Second Grade Pacing Guide

Green: Major Clusters
Blue: Supporting Clusters
Yellow: Additional Clusters
Instructional Content Nav - Mathematics: Focus by Grade Level

Trimester 1

(Ends December 15th)

Chapter 1

Number Concepts

- **Lesson 1.1: As Is**
  - **IXL Skills**
    - **A.16: Even or odd**
    - **A.18: Identify numbers as even or odd**
    - **A.19: Select even or odd numbers**
- **Lesson 1.2: As Is**
  - **IXL Skills**
    - **E.14: Add doubles - complete the sentence**
- **Lesson 1.3: As Is**
  - **IXL Skills**
    - **M.5: Place value - tens and ones**
- **Lesson 1.4: As Is**
  - **Provide examples where students are given the expanded form and they have to provide you with the standard form. Do some examples where the expanded form is out of order (i.e. 8 + 30 = ____).**
  - **IXL Skills**
    - **M.8: Convert to/from a number - tens and ones**
- **Lesson 1.5: As Is**
  - **Provide more examples where the problem is out of order (i.e. 5 ones 3 tens = _____).**
  - **IXL Skills**
    - **C.3: Writing numbers up to 100 in words - convert words to digits**
    - **C.4: Writing numbers up to 100 in words - convert digits to words**
- **Lesson 1.6: As Is**
  - **This lesson will be helpful for addition and subtraction with regrouping.**
  - **IXL Skills**
    - **M.1: Place value models - tens and ones**
- **Lesson 1.7: As Is**

    - **IXL Skills**
        - **M.9: Regroup tens and ones - ways to make a number**
- **Lesson 1.8: As Is**
    - **IXL Skills**
        - **A.2: Skip-counting by fives**
- **Lesson 1.9: As Is**
    - **IXL Skills**
        - **A: Count forward - up to 1,000**
        - **A: Count forward by tens - up to 1,000**
        - **A.10: Skip-counting puzzles**

Chapter 1 Rules of Thumb

- Don't spend too much time on this chapter.

- Ensure that students can go back and forth between expanded form, standard form, word form, and place value form.

- Add error analysis and multi-select questions to each lesson.

- Ensure students can provide the value of each digit in a number.

- Consistently use math vocabulary words: value, digits, place value, expanded form, standard form, equation, etc.

Chapter 2

Numbers to 1,000

- **Lesson 2.1: As Is**
    - **Ensure students understand that 10 tens is equal to 100.**
- **Lesson 2.2: As Is**
- **Lesson 2.3: As Is**
    - **Provide additional examples in which the problem is out of order (i.e. 125 = 5 ones + 1 hundred + 2 tens).**
    - **IXL Skills**
        - **M.2: Place value models - up to hundreds**
- **Lesson 2.4: As Is**
    - **Provide additional examples in which the model is out of order.**
    - **IXL Skills**

        - M.2: Place value models - up to hundreds
        - M.11: Convert to/from a number - up to hundreds
- Lesson 2.5: As is
    - IXL Skills
        - M.4: Identify a digit up to the hundreds place
        - M.6: Place value - up to hundreds
- Lesson 2.6: As Is
    - Add the following lesson from Illustrative Mathematics:
        - Illustrative Mathematics: Looking at Numbers Every Which Way
    - Ensure students DO NOT use "and" when naming a number (i.e. 523 = five hundred twenty-three, NOT five hundred and twenty-three). Dashes should be used between two-digit numbers.
    - IXL Skills
        - C.5: Writing numbers up to 1,000 in words - convert words to digits
        - C.6: Writing numbers up to 1,000 in words - convert digits to words
- Lesson 2.7: As Is
    - Ensure students can alternate between different forms of a number (i.e. 325 = 300 + 20 + 5, 3 hundreds + 2 tens + 5 ones, three hundred twenty-five)
    - IXL Skills
        - M.11: Convert to/from a number - up to hundreds
        - M.14: Convert from expanded form - up to hundreds
- Lesson 2.8: As Is
    - This lesson will be very helpful when adding and subtracting with regrouping. This helps show how to do fair trades/exchanges.
- Lesson 2.9: As Is
    - Use models to show 10 more and 10 less. Then transition to using place value only.
    - Use models to show 100 more and 100 less. Then transition to using place value only.
    - IXL Skills
        - L.7: Input/output tables - add and subtract by 10
        - L.14: Input/output tables - add and subtract by 100
        - L.15: Input/output tables - add and subtract by 10 or 100
- Lesson 2.10: As Is
    - Use models to show 10 more/less, 100 more/less and then transition to using place value only.

