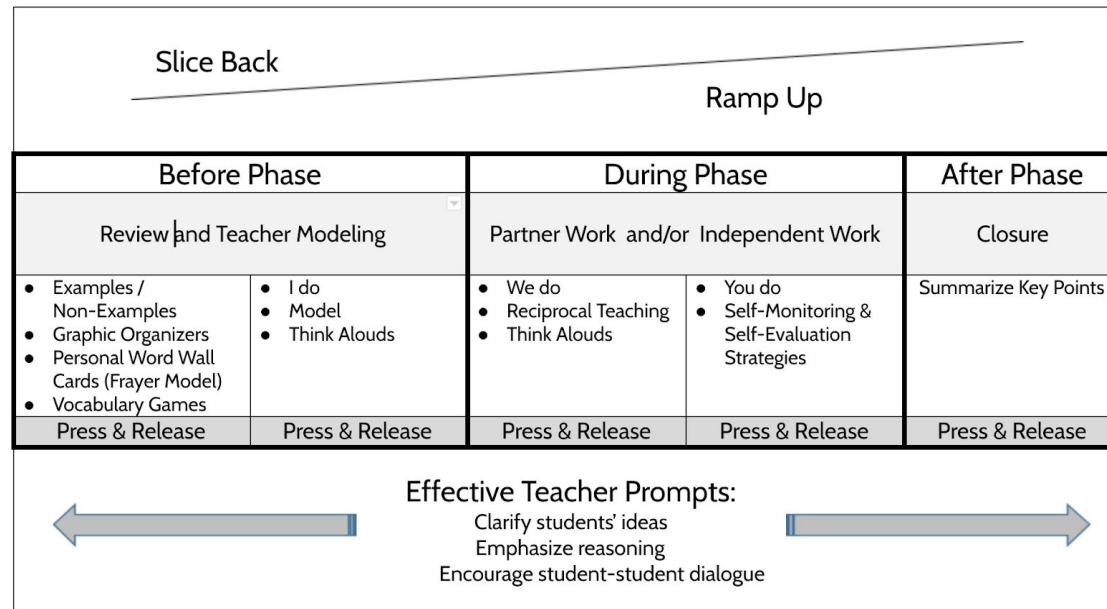


CTSS Math Intervention Resource Map

	Tier 1 Core Instruction 80% of students	Tier 2 15% of students	Tier 3 5% of students
Who?	Universal - ALL Students (with differentiated instruction)	Students who need extra support with grade level curriculum (just below grade level)	More than two grade levels below (significantly below)
Where & When?	In Classroom: Everyday K-4 60 mins. 5-8 90 mins.	In Classroom Small Group: (3-8 group size) During Intervention Time (an additional 20-30 minutes 2-3 days a week)	Pull Out: (1-3 group size) During Intervention time (an additional 30-60 minutes 3-5 days a week)
What Does it Look Like?	<p>Math Instructional Framework (secondary) Elementary Math Diet</p> <p>80% of students should respond to Tier 1 core instruction; if not, strengthen Tier 1 instruction</p> <p>-Combination of whole-class instruction with small-group instruction (allowing for additional instruction for struggling students & providing enrichment or accelerating non-struggling students)</p> <p>-Differentiation and additional instructional support is provided to students who are struggling before moving these students to Tier 2</p> <p>-Intro to core lesson includes: Presentation of new content, which includes teacher-directed models and demonstrations with frequent questions and students actively involved in learning.</p>	<p>Instruction during intervention is more intensive and explicit than instruction in Tier 1</p> <p>Focus areas: -computational fluency -number sense -problem-solving -rational numbers</p> <p>Explicit small group instruction: -Teacher-Directed Instruction -More Models & Demonstrations -Visual representations for word problems -Explicit Problem-Solving Strategies -Focused Instruction on Deficit Areas -Think Alouds -Corrective Feedback -CRA- concrete to representational to abstract</p> <p>Interventions should include instruction on solving word problems that are based on common underlying structures.</p>	<p>Instruction during the intervention should be intensive, explicit and systematic.</p> <p>Students who receive Tier 3 interventions or alternate instruction are students who are performing below standards and have not adequately responded to Tier 1 instruction and Tier 2 intervention.</p> <p>This includes providing models of proficient problem solving, verbalization of thought processes, guided practice, corrective feedback, and frequent cumulative review.</p> <p>Interventions should include instruction on solving word problems that are based on common underlying structures.</p>
How do I Progress Monitor & When?	<ul style="list-style-type: none"> ● Math MAP (BOY & EOY) ● SOLs (EOY) ● Term Assessments (Quarterly) ● Unit Assessments (2-3 per Quarter) ● CFAs (Weekly / Bi-Weekly) ● Quick Checks / Exit Tickets (Daily) ● AMC Tasks (PreK-1; monthly) 	<ul style="list-style-type: none"> ● Unit Assessments ● CFAs (Weekly / Bi-Weekly) ● Quick Checks / Exit Tickets (Daily) ● AMC Tasks (PreK-4 as needed) ● Dreambox (K-4 Assign Focus) ● AAIMS (6-8 Weekly) ● Program assessments 	<ul style="list-style-type: none"> ● Unit Assessments ● CFAs (Weekly / Bi-Weekly) ● Quick Checks / Exit Tickets (Daily) ● AMC Tasks (PreK-4 as needed) ● Dreambox (K-4 Assign Focus) ● Program assessments

