

Amy Morley Chief School Administrator *Kimberly Fleetwood Business Administrator* 

#### Grade 2 Unit 4 — Dates: 3/17/25 - 5/12/25

#### **Rationale for Unit 4 Expectations**

In Grade 2, students are developing different tools and different units which can be used to measure length. Knowing about measurement will help them to estimate and compare lengths. They can also use addition or subtraction to find the difference between the lengths of objects. Through productive struggle of open-ended word problems and constructivist approaches. Grade level standards are built upon the knowledge of basic understanding of measurement from previous grades. They should be able to compare lengths and order objects by length, and understand that the length of an object is based on iterating the same sized units. Grade level whole group instruction should be supported through independent stations, teacher led small groups and refined in small group center work.

#### **Unit 4 Description & Expectations**

Days of Instruction: 34 days Unit Completion Date: 5/12

Unit Topics/Themes: Different tools and units can be used to measure length. Knowing about measurement will help students to estimate and compare lengths. Students can use addition or subtraction to find the difference between the lengths of objects.

Topic: Measure in Inches, Centimeters, Feet and Meters (Lesson 20 & 21) Topic: Understand Measurement with Different Units (Lesson 22) Topic: Estimate and Measure Length (Lesson 23) Topic: Compare Lengths (Lesson 24) Topic: Add and Subtract Lengths (Lesson 25)



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Topic: Add and Subtract on the Number Line (Lesson 26) Topic: Read and Make Line Plots (Lesson 27) Topic: Unit Review and Assessment Topic: Use Measurement (Math in Action)

Whole Group Instruction	Differentiation: Teacher Table	Differentiation: Independent Practice/Small Group Center
Guidelines		
30-45 minutes of daily instruction using Core Resources	30-45 minutes of c	daily differentiation
Number Sense Making Routines: (5-10 minutes daily) Number sense is built through experiences. Vary your sense making routines based on the needs of your classroom. They may be a whole group activity, but they also may be done as a small group depending upon the need. Example areas of focus: Verbal Counting, Object Counting, Cardinality,	Number of groups to meet with each day: two When planning for differentiation, it is important to	Activities should be aligned to specific skills & standards addressed during whole group instruction and practice of fluency standards.



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Subitizing, Spatial Relationships, One/Two More & Less, Benchmark Numbers, Part-Part-Whole, Magnitude, etc.	first think about what each student needs. You may have different focuses for different
<b>Core Resource for Whole Group Instruction:</b> Ready Classroom Math (30-45 minutes daily)	groups of students. Below are suggestions to consider when planning for small group
Ready Classroom Math design & expectations: • Understand Lessons - Focus on developing conceptual understanding and	differentiated instruction. Gifted Students: When
help students connect new concepts to familiar ones as they learn new skills and strategies.	planning for students who are gifted, consider differentiating
• Strategy Lessons - Focus on helping students persevere in solving problems, discuss solution strategies, and compare multiple	the content, process or product. <b>Tier I Remedial Groups:</b> When
representations through the <i>Try-Discuss-Connect</i> routine. Strategy Lessons are taught over multiple days (usually 3-5 days) and consist of different sessions.	planning for remedial work (additional work on grade level concepts), identify your
<ul> <li><i>Explore Session</i>(s) follow the <i>Try-Discuss-Connect Routine</i> and draw on students' prior knowledge and make connections to new concepts.</li> </ul>	Essential Understandings, Objectives, Standards, skills
<ul> <li>Develop Session(s) develop strategies and understanding through problem solving and discourse.</li> </ul>	being taught, and Learner Outcomes, then, anticipate the
<ul> <li><i>Refine Session</i>(s) are when students work independently with a partner, while the teacher monitors performance and differentiates</li> </ul>	most <u>common unique needs</u> and common misconceptions.
<ul> <li>instruction.</li> <li>Math in Action Lessons (Grades 2-6) - Feature open-ended problems with</li> </ul>	Doing this will help you to plan effectively, and form groups
many points of entry and more than one possible solution. In Math in	based on daily exit tickets and



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Action Lessons students apply strategies and build procedural fluency.

*Try - Discuss - Connect Routine* is primarily used in Explore and Develop Sessions in Ready Math. Each Step in this routine will have expected Language Routines, Teacher Moves and Conversation Tips. *Language Routines* are predictable, repeatable formats that help students process word problems and communicate their growing understanding. *Teacher Moves* are powerful facilitation techniques to guide conversations in which students talk with each other rather than responding to the teacher. *Conversation Tips* are specific hints that show students what it means to engage in academic discourse. The six tips show students what it means to participate in academic discourse: listening attentively, explaining ideas, justifying, building on the ideas of others, disagreeing respectfully and making connections.

- Try It The teacher displays the *Start* question to draw on prior knowledge to the day's session. The teacher guides students in making sense of the problem, and to slow down to recognize and understand important information in the problem before beginning to solve. Teacher displays the problem and uses:
  - Language Routines Three Reads, Co-Crafted Questions, Notice/Wonder and Say It Another Way
  - Teacher Moves Turn & Talk and Individual Think Time (Typically 10 seconds to 2 minutes)
  - Students apply what they have learned while making sense of the

Ready Unit Prerequisite Report. Support students using scaffolding and/or additional practice for grade level concepts and skills. Tier II or Tier III Remedial **Groups**: When planning your grade level instruction for students that are in Tier II or Tier III considerations of each individual students' Math Intervention Plan need to be taken. Interventions and number sense relationships should be leveraged to support students with grade level content (bridging foundational concepts to support students' work at grade level content). Resources should be aligned to core content instructional resources (ie, Tools for Instruction, Fluency Skills & Practice pages, Prerequisite



