

RTI WBCSD Mathematics Pathway
3rd Grade (05/06/2016)

Universal Screening (Fall) Benchmark Measures (Winter, Spring): ALL STUDENTS	Fall(Sept): <i>Aimsweb M-CAP (Concepts and Application)</i>	Winter (Jan): <i>Aimsweb M-CAP (Concepts and Application)</i>	Spring(May): <i>Aimsweb M-CAP (Concepts and Application)</i> <i>ISAT</i>
	Tier 1: Benchmark (50th %)	Tier 2: Strategic (25th %)	Tier 3: Intensive (+SPED) (10th %)
Identification/Definition of Need: Analyze for causes/ Collaborative team review	<ul style="list-style-type: none"> • 7+ Fall • 11+ Winter • 15+ Spring 	<ul style="list-style-type: none"> • 4+ Fall • 7+ Winter • 11+ Spring 	<ul style="list-style-type: none"> • 3+ Fall • 5+ Winter • 8+ Spring
Instructional Plan: Instructional focus (Approximately 85% of core time spent on the focal points.)	Instructional Emphasis <ul style="list-style-type: none"> • Focal points of 3rd grade standards • Represent and solve problems involving multiplication and division; Understand properties of multiplication and the relationship between multiplication and division; multiply and divide within 100. • <u>Required Fluencies</u> Single-digit products and quotients (Products from memory by end of Grade 3) AND Add/subtract within 1000 • Additional and Supporting Standards 	Instructional Emphasis: <ul style="list-style-type: none"> • Focal points from Tier 1 (3rd grade standards) Recommendations for instruction in intervention groups: <ul style="list-style-type: none"> • Focus almost exclusively on properties of whole numbers and operations. • Provide models of proficient problem solving, verbalization of thought processes, guided practice, corrective feedback, and cumulative review • Include instruction on solving word problems • Include opportunities to work with visual representations and models. • Include motivational strategies. 	Instructional Emphasis: <ul style="list-style-type: none"> • Focal Points from Tier 1 (3rd grade standards) • Focal points from previous grade level(s). Recommendations for instruction in intervention groups: <ul style="list-style-type: none"> • Focus almost exclusively on properties of whole numbers and operations. • Provide models of proficient problem solving, verbalization of thought processes, guided practice, corrective feedback, and cumulative review • Include instruction on solving word problems • Include opportunities to work with visual representations and models. • Include motivational strategies.
Core Program and/or Intervention: Standard Treatment Protocol and/or Individual Plan	<ul style="list-style-type: none"> • Engage NY • Envisions 		
Mathematical Practices ALL STUDENTS	<ol style="list-style-type: none"> 1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics. 5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning. 		
Implementation: Duration/frequency and delivery of instruction w/ fidelity	60 minutes a day	Intervention is in ADDITION to Core Program (1:6 maximum) 30 minutes 4 times a week	Intervention is in ADDITION to Core Program (1:4 maximum) 30 minutes 4 times a week

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<p>Progress Monitoring: Verify progress by monitoring response to instruction/intervention</p>	<p>Formative Assessments</p> <ul style="list-style-type: none"> • Exit tickets • Teacher observation and note taking 	<ul style="list-style-type: none"> • Aimsweb M-CAP Progress Monitoring 1 time/ 3 weeks • Formative assessment • Program assessments 	<ul style="list-style-type: none"> • Aimsweb M-CAP Progress Monitoring 2 times/ 3 weeks • Formative Assessments • Program Assessments
<p>Evaluation and Adjustment: Certify mastery and adjust the plan according to the decision making process</p>	<p>Evaluation by classroom teacher weekly/monthly and RTI team quarterly</p> <ul style="list-style-type: none"> - Aimsweb M-CAP (progress monitor) - Formative/Summative - Cumulative Review 	<p>Evaluation by RTI team every 8-10 weeks</p> <ul style="list-style-type: none"> - Aimsweb M-CAP (progress monitor) - Formative/Summative - Cumulative Review of Focal Points 	<p>Evaluation by RTI team every 8-10 weeks</p> <ul style="list-style-type: none"> - Aimsweb M-CAP (progress monitor) - Formative/Summative - Cumulative Review of Focal Points

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	Unknown Product	Group Size Unknown ("How many in each group?" Division)	Number of Groups Unknown ("How many groups?" Division)
	$3 \times 6 = ?$	$3 \times ? = 18$, and $18 \div 3 = ?$	$? \times 6 = 18$, and $18 \div 6 = ?$
Equal Groups	<p>There are 3 bags with 6 plums in each bag. How many plums are there in all?</p> <p><i>Measurement example:</i> You need 3 lengths of string, each 6 inches long. How much string will you need altogether?</p>	<p>If 18 plums are shared equally into 3 bags, then how many plums will be in each bag?</p> <p><i>Measurement example:</i> You have 18 inches of string, which you will cut into 3 equal pieces. How long will each piece of string be?</p>	<p>If 18 plums are to be packed 6 to a bag, then how many bags are needed?</p> <p><i>Measurement example:</i> You have 18 inches of string, which you will cut into pieces that are 6 inches long. How many pieces of string will you have?</p>
Arrays, * Areas **	<p>There are 3 rows of apples with 6 apples in each row. How many apples are there?</p> <p><i>Area example:</i> What is the area of a 3 cm by 6 cm rectangle?</p>	<p>If 18 apples are arranged into 3 equal rows, how many apples will be in each row?</p> <p><i>Area example:</i> A rectangle has area of 18 square centimeters. If one side is 3 cm long, how long is a side next to it?</p>	<p>If 18 apples are arranged into equal rows of 6 apples, how many rows will there be?</p> <p><i>Area example:</i> A rectangle has area 18 square centimeters. If one side is 6 cm long, how long is the side next to it?</p>
Compare***	<p>A blue hat costs \$6. A red hat costs 3 times as much as the blue hat. How much does the red hat cost?</p> <p><i>Measurement example:</i> A rubber band is 6 cm long. How long will the rubber band be when it is stretched to be 3 times as long?</p>	<p>A red hat costs \$18 and that is 3 times as much as the blue hat costs. How much does the blue hat cost?</p> <p><i>Measurement example:</i> A rubber band is stretched to be 18 cm long and that is 3 times as long as it was at first. How long was the rubber band at first?</p>	<p>A red hat costs \$18 and a blue hat costs \$6. How many times as much does the red hat cost as the blue hat?</p> <p><i>Measurement example:</i> A rubber band was 6 cm long at first. Now it is stretched to be 18 cm long. How many times as long is the rubber band now as it was at first?</p>
General	$a \times b = ?$	$a \times ? = p$, and $p \div a = ?$	$? \times b = p$, and $p \div b = ?$

*The language in the array examples show the easiest form of array problems. A harder form is to use the terms rows and columns: The apples in the grocery store window are in 3 rows and 6 columns. How many apples are there? Both forms are valuable.

**Area involves arrays of squares that have been pushed together so that there are no gaps or overlaps, so array problems include these especially important measurement situations.

***Multiplicative Compare problems appear first on Grade 4, with whole-number values for a, b, and c, and with the "times as much" language in the table. In Grade 5, unit fractions language such as "one third as much" may be used. Multiplying and unit fraction language change the subject of the comparing sentence, e.g., "A red hat costs *a* times as much as the blue hat" results in the same comparison as "A blue hat costs $1/a$ times as much as the red hat," but has a different subject.

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The first examples in each cell are examples of discrete things. These are easier for students and should be given before the measurement examples.

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