

Quinton Township School District
Math
Grade 2
[Pacing Guide](#)

Marking Period:	1	Unit Title:	Fluently Add and Subtract Within 20 / Work with Equal Groups / Add Within 100 Using Strategies / Fluently Add Within 100	Pacing:	45 Days
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Unit Summary: This unit will cover topics 1, 2, 3 and 4. In topic 1, students will add and subtract within 20, add doubles and near doubles, count on and back to subtract, and use addition to subtract. In topic 2, students will determine whether a number is even or odd and find the total number of objects in situations involving equal groups of objects. In topic 3, students will apply different strategies to add and subtract fluently, such as employ a hundred chart, an open number line, breaking numbers apart, and compensation. In topic 4, students will develop computational fluency in addition within 100 by using models, understanding of place value, properties of operations, the partial-sums method, and mental math.

Objectives:

Topic 1

- Use counting on to add numbers and add numbers in any order
- Use doubles and near doubles to add quickly and accurately
- Use the strategy of making a ten to add quickly and accurately
- Use number patterns on an addition facts table to complete addition equations
- Count on and back on a number line to subtract
- Think addition to subtract quickly and accurately
- Make a 10 to subtract quickly and accurately
- Add and subtract quickly and accurately using mental math strategies
- Use addition and subtraction to solve word problems

- Use words, pictures, numbers, and symbols to construct viable math arguments

Topic 2

- Tell if a group of objects is even or odd
- Use different ways to tell if a group of objects shows an even or odd number
- Find the total number of objects in a set of rows and columns
- Make arrays with equal rows or equal columns to solve addition problems
- Model problems using equations, drawings, and arrays

Topic 3

- Add within 100 using place-value strategies and a hundred chart
- Use an open number line to add tens and ones within 100
- Break apart numbers into tens and ones to find their sum
- Break apart addends and combine them in different ways to make numbers that are easy to add mentally
- Choose and use any strategy to add two-digit numbers
- Use drawings and equations to solve one-step and two-step problems
- Use words, pictures, numbers, and symbols to construct viable math arguments

Topic 4

- Use models to add 2-digit numbers and then explain the work
- Add 2-digit numbers using models
- Add using place value and partial sums
- Add using mental math, place value, and partial sums
- Add using place-value strategies and mental math
- Add three or four 2-digit numbers
- Practice using strategies to add more than two numbers
- Use drawings, models, and equations to solve one-and two-step problems
- Make models to help solve math problems

Essential Questions:

Topic 1

- What are strategies for finding addition and subtraction facts?
- How can making groups of ten make counting easier?
- What are some ways to describe a good math argument?

Topic 2

- How can you tell if a group of objects is even or odd?
- What are two ways you can use addition to find the total number of objects in an array?
- How can you write an equation, using repeated addition, to find the total number of objects in an array?
- When you need to solve a word problem, why do you draw a picture and write an equation?

Topic 3

- What are strategies for adding numbers to 100?
- What are some things you can do to help you keep track of steps in a problem?
- What are some ways to describe a good math argument?

Topic 4

- What are some strategies for adding numbers to 100?
- What are some things you can do to help you solve one- and two-step word problems?
- What are some ways to show (model) and solve word problems?

New Jersey Student Learning Standards

Mathematics Learning Targets:

Topic 1 2.OA.B.2, 2.OA.A.1 Topic 2 2.OA.C.3, 2.OA.B.2, 2.OA.C.4 Topic 3 2.NBT.B.5, 2.NBT.B.9, 2.OA.A.1 Topic 4 2.NBT.B.5, 2.NBT.B.9, 2.OA.A.1, 2.NBT.B.6 Mathematics Practices: MP.1, MP.2, MP.4, MP.6, MP.7, MP.8
Interdisciplinary Connections: 2-PS1-1, 2-PS1-2, 2-LS4-1, 2-ESS1-1
Career Readiness, Life Literacies, and Key Skills: 9.4.2.CT.2, 9.4.2.CT.3
Computer Science and Design Thinking: 8.1.2.DA.1, 8.1.2.DA.2, 8.1.2.AP.4

