

SCHOOL DISTRICT OF THE CHATHAMS

CURRICULUM PROFILE

Mathematics

Grade 1

Full Year

Course Overview

In Grade 1 mathematics, students will focus on four critical areas in alignment with the New Jersey Student Learning Standards for Mathematics. First, students will develop an understanding of addition, subtraction, and strategies for addition and subtraction within 20. Second, students will gain an understanding of whole number relationships and place value, including grouping in tens and ones. Next, students will grasp the concept of linear measurement and measuring lengths as iterating length units. Finally, students will reason about attributes of geometric shapes, while expanding their conceptualization to include composition and decomposition. Students will engage in a variety of differentiated activities throughout the year, aligned with the Standards for Mathematical Practice.

New Jersey Student Learning Standards

The New Jersey Student Learning Standards (NJSLS) can be located at www.nj.gov/education/cccs/2020/.

Operations and Algebraic Thinking:

- 1.OA.A. Represent and solve problems involving addition and subtraction
- 1.OA.B. Understand and apply properties of operations and the relationship between addition and subtraction.
- 1.OA.C. Add and subtract within 20.
- 1.OA.D. Work with addition and subtraction equations.

Number and Operations in Base Ten:

- 1.NBT.A. Extend the counting sequence.
- 1.NBT.B. Understand place value.
- 1.NBT.C. Use place value understanding and properties of operations to add and subtract.

Measurements and Data:

- 1.MD.A. Measure lengths indirectly and by iterating length units.
- 1.MD.B. Tell and write time.
- 1.MD.C. Represent and interpret data.

Geometry:

- 1.G.A. Reason with shapes and their attributes.

Technology Standards

- 9.4.2.DC.3: Explain how to be safe online and follow safe practices when using the internet
- 9.4.2.DC.6: Identify respectful and responsible ways to communicate in digital environments
- 9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content.
- 9.4.2.TL.2: Create a document using a word processing application.

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- 9.4.2.CI.2: Demonstrate originality and inventiveness in work
9.4.2.CT.3: Use a variety of types of thinking to solve problems
9.4.5.CT.3: Describe how digital tools and technology may be used to solve problems
9.4.5.CT.4: Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global

Career Ready Practices

- CRP2. Apply appropriate academic and technical skills.
CRP4. Communicate clearly and effectively and with reason.
CRP6. Demonstrate creativity and innovation.
CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP11. Use technology to enhance productivity.
CRP12. Work productively in teams while using cultural global competence.

Interdisciplinary Connections

English Language Arts:

- NJLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

Science:

- K-2-ETS1-2 - Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Units of Study

Unit 1 : Solve Addition and Subtraction Problems to 10 (~13 Days)

- What are ways to think about addition and subtraction?

Unit 2: Fluently Add and Subtract Within 10 (~15 Days)

- What strategies can you use while adding and subtracting?

Unit 3: Addition Facts to 20: Use Strategies (~15 Days)

- What strategies can you use for adding to 20?

Unit 4: Subtraction Facts to 20: Use Strategies (~14 Days)

- What strategies can you use while subtracting?

Unit 5: Work With Addition and Subtraction Equations (~11 Days)

- How can adding and subtracting help you solve or complete equations?

Unit 6: Represent and Interpret Data (~11 Days)

- What are some ways you can collect, show, and understand data?

Unit 7: Extend the Counting Sequence (~12 Days)

- How can you use what you already know about counting past 100?

Unit 8: Understand Place Value (~12 Days)

- How can you count and add using tens and ones?

Revision Date: May 2022

Unit 9: Compare Two-Digit Numbers (~11 Days)

- What are some ways to compare numbers to 120?

Unit 10: Use Models and Strategies to Add Tens and Ones (~13 Days)

- What are some ways to use tens and ones to add?

Unit 11: Use Models and Strategies to Subtract Tens and Ones (~12 Days)

- How can you use what you know about subtraction to subtract tens?

Unit 12: Measure Lengths (~10 Days)

- What are ways to measure how long an object is?

Unit 13: Time (~8 Days)

- What are different ways to tell time?

Unit 14: Reason with Shapes and Their Attributes (~13 Days)

- How can you define shapes and compose new shapes?

Unit 15: Equal Shares of Circles and Rectangles (~10 Days)

- What are some different names for equal shares?

Learning Objectives/Discipline Standards of Practice

Learning Objectives:

- Identify a group of objects
- Describe numbers as a group
- Write an addition equation and a subtraction equation
- Model addition and subtraction
- Identify strategies to find a sum within 10
- Apply strategies to find sums within 10
- Describe fact families
- Identify counting strategies
- Describe equations
- Apply strategies to solve word problems.
- Identify counting back strategies
- Describe subtraction equations
- Compare addition and subtraction strategies.
- Identify and describe numbers on a chart
- Count on from a number
- Write numbers
- Identify and describe two-digit numbers
- Locate two-digit numbers on a number line
- Compare two-digit numbers
- Identify the number ten
- Describe what changes when adding or subtracting ten
- Model adding and subtracting tens
- Use a number line to show adding and subtracting tens
- Identify two-digit numbers
- Describe an addition strategy

- Write a sum
- Explain the strategy and the sum.
- Identify the lengths of objects
- Order objects from longest to shortest
- Compare different lengths
- Measure the length of objects.
- Record data on a tally chart
- Use a tally chart
- Compare data
- Interpret data.
- Identify numbers on a clock
- Explain how to tell time to the hour
- Compare different times on the clock
- Draw to show the time.
- Identify two- and three- dimensional shapes
- Describe two- and three-dimensional shapes
- Compare shapes
- Create shapes

Discipline Standards of Practice:

MP.1: Make sense of problems and persevere in solving them

MP.2: Reason abstractly and quantitatively

MP.3: Construct viable arguments

MP.4: Model with Mathematics

MP.5: Use appropriate tools strategically

MP.6: Attend to precision

MP.7: Look for and make use of structure

MP.8: Look for and express regularity in repeated reasoning

<p>Instructional Resources and Materials</p> <p><i>Whole class resources have been identified with an asterisk.</i></p>
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Resources

- *Big Ideas Math MRL CC Grade 1, 2022*

Materials

- Illustrative Mathematics
- Inside Mathematics
- Exemplars
- Freckle Math
- Acbya Math
- NCTM Illuminations
- Beast Academy
- Manipulatives*
- Math Word Wall*

Assessment Strategies

Assessment is designed to measure a student's mastery of a course standard and learning objective. Assessment can be used for both instructional purposes (formative assessment) and for evaluative purposes (summative assessment).

The following is a general list of the many forms assessment may take in learning.

- Tests
- Quizzes
- Projects
- Unit Assessments