

Thomaston Public Schools - Curriculum Overview and Pacing Guide

Directions - Each colored box below represents one curricular unit. In each box, complete as much of the required information as possible (unit title, unit pacing, unit overview, priority learning targets). On its own, this document will eventually become a public-facing and quick-reference curriculum guide. As suits our curriculum goals, we will eventually use the information you lay out here as the basis for building a fully-expanded curriculum.

A few important points:

1. Unit Title - Your unit title can be thematic (i.e. “The Power and Pain of Love”) or Skill-Based (i.e. Research and Argumentation) or Content-Driven (“Quadratic Functions and Operations”).
2. Unit Pacing - There are approximately forty instructional weeks in a school year, but due to testing, school events, etc., we build a curriculum to cover thirty-six weeks. A full curriculum should contain six units each a minimum of four weeks and maximum of eight weeks long. In total, the units should add up to thirty-six weeks of coverage. The only exception is ELA, which uses quarterly units each 9 weeks long.
3. Unit Overview - The unit overview is a “meaty” paragraph that provides a narrative description of the unit, including major themes, skills, and (possibly) content. Think: In this unit students will (read / do / experience / learn / understand / develop / consider /etc.)...
4. Compelling Questions - Compelling questions are essential. They reflect critical and important inquiries that help students make sense of the world around them through the lenses of specific themes, issues, and topics that connect to specific disciplines. Compelling questions are relevant. They engage students in inquiries that are of personal importance and that ask students to consider themes, issues, and topics that help them connect the content of specific disciplines to their own lives and to their world. For more information, click [here](#).
5. Priority Learning Targets - Each unit should contain three priority learning targets. These are effectively end-of-unit guarantees of what students will be able to do and demonstrate as a result of their learning. As priority learning targets, they are those “level three” learning targets on our eventual proficiency scales that we’ve been developing for a while now. The only exception to three targets per unit are for ELA (5-6 per unit) and history (six per unit, incl. three inquiry targets). These content areas have separate curriculum guide templates.

Course Title: Second Grade Math Curriculum		
School: Black Rock School	Grade:2	Curriculum Pacing: 36 weeks
Unit One: Operations and Algebraic Thinking Building Addition and Subtraction Fluency	Unit Two: Number and Operations in Base Ten Adding and Subtracting Two Digit Numbers	Unit Three: Number and Operations In Base Ten Adding and Subtracting Three Digit Numbers
Unit Pacing: 6 weeks	Unit Pacing: 6 weeks	Unit Pacing: 6 weeks
<p>Unit Overview: In this unit, students will build on addition and subtraction fact fluency. They will use their understanding of addition to develop fluency with addition and subtraction facts within 20.</p> <p>In Part 1 of this unit, students will use mental math strategies (fact families) to problem solve and will solve problems using addition and subtraction.</p> <p>In Part 2 of this unit, students will demonstrate the ability to use a make a ten strategy when adding and subtracting numbers within 20 and will identify odd and even numbers.</p> <p>In Part 3 of this unit, students will be able to identify and add an array up to five rows and five columns. They will also be able to analyze a two step problem and determine the series of operations needed to solve them.</p>	<p>In this unit, the focus continues to be on building fluency with addition and subtraction. Students will use their understanding of addition to develop fluency with addition and subtraction within 100. They will solve problems within 1000 by applying their understanding of models for addition and subtraction.</p> <p>In Part 1 of this unit, students will break apart two-digit numbers, as a place value strategy for adding, recognize in adding that tens are added to tens and ones are added to ones. The students will also determine when regrouping is necessary and carry out the regrouping to find a sum.</p> <p>In Part 2 of this unit, students will subtract two-digit numbers, subtract by adding up and subtract by regrouping.</p> <p>In Part 3 of this unit, students will solve one-step word problems with two-digit numbers using different strategies.</p>	<p>Unit Overview: In this unit, students will extend their understanding of the base-ten system. This includes counting in fives, tens, multiples of hundreds, tens and ones, as well as number relationships involving these units, including comparing. Students will understand multi digit numbers up to 1,000 written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones.</p> <p>In Part 1 of this unit, students will learn counting strategies to understand three digit numbers and identify the place value of each digit.</p> <p>In Part 2 of this unit, students will read and write three-digit numbers.</p> <p>In Part 3 of this unit, students will add, subtract and compare three digit numbers.</p>