Overview of Activities	Teacher's Guide/ Resources	Core Instructional Materials	Technology Infusion
Topic 1 Lesson 1.1 - Addition Fact Strategies Lesson 1.2 –Doubles and Near Doubles Lesson 1.3 – Make a 10 to Add Lesson 1.4 – Addition Fact Patterns Lesson 1.5 –Count On and Count Back to Subtract Lesson 1.6 – Think Addition to	Teachers Edition: Topic 1 – Fluently Add and Subtract Within 20	Topic 1 <u>Digital Resources:</u> enVision Student and Teacher Edition <u>Print Resources:</u> Student Edition (including practice and homework), Reteach	• Smart Board Applications • Google Applications • Chromebooks • Interactive Student Edition • SavvasRealize.com • Interactive Practice Buddy

Subtract Lesson 1.7 – Make a 10 to Subtract Lesson 1.8 – Practice Addition and Subtraction Facts Lesson 1.9 - Solve Addition and Subtraction Word Problems Topic 2 Lesson 2.1 - Even and Odd Numbers Lesson 2.2 – Continue Even and Odd Numbers Lesson 2.3 – Use Arrays to Find Totals Lesson 2.4 – Make Arrays to Find Tools Lesson 2.5 – Problem Solving: Model with Math Topic 3 Lesson 3.1 – Add Tens and Ones on a Hundred Chart Lesson 3.2 – Add Tens and Ones to an Open Number Line Lesson 3.3 – Break Apart Numbers to Add	Teachers Edition: Topic 2 – Work with Equal Groups Teachers Edition: Topic 3 – Add Within 100 Using Strategies	and Enrichment in Chapter Resources <u>Teaching Tools:</u> counters, connecting cubes, number lines Topic 2 <u>Digital Resources:</u> enVision Student and Teacher Edition <u>Print Resources:</u> Student Edition (including practice and homework), Reteach and Enrichment in Chapter Resources <u>Teaching Tools:</u> connecting cubes, counters, number lines Topic 3 <u>Digital Resources:</u> enVision Student and Teacher Edition	
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Lesson 3.4 – Add Using Compensation Lesson 3.5 – Practice Adding Using Strategies Lesson 3.6 – Solve One-Step and Two-Step Problems Lesson 3.7 – Problem Solving: Construct Arguments Topic 4 Lesson 4.1 - Add 2-Digit Numbers Using Models Lesson 4.2 – Continue to Add 2-Digit Numbers Using Models Lesson 4.3 – Add with Partial Sums Lesson 4.4 – Add Using Mental Math and Partial Sums Lesson 4.5 – Break Apart Numbers and Add Using Mental Math Lesson 4.6 – Add More Than Two 2-Digit Numbers Lesson 4.7 – Practice Adding Using Strategies Lesson 4.8 – Solve One-Step and Two-Step Problems Lesson 4.9 - Problem Solving: Model with Math	Teachers Edition: Topic 4 – Fluently Add Within 100	<u>Print Resources:</u> Student Edition (including practice and homework), Reteach and Enrichment in Chapter Resources <u>Teaching Tools:</u> connecting cubes, open number lines, hundred chart Topic 4 <u>Digital Resources:</u> enVision Student and Teacher Edition <u>Print Resources:</u> Student Edition (including practice and homework), Reteach and Enrichment in Chapter Resources <u>Teaching Tools:</u> place-value blocks, partial sums charts, place-value mat, bar	
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Assessments	
Formative Assessments • Minute Math • Anecdotal Notes • Practice Pages • Interactive Practice Buddy • IXL.com	Summative Assessments • Topic Tests
Benchmark Assessments • District-assigned Benchmark Assessments (e.g. LinkIt, literacy screeners, content-specific benchmarks)	Alternative Assessments • Alternative Choice Projects • Oral Assessments

Differentiation			
Special Education	MLL	At Risk	Gifted and Talented
• Modify and accommodate as listed in student IEP or 504 plan. • Utilize wait time effectively. • Communicate clear, concise directions and repeat, reword, modify as necessary. • Use visual aids during lessons and small-group time. • Utilize open-ended questioning techniques. • Utilize extended time and/or reduce number of items given for homework, quizzes, and	• Basic Skills Instruction • Speech/Language Therapy • Rosetta Stone • Provide English/Native Language Dictionary for use. • Place with native-language-speaking teacher/paraprofessional as available. • Use target words and cognates to understand texts. • Remind students to underline passages and list words they don't understand.	• Basic Skills Instruction • Provide after-school tutoring services. • Hold fall and spring parent conferences. • Make modifications to instructional plans based on I and RS Plan. • Utilize wait time effectively. • Develop a record system to encourage good behavior and completion of work. • Utilize scaffolding to support instruction.	• Promote self-initiated and self-directed learning for growth through independent projects. • Challenge students with age-appropriate texts at higher reading levels. • Allow for the development and application of productive thinking skills to enable students to re-conceptualize existing knowledge and/or generate new knowledge. • Provide for the development