	<ul style="list-style-type: none"> • Dreambox (K-4 Weekly) • AAIMS (6-8 Weekly) <p>Data should be collected and entered into the school's Data Dashboard to monitor student progress.</p>	<p>Use curriculum-embedded assessments in interventions to determine whether students are learning from the intervention. These measures can be used as often as every day or as infrequently as once every other week.</p> <p>Use progress monitoring data to regroup students when necessary.</p>	<p>Use curriculum-embedded assessments in interventions to determine whether students are learning from the intervention. These measures can be used as often as every day or as infrequently as once every other week.</p> <p>Use progress monitoring data to regroup students when necessary.</p>
<p>Entry Criteria for next Tier:</p>	<p>ALL students will receive differentiated core instruction.</p> <ul style="list-style-type: none"> • Decision-Making Rubric • Tiered Reference Table 	<p>Move to Tier 2 Intervention IF:</p> <ul style="list-style-type: none"> • < 60% on all assessments within the quarter <ul style="list-style-type: none"> ◦ Including term, unit, CFAs, quick checks • AND in bottom 10-15% of all general education students in grade 	<p>Move to Tier 3 Intervention IF:</p> <ul style="list-style-type: none"> • < 40% on all assessments within the quarter <ul style="list-style-type: none"> ◦ Including term, unit, CFAs, quick checks • AND in bottom 5% of all general education students in grade
<p>VTSS Intervention Resource Links:</p>	<ul style="list-style-type: none"> • Tier 1 Math Interventions • Tier 1 Classroom Interventions • AMC/DNC Implementation Guide • VDOE Math Instructional Resources • Researched-Based Mathematics Teaching Practices 	<ul style="list-style-type: none"> • Tier 2/3 Resource Map for Dreambox • Assisting Students Struggling with Mathematics: Response to Intervention (Rtl) for Elementary and Middle Schools • Algebra Readiness Curriculum Companion 	<ul style="list-style-type: none"> • Tier 2/3 Resource Map for Dreambox • Assisting Students Struggling with Mathematics: Response to Intervention (Rtl) for Elementary and Middle Schools • Algebra Readiness Curriculum Companion

How Should I Teach Tiered Intervention?



Power Standards & Intervention Strategies

Tier 2 & 3 Interventions

Counting & Place Value

- ✓ Target significant skills
- ✓ Target common misconceptions
- ✓ CSA / CRA
- ✓ STAR
- ✓ Self-Monitoring and Self-Evaluation Strategies
- ✓ Test-Taking Strategies
- ✓ Organizational Skills

Dreambox

- Use Assign Focus to target a specific skill/concept

AMC Resources

- Book 1: Counting, Comparing, and Pattern
- Book 3: Place Value lessons

Do the Math Modules

- Number Core

Bridges

- [Number - Counting and Early Place Value](#)

Addition & Subtraction

- ✓ Target significant skills
- ✓ Target common misconceptions
- ✓ CSA / CRA
- ✓ STAR

