# *SCHOOL DISTRICT OF THE CHATHAMS*
## CURRICULUM PROFILE

**Mathematics**
**Grade 2**
**Full Year**

**Course Overview**

In Grade 2 mathematics, students will focus on four critical areas in alignment with the New Jersey Student Learning Standards for Mathematics. First, students will extend their understanding of base-ten notation. Next, students will build fluency with addition and subtraction. Additionally, students will focus on using standard units of measure. Finally, students will describe and analyze shapes. 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:
2.OA.A. Represent and solve problems involving addition and subtraction.
2.OA.B. Add and subtract within 20.
2.OA.C. Work with equal groups of objects to gain foundations for multiplication.

Numbers and Operations in Base Ten:
2.NBT.A. Understand place value.
2.NBT.B. Use place value understanding and properties of operations to add and subtract.

Measurement and Data:
2.MD.A. Measure and estimate lengths in standard units.
2.MD.B. Relate addition and subtraction to length.
2.MD.C. Work with time and money.
2.MD.D. Represent and interpret data.

Geometry:
2.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.

**21st Century Integration | NJSLS 9**
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

**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:

- NJSLSA.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 - Fluently Add and Subtract Within 20 (*~13 days*)

- What are strategies for finding addition and subtraction facts?

Unit 2 - Work With Equal Groups (*~12 days*)

- How can you show even and odd numbers? How do arrays relate to repeated addition?

Unit 3 - Add Within 100 Using Strategies (*~11 days*)

- What are strategies for adding numbers to 100?

Unit 4 - Fluently Add Within 100 (*~13 days*)

- What are strategies for adding numbers to 100?

Unit 5 - Subtract Within 100 Using Strategies (*~12 days*)

- What are strategies for subtracting numbers to 100?

Unit 6 - Fluently Subtract Within 100 (*~13 days*)

- What are strategies for subtracting numbers to 100?

Unit 7 - More Solving Problems Involving Addition and Subtraction (*~12 days*)

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

Unit 8 - Work with Time and Money (*~12 days*)

- How can you solve problems about counting money or telling time to the nearest 5 minutes?

Unit 9 - Numbers to 1,000 (*~12 days*)

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

Unit 10 - Add Within 1,000 Using Models and Strategies (*~12 days*)

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

Unit 11 - Subtract Within 1,000 Using Models and Strategies (*~12 days*)

***Revision Date:*** *May 2022*

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

Unit 12 - Measuring Length (*~11 days*)
- What are ways to measure length?

Unit 13 - More Addition, Subtraction, and Length (*~11 days*)
- How can you add and subtract lengths?

Unit 14 - Graphs and Data (*~11 days*)
- How can line plots, bar graphs, and picture graphs be used to show data and answer questions?

Unit 15 - Shapes and their Attributes (*~12 days*)
- How can shapes be described, compared, and broken into parts?

**Learning Objectives/Discipline Standards of Practice**

Learning Objectives:
- Identify mental strategies to fluently add and subtract within 20 for all the sums of two one-digit numbers
- Work with equal groups of objects to gain foundations for multiplication
- Determine whether a number is even or odd, and find the total number of objects in situations involving equal groups of objects
- Identify strategies to add within 100 using place value understanding and properties of operations
- Identify strategies to fluently add within 100 using place value understanding and properties of operations
- Identify strategies to subtract within 100 using place value understanding and properties of operations
- Identify strategies to fluently subtract within 100 using place value understanding and properties of operations
- Represent and solve problems involving addition and subtraction
- Represent and solve problems involving counting money and telling time
- Understand place value
- Use place value understanding and properties of operations to identify strategies to add
- Use place value understanding and properties of operations to identify strategies to subtract
- Identify different ways to measure lengths in standard units
- Relate addition and subtraction to length
- Represent and interpret data
- Reason with shapes and their attributes

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

***Revision Date:*** *May 2022*

**Instructional Resources and Materials**
*Whole class resources have been identified with an asterisk.*

**Resources**

- *Big Ideas Math MRL CC Grade 2, 2022*

**Materials**

- Illustrative Mathematics
- Inside Mathematics
- Exemplars
- IXL
- Xtramath
- 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

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