Key: *Amistad ^Holocaust #Climate Change ()DEI @AAPI

tests. • Vary formative assessment styles to drive next point of instruction. • Create modified assessments. • Allow students to utilize online audio books, when appropriate. • Allow for collaboration through strategically selected groups. • Utilize assistive technology as appropriate. • Utilize graphic organizers. • Provide and model sentence frames/sentence starters. • Utilize manipulatives as necessary. • Provide breaks to allow for refocusing as necessary.	• Learn/Utilize/Display some words in the students' native language. • Provide and model sentence frames to help students participate in discussion. • Provide word banks to help students write. • Translate printed communications in native language for parents. • Hold conferences with translator present.	• Provide counseling if necessary to help students cope with challenges. • Utilize strategic grouping with a positive academic role model. • Utilize graphic organizers.	of self-understanding of one's relationships with people, societal institutions, nature and culture.
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Quinton Township School District
Math
Grade 2

Marking Period:	2	Unit Title:	Subtract Within 100 Using Strategies / Fluently Subtract Within 100 / More Solving Problems Involving Addition and Subtraction	Pacing:	45 Days
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Unit Summary: This unit will cover topics 5, 6, and 7. In topic 5, students will subtract within 100 using strategies that employ a hundred chart, an open number line, breaking numbers apart, and compensation. In topic 6, students focus on developing computational fluency in subtraction within 100 by using understanding of place value, properties of operations, mental math, and the partial-differences strategy. In topic 7, students will represent and solve one- and two-step word problems involving addition and subtraction situations.

Objectives:

Topic 5

- Use a hundred chart to subtract tens and ones
- Use an open number line to subtract tens and ones
- Add up to subtract using an open number line
- Break apart 1-digit numbers to make it easier to subtract mentally
- Make numbers that are easier to subtract, and use mental math to find the difference
- Choose and use any strategy to subtract 2-digit numbers
- Solve one- and two-step problems using addition or subtraction
- Critique the thinking of others by using what is known about addition and subtraction

Topic 6

- Use place value and models to subtract one-digit numbers

- Use place value and models to subtract two-digit numbers
- Subtract using place value and partial differences
- Break apart two-digit numbers to make it easier to subtract
- Subtract two-digit numbers using a variety of subtraction strategies
- Use models and equations to solve word problems
- Reason about word problems and use bar diagrams and equations to solve them

Topic 7

- Model problems using equations with unknowns in any position
- Use drawings and equations to make sense of the words in the problems
- Use drawings and equations to make sense of the words in problems.
- Model and solve two-step problems using equations
- Use different ways to solve two-step problems
- Find unknown numbers in equations that relate four whole numbers
- Find unknown numbers in equations that relate four or more whole numbers
- Use reasoning to write and solve number stories

Essential Questions:

Topic 5

- What are strategies for subtracting numbers to 100?

Topic 6

- What are strategies for subtracting numbers to 100?

Topic 7

- How can you solve word problems that use adding and subtracting?

New Jersey Student Learning Standards

Mathematics Learning Targets:

Topic 5

2.NBT.B.5, 2.NBT.B.9, 2.OA.A.1

Topic 6

2.NBT.B.5, 2.NBT.B.9, 2.OA.A.1,

Topic 7

2.OA.A.1, 2.NBT.B.5, 2.NBT.B.2, 2.OA.B.2

Mathematics Practices: MP.2, MP.1, MP.4, MP.5, MP.3

Interdisciplinary Connections: 2-PS1-4, 2-ESS2-3, 2-ESS2-1, K-2-ETS1-1

Career Readiness, Life Literacies, and Key Skills: 9.4.2.CT.2, 9.4.2.CT.3

Computer Science and Design Thinking: 8.1.2.DA.1, 8.1.2.DA.2, 8.1.2.AP.4

Overview of Activities	Teacher's Guide/ Resources	Core Instructional Materials	Technology Infusion
<u>Topic 5</u> Lesson 5.1 – Subtract Tens and Ones on a Hundred Chart Lesson 5.2 – Count Back to Subtract on an Open Number Line	<u>Teachers Edition:</u> <u>Topic 5</u> – Subtract Within 100 Using Strategies	<u>Topic 5</u> <u>Digital Resources:</u> enVision Student and Teacher Edition	● Smart Board Applications ● Google Applications ● Chromebooks