    - **Students should be able to identify if the pattern is adding ten or adding 100 and provide the next numbers in the pattern.**
    - **IXL Skills**
        - **A.14: Count forward and backward by fives, tens, and hundreds**
- **Lesson 2.11: As Is**
    - **IXL Skills**
        - **B.5: Greatest and least - word problems - up to 100**
        - **B.6: Greatest and least - word problems - up to 1,000**
- **Lesson 2.12: As Is**
    - **Ensure students can compare numbers in any form (models, standard form, expanded form, and word form).**
    - **IXL Skills**
        - **B.2: Comparing numbers up to 1,000**

Chapter 2 Rules of Thumb

- Provide opportunities for students to use concrete and pictorial models that illustrate their understanding of hundreds, tens, and ones.

- When comparing numbers, ensure that students can read the inequalities (i.e. 723 < 945, 723 is less than 945).

- Add error analysis and multi-select questions to each lesson.

Trimester 2

(Ends March 14th)

Chapter 3

Basic Addition Facts and Relationships

***This chapter is a review of first grade. We are splitting the chapter into two parts. The addition lessons will go before addition with regrouping (Chapters 4 and 6). The subtraction lessons will go before subtraction with regrouping (Chapter 5 and 6).**

***Try to keep lessons 3.1-3.4 to one lesson per day, if possible.**

- **Lesson 3.1: As Is**
    - **IXL Skills**
        - **E.13: Add doubles**
        - **E.14: Add doubles - complete the sentence**

- **Lesson 3.2: As Is**
    - **IXL Skills**
        - **E.1: Add one-digit numbers - sums to 10**
        - **E.2: Ways to make a number with addition - sums to 10**
        - **E.9: Add one-digit numbers**
        - **E.17: Complete the addition sentence - sums to 20**
- **Lesson 3.3: As Is**
- **Lesson 3.4: As Is**
    - **IXL Skills**
        - **E.20: Add three one-digit numbers**
        - **E.21: Add three one-digit numbers: word problems**
- **Mini-assessment on addition facts through 20.**

Chapter 3 Rules of Thumb

- Use math vocabulary words consistently, such as "equation" instead of math sentence, addition sentence, etc.

- Encourage the use of counting on to an easier equivalent problem and other strategies for adding and subtracting within 20.

- Don't spend too much time on this chapter since it's a review of first grade.

- Add in two-step word problems that combine addition and subtraction.

- Add error analysis and multi-select questions to each lesson.

Chapter 4 and Chapter 6

Two-Digit and Three-Digit Addition

- **Lesson 4.1: As Is**
    - **Don't spend too much time on this strategy.**
    - **IXL Skills**
        - **G.5: Add a two-digit and a one-digit number - without regrouping**
        - **G.6: Add a two-digit and a one-digit number - with regrouping**
- **Lesson 4.2: As Is**
    - **Don't spend too much time on this strategy.**
    - **IXL Skills**
        - **G.9: Add two-digit numbers without regrouping - sums to 100**