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problem to represent the situation using a Part-Part-Whole model and begin solving.	Lessons, Reteach Activities, Vocabulary pages, etc.), while a	
• Discuss It - Students work in pairs to share their thinking - even	direct explicit connection	
incomplete thinking. Students should analyze their representations and	between intervention strategies	
strategies while using sentence frames when appropriate. The teacher	and grade level content is built.	
strategically selects and sequences students' representations and		
strategies based upon the learning goal of the lesson. While circulating		
the teacher should use:		
<ul> <li>Language Routines - Compare &amp; Contrast and Collect &amp; Display</li> </ul>		
<ul> <li>Teacher Moves - Turn &amp; Talk, Individual Think Time and Four Rs</li> </ul>		
(Repeat, Reword, Rephrase, Record)		
Selected students present and explain their solution methods and listen		
to critiques of others. The teacher facilitates the discussion and the class		
looks at highlighted strategies in the <i>Picture It</i> and <i>Model It</i> sections.		
• Connect It - The teacher and students connect representations and		
strategies using a combination of individual work time and partner and		
whole-class discourse. Carefully selected questions lead students to		
recognize important mathematical ideas that were initially presented in		
the <b>Try It</b> problem. The teacher should use:		
<ul> <li>Language Routines - Collect &amp; Display and Compare &amp; Connect</li> </ul>		
<ul> <li>Teacher Moves - Turn &amp; Talk, Individual Think Time and Four Rs</li> </ul>		
Closing: (2-5 minutes daily)		
The closure should be directly related to the goal of the lesson. Formal		



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closure to lessons may consist of synthesizing information learned during the lesson that relates to the objective. For example, students could share with the class something new that they learned that day (the question should be detailed and related to the goal/objective), complete an exit ticket (related to the goal/objective), reflect on what challenged them (related to the goal/objective), etc.		
Whole Group Instruction	Differentiation: Teacher Table	Differentiation: Independent Practice/Small Group Center
Unit Resources		
<ul> <li>Suggested Pacing Guide</li> <li>Ready Unit Flow and Progression Video</li> <li>Ready Math Background: Models, Progressions, and Teaching Tips</li> <li>Ready Interactive Tutorials</li> <li>Ready Unit Self Reflection</li> <li>Ready Unit Review</li> <li>Ready Discourse Cards/Cube</li> <li>Ready Digital Math Tools</li> <li>Silent Hand Signals</li> <li><u>Georgia Frameworks</u> (K-5)</li> <li>Howard County, MD: <ul> <li><u>Gr 2</u></li> </ul> </li> </ul>	<ul> <li>Scheduling Small Groups and Rotations</li> <li>CFAs</li> <li>RCM Fluency Practice Pages</li> <li>RCM Prerequisite Lessons</li> <li>RCM Tools for Instruction Lessons</li> <li>RCM Discourse Bookmarks</li> <li><u>K-5 Math Teaching Resources</u> (no direct links to free documents!)</li> <li>Virtual Manipulatives:</li> </ul>	<ul> <li>Scheduling Small Groups and Rotations</li> <li>RCM Unit Game</li> <li>RCM Literacy Connections Activities</li> <li>RCM Discourse Bookmarks</li> <li><u>K-5 Math Teaching Resources</u> (no direct links to free documents!)</li> <li>Howard County, MD:</li> <li><u>Gr 2</u></li> </ul>



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• Achieve the Core <u>Coherence Map</u>	<ul> <li><u>TheMathLearningCenter</u> -</li> </ul>	
Illustrative Mathematics	ten frames, counters,	
• <u>You Cubed</u>	time, number line, math	
<ul> <li>San Francisco Unified School District (SFUSD)</li> </ul>	rack, geoboards	
o <u>Gr2</u>	<ul> <li><u>SplatSquare-InteractiveHu</u></li> </ul>	
• Three Act Tasks:	ndredsChart	
<ul> <li><u>Ms. Castillo's Math</u> (К-5)</li> </ul>	○ <u>Dreambox Teacher Tools</u>	
○ <u>Graham Fletcher</u> (K-6)		
○ <u>Robert Kaplinsky</u> (K-6)		
<ul> <li>Sense Making Routines:</li> </ul>		
<ul> <li><u>Subitizing Slides</u> (Steve Wyborney)</li> </ul>		
<ul> <li><u>Esti-Mysteries</u> (Steve Wyborney)</li> </ul>		
<ul> <li><u>Even More Esti-Mysteries</u> (Steve Wyborney)</li> </ul>		
<ul> <li><u>Estimation Clipboard</u> (Steve Wyborney)</li> </ul>		
<ul> <li><u>Which One Doesn't Belong</u> (Christopher Danielson)</li> </ul>		
<ul> <li>Math Visuals (Berkley Everett)</li> </ul>		
<ul> <li><u>Would You Rather?</u> (John Stevens)</li> </ul>		
<ul> <li><u>Numberless Word Problems</u> (Brian Bushart)</li> </ul>		
<ul> <li><u>Number Talk Images</u> (Tracey Zager &amp; Pierre Tranche)</li> </ul>		
$\circ$ Daily Routines to Jumpstart Math Class (Curriculum Shared Drive)		
<ul> <li><u>Clothesline Math</u> (Dan Kaufmann)</li> </ul>		



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<ul> <li><u>Math Spy</u> (Dan Kaufmann)</li> <li><u>Same or Different</u> (Brian Bushart)</li> <li><u>Same But Different</u> (Sue Looney)</li> <li><u>Splat</u> (Steve Wyborney)</li> <li><u>Open Middle</u> (Robert Kaplinsky)</li> <li><u>PBS Learning Media</u> - instructional videos, interactive</li> <li><u>Online Manipulatives on Mathigon</u></li> </ul>		
Whole Group Instruction	Differentiation: Teacher Table	Differentiation: Independent Practice/Small Group Center
Assessments		
<ul> <li>Ready Unit Assessment</li> <li>Ready Lesson Quizzes</li> <li>Ready - Math In Action</li> <li>CFAs</li> <li>Exit Tickets</li> </ul>	<ul> <li>Daily log of small group instruction</li> <li>Anecdotal Notes</li> <li>Grade Level Math Interview</li> <li>CFAs</li> <li>RCM Fluency Practice Pages</li> <li>RCM Prerequisite Lessons</li> <li>RCM Tools for Instruction Lessons</li> <li>Exit Tickets</li> </ul>	Examples of accountability measures: Recording sheets, Fluency Practice Pages, exit tickets, rubrics, reflections, etc.