Lesson 5.3 – Add Up to Subtract Using an Open Number Line Lesson 5.4 – Break Apart Numbers to Subtract Lesson 5.5 – Subtract Using Compensation Lesson 5.6 – Practice Subtracting Using Strategies Lesson 5.7 - Solve One-Step and Two-Step Problems Lesson 5.8 - Problem Solving: Critique Reasoning Topic 6 Lesson 6.1 - Subtract 1-Digit Numbers Using Models Lesson 6.2 – Subtract 2-Digit Numbers Using Models Lesson 6.3 – Subtract Using Partial Differences Lesson 6.4 – Continue to Subtract Using Partial Differences Lesson 6.5 – Practice Subtracting Lesson 6.6 – Solve One-Step and Two-Step Problems Lesson 6.7 – Problem Solving: Reasoning Topic 7	Teachers Edition: Topic 6 – Fluently Subtract Within 100 Teachers Edition: Topic 7 –	Print Resources: Student Edition (including practice and homework), Reteach and Enrichment in Chapter Resources Teaching Tools: hundred chart, number lines, place-value blocks, bar diagrams Topic 6 Digital Resources: enVision Student and Teacher Edition Print Resources: Student Edition (including practice and homework), Reteach and Enrichment in Chapter Resources Teaching Tools: place-value blocks, place-value mat, bar diagrams	● Interactive Student Edition ● SavvasRealize.com ● Interactive Practice Buddy
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Lesson 7.1 – Represent Addition and Subtraction Problems Lesson 7.2 – Mixed Practice: Solve Addition and Subtraction Problems Lesson 7.3 – Continue Practice with Addition and Subtraction Problems Lesson 7.4 – Solve Two-Step Problems Lesson 7.5 – Continue to Solve Two-Step Problems Lesson 7.6 – Make True Equations Lesson 7.7 – Continue to Make True Equations Lesson 7.8 - Problem Solving: Reasoning	Extend the Counting Sequence	Topic 7 <u>Digital Resources:</u> enVision Student and Teacher Edition <u>Print Resources:</u> Student Edition (including practice and homework), Reteach and Enrichment in Chapter Resources <u>Teaching Tools:</u> colored pencils, connecting cubes, bar diagrams, markers	
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Assessments	
Formative Assessments • Minute Math • Anecdotal Notes • Practice Pages • Interactive Practice Buddy • IXL.com	Summative Assessments • Topic tests
Benchmark Assessments	Alternative Assessments • Alternative Choice Projects

- District-assigned Benchmark Assessments (e.g. LinkIt, literacy screeners, content-specific benchmarks)

- Oral Assessments

Differentiation			
Special Education	MLL	At Risk	Gifted and Talented
• Modify and accommodate as listed in student IEP or 504 plan. • Utilize wait time effectively. • Communicate clear, concise directions and repeat, reword, modify as necessary. • Use visual aids during lessons and small-group time. • Utilize open-ended questioning techniques. • Utilize extended time and/or reduce number of items given for homework, quizzes, and tests. • Vary formative assessment styles to drive next point of instruction. • Create modified assessments. • Allow students to utilize online audio books, when appropriate. • Allow for collaboration through strategically selected groups. • Utilize assistive technology as appropriate. • Utilize graphic organizers. • Provide and model sentence frames/sentence starters. • Utilize manipulatives as necessary.	• Basic Skills Instruction • Speech/Language Therapy • Rosetta Stone • Provide English/Native Language Dictionary for use. • Place with native-language-speaking teacher/paraprofessional as available. • Use target words and cognates to understand texts. • Remind students to underline passages and list words they don't understand. • Learn/Utilize/Display some words in the students' native language. • Provide and model sentence frames to help students participate in discussion. • Provide word banks to help students write. • Translate printed communications in native language for parents. • Hold conferences with translator present.	• Basic Skills Instruction • Provide after-school tutoring services. • Hold fall and spring parent conferences. • Make modifications to instructional plans based on I and RS Plan. • Utilize wait time effectively. • Develop a record system to encourage good behavior and completion of work. • Utilize scaffolding to support instruction. • Provide counseling if necessary to help students cope with challenges. • Utilize strategic grouping with a positive academic role model. • Utilize graphic organizers.	• Promote self-initiated and self-directed learning for growth through independent projects. • Challenge students with age-appropriate texts at higher reading levels. • Allow for the development and application of productive thinking skills to enable students to re-conceptualize existing knowledge and/or generate new knowledge. • Provide for the development of self-understanding of one's relationships with people, societal institutions, nature and culture.