Dreambox

- Use Assign Focus to target a specific skill/concept

Do the Math Modules

- Number Core
- Addition and Subtraction A/B

AMC Resources

- ✓ Self-Monitoring and Self-Evaluation Strategies
- ✓ Test-Taking Strategies
- ✓ Organizational Skills

- Book 2: Addition & Subtraction

Bridges

- [Basic Addition/Subtraction](#)
- [Addition/Subtraction Word Problems](#)
- [Addition/Subtraction w/ Multi Digit Numbers](#)

Basic Math Facts

- [Increasing Math Fluency](#)
- Provide about 10 minutes per session of instruction to build quick retrieval of basic facts. Consider using technology, flashcards, and other materials for extensive practice to facilitate automatic retrieval.
- For students in kindergarten through grade 2, explicitly teach strategies for efficient counting to improve the retrieval of math facts.
- Teach students in grades 2 through 8 how to use their knowledge of properties, such as commutative, associative, and distributive law, to derive facts in their heads.

Multiplication & Division

- ✓ Target significant skills
- ✓ Target common misconceptions
- ✓ CSA / CRA
- ✓ STAR
- ✓ Self-Monitoring and Self-Evaluation Strategies
- ✓ Test-Taking Strategies
- ✓ Organizational Skills

Dreambox

- Use Assign Focus to target a specific skill/concept

Do the Math Modules

- Multiplication A / B

AMC Resources

- Book 3: Place Value, Multiplication, Division

Bridges

- [Basic Multiplication and Division](#)
- [Multiplication and Division w/ Multi Digit Numbers](#)
- [Multiplication/Division Word Problems](#)

Basic Math Facts

- [Increasing Math Fluency](#)
- Provide about 10 minutes per session of instruction to build quick retrieval of basic facts. Consider using technology, flashcards, and other materials for extensive practice to facilitate automatic retrieval.
- For students in kindergarten through grade 2, explicitly teach strategies for efficient counting to improve the retrieval of math facts.
- Teach students in grades 2 through 8 how to use their knowledge of properties, such as commutative, associative, and distributive law, to derive facts in their heads.

Fractions & Decimals

- ✓ Target significant skills
- ✓ Target common misconceptions

Dreambox

- Use Assign Focus to target a specific skill/concept

Do the Math Modules

- Fractions A,B,C

- ✓ CSA / CRA
- ✓ STAR
- ✓ Self-Monitoring and Self-Evaluation Strategies
- ✓ Test-Taking Strategies
- ✓ Organizational Skills

Bridges

- [Adding, Subtracting, and Making Sense of Fractions](#)
- [Money & Decimals](#)

Fractions

- [Sequence for Teaching Fractional Concepts](#)

Problem-Solving

- ✓ Target significant skills
- ✓ Target common misconceptions
- ✓ CSA / CRA
- ✓ STAR
- ✓ Self-Monitoring and Self-Evaluation Strategies
- ✓ Test-Taking Strategies
- ✓ Organizational Skills

Problem-Solving

- [Solving Word Problems Using Structured Organizers](#)
- [Reciprocal Peer Tutoring to Improve Math Achievement](#)

Strategies

- Ensure that instructional materials are systematic and explicit. In particular, they should include numerous clear models of easy and difficult problems, with accompanying teacher think-alouds.
- Provide students with opportunities to solve problems in a group and communicate problem-solving strategies.
- Ensure that instructional materials include a cumulative review in each session.
- Teach students about the structure of various problem types, how to categorize problems based on structure, and how to determine appropriate solutions for each problem type.
- Teach students to recognize the common underlying structure between familiar and unfamiliar problems and to transfer known solution methods from familiar to unfamiliar problems.

Whole Numbers

Instructional materials for students receiving interventions should focus intensely on in-depth treatment of whole numbers in kindergarten through grade 5 and on rational numbers in grades 4 through 8.

Dreambox

- Use Assign Focus to target a specific skill/concept

Whole Numbers

- For students in kindergarten through grade 5, tier 2 and tier 3 interventions should focus almost exclusively on properties of whole numbers and operations.
- Some older students struggling with whole numbers and operations would also benefit from in-depth coverage of these topics.
- For tier 2 and tier 3 students in grades 4 through 8, interventions should focus on in-depth coverage of rational numbers as well as advanced topics in whole number arithmetic.