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	<ul> <li>Achieve the Core <u>Coherence</u> <u>Map</u></li> <li><u>Illustrative Mathematics</u></li> </ul>
Standards	
<ul> <li>2.M.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</li> <li>2.M.A.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.</li> <li>2.M.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.</li> <li>2.M.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</li> <li>2.M.B.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.</li> <li>2.M.B.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,, and represent whole-number sums and differences within 100 on a number line diagram.</li> <li>2.DL.B.3 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.</li> </ul>	In addition to Whole Group Standards, you may choose to focus on grade level fluency standards or other priority standards listed below: <b>** Unit 3 Center Focuses:</b> <b>2.OA.B.2</b> With accuracy and efficiency, add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. (See standard 1.OA.C.6 for a list of mental strategies.) <b>2.NBT.A.2</b> Skip-count by 2s, 5s, 10s, and 100s. Skip-count by 3s. <b>2.NBT.B.5</b> With accuracy and efficiency, add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. <b>2.NBT.B.7</b> Add and subtract within 1000, using concrete models or drawings and strategies based on place value.



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### Unit 4 Math Pacing Guide

	Торіс	: Measure in Inches, Centimeters, Feet and Meter	ſS	
Student Learning Standard(s):	2.M.A.1	Measure the length of an object by selecting ar yardsticks, meter sticks, and measuring tapes	nd usi	ng appropriate tools such as rulers,
Math Practices: (add 7 & 8 as needed)	MP.3 Construct vi	of the problem and persevere in solving them. Table arguments and critique the reasoning of others. riate tools strategically.	• MP	2 Reason abstractly and quantitatively. 4 Model with Mathematics. 6 Attend to precision.
<b>Days</b> : 9 Lesson 20 (3/17 - 1 Lesson 21 (3/24 - 1		Focus: Major		Benchmarked Standard: N Fluency Standard: N
		Critical Knowledge & Skills		
Objective:	- Represent s2, s4)	d that the lengths of objects can be measured by u and measure the lengths of objects using different neasuring the length of an object in inches with me	t tools	s, such as inch and centimeter rulers (s1,



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	<ul> <li>Choose a tools for measuring the length of a given object (s1, s4)</li> <li>Measure lengths by using rulers, yardsticks, meter sticks, and measuring tapes (s2, s3)</li> <li>Use a ruler repeatedly to measure a length (s1)</li> </ul>
Essential Ques	tion(s): How does what you are measuring determine how you measure it?

Core Res	sources
Core Whole Group Resources	Core Formative Assessment
Ready Classroom Math Lessons         Lesson 20: Measure in Inches and Centimeters         - Lesson Materials:         - Lesson per student: 1-inch tiles, a 5-inch piece of yarn, a 3-inch piece of ribbon, 10 cm tiles, a 6-inch piece of yarn, a 9-inch piece of ribbon, a ruler, a 6-inch long object         Activity Sheet 1-inch grid paper         - Activities per student: crayons, scissors, classroom objects to measure         Per pair: 1-inch tiles, assorted classroom objects         Per group: inch ruler, at least 12 of the same measurable object, yardstick or meter stick         Activity Sheet 1-inch grid paper, 1-cm grid paper         - Math Toolkit inch ruler, cm ruler, measuring tape, square inch tiles	- RCM Lesson Quizzes



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Lesson	21: Measure in Feet and Meters
-	Lesson Materials:
	- Lesson per student: yardstick, meter sticks, measuring tape marked in
	inches
	- Activities per student: strips of paper whose lengths are multiples of
	8
	Per pair: a large sheet of paper and crayons/markers; inch ruler,
	yardsticks, or measuring tape, cm ruler; meter stick; classroom objects
	such as chairs, table, books, folders, and pencils; masking tape; bean
	bags
	- Math Toolkit cm ruler, measuring tape, inch ruler, yardstick, meter
	stick
	- Digital Math Tool number line

Additional Leveled Resources			
Activities and Additional Resources for Whole Group Differentiated Independent Activities/Center Ideas		Teacher Table Differentiated Resources	
<ul> <li>Anchor Chart Links         <u>Measurement Reminders</u> <u>Tools for measuring length</u> <u>How to Measure</u>         Number Sense Lessons/Resources         <u>Interactive Tools</u>         - Brainpop Jr     </li> </ul>	<ul> <li>- iReady Individual Path</li> <li>- iReady Teacher Assigned Lessons         Lesson 20: <i>Measure Lengths</i>         Lesson 21: <i>Measure Lengths in Inches Measure Lengths in CM Practice: Measure Lengths</i>         - RCM Interactive Practice:</li> </ul>	<ul> <li>RCM Prerequisite Lessons</li> <li>RCM Tools for Instruction</li> <li>How Big is a Foot?</li> <li>Measurement Worksheets</li> <li>Measuring with a ruler</li> <li>Measurement Math Center Activity</li> <li>CFA</li> </ul>	



