FLORIDA'S BENCHMARKS FOR EXCELLENT STUDENT THINKING STANDARDS

Parent Guide for Grade 3 Mathematics

The Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards for Mathematics are the state's mathematical standards that pave the way for Florida students to receive a world-class education and prepare them for a successful future.

Education leaders from across the state came together to develop Florida's B.E.S.T. Standards for Mathematics. These standards and benchmarks are goals that students are expected to achieve by the end of the school year. A standard is an overarching criterion for a grade level or grade band. A benchmark is a specific expectation or skill for the grade level or grade band that falls within a standard. The B.E.S.T. Standards are designed to ensure that ALL students reach their greatest potential.

THESE STANDARDS WERE WRITTEN TO:

Provide clarity on the grade-level expectations for educators, parents and students.

Allow students flexibility to solve problems using a method/strategy of their choice.

Allow for student discovery (i.e., exploration) of strategies rather than the teaching, naming and assessing of each strategy individually.

Preparing your student for success begins in Kindergarten and continues as your child progresses through each grade. This guide will support parents, guardians and families with students in Grade 3 by helping them:

- **LEARN about the B.E.S.T. Standards for Mathematics and why they matter for your student.**
- **UNDERSTAND important educational (academic) words that you will see in your student's grade-level standards and benchmarks.**
- **TALK with your student's teacher about what they will be learning in the classroom.**
- **LOCATE activities and resources to support your student's learning in practical ways at home.**

Learn About the Grade 3 Mathematics Standards

This table describes the areas of emphasis within Grade 3 and provides examples of specific expectations within each area of emphasis. The purpose of the areas of emphasis is not to guide specific units of learning and instruction, but rather provide insight on major mathematical topics that will be covered within the grade level. The table below is not in any set order in which areas should be taught. Areas of emphasis may be taught in any order, combined with others and taught throughout the year.

Area of Emphasis	Examples
Adding and subtracting multi-digit whole numbers, including using a standard algorithm.	• Recognize and examine place value up to the thousands place. • Explain when regrouping happens during addition and subtraction and identify the place value that is regrouped. • Solve multi-digit addition and subtraction with accuracy and efficiency. • Compose and decompose four-digit numbers in multiple ways using thousands, hundreds, tens and ones (e.g., the number 5,783 can be expressed as 5 thousands + 7 hundreds + 8 tens + 3 ones or as 56 hundreds + 183 ones). • When solving addition and subtraction problems, check calculations using the inverse operation.
Building an understanding of multiplication and division, the relationship between them and the connection to area of rectangles.	• Use manipulatives to show that 5 groups of 20 is 100 and 5 groups of 200 is 1,000. • Explain how they know multiplication and division facts, and how they can find unknown facts using known facts. • Connect area to arrays and equal groups. • Develop a formula for area and perimeter based on understanding of multiplication and attributes of shapes.
Developing an understanding of fractions.	• Recognize the difference between the meaning of numerators and denominators in fractions. • Recognize that as the denominator decreases, each part becomes larger, and as the denominator increases, each part becomes smaller. • Represent fractions using manipulatives (e.g., fraction strips or circles), visual area models (e.g., partitioned shapes) and on a number line. • Count by unit fractions to a given value. • Explain how fractions are equivalent or not equivalent using model, number lines and manipulatives.
Extending geometric reasoning to lines and attributes of quadrilaterals.	• Identify evidence of these geometric attributes in real-life images (e.g., aerial views of city maps, photos of objects). • Use math vocabulary when identifying geometric lines and figures. • Fold various shapes (images, letters, etc.) to determine if there are lines of symmetry or not. • Draw lines of symmetry and identify line-symmetric figures.

B.E.S.T. Instructional Guide for Mathematics

The B.E.S.T. Instructional Guide for Mathematics (B1G-M) is intended to assist educators with planning for student learning and instruction aligned to Florida's Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards. This guide is designed to aid high-quality instruction through the identification of components that support the learning and teaching of the B.E.S.T. Mathematics Standards and Benchmarks. The B1G-M can be utilized by parents, guardians and families to support learning at home through the Instructional Strategies section.

This document is posted on the B.E.S.T. Standards for Mathematics webpage (https://www.fldoe.org/academics/standards/subject-areas/math-science/mathematics/bestmath.stml) of the Florida Department of Education's website and will continue to undergo edits as needed.