        - G.10: Add two-digit numbers with regrouping - sums to 100
- Lesson 4.3: As Is
    - Don't spend too much time on this strategy.
    - IXL Skills
        - G.9: Add two-digit numbers without regrouping - sums to 100
        - G.10: Add two-digit numbers with regrouping - sums to 100
- Before adding with regrouping, review skills from Lesson 1.6 and Lesson 2.8 (writing numbers is multiple ways). For example, 78 can be written as 7 tens and 8 ones AND 6 tens and 18 ones. This helps show fair trades/exchanges.
- Lesson 4.4: As Is
    - Use models to show the regrouping (fair trades/exchange).
    - Explain how you combine ten ones into a 10 and regroup to the next place value.
    - IXL Skills
        - G.5: Add a two-digit and a one-digit number - without regrouping
        - G.6: Add a two-digit and a one-digit number - with regrouping
        - G.9: Add two-digit numbers without regrouping - sums to 100
        - G.10: Add two-digit numbers with regrouping - sums to 100
- Lesson 4.5: As Is
    - Add additional examples of adding two-digit by one-digit numbers.
    - IXL Skills
        - G.5: Add a two-digit and a one-digit number - without regrouping
        - G.6: Add a two-digit and a one-digit number - with regrouping
        - G.9: Add two-digit numbers without regrouping - sums to 100
        - G.10: Add two-digit numbers with regrouping - sums to 100
- Lesson 4.6: As Is
    - Ensure students understand the commutative property of addition (i.e. 39 + 56 = 56 + 39).
    - IXL Skills
        - G.5: Add a two-digit and a one-digit number - without regrouping
        - G.6: Add a two-digit and a one-digit number - with regrouping
- Lesson 4.7: As Is
    - IXL Skills
        - G.9: Add two-digit numbers without regrouping - sums to 100
        - G.10: Add two-digit numbers with regrouping - sums to 100
        - G.13: Ways to make a number using addition

        - G.15: Complete the addition sentence - up to two digits
- Lesson 4.8: As Is
    - Add examples of two-digit by one-digit addition problems that are written horizontally and students must line up place values before adding.
- Lesson 4.9: As Is
    - IXL Skills
        - G.14: Addition word problems - up to two digits
- Lesson 4.10: As Is
    - Don't spend too much time on this lesson.
    - IXL Skills
        - E.16: Addition sentences for word problems - sums to 20
        - G.2: Write addition sentences to describe pictures
        - G.16: Write the addition sentence - up to two digits
- Lesson 4.11: As Is
    - Add examples of addition of three addends that are written horizontally.
    - IXL Skills
        - G.18: Add three numbers up to two digits each
        - G.19: Add three numbers up to two digits each: word problems
- Lesson 4.12: As Is
    - Add examples of addition of four addends that are written horizontally.
    - IXL Skills
        - G.20: Add four numbers up to two digits each
        - G.21: Add four numbers up to two digits each: word problems
- Assessment on Chapter 4

- Lesson 6.1: As is
    - Don't spend too much time on this strategy.
    - IXL Skills
        - I.5: Addition with three-digit numbers
- Lesson 6.2: As is
    - Don't spend too much time on this strategy.
    - IXL Skills
        - I.5: Addition with three-digit numbers
- Lesson 6.3: As is

    - **Add examples that are written horizontally.**
    - **Review how you combine ten ones into a 10 and regroup to the next place value.**
- **Lesson 6.4: As is**
    - **Add the following lessons from EngageNY in addition to Go Math:**
        - **Relate Manipulative Representations to the Addition Algorithm**
        - **Math Drawings Representing Additions and Relating Drawings to Addition Algorithm**
        - **Choose and Explain Solution Strategies, Record With Written Method**
    - **Add examples that are written horizontally.**
    - **Explain how you combine 10 tens into a 100 and regroup to the next place value.**
- **Lesson 6.5: As is**
    - **Add examples that are written horizontally.**
    - **Add examples of adding three-digit by two-digit numbers.**
    - **Review commutative property of addition.**
    - **IXL Skills**
        - **I.5: Addition with three-digit numbers**
        - **I.7: Complete the addition sentence - up to three digits**
        - **M.9: Regroup tens and ones - ways to make a number**
        - **M.10: Regroup tens and ones**
- **Mini-Assessment on Chapter 6**

Chapter 4 and Chapter 6 Rules of Thumb

- Provide opportunities for students to use and explain concrete and pictorial models that represent their understanding of addition within 100. Use model drawings, base ten blocks, place value disks, virtual manipulatives etc. to show fair trades/exchanges.