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Inches and Feet Centimeters, Meters, Kilometers - <u>How Big is a Foot?</u> - <u>Measuring Length</u> - <u>Inches and Feet song</u>	Lesson 20: Measure in Inches an - RCM Center Activities - RCM Enrichment Activities - Independent Centers - How Big is a Foot? - Toothy: Measurement - Measurement Math Center Activit - Three feet in a yard		- <u>K-5 Math Teaching Resources</u> 2.MD.1 Measuring Paths
Vocabulary f	or Students	М	entor Text List
Centimeter (cm) Inch (in.) Length Measure Ruler unit		Me and the Measure of Things Sunflowers Measure Up Let's Measure It Short or Tall Doesn't Matter at A Inch by Inch by Leo Lionni	<u>II</u>

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Topic: Understand Measurement with Different Units					
Student Learning Standard(s):	2.M.A.2	2.M.A.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.			
Math Practices: (add 7 & 8 as needed)					
<b>Days</b> : 3 Lesson 22 (3/31 -	Focus: Major Benchmarked Standard: N Fluency Standard: N				
Critical Knowledge & Skills					
Objective:	<ul> <li>We are learning to:</li> <li>Compare lengths measured in different units (s1)</li> <li>Understand the relationships between feet and inches and between feet and yards (s2)</li> <li>Understand the relationship between centimeters and inches and between centimeters and meters (s2)</li> <li>Explore how the number of units in a measurement is related to the size of the units used (s3)</li> </ul>				
Essential Question(s):	Essential Question(s): How does what you are measuring determine how you measure it?				

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Core Whole Group Resources		Core Formative Assessment	
Ready Classroom Math LessonsLesson 22: Understand Measurement with Different Units-Lesson Materials:-Lesson: Per student: inch ruler, cm ruler.Per Pair: yardsticks, meter stick.Activity Sheets: measure objects 1, measure objects 2-Activities: Per student: connecting cube, sticky note, inch/cm ruler.Per pair: yardstick		-RCM Lesson Quizzes	
	Additional Leve	eled Resources	
Activities and Additional Resources for Whole Group	Differentiated Independen	t Activities/Center Ideas	Teacher Table Differentiated Resou

Whole Group		
- Anchor Chart Links	- iReady Individual Path	- RCM Prerequisite Lessons
<u>Length</u>	- iReady Teacher Assigned Lessons	- RCM Tools for Instruction
Comparing Objects	Understand Measurement with Different Units	- Measurement and Comparing Lengths
- Number Sense Lessons/Resources	- RCM Interactive Practice: N/A	- Comparing Measurement
- Interactive Tools	- RCM Center Activities	-K-5 Math Teaching Resources
- Brainpop Jr.	- RCM Enrichment Activities	2.MD.2 Measure it Twice
Nonstandard Measurement	- <u>Going on a Measure Hunt</u>	Literature Connection 2.MD.2 How Big is
	- Measure and Compare	Foot?
	- <u>Measurement Scavenger Hunt</u>	



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	- <u>Tons of Measurement Fun</u> - <u>Measurement and Comparing Leng</u> t	<u>ths</u>	
Vocabulary for S	Students	M	entor Text List
Centimeter (cm) Foot (ft) Inch (in.) Meter (m) Yard (yd)		Actual Size by Steve Jenkins Measuring Penny by Loreen Leedy The Boy in the Drawer" by Robert How Big is a Foot? by Rolf Myller	



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Topic: Estimate and Measure Length					
Student Learning Standard(s):	2.M.A.3 Estimate lengths using units of inches, feet, centimeters, and meters				
Math Practices: (add 7 & 8 as needed)					
<b>Days</b> : 3 Lesson 23 (4/3 - 4	4/7) Focus: Major Benchmarked Standard: N Fluency Standard: N				
	Critical Knowledge & Skills				
Objective:	<ul> <li>bjective:</li> <li>We are learning to: <ul> <li>Estimate length in inches, cm, feet, and meters. (s1, s2, s4)</li> <li>Use benchmark objects when estimating. (s2, s3)</li> </ul> </li> </ul>				
Essential Question(s):	Essential Question(s): How does what you are measuring determine how you measure it?				

Core Res	sources
Core Whole Group Resources	Core Formative Assessment



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Ready Classroom Math Lessons	- RCM Lesson Quizzes
Lesson 23: Estimate and Measure Lengths	
- Lesson Materials	
Lesson: per student: inch ruler, cm ruler	
Activities: per student: inch ruler; cm ruler; 6 strips of paper cut to	
different lengths; meter stick, or measuring tape	
Per group: cards with different measurements on them, inch ruler, cm	
ruler, meter stick	
Math Toolkit: play quarters, cm cubes	

Additional	Leveled	Resources	

Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas	Teacher Table Differentiated Resources		
<ul> <li>Anchor Chart Links <u>Measurement Benchmarks</u> <u>Measuring Length</u></li> <li>Number Sense Lessons/Resources</li> <li>Interactive Tools: <u>Toy Theatre</u></li> <li>Brainpop jr. <u>Nonstandard Measurement</u></li> </ul>	<ul> <li>- iReady Individual Path</li> <li>- iReady Teacher Assigned Lessons: <ul> <li>Estimate lengths in inches</li> <li>Estimate lengths in centimeters</li> <li>Practice: Estimate lengths</li> </ul> </li> <li>- RCM Interactive Practice: Estimate and Measure Length</li> <li>- RCM Center Activities</li> <li>- RCM Enrichment Activities</li> <li>- Estimating Length Worksheet</li> <li>- Measurement Games</li> </ul>	<ul> <li>RCM Prerequisite Lessons</li> <li>RCM Tools for Instruction</li> <li>Estimating Length Worksheet</li> <li>-K-5 Math Teaching Resources</li> <li>2.MD.3 Estimating Meter Measures</li> </ul>		



