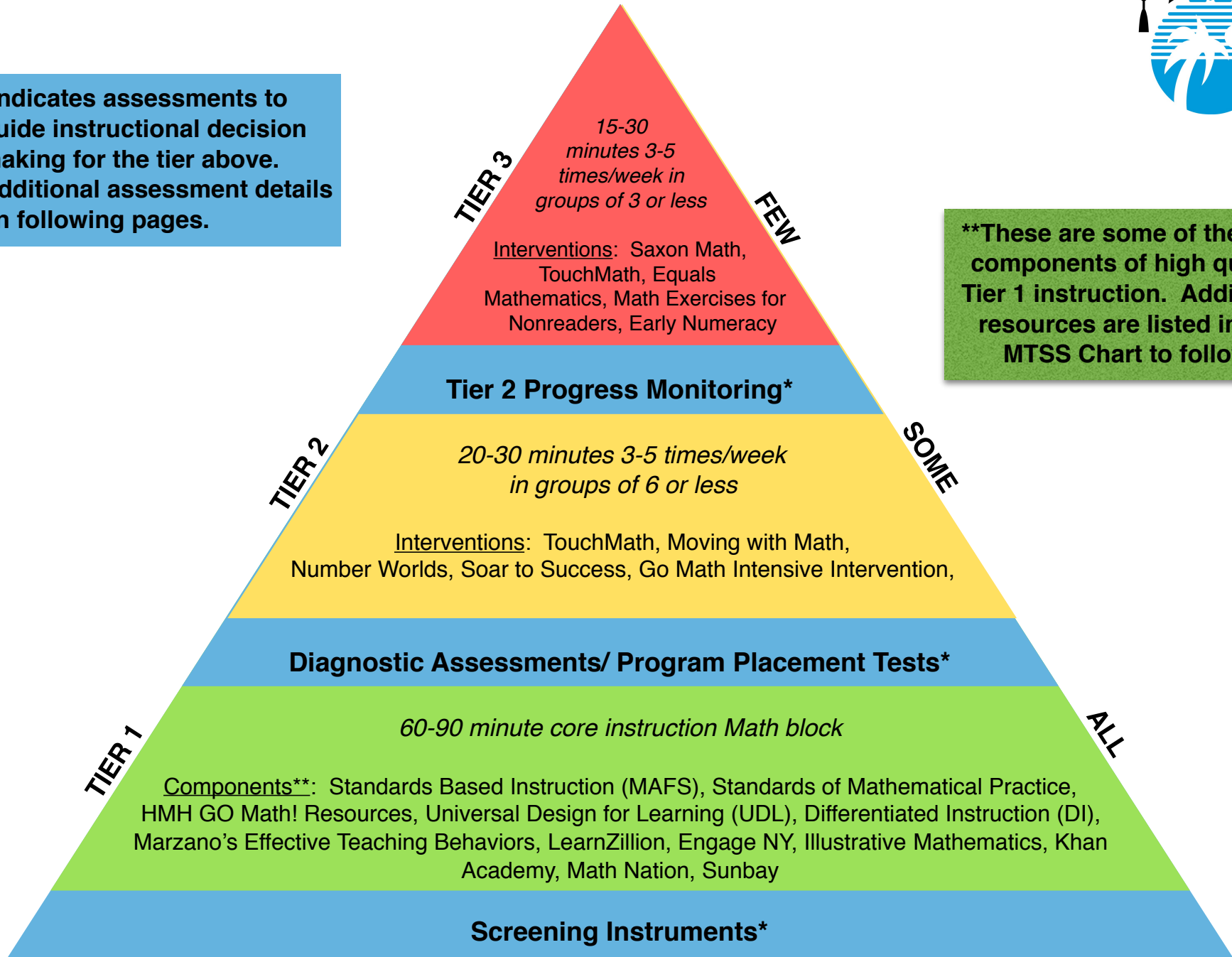


Multi-Tiered System of Supports (MTSS) for K-12 Mathematics 2017-18



*Indicates assessments to guide instructional decision making for the tier above. Additional assessment details on following pages.

**These are some of the core components of high quality Tier 1 instruction. Additional resources are listed in the MTSS Chart to follow.



