



B.E.S.T. Standards for Mathematics: Journey to Implementation

November 10, 2021

Florida Organization of Instructional Leaders



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Learning Outcomes

- Participants will gain an understanding of the history of Florida's B.E.S.T. Mathematics Journey.
- Participants will learn about how FDOE is continuing its implementation journey with the B.E.S.T. Standards for Mathematics.
- Participants will reflect and discuss how they can be involved with their district and FDOE to ensure the B.E.S.T. Standards are implemented with fidelity.



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B.E.S.T. Standards for Mathematics Journey

Journey Through the B.E.S.T. Standards for Mathematics

2019 – 2020 | Standards Review Process

Removal of instruction from language of standards

Benchmarks written as expectations for students by end of year



2020 – 2021 | Development of Instructional Support and PD

Created and released B1G-M for K-8 and Algebra 1/Geometry and delivered District Lead Professional Learning events

2021 B.E.S.T. District Lead Professional Development Events

- North | July 13-15, 2021
 - 226 participants
- Central | July 20-22, 2021
 - 396 participants
- South | July 27-29, 2021
 - 356 participants
- Participants consisted of District Implementation Teams including district administrators, district specialists, school administrators, teacher leaders and coaches.

2021 B.E.S.T. District Lead Professional Development Events

- Continuing learning throughout the 2021-2022 school year with monthly meetings for K-5, 6-8, 9-12 and Leadership tracks.

Questions for Your Consideration

- Did you attend as part of the your district implementation team this past July?
- Have you been attending the monthly meetings since July?
- How can you engage with your district implementation team as we prepare for the 2022-2023 school year?

Development of Florida's B.E.S.T. Standards for Mathematics

- Based on Executive Order 19-32 issued on January 31, 2019.
- Florida's B.E.S.T. Standards for Mathematics were written by workgroups consisting of Florida mathematics teacher experts. The teacher experts represent the individuals in Florida who have leadership roles in K-12 mathematics and the Florida College System.



Development of Florida's B.E.S.T. Standards for Mathematics

- Workgroups were focused on writing standards and benchmarks that are clear, concise and provide enough guidance so that districts, test developers, publishers and other related stakeholders are able to align curriculum, instruction and assessment.
- Workgroups drew on the work of the National Council of Teachers of Mathematics (NCTM); expectations from national and international assessments such as ACT, SAT, NAEP and TIMSS; comments from public and specialty stakeholders; and feedback from national mathematics and standards experts.



How?

Consistent Messaging of the B.E.S.T. Standards

- No crosswalk will be created between the MAFS and B.E.S.T.
- These benchmarks **do not**:
 - Require any “unpacking”;
 - Associate with any specific shifts (focus, coherence or rigor); nor
 - Have any specified DOK level.
- Meant to be connected, focusing on all concepts throughout the school year.
- Benchmarks built to be mastery-based with clear and concise language and with the inclusion of clarifications, examples and appendices, educators will be able to align instruction to the needs of ALL of their students.

Math Identity

- Think about when you were a student in school.
- Were you successful in math?
 - Elementary?
 - Middle?
 - High?
- What made you believe this?
- Right now, as an adult, do you believe you are successful in math? What influences your belief the most about your success in math?

K-12 Math Classrooms

- In your group, discuss what you would like a math classroom to look, sound, and feel like in your district or school.



- We require **meaningful experiences** and **connections** for better remembering **in long term memory**.
- When experiences are **personally meaningful**, storage and retrieval from long-term memory (LTM) is improved. Our brain filters and discards information it deems unnecessary and **remembers info it can connect to prior knowledge**.



(McREL, 2020)

Mathematical Thinking and Reasoning Standards

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 [REDACTED] fluency.

MA.K12.MTR.4.1 Engage in discussions that reflect on the [REDACTED] thinking of self and others.

MA.K12.MTR.5.1 Use patterns and structure to help understand and connect [REDACTED] concepts.

MA.K12.MTR.6.1 Assess the reasonableness of solutions.

MA.K12.MTR.7.1 Apply [REDACTED] to real-world contexts.