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Vocabulary for Students	Mentor Text List
Estimate	<i>Actual Size</i> by Steve Jenkins <i>Measuring Penny</i> by Loreen Leedy <i>The Boy in the Drawer</i> by Robert Munsch



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	Topic: Compare Lengths			
Student Learning Standard(s):	2.M.A.4	2.M.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit		
Math Practices: (add 7 & 8 as needed)				
<b>Days</b> : 5 Lesson 24 (4/8 - 4	4/14)	,		Benchmarked Standard: N Fluency Standard: N
	Critical Knowledge & Skills			
Objective:	Objective:       We are learning to:         -       Compare the length of objects by determining which measure is greater than or less than the other (s1, s2)         -       Use addition and subtraction to compare lengths, finding how much greater or less the measure of one object is than the other (s3, s4)			
Essential Question(s):	How does what	you are measuring determine how you measure	e it?	

Core Resources



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<u>Interactive Tools</u>
 <u>Longer or Shorter</u>

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-K-5 Math Teaching Resources

2.MD.4 Gummy Worm Stretch

Core Whole Group	Resources	Core Fo	rmative Assessment
Ready Classroom Math LessonsLesson 24: Compare Lengths- Lesson MaterialsLesson per student: cm ruler, two strips of paper (one 12 cm long and one 7 cm long)Activity Sheet: Shell measurementsActivities per students: cm tiles, inch ruler, inch/cm ruler or yardstick and meter stick, crayons or colored pencils, scissors Activity Sheet: 1-cm grid paper, 1 inch grid paper Math Toolkit cm ruler		- RCM Lesson Quizzes	
	Additional Leve	eled Resources	
Activities and Additional Resources for Whole Group	Differentiated Independen	t Activities/Center Ideas	Teacher Table Differentiated Resources
<ul> <li>Anchor Chart Links</li> <li><u>Compare Lengths</u></li> <li>Number Sense Lessons/Resources</li> </ul>	<ul> <li>- iReady Individual Path</li> <li>- iReady Teacher Assigned Lessons</li> <li>Compare Lengths</li> </ul>		<ul> <li>RCM Prerequisite Lessons</li> <li>RCM Tools for Instruction</li> <li><u>Compare Lengths</u></li> </ul>

- RCM Interactive Practice: N/A

RCM Center ActivitiesRCM Enrichment Activities

- <u>Compare Lengths</u> - <u>Go on a Measure Hunt</u>



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	<ul> <li><u>Measure It - Task Cards</u></li> <li><u>Comparing Length Scavenger Hunt</u></li> <li><u>Measurement City</u></li> </ul>		
Vocabulary for St	tudents	М	entor Text List
Difference Length Longer shorter		Actual Size by Steve Jenkins Measuring Penny by Loreen Leed The Boy in the Drawer" by Rober	



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		Topic: Add and Subtract Lengths		
Student Learning Standard(s):	2.M.B.5	Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem 2		
Math Practices: (add 7 & 8 as needed)	MP.3 Construct vi	<ul> <li>MP.1 Make sense of the problem and persevere in solving them.</li> <li>MP.3 Construct viable arguments and critique the reasoning of others.</li> <li>MP.5 Use appropriate tools strategically.</li> <li>MP.6 Attend to precision.</li> </ul>		
<b>Days</b> : 4 Lesson 25 (4/15 - 4 <mark>*Spring Break 4/18</mark>	Fluency Standard: N		Benchmarked Standard: N Fluency Standard: N	
	Critical Knowledge & Skills			
Objective:	<ul> <li>We are learning to:         <ul> <li>Use addition and subtraction to solve problems involving lengths</li> <li>Recognize the importance of working within a single unit when adding or subtracting lengths</li> <li>Interpret and apply models that represent measurement problems involving addition and subtraction</li> </ul> </li> </ul>			
Essential Question(s):	How do you make sense of different strategies? How do you determine their strengths and weaknesses?			



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Core Resources			
Core Whole Group Resources		Core Fo	rmative Assessment
Ready Classroom Math Lessons         Lesson 25: Add and Subtract Lengths         -       Lesson Materials         Lesson none         Activities per student: meter stick, 2 sticky notes         Activity Sheet: ½ inch grid paper         Math Toolkit bar models, open number lines, measuring tape, yardstick, meter stick         Digital Math Tool number line		- RCM Lesson Quizzes	
	Additional Leve	led Resources	
Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas Teacher Table Differentiated Resou		Teacher Table Differentiated Resources

<ul> <li>Anchor Chart Links</li> <li>Number Sense Lessons/Resources</li> <li><u>Interactive Tools</u></li> <li><u>Subtracting Length</u></li> </ul>	<ul> <li>- iReady Individual Path</li> <li>- iReady Teacher Assigned Lessons Solve problems involving length</li> <li>- RCM Interactive Practice: N/A</li> <li>- RCM Center Activities</li> <li>- RCM Enrichment Activities</li> <li>- <u>k5 learning activities</u></li> </ul>	<ul> <li>RCM Prerequisite Lessons</li> <li>RCM Tools for Instruction</li> <li><u>K-5 Math Teaching Resources</u></li> <li>2.MD.5 Length Word Problems</li> </ul>



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Vocabulary for Students	Mentor Text List
Open number line	Subtraction Read Alouds



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		Topic: Add and Subtract on the Number Line		
Student Learning Standard(s):	2.M.B.6	<b>B.6</b> Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,, and represent whole-number sums and differences within 100 on a number line diagram.		
Math Practices: (add 7 & 8 as needed)				
<b>Days</b> : 4 Lesson 26 (4/29 -	Focus: MajorBenchmarked Standard: N5/2)Fluency Standard: N			
	Critical Knowledge & Skills			
Objective:	Objective:We are learning to:-Represent a whole number as a length from 0 on a number lines (s1, s2)-Use a number line to represent and solve addition problems (s1)-Use a number line to represent and solve subtraction problems (s3)-Use a number line to solve addition and subtraction word problems (s3, s4)			
Essential Question(s): How do you make sense of different strategies? How do you determine their strengths and weaknesses?				