<p>Compelling Questions:</p> <ol style="list-style-type: none"> 1. How can I tell if a number is even or odd and why is that important? 2. What is an array and how is it used in problem solving? 	<p>Compelling Questions:</p> <ol style="list-style-type: none"> 1. When do you need to use the regrouping strategy? 2. How can you use a Hundreds Chart to add and subtract two digit numbers? 	<p>Compelling Questions:</p> <ol style="list-style-type: none"> 1. How can you show a number in different ways? 2. How can you use addition to check your subtraction?
<p>Priority Learning Targets</p> <ol style="list-style-type: none"> 1. I can add and subtract within 100 to solve one and two step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with all unknowns in all positions. Math.2.OA.1 2. I can fluently add and subtract within 20 using mental strategies. Math.2.OA.2 3. I can determine whether a group of objects (up to 20) has an odd or even number of members. Math.2.OA.3 4. I can use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total sum if equal addends. Math.2.OA.4 	<p>Priority Learning Targets</p> <ol style="list-style-type: none"> 1. I can read and write numbers to 1,000 using base-ten numerals, number names and expanded form. Math.2.NBT.3 2. I can fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition or subtraction. Math.2.NBT.5 3. I can explain why addition and subtraction strategies work, using place value and the properties of operations. Math.2.NBT.9 	<p>Priority Learning Targets</p> <ol style="list-style-type: none"> 1. I can read and write numbers to 1,000 using base-ten numerals, number names, and expanded form. Math.2.NBT.3 2. Read and write numbers to 1,000 using base ten numerals, number names and expanded form. Math.2.NBT.4 3. Add and subtract within 1,000 using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between and subtraction; relate the strategy to a written method. Understand that in adding and subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, and ones and one: and sometimes compose or decompose tens or hundreds. Math.2.NBT.7
<p>Unit Four: Measurement and Data Measurement, Estimating Lengths and Tools</p>	<p>Unit Five: Measurement and Data Data, Telling Time and Money</p>	<p>Unit 6: Geometry Shapes and Fractions</p>

<p>Unit Pacing: 6 weeks</p>	<p>Unit Pacing: 6 weeks</p>	<p>Unit Pacing: 6 weeks</p>
<p>Unit Overview: In this unit, students will use standard units of measure. They will estimate and measure accurately. They will recognize the need for standard units of measure (centimeter and inch) and use rulers and other measurement tools with the understanding that linear measure involves an iteration of units.</p> <p>In Part 1 of this unit, students will understand the concept of length, use measurement tools and measure lengths accurately.</p> <p>In Part 2 of this unit, students will measure objects with different units and estimate length.</p> <p>In Part 3 of this unit, students will compare, and add and subtract lengths.</p>	<p>Unit Overview: In this unit, students will collect, compare and interpret data using line plots, bar graphs and picture graphs. They will also learn to tell and write time from analog and digital clocks to the nearest five minutes using AM and PM. Students will also solve word problems using money.</p> <p>In Part 1 of this unit, students will learn how to read and make line plots.</p> <p>In Part 2 of this unit, students will draw and use bar graphs and picture graphs to extract and analyze data.</p> <p>In Part 3 of this unit, students will tell, write time and solve word problems involving money.</p>	<p>Unit Overview: In this unit, students will describe and analyze shapes by examining their sides and angles. Students investigate, describe and reason about decomposing and combining shapes to make other shapes. Through building, drawing and analyzing two- and three dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity and symmetry.</p> <p>In Part 1 of this unit, students will be able to recognize and draw shapes.</p> <p>In Part 2 of this unit, students will understand tiling in rectangles.</p> <p>In Part 3 of this unit, students will understand halves, thirds and fourths in shapes.</p>
<p>Compelling Questions:</p> <ol style="list-style-type: none"> 1. Why do we need to estimate when measuring? 2. How can you compare measurements? 	<p>Compelling Questions:</p> <ol style="list-style-type: none"> 1. What are some ways that data can be organized? 2. Is there more than one way to make the same amount of money? 	<p>Compelling Questions:</p> <ol style="list-style-type: none"> 1. Why would you want to divide an object into equal parts? 2. How are attributes used to describe and classify shapes?

Priority Learning Targets

- 1. I can measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks and measuring tapes. Math.2.MD.1
- 2. I can estimate lengths using inches, feet, centimeters and meters. Math.2.MD.3
- 3. I can measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. Math.2.MD.4

Priority Learning Targets

- 1. I can tell and write time from analog and digital clocks to the nearest five minutes, using A.M. and P.M. Math.2.MD.7
- 2. I can solve word problems involving dollar bills, quarters, dimes, nickels and pennies using dollars and cent sign symbols appropriately. Math.2. MD.8
- 3. I can draw a picture graph and a bar graph to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems using information presented in a bar graph. Math.2.MD.10

Priority Learning Targets

- 1.I can recognize and draw shapes having specific attributes, such as a given number of angles or a given number of equal faces. I can identify triangles, quadrilaterals, pentagons, hexagons and cubes. Math.2.G.1
- 2. I can partition a rectangle into rows and columns of same sized squares and count to find the total number of them. Math.2.G.2
- 3.I can partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, etc., and describe the whole as two halves, three thirds and four fourths. I can recognize that equal shares of identical wholes need not have the same shape. Math.2.G.3