- Ensure students understand that when adding/subtracting you must group hundreds with hundreds, tens with tens, and ones with one.

- Students must be able to explain the strategy they used with adding/subtracting with regrouping and why it works.

- Add error analysis and multi-select questions to each lesson.

Chapter 3 (Continued)

Basic Subtraction Facts and Relationships

***This chapter is a review of first grade. We are splitting the chapter into two parts. The addition lessons will go before addition with regrouping (Chapters 4 and 6). The subtraction lessons will go before subtraction with regrouping (Chapter 5 and 6).**

***Try to keep lessons 3.5-3.11 to one lesson per day, if possible.**

- **Lesson 3.5: As Is**
  - **IXL Skills**
    - **K.3: Fact families**
- **Lesson 3.6: As Is**
  - **IXL Skills**
    - **F.1: Subtract one-digit numbers - up to 10**
    - **F.2: Ways to subtract - up to 10**
    - **F.8: Subtract a one-digit number from a two-digit number up to 18**
    - **F.10: Subtract zero/all**
    - **F.13: Complete the subtraction sentence - up to 18**
- **Lesson 3.7: As Is**
- **Lesson 3.8: As Is**
  - **IXL Skills**
    - **E.15: Addition word problems - sums to 20**
    - **F.11: Subtraction word problems - up to 18**
    - **L.3: Addition and subtraction word problems - up to 20**
- **Lesson 3.9: As Is**
  - **IXL Skills**
    - **E.16: Addition sentences for word problems - sums to 20**
    - **F.12: Subtraction sentences for word problems - up to 18**
- **Lesson 3.10: DELETE**
- **Lesson 3.11: As Is**
  - **Add the following lesson from EngageNY:**
    - **Decompose Arrays Into Rows and Columns**
  - **Ensure students can write equations that show the total sum of equal addends.**
  - **IXL Skills**
    - **E.24: Identify repeated addition in arrays: sums to 10**
    - **E.25: Write addition sentences for arrays: sums to 10**
    - **E.26: Identify repeated addition in arrays: sums to 25**
    - **E.27: Write addition sentences for arrays: sums to 25**

- **Mini-Assessment on Subtraction Facts through 20**

Chapter 3 Rules of Thumb

- Use math vocabulary words consistently, such as "equation" instead of math sentence, addition sentence, etc.

- Encourage the use of counting on to an easier equivalent problem and other strategies for adding and subtracting within 20.

- Don't spend too much time on this chapter since it's a review of first grade.

- Add in two-step word problems that combine addition and subtraction.

- Add error analysis and multi-select questions to each lesson.

Chapter 5 and Chapter 6

Two-Digit and Three-Digit Subtraction

- **Lesson 5.1: As Is**
  - **Don't spend too much time on this strategy.**
  - **IXL Skills**
    - **H.3: Subtract a one-digit number from a two-digit number - without regrouping**
    - **H.4: Subtract a one-digit number from a two-digit number - with regrouping**
- **Lesson 5.2: As Is**
  - **Don't spend too much time on this strategy.**
  - **IXL Skills**
    - **H.5: Subtract two two-digit numbers - without regrouping**
    - **H.6: Subtract two two-digit numbers - with regrouping**
- **Lesson 5.3: As Is**
  - **Add the following lessons from EngageNY in addition to Go Math:**
    - **Represent Subtraction With Manipulatives**
    - **Relate Manipulative Representations to a Written Method**
    - **Math Drawings Representing Subtraction With and Without Decomposition**
  - **Show fair trades/exchanges by breaking apart (cuttin up) a foam base ten LONG into ten CUBES. Ensure students understand that a ONE LONG = TEN CUBES and how you will take the ten cubes and regroup into the ones place.**
  - **Allow students to model regrouping using base ten blocks or place value disks themselves.**