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TIER 1			
Core Components			
<p>MAFS and MATHEMATICAL PRACTICE STANDARDS</p> <p>HOUGHTON MIFFLIN HARCOURT GO Math! (Grades K-5)</p> <ul style="list-style-type: none"> • Reteach • Enrich • Strategic Intervention • Intensive Intervention • Animated Math • Real World Videos • Interactive Whiteboard Lessons <p>All resources are available through Think Central and can be used for Tier 1 and Tier 2 with appropriate progress monitoring.</p>	<p>MAFS and MATHEMATICAL PRACTICE STANDARDS</p> <p>HOUGHTON MIFFLIN HARCOURT GO Math! (Grades 6-8)</p> <ul style="list-style-type: none"> • Personal Math Trainer • Are You Ready? • Math On the Spot • Animated Math • Real World Videos • Interactive Whiteboard Lessons • Knewton Adaptive Learning • Daily Intervention • Course Intervention • Standards Based Intervention <p>All resources are available through my.hrw.com and can be used for Tier 1 and Tier 2.</p> <p>SUNBAY MATH (Grades 6-8)</p>	<p>MAFS and MATHEMATICAL PRACTICE STANDARDS</p> <p>PEARSON Liberal Arts 1 & Math for College Readiness</p> <ul style="list-style-type: none"> • Review Cards • Overcoming Math Anxiety Videos • Concept Videos • Vocabulary Flash Cards • Animation • Learning Activities • Multi-media Textbook • Explore • Student Organizer • Video Notebook • Math XL <p>All resources are available through MyMathLab.com and can be used for Tier 1 and Tier 2.</p> <p>MATH NATION (Gr. 8 – Alg 2)</p>	<p>MAFS and MATHEMATICAL PRACTICE STANDARDS</p> <p>HOLT McDUGAL Florida Explorations in CORE Math Algebra 1, Geometry, Algebra 2</p> <ul style="list-style-type: none"> • Reading Strategies • Reteach • Problem Solving • Challenge • Lesson Tutorial Videos • Power Presentations • Multilingual Glossary • Are You Ready? • Online Interactivities • IDEA! Works <p>HOUGHTON MIFFLIN HARCOURT Algebra 2 H, Geometry H</p> <ul style="list-style-type: none"> • Practice and Problem Solving • Reteach • Reading Strategies • Success for English Learners • Differentiated Instruction • Extend the Math Activity <p>All resources are available through my.hrw.com and can be used for Tier 1 and Tier 2.</p> <p>MATH NATION (Gr. 8 – Alg 2)</p>

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SCREENING INSTRUMENTS

The following assessments determine mathematics instructional levels for students:

- Go Math! Pre-Requisite Skills Inventory (Gr. K – 5)
- Publisher-made Diagnostic and Placement Tests (Gr. 6 – 12)
- District Algebra Readiness Assessment (Gr. 6-10)
- FSA/EOC Assessment Data from previous year (Gr. 4-12)

MONITORING PROGRESS

The following formative assessments monitor progress for all mathematics standards:

- Performance Tasks (K- Alg 2)
- Go Math! Beginning of Year, Middle of Year, and End of Year Assessments (K-8)
- Publisher-made Chapter Assessments (K-5)
- Teacher(PLC)- created Assessments (K-12)
- USA Test Prep (Gr. 6 – Geometry)
- iReady (K-8)
- TenMarks (Gr. 1 – Algebra/Geometry)
- ALEKS (Gr. 3-12)
- Math XL