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K-12 B.E.S.T. Mathematics Courses

Elementary Grades Courses

- Grade K Mathematics
- Grade 1 Mathematics
- Grade 2 Mathematics
- Foundational Skills for Mathematics K-2
- Grade 3 Mathematics
- Grade 3 Accelerated Mathematics
- Grade 4 Mathematics
- Grade 4 Accelerated Mathematics
- Grade 5 Mathematics
- Foundational Skills for Mathematics 3-5



Grade 3		Grade 4		Grade 5	
MA.3.NSO.1.1	MA.3.AR.2.3	MA.4.NSO.1.2	MA.4.NSO.1.1	MA.5.NSO.1.1	MA.5.AR.2.1
MA.3.NSO.1.2	MA.3.AR.3.1	MA.4.NSO.1.3	MA.4.NSO.1.5	MA.5.NSO.1.2	MA.5.AR.2.2
MA.3.NSO.1.3	MA.3.AR.3.2	MA.4.NSO.1.4	MA.4.NSO.2.3	MA.5.NSO.1.3	MA.5.AR.2.3
MA.3.NSO.1.4	MA.3.AR.3.3	MA.4.NSO.2.1	MA.4.NSO.2.4	MA.5.NSO.1.4	MA.5.AR.2.4
MA.3.NSO.2.1	MA.3.M.1.1	MA.4.NSO.2.2	MA.4.NSO.2.6	MA.5.NSO.1.5	MA.5.AR.3.1
MA.3.NSO.2.2	MA.3.M.1.2	MA.4.NSO.2.5	MA.4.NSO.2.7	MA.5.NSO.2.1	MA.5.AR.3.2
MA.3.NSO.2.3	MA.3.M.2.1	MA.4.FR.1.1	MA.4.FR.1.2	MA.5.NSO.2.2	MA.5.M.1.1
MA.3.NSO.2.4	MA.3.M.2.2	MA.4.FR.1.3	MA.4.FR.2.4	MA.5.NSO.2.3	MA.5.M.2.1
MA.3.FR.1.1	MA.3.GR.1.1	MA.4.FR.1.4	MA.4.AR.1.1	MA.5.NSO.2.4	MA.5.GR.1.1
MA.3.FR.1.2	MA.3.GR.1.2	MA.4.FR.2.1	MA.4.AR.1.3	MA.5.NSO.2.5	MA.5.GR.1.2
MA.3.FR.1.3	MA.3.GR.1.3	MA.4.FR.2.2	MA.4.M.1.1	MA.5.FR.1.1	MA.5.GR.2.1
MA.3.FR.2.1	MA.3.GR.2.1	MA.4.FR.2.3	MA.4.M.1.2	MA.5.FR.2.1	MA.5.GR.3.1
MA.3.FR.2.2	MA.3.GR.2.2	MA.4.AR.1.2	MA.4.M.2.1	MA.5.FR.2.2	MA.5.GR.3.2
MA.3.AR.1.1	MA.3.GR.2.3	MA.4.AR.2.1	MA.4.M.2.2	MA.5.FR.2.3	MA.5.GR.3.3
MA.3.AR.1.2	MA.3.GR.2.4	MA.4.AR.2.2	MA.4.DP.1.1	MA.5.FR.2.4	MA.5.GR.4.1
MA.3.AR.2.1	MA.3.DP.1.1	MA.4.AR.3.1	MA.4.DP.1.2	MA.5.AR.1.1	MA.5.GR.4.2
MA.3.AR.2.2	MA.3.DP.1.2	MA.4.AR.3.2	MA.4.DP.1.3	MA.5.AR.1.2	MA.5.DP.1.1
		MA.4.GR.1.1		MA.5.AR.1.3	MA.5.DP.1.2
		MA.4.GR.1.2			
		MA.4.GR.1.3			
		MA.4.GR.2.1			
		MA.4.GR.2.2			
Grade 3 Accelerated Mathematics			Grade 4 Accelerated Mathematics		

Middle Grades Courses

- Grade 6 Mathematics
- Grade 6 Accelerated Mathematics
- Grade 7 Mathematics
- Grade 7 Accelerated Mathematics
- Grade 8 Mathematics
- Foundational Skills for Mathematics 6-8