- IXL Skills
  - H.3: Subtract a one-digit number from a two-digit number - without regrouping
  - H.4: Subtract a one-digit number from a two-digit number - with regrouping
  - H.5: Subtract two two-digit numbers - without regrouping
  - H.6: Subtract two two-digit numbers - with regrouping

- Lesson 5.4: As Is
  - Model regrouping using drawings and hand-held base ten blocks or place value disks.
  - Students must be able to explain the process of regrouping.
  - IXL Skills
    - H.3: Subtract a one-digit number from a two-digit number - without regrouping
    - H.4: Subtract a one-digit number from a two-digit number - with regrouping
    - H.5: Subtract two two-digit numbers - without regrouping
    - H.6: Subtract two two-digit numbers - with regrouping
- Lesson 5.5: As Is
  - Ensure students understand that you CANNOT subtract in any order like addition.
  - IXL Skills
    - H.3: Subtract a one-digit number from a two-digit number - without regrouping
    - H.4: Subtract a one-digit number from a two-digit number - with regrouping
- Lesson 5.6: As Is
  - IXL Skills
    - H.5: Subtract two two-digit numbers - without regrouping
    - H.6: Subtract two two-digit numbers - with regrouping
    - H.8: Ways to make a number using subtraction
    - H.10: Complete the subtraction sentence - up to two digits
- Lesson 5.7: As Is
  - Add more examples of subtracting two-digit by one-digit numbers to ensure the students can line up the place values correctly.
- Lesson 5.8: As Is
  - Don't spend too much time on this strategy.
- Lesson 5.9: As Is
  - IXL Skills
    - F.11: Subtraction word problems - up to 18
    - H.9: Subtraction word problems - up to two digits
- Lesson 5.10: As Is

- Don't spend too much time on this lesson.
- IXL Skills
  - F.6: Write subtraction sentences to describe pictures - up to 18
  - F.12: Subtraction sentences for word problems - up to 18
  - H.2: Write subtraction sentences to describe pictures - up to two digits
  - H.11: Write the subtraction sentence - up to two digits

- Lesson 5.11: As Is
  - This is an extremely important lesson. You may have to spend some more time on solving two-step word problems.
  - IXL Skills
    - G.19: Add three numbers up to two digits each: word problems
- Assessment on Chapter 5

- Lesson 6.6: DELETE
- Lessons 6.7: As Is
  - Add the following lesson from EngageNY in addition to Go Math:
    - Relate Manipulative Representation to the Subtraction Algorithm
  - Show fair trades/exchanges by breaking apart (cutting up) a foam base ten LONG into ten CUBES. Ensure students understand that ONE LONG = TEN CUBES and how you will take the ten cubes and regroup into the ones place.
  - Allow students to model regrouping using base ten blocks or place value disks themselves.
- Lesson 6.8: As Is
  - Show fair trades/exchanges by breaking apart (cutting up) a foam base a FLAT into ten LONGS. Ensure students understand that ONE FLAT = TEN LONGS and how you will take the ten longs and regroup into the tens place.
  - Allow students to model regrouping using base ten blocks or place value disks themselves.
- Lesson 6.9: As Is
  - Add the following lessons from EngageNY in addition to Go Math:
    - Math Drawings Representing Subtraction With Up to Two Decompositions
    - Math Drawings Representing Subtraction With Up to Two Decompositions
  - Add examples of subtracting three-digit by two-digit numbers written horizontally to ensure students line up place values correctly.