OTHER RESOURCES and PROGRAMS

PRINT	ONLINE
BORENSEN AND ASSOCIATES, INC. <ul style="list-style-type: none"> • Hands on Equations (Gr. 4-6) CURRICULUM ASSOCIATES <ul style="list-style-type: none"> • Ready Florida Mathematics (Gr. K – 8) ETA / HAND 2 MIND <ul style="list-style-type: none"> • Manipulatives (K – 8) • Hands on Standards (K - 8) • Hands on Standards: Fractions (3-5) • Hands on Standards: Number Sense (K-5) • The Super Source (PreK – 8) • Versatiles (Gr. PreK – 10) HOUGHTON MIFFLIN HARCOURT <ul style="list-style-type: none"> • Everyday Counts (Gr. PreK – 6) 	ACHIEVE THE CORE <ul style="list-style-type: none"> • GoMath! Guidance Document and Fluency Resources (Gr. K - 5) EXPLORELEARNING <ul style="list-style-type: none"> • Reflex Math (Gr. 2 – 5) • Gizmos (Gr. 3 – 12) GEOGEBRA <ul style="list-style-type: none"> • www.geogebra.org (Gr. 6 & Up) GREAT MINDS EUREKA MATH <ul style="list-style-type: none"> • http://greatminds.net/ (Gr. PK – 12) ILLUMINATIONS <ul style="list-style-type: none"> • http://illuminations.nctm.org (Gr. PreK – 12) ILLUSTRATIVE MATHEMATICS

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	<ul style="list-style-type: none">• https://www.illustrativemathematics.org/ (Gr. K - 12) <p>KHAN ACADEMY</p> <ul style="list-style-type: none">• www.khanacademy.org (Gr. K - 12) <p>LEARNZILLION</p> <ul style="list-style-type: none">• https://learnzillion.com (Gr. 2 - 12) <p>McGRAW HILL EDUCATION</p> <ul style="list-style-type: none">• ALEKS (Gr. 9-12) <p>NATIONAL LIBRARY OF VIRTUAL MANIPULATIVES (Gr. K - 12)</p> <ul style="list-style-type: none">• http://nlvm.usu.edu <p>SCHOLASTIC</p> <ul style="list-style-type: none">• Study Jams (Gr. PK - 5) <p>SUNTEX</p> <ul style="list-style-type: none">• First in Math (Gr. K - 8)
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TIER 2 (in addition to Tier 1)	
PROGRAMS and INTERVENTIONS	
PRINT	ONLINE (must be used in conjunction with teacher-directed component)
INNOVATIVE LEARNING CONCEPTS <ul style="list-style-type: none"> • Touch Math (Gr. K - 5) MATH TEACHERS PRESS <ul style="list-style-type: none"> • Moving with Math: Connections (Gr. PreK – 2) • Moving with Math: Foundations (Gr. 1-4) • Moving with Math: Math by Topic (Gr. 1 - 8) • Moving with Math: Algebra (Gr. 7+) TRIUMPH LEARNING <ul style="list-style-type: none"> • Florida Performance and/or Support Coach (Gr. 3-5) GO MATH INTERVENTION (with progress monitoring)	CURRICULUM ASSOCIATES <ul style="list-style-type: none"> • iReady (Gr. K – 8) EXPLORELEARNING <ul style="list-style-type: none"> • Reflex Math (Gr. 2 – 5) • Gizmos (Gr. 3 – 12) McGRAW HILL EDUCATION <ul style="list-style-type: none"> • Building Blocks (Gr. PreK) • ALEKS (Gr. 3 -12)
DIAGNOSTIC ASSESSMENTS	
INDIVIDUAL	GROUP
PEARSON ASSESSMENTS <ul style="list-style-type: none"> • Key Math – 3 (Ages 4-22) PRO-ED <ul style="list-style-type: none"> • Test of Early Mathematical Ability (TEMA-3) (Gr. PreK - 3) • Comprehensive Mathematical Ability Test (CMAT) (Gr. 3-12) 	PEARSON ASSESSMENTS <ul style="list-style-type: none"> • Group Mathematic Assessment and Diagnostic Evaluation (GMADE) (Gr. K & Up) PRO-ED <ul style="list-style-type: none"> • Test of Mathematical Ability (TOMA-3) (Gr. 6 – 12)
MONITORING PROGRESS	
<ul style="list-style-type: none"> • You will use the specific progress monitoring assessments in that are embedded in each intervention program (whether print or online) as data collection for Response to Intervention (Rtl) or Individual Education Plans (IEPs). • Data should be collected at least weekly, possibly more frequently depending on program and student needs. • These programs can also be utilized for Tier 3 if intensity is increased (smaller groups and more time). 	