• Provide breaks to allow for refocusing as necessary.			
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Quinton Township School District
Math
Grade 2

Marking Period:	3	Unit Title:	Work With Time and Money / Numbers to 1,000 / Add Within 1,000 Using Models and Strategies / Subtract Within 1,000 Using Models and Strategies	Pacing:	45 Days
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Unit Summary: This unit will cover 8, 9, 10, and 11. Topic 8 focuses on identifying and counting coins and bills, solving word problems about money, telling time to the nearest 5 minutes using a.m. and p.m., and telling time before and after the hour. In topic 9, students expand their understanding of place value to 1,000 to serve as a foundation for adding and subtracting within 1,000. In topic 10, students' will expand their understanding of addition to 3-digit numbers using models and strategies. Topic 11 will focus on expanding students' understanding of subtraction within 100 to subtraction within 1,000, using models and strategies.

Objectives:

Topic 8

- Solve problems with coins.
- Solve problems with dollar bills and coins that model 100 cents.
- Reason about values of coins, and find different ways to make the same total value
- Tell and write time to the nearest five minutes
- Say the time in different ways
- Tell time and use reasoning to state if the event is happening in the a.m. or p.m.

Topic 9

- Understand place value and count by hundreds to 1,000
- Use place value blocks and drawings to model and write 3-digit numbers
- Tell the value of a digit by where it is placed in a number

- Read and write 3-digit numbers in expanded form, standard form, and word form
- Make and name a number in different ways to show the same value
- Use place-value patterns to mentally count by 1s and 10s from a given number
- Compare numbers using place value
- Compare and write 3-digit number that is greater than or less than another 3-digit number
- Look for patterns to help when solving problems

Topic 10

- Add 10 and 100 mentally using place value
- Use an open number line to add 3-digit numbers
- Add 3-digit numbers using models
- Use models and place value to add 3-digit numbers
- Add 3-digit numbers using place value and partial sums
- Use different addition strategies and explain why they work
- Identify calculations or steps that repeat when solving problems

Topic 11

- Subtract 10 or 100 mentally using place-value strategies
- Use an open number line to subtract 3-digit numbers
- Use models to subtract 3-digit numbers
- Use models and place value to subtract
- Explain why subtraction strategies work using models, place value, and mental math
- Solve problems that take more than one step

Essential Questions:

Topic 8

- How can you solve problems about counting money or telling time to the nearest 5 minutes?
- Why is it important to understand time and money in real-life?

Topic 9

- How can you count, read, and show numbers to 1,000?

Topic 10

- What are strategies for adding numbers to 1,000?

Topic 11

- What are strategies for subtracting numbers to 1,000?

New Jersey Student Learning Standards**Mathematics Learning Targets:****Topic 8**

