Third Grade Scope & Sequence 2022-2023

Unit 1 Three-Digit Numbers: Place Value, Addition and Subtraction	Days Total: 19
Lesson 0 - Lessons for the First Five Days	5
Lesson 1 - Use Place Value to Round Numbers*	4
Lesson 2 - Add Three Digit Numbers	4
Lesson 3 - Subtract Three Digit Numbers	5
Unit Assessment	1

Notes:

Establish routines and expectations for materials, manipulatives, discourse, etc. Prior to this unit students have only estimated but never rounded

- Connect that estimating and rounding have a similar meeting
- Stress the focus of what rounding is, not just the procedure to round

Adding and Subtraction are review (big focus on partial sums and trade first)
Grade 4 teaches rounding but it is not a standard for the grade level
Grade 4 continues work on strategies to add and subtract with larger numbers
Centers or small groups reinforcement of addition and subtraction fact strategies

Targets to Consider:

I can round whole numbers to the nearest 10 or 100 to form an estimate I can add and subtract within 1000 (second grade standard)

* Look for mastery on these lessons

Unit 2 Multiplication and Division: Concepts, Relationships, and Patterns	Total Days: 27
Lesson 4 - Understand the Meaning of Multiplication	3
Lesson 5 - Multiply with 0, 1, 2, 5, and 10	4
Lesson 6 & 7 - Multiply with 3, 4, 6, 7, 8, and 9	5
Lesson 8 - Use Order and Grouping to Multiply (shortened lesson)	3
Lesson 9 - Use Place Value to Multiply	3
Lesson 10 - <i>Understand</i> the Meaning of Division	3
Lesson 11 - Understand How Multiplication and Division are Connected	3
Lesson 12 - Multiplication and Division Facts (fact families)	2

Lesson 13 - Understand Patterns (Grade 4 CCSS standard)	0
Unit Assessment	1

Notes:

This is learners first introduction to multiplication and division - units 3 and 6 continue to reinforce these concepts

Only use mid unit assess if needed to gather more data

Understand lessons are introductions to brand to concepts for learns

Fact Practice Games and activities need to be devised to support practice for using strategies

- Blockout Math For Love or How Close To 100
- Pattern Block Multiplication Math For Love
- Multiplication by Heart Math For Love
- 24 (helps with all operations)

Consider using Number Talks with images of arrays to replace start slides

Targets to Consider:

I can express products of single digit whole numbers with or without pictures

I can express quotients of single digit whole numbers with or without pictures

I can *fluently* express products or single digit numbers (fluent for third grade can mean that they have a strategy to efficiently apply to solve)

I can perform the commutative, associative, and distributive properties

I can solve division problems using multiplication strategies

I can perform identity property (any number multiplied by 1 keeps its identity)

I can perform the zero property of multiplication

Unit 6 (abbreviated) Shapes: Attributes and Categories	Total Days: 13
Grade 2 Lesson 28 - Recognize and Draw Shapes	5
Lesson 30 - Understand Categories of Shapes	3
Lesson 31 - Classify Quadrilaterals	4
Unit Assessment (adapted for abbreviated unit or just use lesson quizzes)	1

Notes:

Grade 2 Lesson 28 was cut from last year's second grade although some classrooms did get to it

Ready list Lessons 30 and 31 as supporting targets

There is only 1 third grade standard for Geometry

Targets to Consider:

I can sort shapes into different categories using their attributes

I can define a larger category based on shared attributes

I can draw examples of shapes that do not belong in a category of shared attributes

^{*}Pacing Check - Units 1, 2, and 6A should be finished by Winter Break (counted out with no math on Wednesdays)

Unit 3 Multiplication: Finding Area, Solving Word Problems, and Using Scaled Graphs	Total Days: 32
Lesson 14 - Understand Area	3
Lesson 15 - Multiply to find Area	4
Lesson 16 - Add area	4
Lesson 32 - Area and Perimeter of Shapes	5
Mid Unit Assessment (adapt to only assess area and perimeter at this time)	1
Lesson 17 - Solve One-Step Word Problems Using Multi. And Division	5
Lesson 18 - Solve Two-Step Word Problems Using the Four Operations	5
Lesson 19 - Scaled Graphs	5
Unit Assessment (adapt to only assess word problems and scaled graphs)	1

Notes:

Students have not had direct instruction for area/perimeter. Third grade is where it is introduced. Students are building conceptual understanding by laying tiles/covering figures. They do not need mastery of using the formula $l \times w = area$. They may use illustrations (drawing a partitioned array), tools, etc. to find the area in combination with the formula.