    - **Allow students to model regrouping using base ten blocks or place value disks themselves.**
    - **IXL Skills**
        - **J.3: Subtract three-digit numbers**
        - **J.4: Subtraction word problems - up to three digits**
- **Lesson 6.10: As is**
    - **Add the following lessons from EngageNY in addition to Go Math:**
        - **Subtract From Multiples of 100**
        - **Alternate Methods for Subtracting From Multiples of 100**
    - **Add examples of subtracting three-digit by two-digit numbers written horizontally to ensure students line up place values correctly.**
    - **Allow students to model regrouping using base ten blocks or place value disks themselves.**
    - **IXL Skills**
        - **J.3: Subtract three-digit numbers**
        - **J.5: Complete the subtraction sentence - up to three digits**
- **Mini-Assessment on Chapter 6**

Chapter 5 and Chapter 6 Rules of Thumb

- Provide students with opportunities to use and explain concrete and then pictorial models for addition and subtraction. Use model drawings, base ten blocks, place value disks, virtual manipulatives etc. to show fair trades/exchanges.

- Use Math Talk to discuss the relationship between addition and subtraction.

- Ensure students understand how to check their subtraction with addition.

- Ensure students understand that when adding/subtracting you must group hundreds with hundreds, tens with tens, and ones with one.

- Students must be able to explain the strategy they used with adding/subtracting with regrouping and why it works.

- Add error analysis and multi-select questions to each lesson.

Chapter 8

Length in Customary Units

***To save time, spend about one day per lesson and then move on.**

- **Lesson 8.1: As is**
    - **Ensure students are using the measuring tools correctly with no gaps or overlaps for every lesson in the chapter. Show examples of measuring correctly vs. incorrectly and identify the mistake.**
- **Lesson 8.2: As is**
- **Lesson 8.3: As is**
- **Lesson 8.4: As is**
    - **Add the following lesson from Learn Zillion in addition to Go Math:**
        - **Understand that whole numbers can be shown as lengths on the number line**
    - **IXL Skills**
        - **S.2: Measure using an inch ruler**
- **Lesson 8.5: As is**
    - **This is a very important lesson. Spend more time on this lesson.**
    - **IXL Skills**
        - **S.5: Customary units of length: word problems**
- **Lesson 8.6: As is**
    - **Ensure students can measure the same object using different units. Students must be able to describe how the measurements relate to the size of the units (i.e. smaller units ----> more units needed to measure, larger units ----> less unit needed to measure)**
- **Lesson 8.7: As is**
    - **IXL Skills**
        - **S.4: Which customary unit of length is appropriate: inches, feet, or yards?**
- **Lesson 8.8: As is**
- **Lesson 8.9: As is**
    - **IXL Skills**
        - **R.10: Create line plots**
- **Add a lesson on measuring two objects using customary units and determining how much longer one object is compared to the other object.**

Chapter 8 Rules of Thumb

- Throughout the chapter, be sure that discussions and opportunities to measure allow students to be precise in their measurement. This includes using tools that are precisely the units named in the MD standard (cm and in), as well as discussing the importance of being precise in measuring practices.

- Emphasize the inverse relationship between the size of a unit of length and the number of units needed to measure a specific length or distance whenever possible.

- Build in opportunities for students to discuss strategies for estimating and how the estimates relate to the actual measurement.

- Add error analysis and multi-select questions to each lesson.

Trimester 3

(Ends June 24th)