2.MD.C.8, 2.NBT.A.2, 2.OA.A.1, 2.MD.C.7,

Topic 9

2.NBT.A.1a, 2.NBT.A.1b, 2.NBT.A.3, 2.NBT.B.8, 2.NBT.A.4

Topic 10

2.NBT.B.8, 2.NBT.B.9, 2.MD.C.8, 2.NBT.B.7, 2.NBT.A.2,

Topic 11

2.NBT.B.8, 2.NBT.B.9, 2.MD.C.8, 2.NBT.B.7, 2.NBT.A.2

Mathematics Practices: MP.2, MP.5, MP.6, MP.3, MP.8

Lesson 9.1 - Understand Hundreds Lesson 9.2 – Models and 3-Digit Numbers Lesson 9.3 – Name Place Values Lesson 9.4 – Read and Write 3-Digit Numbers Lesson 9.5 – Different Ways to Name the Same Number Lesson 9.6 – Place-Value Patterns with Numbers Lesson 9.7 - Skip Count by 5s, 10s, and 100s to 1,000 Lesson 9.8 - Compare Numbers Using Place Value Lesson 9.9- Compare Numbers on the Number Line Lesson 9.10- Problem Solving: Look For and Use Structure Topic 10 Lesson 10.1 – Add 10 and 100 Lesson 10.2 – Add on an Open Number Line Lesson 10.3 – Add Using Models Lesson 10.4 – Continue to Add Using Models and Place Value Lesson 10.5 – Add Using Place Value and Partial Sums Lesson 10.6 – Explain Addition	Numbers to 1,000 Teachers Edition: Topic 10 – Add Within 1,000 Using Models and Strategies	Digital Resources: enVision Student and Teacher Edition Print Resources: Student Edition (including practice and homework), Reteach and Enrichment in Chapter Resources Teaching Tools: place-value blocks, place-value mat, hundreds, tens, and ones charts, hundred chart, open number lines, index cards Topic 10 Digital Resources: enVision Student and Teacher Edition Print Resources: Student Edition (including practice and homework), Reteach and Enrichment in Chapter Resources,	
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Strategies Lesson 10.7 – Problem Solving: Repeated Reasoning Topic 11 Lesson 11.1 – Subtract 10 and 100 Lesson 11.2 – Subtract on an Open Number Line Lesson 11.3 – Subtract Using Models Lesson 11.4 – Subtract Using Models and Place Value Lesson 11.5 – Explain Subtraction Strategies Lesson 11.6 – Problem Solving: Persevere	Teachers Edition: Topic 11 – Subtract Within 1,000 Using Models and Strategies	Teaching Tools: place value blocks, open number lines, place-value mat, partial sums charts, hundreds, tens, and ones chart Topic 11 Digital Resources: enVision Student and Teacher Edition, Print Resources: Student Edition (including practice and homework), Reteach and Enrichment in Chapter Resources Teaching Tools: place-value blocks, open number lines, hundreds, tens, and ones charts	
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Assessments	
Formative Assessments	Summative Assessments

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• Minute Math • Anecdotal Notes • Practice Pages • Interactive Practice Buddy • IXL.com	• Topic tests
Benchmark Assessments • District-assigned Benchmark Assessments (e.g. LinkIt, literacy screeners, content-specific benchmarks)	Alternative Assessments • Alternative Choice Projects • Oral Assessments

Differentiation			
Special Education	MLL	At Risk	Gifted and Talented
• Modify and accommodate as listed in student IEP or 504 plan. • Utilize wait time effectively. • Communicate clear, concise directions and repeat, reword, modify as necessary. • Use visual aids during lessons and small-group time. • Utilize open-ended questioning techniques. • Utilize extended time and/or reduce number of items given for homework, quizzes, and tests. • Vary formative assessment styles to drive next point of instruction. • Create modified assessments. • Allow students to utilize online audio books, when appropriate.	• Basic Skills Instruction • Speech/Language Therapy • Rosetta Stone • Provide English/Native Language Dictionary for use. • Place with native-language-speaking teacher/paraprofessional as available. • Use target words and cognates to understand texts. • Remind students to underline passages and list words they don't understand. • Learn/Utilize/Display some words in the students' native language. • Provide and model sentence frames to help students participate in discussion. • Provide word banks to help students write.	• Basic Skills Instruction • Provide after-school tutoring services. • Hold fall and spring parent conferences. • Make modifications to instructional plans based on I and RS Plan. • Utilize wait time effectively. • Develop a record system to encourage good behavior and completion of work. • Utilize scaffolding to support instruction. • Provide counseling if necessary to help students cope with challenges. • Utilize strategic grouping with a positive academic role model. • Utilize graphic organizers.	• Promote self-initiated and self-directed learning for growth through independent projects. • Challenge students with age-appropriate texts at higher reading levels. • Allow for the development and application of productive thinking skills to enable students to re-conceptualize existing knowledge and/or generate new knowledge. • Provide for the development of self-understanding of one's relationships with people, societal institutions, nature and culture.