Mathematical Words to Know and Use in Grade 3

Area	Commutative property of multiplication	Divisor	Factors	Line segments	Perimeter	Ray	Standard form
Area model	Composite figure	Equal sign	Fractions greater than 1	Liquid volume	Perpendicular	Rectangle	Trapezoid
Attribute	Denominator	Equation	Intersecting	Multiplication	Place value	Rectangular array	Triangle
Associative property of multiplication	Difference	Equivalent	Inverse operations	Number line	Polygon	Rhombi	Whole number
Bar graph	Distributive property	Estimate	Labels	Numerator	Points	Rounding	Word form
Categorical data	Dividend	Expanded form	Line	Parallel	Product	Square	Unit fraction
Circle graph	Division	Expression	Line of symmetry	Parallelogram	Quadrilateral	Sum	

Note: This is not a comprehensive list – please access the K-5 Glossary at https://cpalmsmediaprod.blob.core.windows.net/uploads/docs/standards/best/ma/appendixc.pdf.

Support Learning at Home

You can encourage learning mathematics at home in ways that are fun for you and your student. Try these ideas after school, on weekends and during the summer:

- ✓ Add the total miles traveled each day when planning a road trip.
- ✓ Subtract segments of a road trip from the total miles traveled.
- ✓ Find the area of a tile floor by counting the side lengths of the tiles and multiplying (length x width).
- ✓ Toss 2 dice and multiply the numbers.
- ✓ Use skip counting to count out a group of nickels or dimes and connect it to a multiplication equation.
- ✓ Count the number of slices of pizza (denominator = bottom number/whole) and create a fraction for each family member using the number of pieces they eat as the numerator (top number/part).
- ✓ Tell time by partitioning a clock into halves and fourths, using the terms half of, half past, quarter of, quarter after and quarter till. Practice telling time to the minute.
- ✓ Point out intersecting lines, perpendicular lines and parallel lines on signs, in stores and when out in nature.
- ✓ Identify quadrilaterals in stores, while driving and at the park (parallelograms, rhombi, rectangles, squares and trapezoids).
- ✓ Identify two-dimensional figures that have lines of symmetry (partitioning and matching halves; there could be more than one line of symmetry in some shapes).

Talk with Your Student's Teacher

Remember, you are your student's first teacher. Think about a parent-teacher conference as a "team meeting" in which you will discover the special contributions each of you bring to your student's success. Here are some questions you could ask to prompt discussions:

Which facts or figures is my student working on? Which have they mastered? How can I support them at home?

In the area of mathematics, what are my student's strengths? How are those strengths supported during instruction? Where is my student struggling and how can I help?

Can my student show you that they understand what they are learning about through manipulatives, drawing, talking and writing? If not, what challenges are they facing?

What topics in connection to science and social studies is my student learning about through math?

What behaviors should I see when my student is doing math? Can I see an example of the type of problems my student is given? How can I support them at home?

Mathematical Thinking and Reasoning Standards (MTRs)
Florida students are expected to engage with mathematics through the Mathematical Thinking and Reasoning Standards (MTRs). These standards are written in clear language so all stakeholders can understand them, and teachers can assist students to use them as self-monitoring tools. The MTRs promote deeper learning and understanding of mathematics. By understanding the MTRs, parents, guardians and families can support the development of these skills at home.

MA.K12.MTR.1.1 Actively participate in effortful learning both individually and collectively.		**MA.K12.MTR.2.1** Demonstrate understanding by representing problems in multiple ways.
MA.K12.MTR.3.1 Complete tasks with mathematical fluency.		**MA.K12.MTR.4.1** Engage in discussions that reflect on the mathematical thinking of self and others.
MA.K12.MTR.5.1 Use patterns and structure to connect mathematical concepts.	**MA.K12.MTR.6.1** Assess the reasonableness of solutions.	**MA.K12.MTR.7.1** Apply mathematics to real-world contexts.

Your student will develop the above skills (MTRs) throughout their education and during their life. These skills will help maintain positive relationships through effective communication, collaboration, conflict resolution and problem solving.