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Core Resources			
Core Whole Group	Resources	Core Formative Assessment	
Ready Classroom Math LessonsLesson 26: Add and Subtract on a number line (SKIP A REFINE SESSION)-Lesson MaterialsLesson per student: inch/cm ruler, base-ten blocksActivity Sheets: tens place-value mat, number lines, number line from0-50Activities per pair: meter stickPer group: 8-foot length of masking tape, eight 12-inch rulers,measuring tape, string, masking tapeActivity Sheet: number line from 0-50Math Toolkit ruler, connecting cubes, sticky notes, cm tiles, string,base-ten blocks, tens place-value mat, measuring tape, bar models, cmgrid paper, linking cubes, stringDigital Math Tool number line		- RCM Lesson Quizzes	
Additional Leveled Resources			
Activities and Additional Resources for Whole Group	Differentiated Independen	Differentiated Independent Activities/Center Ideas Te	
- Anchor Chart Links Open Number Line	<ul> <li>- iReady Individual Path</li> <li>- iReady Teacher Assigned Lessons</li> </ul>		- RCM Prerequisite Lessons - RCM Tools for Instruction



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Chief School Administrator

Shorter

taller

#### Kimberly Fleetwood Business Administrator

Hershey's Kisses Subtraction Book by Jerry Pallotta

The M&M's Subtraction Book by Barbara McGrath

Mission: Addition by Loreen Leedy

Safari Park by Stuart J. Murphy Subtraction Action by Loreen Leedy The Subtraction Book by Jerry Pallotta

- Number Sense Lessons/Resources - Interactive Tools	-		<ul> <li><u>Adding on a number line</u></li> <li><u>Adding and Subtracting on a number line</u></li> </ul>
Vocabulary for	Students	M	entor Text List
Number line Difference Length Longer		The Action of Subtraction by E A Fair Bear Share by Stuart J. Hershey's Kisses Addition Boo Hershey's Kisses Subtraction F	Murphy <i>k</i> by Jerry Pallotta



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	Topic: Read and Make Line Plots				
Student Learning Standard(s):	2.DL.B.3 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.				
Math Practices: (add 7 & 8 as needed)					
<b>Days</b> : 4 Lesson 27 (5/5	5/8)	Focus: Supporting	Benchmarked Standard: N Fluency Standard: N		
	Critical Knowledge & Skills				
Objective:	<ul> <li>We are learning to:</li> <li>Interpret marks on a line plot as data (s1)</li> <li>Understand that the numbers on a ruler or number line can be used to represent a given length (s2, s3)</li> <li>Represent data on a line plot (s4, s5)</li> </ul>				
Essential Question(s):	How do you make sense of different strategies? How do you determine their strengths and weaknesses?				

Core Resources



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Line Plots

Graphs

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-K-5 Math Teaching Resources

2.Md.9 Pencil Plot

Core Whole Group Resources		Core Fo	rmative Assessment
<ul> <li>Ready Classroom Math Lessons</li> <li>Lesson 27: Read and Make Line Plots         <ul> <li>Lesson Materials</li> <li>Lesson per student: cm ruler, 5 classroom objects, inch ruler, counters Activity Sheet: 1-inch grid paper, 1-cm grid paper, number lines, shell measurements</li> <li>Activities per student: inch ruler, cm ruler, 10 straws in varying lengths (at least 3 the same length), 10 small counters, 10-12 used crayones, 10-12 books</li> <li>Per pair: ruler, ¼ inch paper strips cut into lengths of 4cm, 5 cm, 6 cm, 6cm, 7cm, 8 cm, 8cm, and 10cm, cm ruler</li> <li>Activity Sheets 1-inch grid paper, number lines</li> <li>Math toolkit cm grid paper, rulers, whiteboards cm rulers, counters, sticky notes, stickers</li> </ul> </li> </ul>		- RCM Lesson Quizzes -	
	Additional Leve	eled Resources	
Activities and Additional Resources for Whole Group	Differentiated Independent Activities/Center Ideas		Teacher Table Differentiated Resources
- Anchor Chart Links Line Plots	<ul> <li>- iReady Individual Path</li> <li>- iReady Teacher Assigned Lessons: Line plot and measuring length</li> </ul>		- RCM Prerequisite Lessons - RCM Tools for Instruction

- RCM Interactive Practice: N/A

- RCM Center Activities



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- Number Sense Lessons/Resources	- RCM Enrichment Activities	

 - Interactive Tools
 - Hand Span Measures

 - Line plots for kids
 - Line Plots

 Wocabulary for Students

 Wentor Text List

 Line plot
 Jata

Topic: Unit Review and Unit Assessment		
Days: 2	Review Date: 5/9 Unit Assessment Date: 5/12	
Scoring Submission in LinkIt:	Data Review Date:	

\*Math In Action Lessons can be completed if time allows within the unit. They may also be used for differentiation for G&T students.

Topic: Use Measurement			
Student Learning Standard(s):	2.M.A 2.M.B 2.M.C	Measure and estimate lengths in standard units. Relate addition and subtraction to length Work with time and money.	