• Allow for collaboration through strategically selected groups. • Utilize assistive technology as appropriate. • Utilize graphic organizers. • Provide and model sentence frames/sentence starters. • Utilize manipulatives as necessary. • Provide breaks to allow for refocusing as necessary.	• Translate printed communications in native language for parents. • Hold conferences with translator present.		
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Quinton Township School District
Math
Grade 2

Marking Period:	4	Unit Title:	Measuring Length / Shapes and Their Attributes / More Addition, Subtraction, and Length / Graphs and Data	Pacing:	45 Days
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Unit Summary: This unit will cover chapters 12, 13, 14 and 15. Topic 12 covers focuses on using appropriate tools to estimate, measure, and compare length using customary units and metric units. In topic 13, students investigate attributes of shapes and use them to identify and draw triangles, quadrilaterals, pentagons, hexagons, and cubes. Topic 14 focuses on the application of understanding of addition and subtraction within 100 to solving word problems involving lengths. In topic 15, students will use line plots, bar graphs, and picture graphs to show data and answer questions.

Objectives:

Chapter 12

- Estimate the length of an object by relating the length of an unknown object to a known measurement
- Estimate measures and use a ruler to measure length and height to the nearest inch
- Estimate measures and use tools to measure the length and height of objects to the nearest inch, foot, and yard.
- Estimate and measure the length and height of objects in inches, feet, and yards
- Estimate measure and use a ruler to measure length and height to the nearest centimeter
- Estimate measures and use a ruler, meter stick, or tape measure to measure length and height to the nearest centimeter or meter
- Measure the length and height of objects using different metric units
- Tell how much longer one object is than another
- Choose tools, units, and methods that help to be precise when measuring

Chapter 13

- Recognize shapes by how they look
- Describe plane shapes by how they look
- Draw polygon shapes
- Draw cubes and describe how they look
- Partition rectangles into equal-size squares
- Partition circles and rectangles into halves, thirds, and fourths
- Make equal shares that do not have the same shape
- Use repeated reasoning to show rectangles with rows and columns and create designs with equal shares

Chapter 14

- Add or subtract length measurements
- add or subtract to solve problems about measurements
- Draw and write equations to solve measurement problems
- Add and subtract on a number line
- Choose the best tool to solve problems

Chapter 15

- Measure the lengths of objects
- organize data by creating a line plot
- Draw and interpret bar graphs
- Draw and interpret picture graphs
- Draw picture graphs and use them to solve problems
- Draw conclusions from graphs
- Reason about data in bar graphs and picture graphs to write and solve problems

Essential Questions:

Topic 12

- What are some ways to measure length?

Topic 13

- How can shapes be described, compared, and broken into parts?

Topic 14

- How can you solve word problems that use adding and subtracting?
- How can pictures and equations be used to solve word problems involving length?

Topic 15

- How can line plots, bar graphs, and pictographs be used to compare information?
- How can line plots, bar graphs, and pictographs tell a story?

Mathematics Learning Targets:**Topic 12**

2.MD.A.1, 2.MD.A.2, 2.MD.A.3, 2.MD.A.4, 2.MD.B.5

Topic 13

2.G.A.1, 2.OA.B.2, 2.MD.A.1, 2.G.A.2, 2.OA.C.4, 2.G.A.3, 2.MD.A.2

Topic 14

2.MD.B.5, 2.OA.A.1, 2.MD.B.6

Topic 15

2.MD.D.9, 2.MD.A.1, 2.MD.D.10, 2.OA.A.1,

Mathematics Practices: MP.2, MP.5, MP.6, MP.3, MP.8
Interdisciplinary Connections: 2-PS1-1, 2-PS1-3, K-2-ETS1-2, 2-LS2-2
Career Readiness, Life Literacies, and Key Skills: 9.4.2.CT.2, 9.4.2.CT.3
Computer Science and Design Thinking: 8.1.2.DA.1, 8.1.2.DA.2, 8.1.2.AP.4
Career Education: 9.2.2.CAP.1