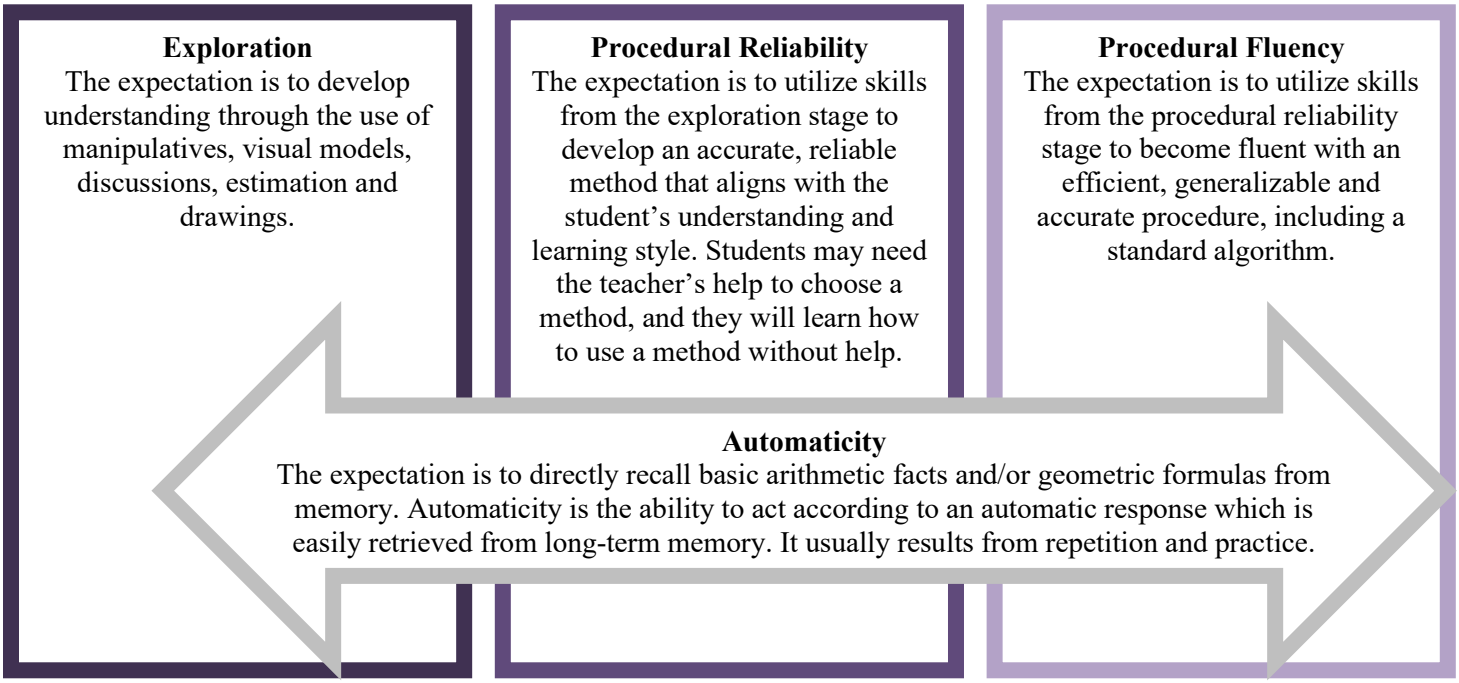
Below are some ways you can help develop mathematical thinking and reasoning skills for your Grade 3 student:

- ✓ Encourage your student to ask questions when they do not understand what is being asked of them.
- ✓ Ask your student to estimate before determining a solution to the task at hand.
- ✓ Identify a problem and create a plan to tackle it in smaller steps that are more manageable.
- ✓ Try activities like a scavenger hunt or a puzzle.

By helping to develop your student's mathematical thinking and reasoning skills, you will prepare them to become a confident, independent and successful individual.

Fluency

Building a strong numeracy foundation is critical to every child's mathematical success. The B.E.S.T. Standards for Mathematics were developed to allow skills to build upon one another within a grade level as well as from one grade to the next. Benchmark expectations have been developed with a hierarchy in mind consisting of three stages: exploration, procedural reliability and procedural fluency. The three stages illustrated below show the stages students may work through when learning new skills and concepts.



In Grade 3, students are expected to add and subtract multi-digit whole numbers up to the ten-thousands place with procedural fluency.

For example, determine the sum of 5,267 and 2,412. Students may use a standard algorithm or a strategy that is reliable and accurate for them. Therefore, 5,267 + 2,412 = 7,679.

For example, determine the difference between 5,267 and 2412. Students may use a standard algorithm or a strategy that is reliable and accurate for them. Therefore, 5,267 – 2,412 = 2,855.

Students are also expected to become procedurally reliable with the multiplication of whole numbers with products from 0 to 144 and division with related facts.

For example, determine the product of 6 and 4. Students may use an array to show 6 rows of 4 or 4 rows of 6 and use repeated addition to solve. Therefore, 6 + 6 + 6 + 6 = 24 of 6 × 4 = 24.

For example, determine the quotient of 24 and 6. Students may use an array to show 6 rows of 4 and use related facts to determine that if 6 × 4 is 24 then 24 ÷ 6 = 4.