Tutors to offer free online tutoring for all of our students and families. Students can access the Varsity Tutors App through their Clever account. Contact your student's school for more information if you are interested.

Supports for Parental Involvement

The Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards for Mathematics constitute the foundational mathematical benchmarks for Florida students, serving to ensure the delivery

of a world-class education that prepares students for prosperous futures in college, military and career opportunities. Parental involvement is an important part of a student's education. To foster a collaborative and supportive educational environment, the Florida Department of Education has implemented comprehensive measures to engage parents of students, including those who have been identified as having a deficiency in mathematics. Recognizing the importance of family engagement in a student's educational journey, dedicated Parent Guides have been crafted to provide families with insights into the B.E.S.T. Mathematics Standards. For more information, please visit https://www.fldoe.org/academics/standards/subject-areas/math-science/mathematics/parent-resources.stml.

Mathematics Deficiency and Parental Notification

Any student in a VPK Education Program provided by a public school who exhibits a substantial deficiency in early mathematics skills and any student in kindergarten through grade 4 who exhibits a substantial deficiency in mathematics or the characteristics of dyscalculia based upon screening, diagnostic, progress monitoring or assessment data; statewide assessments; or teacher observations must:

- Be provided systematic and explicit mathematics instruction through daily targeted small group mathematics intervention or supplemental, evidence-based mathematics interventions before or after school, or both, delivered by a highly qualified teacher of mathematics or a trained tutor.
- The student's performance must be monitored and adjusted based on student need, until the student demonstrates grade level proficiency in a manner determined by the district.

Parents will immediately receive notification in writing:

- That his or her child has been identified as having a substantial deficiency in mathematics, including a description of the deficiency.
- Explanation of the exact nature of the student's difficulty in learning and lack of achievement in mathematics.
- Description of the current services that are provided.
- Description of the proposed intensive interventions and supports that will be provided to the child that are designed to remediate the identified area of mathematics deficiency and timely updates. • Strategies through a home-based plan the parent can use in helping his or her child succeed in mathematics, including access to resources.

School Choice

Florida recognizes the significant role education plays in a child's life along with the right of parents to find the best education for their child. The Office of Independent Education and Parental Choice supports quality public and private education choice programs. Within this expansive framework, parents can navigate through an array of educational choices, ensuring a tailored approach that aligns with the unique learning requirements of their children. This includes access to scholarships, private and charter schools, reflecting the commitment of Florida to provide a comprehensive spectrum of educational opportunities. The Office of Independent Education and Parental Choice is a valuable repository of information regarding education options. For more information, please visit https://www.fldoe.org/schools/school-choice/.

Division of Early Learning

Early education can be an important time during a student's educational career. In partnership

with 30 early learning coalitions and the Redlands Christian Migrant Association, the Division of Early Learning oversees three programs: School Readiness, VPK and Child Care Resource and Referral. These programs collectively play a role in shaping the early educational experiences of students, laying a foundation for future academic success. Parents can access resources that will help them choose the right provider for their child and family. For more information, please visit https://www.fldoe.org/schools/early-learning/parents/.

Military Families

Florida hosts the 5th largest population of active-duty service personnel spanning all five branches of the United States Military. A dependent child of an active member of the armed forces may be eligible for educational opportunities under either branch of the Family Empowerment Scholarship Program (see s. 1002.394, F.S.). Families may receive financial assistance for tutoring and access to added education options, such as transportation, private school or other customized learning services and materials for students as young as 3 years of age. For more information, please visit https://www.fldoe.org/schools/school-choice/other-school choice-options/military-families/.

Identifying and Evaluating a Student for Exceptional Student Education

When a parent or caregiver is concerned about a student who is performing significantly below grade level expectations or suspects that a student may have a disability, consider the following information:

- A medical diagnosis alone is insufficient to determine eligibility for exceptional student education. It is additional information that can be considered when collecting and reviewing student-specific data (information).
- Based on federal regulations, after completing the administration of assessments and other evaluation measures, the school district and a group of qualified professionals consisting of the parent and school staff determine if the child meets eligibility criteria for a disability category (Title 34, s. 300.306, Code of Federal Regulations).
- If a parent submits documentation from a licensed psychologist or licensed school psychologist (Chapter 490, Florida Statutes) that demonstrates that a student has been diagnosed with dyscalculia and also identifies the student's specific areas of difficulty, then evidence-based interventions must be initiated upon receipt of that documentation (see s. 1008.25(6), F.S.).

The Bureau of Exceptional Education and Student Services provides resources to guide parents, teachers and caregivers through the process of identifying and evaluating a student who is suspected of being a student with a disability and in need of exceptional student education and related services.

Characteristics of Specific Learning Disability

Specific Learning Disability is a term that describes an Exceptional Student Education eligibility category that refers to learning disorders that can affect a student's ability to read, write, listen, speak, reason and apply basic math skills. Rule 6A-6.03018, F.A.C., Exceptional Education Eligibility for Students with Specific Learning Disabilities, defines a specific learning disability as "a disorder in one or more of the basic learning processes involved in understanding or in using language, spoken or written, that may manifest in significant difficulties affecting the ability to listen, speak, read, write, spell or do mathematics." Dyscalculia is included among the "associated conditions" of a specific learning disability.