Scaled Graphs are important to lay foundations for ratios. It's great practice for skip counting and multiplication. Try to find real world application

Targets to Consider:

First Half of Unit - Area and Perimeter are part of Measurement and Data

- can solve real world and mathematical problems involving the perimeter of polygons.
- I can find the perimeter using given side lengths.
- I can use the perimeter to find an unknown side length.
- I can interpret that two rectangles may have the same perimeter, but different areas.
- I can interpret that two rectangles may have the same area, but different perimeters.
- I can use square units as a form of area measurement.
- I can determine area by covering plane figures with unit squares, without gaps or overlaps.
- I can use square units of measurements including centimeters, inches, meters, and feet.
- I can illustrate that multiplying the side lengths of a rectangle results in the same area as tiling it.
- I can solve real world and mathematical problems involving area of rectangles
- I can deconstruct a polygon into non-overlapping rectangles and add areas together to find total area.

Second Half of Unit - Word problems are Operations and Algebraic Thinking. Scales Graphs are measurement and data

- I can use multiplication and division to solve word problems using whole numbers within 100.
- I can solve two-step word problems using all four operations.

- I can use estimation strategies to assess the reasonableness of answers.
- I can create and read data on a bar graph with a scale.
- I can create and read data on a pictograph with a scale.
- I can solve one and two step problems using information on scaled graphs.

Unit 4 Fractions: Equivalence and Comparison, Measurement, and Data	Total Days: 21
Lesson 20 - Understand What a Fraction Is	3
Lesson 21 - <i>Understand</i> Fraction on a Number Line	3
Lesson 22 - Understand Equivalent Fractions	3
Lesson 23 - Find Equivalent Fractions	5
Lesson 24 - <i>Understand</i> Comparing Fractions	3
Lesson 25 - Use Symbols to Compare Fractions	3
Unit Assessment (adapt to take out any data or line plot problems)	1

Notes:

Second grade DID teach prerequisite lessons for fractions last year! It's important to recognize that third grade is the first true introduction to fractions. Prior to this second graders have worked on partitioning shapes with a focus on halves, thirds, and fourths. Students have not been exposed to specific fraction language through Ready Math. This is why there are four *Understand* lessons in this unit.

Fractions are a brand new type of number for students. They do not follow our base-ten system, hence why it can be a challenging concept for students. Third graders should be working with conceptually understanding fractions. In all the fraction work that students do they should be able to demonstrate their understanding using manipulatives, drawings, folded paper etc.

Lesson 33 - Partition Shapes Into Parts with Equal Area has been cut. It was repetitive of lessons already taught in Unit 3 Area/Perimeter and in this Unit. It is a great resource to use for more activities and problems when working with small groups or assigning independent work.

Targets to Consider:

Fraction targets are part of Numbers and Operations

- I can identify that fractions are wholes broken into equal parts.
- I can work with fractions with denominators of 2, 3, 4, 6 and 8.
- I can identify that a denominator is the amount of equal parts a unit is broken into, and the numerator is how many of those parts are represented by shape or number.
- I can label fractions on a divided number line.
- I can divide and label number line whole numbers into fractional parts.
- I can use a number line or fractional representation, including drawings or blocks, to

identify equivalent fractions.

- I can recognize and generate simple equivalent fractions.
- I can explain why fractions are equivalent.
- I can express whole numbers as fractions.
- I can recognize that fractions are equivalent to whole numbers.
- I can compare two fractions with the same numerator.
- I can compare two fractions with the same denominator.
- I can recognize that comparisons are only valid when the two fractions refer to the same whole.

Unit 5 Measurement: Time, Liquid Volume, and Mass	Total Days: 18
Lesson 26 - Measure Length and Plot Data on Line Plots	4
Lesson 27 - Time	5
Lesson 28 - Liquid Volume	4
Lesson 29 - Mass	4
Unit Assessment (adapt to add in data and line plots)	1

Notes:

Second grade does a length measurement unit with using various measurement tools

Liquid volume is a prerequisite to build conceptual understanding for what volume means. In fourth and fifth grade students start calculating the volume of shapes.

In iready, RSU 14 standards, and CCSS it is never stated if students must use an analog or digital clock. When considering real world application and preparing students for the future it is important to consider the use and exposure to an analog clock. Thinking of the clock as a circular number line and practice for skip counting can be helpful. Be open to allowing students to use equations or various approaches to solve elapsed time problems.

Targets to Consider:

- I can tell and write time to the nearest minute.
- I can measure time intervals in minutes.
- I can solve real word problems involving addition and subtraction of time intervals in minutes.
- I can measure and estimate liquid objects in standard units.
- I can measure and estimate masses of objects in standard units.
- I can solve one-step word problems using all four operations that involve masses or volumes.

^{*} If time allows teach Lesson 13 - Understand Patterns