Overview of Activities	Teacher's Guide/ Resources	Core Instructional Materials	Technology Infusion
<u>Topic 12</u> Lesson 12.1 – Estimating Length Lesson 12.2 – Measure with Inches Lesson 12.3 - Inches, Feet, and Yards Lesson 12.4 – Measure Length Using Different Customary Units Lesson 12.5 – Measure with Centimeters Lesson 12.6 – Centimeters and Meters Lesson 12.7 – Measure Length Using Different Metric Units Lesson 12.8 – Compare Lengths Lesson 12.9 – Problem Solving: Precision	<u>Teachers Edition: Chapter 12 -</u> Measuring Length	<u>Topic 12</u> <u>Digital Resources:</u> enVision Student and Teacher Edition, <u>Print Resources:</u> Student Edition (including practice and homework), Reteach and Enrich in Chapter Resources, <u>Teaching Tools:</u> classroom objects of varying lengths (string, yarn, connecting cubes, paper clips, pipe	• Smart Board Applications • Google Applications • Chromebooks • Interactive Student Edition • SavvasRealize.com • Interactive Practice Buddy

<u>Topic 13</u> Lesson 13.1 - 2-Dimensional Shapes Lesson 13.2 – Polygons and Angles Lesson 13.3 – Draw 2-Dimensional Shapes Lesson 13.4 – Cubes Lesson 13.5 - Equal Shares Lesson 13.6 - Partition Shapes Lesson 13.7 - Equal Shares, Different Shapes Lesson 13.8 - Problem Solving: Repeated Reasoning <u>Topic 14</u> Lesson 14.1 – Add and Subtract with Measurements	<u>Teachers Edition: Topic 13</u> – Shapes and Their Attributes <u>Teachers Edition: Topic 14</u> – More Addition, Subtraction, and Length	cleaners, straws), inch rulers, 1-inch squares, measuring tapes, yardsticks, centimeter rulers, ones cubes <u>Topic 13</u> <u>Digital Resources:</u> enVision Student and Teacher Edition, <u>Print Resources:</u> Student Edition (including practice and homework), Reteach and Enrich in Chapter Resources <u>Teaching Tools:</u> plane shapes, tracing paper, toothpicks, rulers, centimeter grid, ones cubes, halves, thirds, and fourths, hundred chart, equal shares, markers <u>Topic 14</u> <u>Digital Resources:</u> enVision Student and Teacher Edition,	
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Assessments	
Formative Assessments • Minute Math • Anecdotal Notes • Practice Pages	Summative Assessments • Topic Tests
Benchmark Assessments • District-assigned Benchmark Assessments (e.g. LinkIt, literacy screeners, content-specific benchmarks)	Alternative Assessments • Alternative Choice Projects • Oral Assessments

Differentiation			
Special Education	MLL	At Risk	Gifted and Talented
• Modify and accommodate as listed in student IEP or 504 plan. • Utilize wait time effectively. • Communicate clear, concise directions and repeat, reword, modify as necessary. • Use visual aids during lessons and small-group time. • Utilize open-ended questioning techniques. • Utilize extended time and/or reduce number of items given for homework, quizzes, and tests. • Vary formative assessment styles to drive next point of instruction. • Create modified assessments. • Allow students to utilize	• Basic Skills Instruction • Speech/Language Therapy • Rosetta Stone • Provide English/Native Language Dictionary for use. • Place with native-language-speaking teacher/paraprofessional as available. • Use target words and cognates to understand texts. • Remind students to underline passages and list words they don't understand. • Learn/Utilize/Display some words in the students' native language. • Provide and model sentence frames to help students participate in discussion.	• Basic Skills Instruction • Provide after-school tutoring services. • Hold fall and spring parent conferences. • Make modifications to instructional plans based on I and RS Plan. • Utilize wait time effectively. • Develop a record system to encourage good behavior and completion of work. • Utilize scaffolding to support instruction. • Provide counseling if necessary to help students cope with challenges. • Utilize strategic grouping with a positive academic role model.	• Promote self-initiated and self-directed learning for growth through independent projects. • Challenge students with age-appropriate texts at higher reading levels. • Allow for the development and application of productive thinking skills to enable students to re-conceptualize existing knowledge and/or generate new knowledge. • Provide for the development of self-understanding of one's relationships with people, societal institutions, nature and culture.

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online audio books, when appropriate. • Allow for collaboration through strategically selected groups. • Utilize assistive technology as appropriate. • Utilize graphic organizers. • Provide and model sentence frames/sentence starters. • Utilize manipulatives as necessary. • Provide breaks to allow for refocusing as necessary.	• Provide word banks to help students write. • Translate printed communications in native language for parents. • Hold conferences with translator present.	• Utilize graphic organizers.	
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