Dyscalculia is a specific learning disability in mathematics. It affects areas of the brain that deal with number related skills and understanding. The primary characteristics of dyscalculia

could include the following: number sense, memorization of math facts, calculation and mathematical reasoning. When determining if a student exhibits characteristic(s) of dyscalculia, at least one of these characteristics should have persisted for at least six months despite interventions, and skills should be substantially below those expected for grade level.

Prekindergarten and Kindergarten	Grades 1-4
Building a solid foundation in mathematics involves many different skills. Young children/students with learning disabilities may have difficulty: ● Recognizing numbers and matching numbers with amounts (e.g. connecting the number 3 to that many objects in front of them). ● Sorting objects by shape, size or color. ● Recognizing groups and patterns. ➢ Comparing and contrasting using concepts like smaller/bigger or taller/shorter. ● Organizing numbers, such as largest to smallest or first to last.	As mathematics learning continues through the elementary grades, students with learning disabilities may have difficulty: ● Doing simple calculations from memory. ● Solving basic math problems using addition, subtraction, multiplication and division. ● Figuring out how to apply their knowledge and skills to solve math problems. ● Recognizing and using number lines. ● Learning to use money (i.e., coins or bills). ● Reading an analog clock. ● Retaining basic math facts (e.g., memorizing multiplication tables). ➢ Understanding place value, often putting numbers in the wrong column. ➢ Understanding word problems or more advanced symbols (i.e., > meaning "greater than" or < meaning "less than"). ● Organizing numbers by scale (10s, 100s, 1,000s) or decimal place (0.1, 0.01, 0.001). ● Understanding what is written on a board or in a textbook due to visual spatial difficulties.

For more information, please visit https://www.fldoe.org/academics/exceptional-student-edu/eseeligibility/specific-learning-disabilities-sld/index.shtml

New Worlds Scholarship Account

The New Worlds Scholarship Account provide $1,200 scholarships to eligible VPK-5 students who:

- show a substantial deficiency in early literacy or early mathematics skills,
- show a substantial deficiency in reading or mathematics,
- exhibit characteristics of dyslexia or dyscalculia, or
- score below a level 3 on the most recent statewide, standardized English Language Arts (ELA) or mathematics assessment.

The program offers parents/guardians access to education savings accounts to pay for tuition and fees related to part-time tutoring, summer and after-school literacy or mathematics programs, and instructional materials. Your child may be eligible for a New Worlds Scholarship Account. For more information, please visit https://www.fldoe.org/schools/school-choice/k-12-scholarship-programs/reading/.

English Language Learners

English Language Learners (ELLs) have a wide variety of supports available to increase essential performance in mathematics. Recognizing the unique needs of ELLs, each LEA has crafted an individualized English Language Learner Plan, which serves as a strategic blueprint outlining targeted strategies and valuable resources aimed at fostering the academic success of ELLs. More information may be found at https://www.fldoe.org/academics/eng-language-learners/index.stml.

Overview of Assessment Types

As students progress from kindergarten, they should be steadily developing the skills needed to become grade level mathematicians. While students are learning to do math, educators and parents can monitor students to see if they are on track with grade-level expectations. Florida uses various types of assessments to monitor students' progress in mathematics.

Assessment	Purpose
Screening	The purpose of screening is to identify the likelihood (probability) of risk or success in mathematics achievement. Educators can also use screening to measure the effectiveness of Tier 1, or core, instruction in the classroom and identify students needing more intensive interventions and supports (Tier 2 and 3 supports).
Progress Monitoring	The purpose of progress monitoring is to determine whether students are learning the skills taught throughout the school year. Progress monitoring can be done at the state level or the local level. Progress monitoring can also be referred to as interim assessments.
Diagnostic	The purpose of a diagnostic assessment is to identify a student's strengths and weaknesses for students identified as at-risk on a screening assessment.
Formative	The purpose of formative assessments is to monitor student learning to provide ongoing feedback that can be used by educators to identify the current state of the learner's knowledge and skills. More specifically, educators can use formative assessment on a regular basis to monitor student learning and adjust their current instruction to meet the needs of the learner in real time.
Summative	The purpose of summative, or outcome, assessments is to evaluate students' performance relative to a set of content standards generally administered at the end of the school year.

Statewide Mathematics Assessments

All Florida students participate in the state's assessment and accountability system. The primary goal of these assessments is to provide information about student learning in Florida, as required by Florida law (see s. 1008.22, F.S.).

- Coordinated Screening and Progress Monitoring System: Also known as the Florida Assessment of Student Thinking (FAST), these assessments provide information in mastering grade-level standards for PreK-8 and provide information on students' progress to parents, teachers and school and program administrators. FAST assessments are administered during three Progress Monitoring (PM) windows: beginning of the school year (PM1), middle of the school year (PM2) and end of the school year (PM3). **For grades 3-8 FAST Mathematics PM3: In accordance with s. 1008.22(3)(a), F.S., PM3 will be considered the statewide, standardized assessment in mathematics and will be used for accountability purposes.*
- Florida Alternate Assessment (FAA): The FAA is aligned with Access Points - Alternate Academic Achievement Standards (AP-AAAS). AP-AAAS reflects the most salient content of Florida's statewide academic achievement standards that apply to all students in the same grade. Students with a most significant cognitive disability who meet the criteria in the Rule 6A-1.0943, F.A.C., Statewide Assessment for Students with Disabilities, may participate in the FAA if their individual educational plan team determines it is the most appropriate assessment option.

For more information regarding FAST assessments, please visit fldoe.org/accountability/assessments/k-12-student-assessment/best/.