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Math Practices: (add 7 & 8 as needed)	• MP.3 Construct viable arguments and critique the reasoning of others. • MP.4 Model with M		P.2 Reason abstractly and quantitatively. P.4 Model with Mathematics. P.6 Attend to precision.	
Days:		Focus: Major		Benchmarked Standard: N Fluency Standard: N
	Critical Knowledge & Skills			
Objective:	We are learning to: work with length and money to solve problems.			
Essential Question(s):	What thinking process do I use to solve math problems? How does what we are measuring determine how we measure it?			

Core Resources		
Core Whole Group Resources	Core Formative Assessment	
Ready Classroom Math LessonsMath In Action:Session 1:- Study an example Problem and Solution; Buttons- Try Another Approach; Buttons- Discuss Models and Strategies; Wood ScrapsSession 2:	-RCM Math In Action Project	



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- Preserve on your own; Craft Supplies, Bella's Bottles			
	Additional Leve	eled Resources	
Activities and Additional Resources for Whole Group	Differentiated Independen	Differentiated Independent Activities/Center Ideas	
-Anchor Chart Links -Number Sense Lessons/Resources -Interactive Tools	-iReady Individual Path -iReady Teacher Assigned Lessons -RCM Interactive Practice: N/A -RCM Center Activities -RCM Enrichment Activities		<ul> <li>RCM Prerequisite Lessons</li> <li>RCM Tools for Instruction</li> <li>RCM Extra Support Activity:</li> <li>RCM Challenge Activity:</li> </ul>
Vocabulary for Students -		M	entor Text List
		Mission: Addition by Loreen Le The M&M's Subtraction Book Subtraction Action by Loreen I The Subtraction Book by Jerry The Coin Counting Book by Ro Lemonade for Sale by Stuart J.	by Barbara McGrath Leedy Pallotta zanne Lanczak Williams

Computer Science (8.1) and Design Thinking (8.2)		
8.1.2.NI.1: Model and describe how individuals use computers to	8.2.2.ED.1: Communicate the function of a product or device.	



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Chief School Administrator	Business Administrator
connect to other individuals, places, information, and ideas through a network. 8.1.2.NI.2: Describe how the Internet enables individuals to connect with others worldwide. 8.1.2.NI.3: Create a password that secures access to a device. Explain why it is important to create unique passwords that are not shared with others. 8.1.2.NI.4: Explain why access to devices need to be secured. 8.1.2.IC.1: Compare how individuals live and work before and after the implementation of new computing technology. 8.1.2.DA.2: Store, copy, search, retrieve, modify, and delete data using a computing device. 8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs. 8.1.2.AP.4: Break down a task into a sequence of steps 8.1.2.AP.5: Describe a program's sequence of events, goals, and expected outcomes.	<ul> <li>8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.</li> <li>8.2.2.ED.3: Select and use appropriate tools and materials to build a product using the design process.</li> <li>8.2.2.ITH.1: Identify products that are designed to meet human wants or needs.</li> <li>8.2.2.ITH.2: Explain the purpose of a product and its value.</li> <li>8.2.2.ITH.3: Identify how technology impacts or improves life.</li> <li>8.2.2.ITH.4: Identify how various tools reduce work and improve daily tasks.</li> <li>8.2.2.EC.1: Identify and compare technology used in different schools, communities, regions, and parts of the world.</li> </ul>

Preparation for College, Careers, and Beyond			
Career Ready Practices	Personal Financial Literacy (9.1), Career Awareness, Exploration, and Preparation (9.2), Life Literacies and Key Skills (9.4)		
CRP1. Act as a responsible and contributing citizen and employee.	9.4.2.Cl.1: Demonstrate openness to new ideas and perspectives		
CRP2. Apply appropriate academic and technical skills.	9.4.2.Cl.2: Demonstrate originality and inventiveness in work		
CRP3. Attend to personal health and financial well-being.	9.4.2.CT.2: Identify possible approaches and resources to execute a plan		
CRP4. Communicate clearly and effectively and with reason.	9.4.2.CT.3: Use a variety of types of thinking to solve problems		



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Amy Morley Kimberly Fleetwood Chief School Administrator **Business** Administrator 9.4.2.TL.1: Identify the basic features of a digital tool and explain the purpose of CRP5. Consider the environmental, social and economic impacts of the tool decisions. 9.4.2.DC.1: Explain differences between ownership and sharing of information. CRP6. Demonstrate creativity and innovation. 9.4.2.DC.2: Explain the importance of respecting digital content of others. CRP7. Employ valid and reliable research strategies. 9.4.2.DC.3: Explain how to be safe online and follow safe practices when using CRP8. Utilize critical thinking to make sense of problems and persevere the internet in solving them. 9.4.2.DC.4: Compare information that should be kept private to information that CRP9. Model integrity, ethical leadership and effective management. might be made Public CRP10. Plan education and career paths aligned to personal goals. 9.4.2.DC.5: Explain what a digital footprint is and how it is created. CRP11. Use technology to enhance productivity. 9.4.2.DC.6: Identify respectful and responsible ways to communicate in digital CRP12. Work productively in teams while using cultural global environments. competence. 9.4.2.DC.7: Describe actions peers can take to positively impact climate change 9.4.2.GCA:1: Articulate the role of culture in everyday life by describing one's own culture and comparing it to the cultures of other individuals 9.4.2.TL.2: Create a document using a word processing application. 9.4.2.TL.3: Enter information into a spreadsheet and sort the information. 9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content. 9.4.2.TL.5: Describe the difference between real and virtual experiences. 9.4.2.TL.6: Illustrate and communicate ideas and stories using multiple digital tools 9.4.2.TL.7: Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts Personal Financial Literacy (Standard 9.1) Strand A Income and Careers