Chapter 9

Length in Metric Units

***To save time, spend about one day per lesson and then move on.**

- **Lesson 9.1: As is**
    - **Ensure students are using the measuring tools correctly with no gaps or overlaps for every lesson in the chapter. Show examples of measuring correctly vs. incorrectly and identify the mistake.**
- **Lesson 9.2: As is**
- **Lesson 9.3: As is**
    - **Add the following lesson from EngageNY in addition to Go Math:**
        - **Addition and Subtraction Using the Ruler**
    - **IXL Skills**
        - **S.8: Measure using a centimeter ruler**
- **Lesson 9.4: As is**
    - **This is a very important lesson. Spend more time on this lesson.**
    - **IXL Skills**
        - **S.10: Metric units of length: word problems**
- **Lesson 9.5: As is**
    - **Ensure students can measure the same object using different units. Students must be able to describe how the measurements relate to the size of the units (i.e. smaller units ----> more units needed to measure the object, larger units ----> less units needed to measure the object)**
- **Lesson 9.6: As is**
    - **IXL Skills**
        - **S.9: Which metric unit of length is appropriate?**
- **Lesson 9.7: As is**

Chapter 9 Rules of Thumb

- Throughout the chapter, be sure that discussions and opportunities to measure allow students to be precise in their measurement. This includes using tools that are precisely the units named in the MD standard (cm and in), as well as discussing the importance of being precise in measuring practices.

- Emphasize the inverse relationship between the size of a unit of length and the number of units needed to measure a specific length or distance whenever possible.

- Build in opportunities for students to discuss strategies for estimating and how the estimates relate to the actual measurement.

- Add error analysis and multi-select questions to each lesson.

Chapter 7

Money and Time

- **Lesson 7.1: As is**
  - **You may want to split this lesson up into multiple days introducing a new coin a day.**
  - **IXL Skills**
    - **P.3: Count money - pennies, nickels, and dimes only**
- **Lesson 7.2: As is**
  - **Ensure students can use $ and ¢ appropriately (i.e. 56 ¢ =$0.56).**
- **Lesson 7.3: As is**
  - **IXL Skills**
    - **P.4: Count money - up to $1**
- **Lesson 7.4: As is**
  - **IXL Skills**
    - **P.6: Equivalent amounts of money - up to $1**
    - **P.7: Exchanging money - with pictures**
    - **P.9: Comparing groups of coins**
- **Lesson 7.5: As is**
  - **Ensure students understand that $1.00 is equal to 100 ¢ .**
  - **IXL Skills**
    - **P.20: How much more to make a dollar?**
- **Lesson 7.6: As Is**

    - **Ensure students understand that $1.00 is equal to 100 ¢ as well as amounts greater than $1.00 (i.e. $1.23 = 123 ¢).**
    - **IXL Skills**
        - **P.5: Count money - up to $5**
- **Add a lesson on counting bills and coins up to $5.00**
- **Lesson 7.7: As is**
    - **IXL Skills**
        - **P.11: Add money - up to $1: word problems**
        - **P.13: Subtract money - up to $1: word problems**
        - **P.15: Add and subtract money - up to $1: word problems**
        - **P.16: Purchases - do you have enough money - up to $1**
        - **P.17: Purchases - do you have enough money - up to $5**
        - **P.22: Making change**
- **Lesson 7.8: Review from First Grade**
    - **IXL Skills**
        - **Q.4: Read clocks and write times: hour and half hour**
- **Lesson 7.9: As is**
    - **IXL Skills**
        - **Q.1: Match digital clocks and times**
        - **Q.2: Match analog clocks and times**
        - **Q.3: Match analog and digital clocks**
        - **Q.5: Read clocks and write times**
- **Lesson 7.10: As is**
    - **IXL Skills**
        - **Q.6: Time words: o'clock, half, quarter**
- **Lesson 7.11: As is**
    - **Ensure students are writing A.M. and P.M when finding the time on an analog clock.**
    - **IXL Skills**
        - **Q.7: AM or PM**

Chapter 7 Rules of Thumb

- Connect work with dimes and pennies to place value understanding where applicable (i.e., dimes are tens, pennies are ones).

- Connect time and money to skip-counting by fives and tens where applicable.

- Add error analysis and multi-select questions to each lesson.