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TIER 3 (in addition to Tier 1 & 2) (ALSO FOR STUDENTS WITH SIGNIFICANT COGNITIVE DISABILITIES - Access Points)	
INTERVENTION PROGRAMS	ONLINE (must be used in conjunction with teacher-directed component)
<p>ABLENET</p> <ul style="list-style-type: none"> • Equals Mathematics (Gr. K -12) • Focus on STEM (Gr. 1-5) • Equals Pre-Algebra & Pre-Geometry (Gr. 5-12) <p>ATTAINMENT INC.</p> <ul style="list-style-type: none"> • Teaching to Standards: Math (Gr. 6 - 12) • Early Numeracy (Gr. K-5) • Explore Math (Gr. 6-12) <p>INNOVATIVE LEARNING CONCEPTS</p> <ul style="list-style-type: none"> • Touch Math (Gr. K - 12) <p>MAYER-JOHNSON LLC</p> <ul style="list-style-type: none"> • Math Exercises for Nonreaders (Gr. K - 8) <p>McGRAW HILL EDUCATION</p> <ul style="list-style-type: none"> • Number Worlds (Gr. PreK - 8) <p>PRO•ED</p> <ul style="list-style-type: none"> • Early Numeracy Intervention (ENI) (Gr. K -5) <p>HOUGHTON MIFFLIN HARCOURT</p> <ul style="list-style-type: none"> • Saxon Math (Gr. K - 4) 	<p>ATTAINMENT INC.</p> <ul style="list-style-type: none"> • Dollars and Cents Software (Gr. 3 - 8) • Stages Math Software: Number Sense (Gr. K - 8) <p>MAYER-JOHNSON LLC</p> <ul style="list-style-type: none"> • Intellitools Classroom Suite (Gr. PreK - 8) <p>McGRAW HILL EDUCATION</p> <ul style="list-style-type: none"> • Building Blocks (Gr. PreK) • ALEKS (Gr. 3 -12) <p>N2Y</p> <ul style="list-style-type: none"> • Unique Learning System (Gr. K - 12)
MONITORING PROGRESS	
<ul style="list-style-type: none"> • You will use the specific progress monitoring assessments that are embedded in each intervention program (whether print or online) as data collection for Response to Intervention (Rtl) or Individual Education Plans (IEPs). • Data should be collected at least weekly, possibly more frequently depending on program and student needs. • Progress-Monitoring data from Tier 2 should be used to guide Tier 3 instructional decision-making. If a new program is implemented for Tier 3, then a placement test for that program should be given. 	

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Teacher Reference Books

ASSOCIATION FOR SUPERVISION AND CURRICULUM DEVELOPMENT

- Robert Marzano, Debra Pickering, and Jane Pollock, Classroom Instruction That Works
- Carol Ann Tomlinson, How to Differentiate Instruction In Academically Diverse Classrooms (3rd Edition)

LAWRENCE ERLBAUM ASSOCIATES

- Liping Ma, Knowing and Teaching Elementary Mathematics

MATH SOLUTIONS PUBLICATIONS

- Marilyn Burns, About Teaching Mathematics

NATIONAL ACADEMY PRESS

- Adding It Up-Helping Children Learn Mathematics

NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS

- Principles and Standards for School Mathematics
- A Research Companion to Principles and Standards for School Mathematics

PEARSON EDUCATION

- John A. Van De Walle, Elementary and Middle School Mathematics Teaching Developmentally, 5th ed.
- The Van De Walle Professional Mathematics Series, Teaching Student-Centered Mathematics (K-3, 3-5)
- Helene Sherman, Lloyd Richardson, and George Yard, Teaching Children Who Struggle with Mathematics (Grades K-3, 3-5)
- John A. Van De Walle, Teaching Secondary and Middle School Mathematics

PEARSON SKYLIGHT

- Timothy McNamara, Key Concepts in Mathematics: Strengthening Standard Practice, (Grades 6-8)

TEACHERS COLLEGE PRESS

- Marian Small, Good Questions: Great Ways to Differentiate Mathematics Instruction, 2nd Edition

CORWIN

- John Hattie, Douglas Fisher, and Nancy Frey, Visible Learning for Mathematics