Grade 6		Grade 7		Grade 8	
MA.6.NSO.1.1	MA.6.AR.2.4	MA.7.NSO.2.1	MA.7.NSO.1.1	MA.8.NSO.1.1	MA.8.F.1.1
MA.6.NSO.1.2	MA.6.AR.3.1	MA.7.NSO.2.2	MA.7.NSO.1.2	MA.8.NSO.1.2	MA.8.F.1.2
MA.6.NSO.1.3	MA.6.AR.3.2	MA.7.NSO.2.3	MA.7.AR.2.2	MA.8.NSO.1.3	MA.8.F.1.3
MA.6.NSO.1.4	MA.6.AR.3.3	MA.7.AR.1.1	MA.7.AR.3.3	MA.8.NSO.1.4	MA.8.GR.1.1
MA.6.NSO.2.1	MA.6.AR.3.4	MA.7.AR.1.2	MA.7.AR.4.1	MA.8.NSO.1.5	MA.8.GR.1.2
MA.6.NSO.2.2	MA.6.AR.3.5	MA.7.AR.2.1	MA.7.AR.4.2	MA.8.NSO.1.6	MA.8.GR.1.3
MA.6.NSO.2.3	MA.6.GR.1.1	MA.7.AR.3.1	MA.7.AR.4.3	MA.8.NSO.1.7	MA.8.GR.1.4
MA.6.NSO.3.1	MA.6.GR.1.2	MA.7.AR.3.2	MA.7.AR.4.4	MA.8.AR.1.1	MA.8.GR.1.5
MA.6.NSO.3.2	MA.6.GR.1.3	MA.7.GR.1.1	MA.7.AR.4.5	MA.8.AR.1.2	MA.8.GR.1.6
MA.6.NSO.3.3	MA.6.GR.2.1	MA.7.GR.1.2	MA.7.GR.1.3	MA.8.AR.1.3	MA.8.GR.2.1
MA.6.NSO.3.4	MA.6.GR.2.2	MA.7.DP.1.1	MA.7.GR.1.4	MA.8.AR.2.1	MA.8.GR.2.2
MA.6.NSO.3.5	MA.6.GR.2.3	MA.7.DP.1.2	MA.7.GR.1.5	MA.8.AR.2.2	MA.8.GR.2.3
MA.6.NSO.4.1	MA.6.GR.2.4	MA.7.DP.1.3	MA.7.GR.2.1	MA.8.AR.2.3	MA.8.GR.2.4
MA.6.NSO.4.2	MA.6.DP.1.1	MA.7.DP.2.1	MA.7.GR.2.2	MA.8.AR.3.1	MA.8.DP.1.1
MA.6.AR.1.1	MA.6.DP.1.2	MA.7.DP.2.2	MA.7.GR.2.3	MA.8.AR.3.2	MA.8.DP.1.2
MA.6.AR.1.2	MA.6.DP.1.3	MA.7.DP.2.3	MA.7.DP.1.4	MA.8.AR.3.3	MA.8.DP.1.3
MA.6.AR.1.3	MA.6.DP.1.4	MA.7.DP.2.4	MA.7.DP.1.5	MA.8.AR.3.4	MA.8.DP.2.1
MA.6.AR.1.4	MA.6.DP.1.5			MA.8.AR.3.5	MA.8.DP.2.2
MA.6.AR.2.1	MA.6.DP.1.6			MA.8.AR.4.1	MA.8.DP.2.3
MA.6.AR.2.2				MA.8.AR.4.2	
MA.6.AR.2.3				MA.8.AR.4.3	
Grade 6 Accelerated Mathematics			Grade 7 Accelerated Mathematics		

Certification Alignment to Math Courses

Middle Grades Courses	
Course	Educator Certifications
Grade 6	Elementary Ed K-6; Elementary Grades 1-6; Mathematics 1-6; Middle Grades Math 5-9; Middle Grades Integrated 5-9; Mathematics 6-12
Grade 6 Accelerated	Middle Grades Math 5-9; Mathematics 6-12
Grade 7	Middle Grades Math 5-9; Middle Grades Integrated 5-9; Mathematics 6-12
Grade 7 Accelerated	Middle Grades Math 5-9; Mathematics 6-12
Grade 8	Middle Grades Math 5-9; Middle Grades Integrated 5-9; Mathematics 6-12
Foundational Skills in 6-8 Mathematics	Middle Grades Math 5-9; Middle Grades Integrated 5-9; Mathematics 6-12