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Strand B	Money Management
Strand C	Credit and Debt Management
Strand D	Planning, Saving, and Investing
Strand E	Becoming a Critical Consumer
Strand F	Civic and Financial Responsibility
Strand G	Insuring and Protecting
Career Awareness, Exploration,	and Preparation (Standard 9.2)
Strand A	Career Awareness (by end of Grade 4)
Strand B	Career Exploration (by end of Grade 8)
Strand C	Career Preparation (by end of Grade 12)

Cross-Curricular Connections			
Interdisciplinary Connections	Technology Integration and Literacy		
<ul><li>and Activities")</li><li>Math journals</li><li>Math word wall</li></ul>	Online links and possible resources for the integration of technology into lessons are embedded within the "Possible Resources and Activities" column for each Topic area.		
<ul> <li>Literacy Connections &amp; Activities Ready Classroom Math</li> </ul>			

Possible Modifications and Accommodations			
Special Education/504 Plans	At-Risk	Gifted	English Language Learners



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<ul> <li>*All teachers of students with special needs must review each student's IEP. Teachers must then select the appropriate modifications and/or accommodations necessary to enable the student to appropriately progress in the general curriculum.</li> <li>Possible Modifications/Accommodations <ul> <li>Number line on desk</li> <li>Extra time on timed calculation assessments</li> <li>Use of a calculator or chart of basic facts for computation</li> <li>Use of a graphic organizer to plan ways to solve math problems</li> <li>Use of concrete materials and objects (manipulatives)</li> <li>Opportunities for cooperative partner work</li> <li>Assign fewer problems at one time (e.g., assign only odds or evens)</li> <li>Basic computation – use counters</li> <li>Differentiated center-based small group instruction</li> <li>Fractions – use fraction blocks</li> <li>Provide a copy of mathematical</li> </ul> </li> </ul>	The possible list of modifications/accommod ations identified for Special Education students can be utilized for At-Risk students. Teachers should utilize ongoing methods to provide instruction, assess student needs, and utilize modifications specific to the needs of individual students. *Refer to the individual student Math Plan for specific interventions.	<ul> <li>*Teachers should select the appropriate modifications and/or accommodations for Gifted and Talented according to the following suggestions.</li> <li>Differentiating instruction based on: <ul> <li>Content: What is taught or the material used</li> <li>Process: How it is taught or support given or student grouping or environment</li> <li>Product: What students produce</li> </ul> </li> <li>To differentiate content consider: <ul> <li>Using different resources that have less explicit information (e.g., tiering assignments - consider what would make the content more complex to digest for gifted students)</li> <li>For Example: tiering problem solving scenarios making a gifted learner's scenario more complex</li> <li>For Example: gifted students could work on deriving the procedure for an abstract concept</li> </ul> </li> <li>Organizing ideas through graphic organizers</li> <li>Using a learning contract (learning contracts are <i>individualized</i> and allow students to participate in designing their own learning which is motivating for gifted students)</li> <li>Using orbital studies (differ from independent investigations and is meant as an extension of the topics covered in class into specific fields of study e.g., manufacturing)</li> </ul>	<ul> <li>Continue practicing vocabulary</li> <li>Demonstrate that vocabulary can have multiple meanings</li> <li>Encourage bilingual supports among students</li> <li>Provide visual cues, graphic representations, gestures, and pictures</li> <li>Rephrase math problems when appropriate</li> <li>Build knowledge from real-world examples</li> <li>Provide manipulatives and symbols</li> <li>Have students estimate each other's heights</li> <li>Have students measure themselves and one another</li> <li>Have students relate an object they know with a unit of measure</li> <li>Encourage peer discussions regarding how students are thinking about math</li> <li>RCM Unit Connect Language Development to Mathematics</li> </ul>
equations, class notes, and examples for math notebooks		To differentiate the <b>process</b> consider: • How students are grouped	



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Highlight or underline key words in word	• Tiering materials used (e.g., graphic organizers varying in	
problems	complexity, types of questions asked - DOK level)	
<ul> <li>If a manipulative is used during</li> </ul>	• For Example:	
instruction, allow its use on a test	Below-Grade-Level Question: ••••• + ? =	
<ul> <li>Place value – use place value blocks</li> </ul>	•••••	
<ul> <li>Provide graph paper for arrays</li> </ul>	On-Grade-Level Question (Grade 1): 6 + ? = 10	
<ul> <li>Provide reteach pages if necessary</li> </ul>	Above-Grade-Level Question: Jon has 6 puppies. He	
<ul> <li>Provide several ways to solve a problem</li> </ul>	wants to have 10 puppies. How many more puppies	
if possible	does he need to buy?	
<ul> <li>Offer small and large graph paper</li> </ul>		
options	To differentiate the <b>product</b> consider:	
<ul> <li>Provide visual aids and anchor charts</li> </ul>	<ul> <li>Using a choice board (the difficulty of the activity should be</li> </ul>	
<ul> <li>Tiered lessons and assignments</li> </ul>	noted for each choice and should be at least 3 levels)	
	<ul> <li>Using a menu of options (each item is assigned a point value</li> </ul>	
	and students select the route to take)	
	<ul> <li>Using open ended tasks (have more than one correct answer</li> </ul>	
	and/or more than one way to get to/explain an answer)	
	o <b>For Example</b> : (Grade 2) Use the digits 0 to 9, at most one	
	time each, to make a true statement.	
	= _ + _ ( <u>Open Middle Link</u> )	
	o For Example: (Grade 3) Using the digits 1 to 9 exactly one	
	time each, place a digit in each box to make the sum as	
	close to 1000 as possible.	
	(GeoGebra Link)	
	Individualized Learning Opportunities	
Possible independent study and online learning oppor	rtunities are embedded within the "Possible Resources and Activities" column for each Topic	carea iReady
I comme macpendent stady and omme learning oppor	cances are embedded within the Tossible Resources and Activities column for each topic	s area. meauy



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