<https://www.fldoe.org/academics/standards/subject-areas/math-science/mathematics/>

High School Courses

- Algebra I
- Algebra I Honors
- Algebra I-A
- Algebra I-B
- Geometry
- Geometry Honors
- Math for Data and Financial Literacy
- Math for Data and Financial Literacy Honors
- Probability and Statistics Honors
- Algebra II
- Algebra II Honors
- Math for College Algebra
- Math for College Liberal Arts
- Math for College Statistics
- Precalculus Honors
- Calculus Honors
- Discrete Math Honors
- Foundational Skills in Mathematics 9-12

Equally Rigorous Courses for Scholar Designation

Equally Rigorous to Algebra 2 (#1200330)	
Course Number	Course Title
1200340	Algebra 2 Honors
1200388	Mathematics for Data and Financial Literacy Honors
1200395	IB Middle Years Programs Algebra II
1209825	Pre-AICE Mathematics 3 IGCSE Level
	Any college, credit-bearing mathematics course, including Advanced Placement and dual enrollment, where college credit is earned

Equally Rigorous Courses for Scholar Designation

Equally Rigorous to Statistics (#1210300)	
Course Number	Course Title
1212300	Discrete Mathematics Honors
1202340	Precalculus Honors
1202300	Calculus Honors
1209300	IB Applications and Interpretation 1
1202352	AICE Mathematics 1 AS Level
1202362	AICE Mathematics & Probability & Statistics 1 AS Level
1202364	AICE Mathematics & Probability & Statistics 2 A Level
	Any college, credit-bearing mathematics course, including Advanced Placement and dual enrollment, where college credit is earned



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B.E.S.T. Standards for Mathematics Resources

FDOE Website

Mathematics

B.E.S.T. Standards for Mathematics

The Florida Department of Education is excited to announce Florida's Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards for Mathematics were adopted by the State Board of Education on February 12, 2020. Additionally, on September 23, 2020 the SBE approved the amendment to Rule 6A-1.09412, Course Requirements – Grades K-12 Basic and Adult Secondary Programs. This amendment adopted ELA, mathematics and non-ELA and non-mathematics subject area course descriptions that include the B.E.S.T. Standards for English Language Arts and Mathematics. The B.E.S.T. Standards for Mathematics will be fully implemented in the 2022-2023 school year along with aligned instructional materials and statewide assessments.

- [Florida's B.E.S.T. Standards for Mathematics \(PDF\)](#)
- [Mathematical Thinking and Reasoning Standards \(PDF\)](#)
- [Mathematical Thinking and Reasoning Standards Poster \[To be printed as 24x36\] \(PDF\)](#)

B.E.S.T. Planning for Learning and Instruction

The following webpage is intended to provide course information, instructional guides and other resources to support the learning and instruction of the B.E.S.T. Standards for Mathematics.

- [B.E.S.T. Standards for Mathematics](#)

B.E.S.T. Professional Learning for Mathematics

<https://www.fldoe.org/academics/standards/subject-areas/math-science/mathematics/>

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

- Intended to assist educators with planning for student learning and instruction aligned to B.E.S.T. Standards.
- Includes an analysis of information related to the B.E.S.T. Standards within this specific mathematics course, the instructional emphasis and aligned resources.
 - Connecting Benchmarks
 - Instructional Strategies
 - Common Misconceptions and Errors
 - Instructional Tasks and Instructional Items

Components of the B.E.S.T. Instructional Guide for Mathematics (B1G-M)

- Benchmark
 - Focal point for instruction within lesson or task
- Connecting Benchmarks/Horizontal Alignment
 - In other standards within the grade level or course
- Terms for the K-12 Glossary
- Vertical Alignment
 - Across grade levels or courses

Connecting Benchmarks

- Language of *connecting benchmarks* to make those mathematical connections throughout the school year.
- Connecting benchmark(s) should:
 - Make a mathematical connection;
 - Be a possible prerequisite benchmark;
 - Be authentic and purposeful; and
 - Support student learning in order to gain mastery by the end of the year.

Components of the B.E.S.T. Instructional Guide for Mathematics (B1G-M)

- Purpose and Instructional Strategies
- Common Misconceptions or Errors
- Instructional Tasks
 - Demonstrate the depth of the benchmark and the connection to horizontal alignment
- Instructional Items
 - Demonstrate the focus of the benchmark

Transition to the B.E.S.T. Standards

- Instructional Guidance for Transition to the New B.E.S.T. Standards for Mathematics
 - Provides educators with an overview of major changes in mathematical concepts within the courses incorporating the Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards for Mathematics as compared to the current courses utilizing the Mathematics Florida Standards (MAFS).

B.E.S.T. Standards Progression

- Documents that provide information for the intentional progression of the standards by grade band (K-5, 6-8 and 9-12) and by strand.
- These are intended to provide mathematics educators with an overview of the standards progression of the B.E.S.T. Standards for Mathematics.



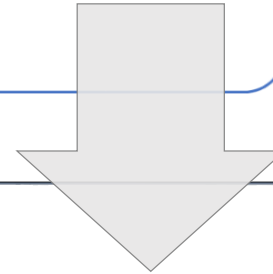
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Continuing Florida's B.E.S.T. Mathematics Journey

Journey Through the B.E.S.T. Standards for Mathematics

2021 – 2022 | Professional Development and Implementation

Develop Tier 2/3 resources for B1G-M, develop B1G-M for 9-12 courses and continue professional development



2022 – 2023 SY | Implementation

Aligned instructional materials and assessment implemented with the B.E.S.T. Standards for Mathematics

B.E.S.T. Access Points

- To align to both the federal terminology and the adopted standards, the former term of Florida Standards Access Points has been revised to The Benchmarks for Excellent Student Thinking (B.E.S.T.) Access Points-Alternate Academic Achievement Standards (AP-AAAS) for English Language Arts and Mathematics.
- The B.E.S.T AP-AAAS for ELA and Math are only available for grades 3-12.

<https://www.fldoe.org/core/fileparse.php/18736/urlt/AccessPointsMath.pdf>

Aligning Assessments & Materials

- Please reach out to the [Office of Assessment](#) for any questions regarding assessments.
- Instructional Materials Timeline
 - November 2020 – Instructional Materials Specifications and Course Call
 - April – May 2021 – Intent to Bid
 - June 2021 – Bid Details, legal submission of bid
 - July 2021 – Materials due to department
 - August 2021 – Call for Reviewers
 - September 2021 – Review Period begins
 - Spring 2022 – Adoption Report
 - April 1, 2022 – Contract Period begins

9-12 B1G-M Development

- Currently working on developing the following 9-12 courses:
 - Math for Data and Financial Literacy
 - Math for Data and Financial Literacy Honors
 - Math for College Algebra
 - Math for College Liberal Arts
 - Math for College Statistics



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Upcoming Events

PAEMST 2021-2022

- Nominations for grade K-6 teachers in Science, Technology, Engineering, Math and/or Computer Science are now open and will close January 7, 2022.
- Applications are now open and are due February 6, 2022.
- Please visit www.paemst.org to submit your nominations or to apply.
- For more information, email Alicia Foy Alicia.Foy@fldoe.org.

2022 B.E.S.T. Mathematics Professional Learning Events

- Participants can choose to attend one of four tracks: K-5, 6-8, 9-12 and Leadership.
- Locations
 - North, Leon County
 - June 6 – 10, 2022
 - Central, Osceola County
 - June 20 – 24, 2022
 - South, St. Lucie County
 - June 27 – July 1, 2022



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Discussion

Discussion | Think Forward

- How do you help your stakeholders understand the magnitude of the transition to the B.E.S.T. Standards?
- How could you ensure sustained support for teachers throughout the 2022-23 school year and beyond? (not one moment...what is sustained support?)
- How do you ensure the B.E.S.T. Standards are taught with fidelity?

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