Chapter 11

Fraction Concepts

***These lessons are prerequisite skills for third grade. They MUST be completed before the end of the school year.**

- **Lesson 11.7: As is**
  - **Add the following lesson from Illustrative Mathematics in addition to Go Math:**
    - **Illustrative Mathematics: Partitioning a Rectangle into Unit Squares**
  - **IXL Skills**
    - **V.4: Area**
    - **V.6: Create figures with a given area**
- **Lesson 11.8: As is**
  - **Ensure students know the difference between equal parts and unequal parts. Equal parts must be the same size and shape within the same whole. Show students examples of shapes partitioned correctly vs. incorrectly and identify the errors.**
  - **Recognize that equal shares of identical wholes do NOT have to have the same shape (i.e. partitioning a rectangle into four vertical equal parts is the same as partitioning the same size rectangle into four small squares).**
  - **IXL Skills**
    - **W.1: Equal parts**
- **Lesson 11.9: As is**
  - **IXL Skills**
    - **W.2: Identify halves**
    - **W.3: Identify thirds**
    - **W.4: Identify fourths**
    - **W.5: Identify halves, thirds, and fourths**
- **Lesson 11.10: As is**
  - **IXL Skills**
    - **W.6: Make halves**
    - **W.7: Make thirds**
    - **W.8: Make fourths**
    - **W.9: Make halves, thirds, and fourths**
    - **W.10: Make halves, thirds, and fourths in different ways**
- **Lesson 11.11: As is**

- **IXL Skills**
  - **W.14: Fractions of a whole: modeling word problems**

Chapter 11 Rules of Thumb

- Use manipulatives, paper strips, fraction circles, etc. to show students how to partition shapes into 2, 3, or 4 equal shares.

- Use the term "partition" instead of split or cut up when creating equal parts.

- Use fractional terms halves, thirds, and fourths when creating equal parts.

- Recognize that equal shares of identical wholes do NOT have to have the same shape (i.e. partitioning a rectangle into four vertical equal parts is the same as partitioning the same size rectangle into four small squares).

Chapter 10

Data

- **Lesson 10.1: As is**
- **Lesson 10.2: As is**
  - **IXL Skills**
    - **R.11: Interpret pictographs I**
- **Lesson 10.3: As is**
  - **IXL Skills**
    - **R.13: Create pictographs I**
- **Lesson 10.4: As is**
  - **IXL Skills**
    - **R.5: Interpret bar graphs I**
    - **R.6: Interpret bar graphs II**
    - **R.7: Which bar graph is correct?**
- **Lesson 10.5: As is**
  - **IXL Skills**
    - **R.8: Create bar graphs**
- **Lesson 10.6: As is**

Chapter 10 Rules of Thumb

- Incorporate creating graphs and analyzing graphs into the morning meeting, whenever possible.

- Ensure students can translate tally marks into picture graphs and bar graphs up to four categories.

- Analyze graphs by solving simply put together, take-apart, and comparing problems using the data in the graphs.

Chapter 11

Geometry

- **Lesson 11.1: Review from first grade**
    - **The main 3D shapes students need to identify are cubes.**
    - **3D attributes: face, edge, vertex, equal faces**
    - **IXL Skills**
        - **U.1: Name the three-dimensional shape**
        - **U.2: Select three-dimensional shapes**
        - **U.7: Shapes of everyday objects I**
        - **U.8: Shapes of everyday objects II**
- **Lesson 11.2: As is**
    - **IXL Skills**
        - **U.3: Count vertices, edges, and faces**
        - **U.4: Compare vertices, edges, and faces**
        - **U.5: Identify faces of three-dimensional shapes**
        - **U.6: Identify shapes traced from solids**
- **Lesson 11.3: DELETE**
- **Lesson 11.4: As is**
    - **2D shapes include quadrilaterals, triangles, pentagons, and hexagons.**
    - **2D attributes: sides, vertices, angles, equal sides**
    - **IXL Skills**
        - **T.1: Name the two-dimensional shape**
        - **T.2: Select two-dimensional shapes**
        - **T.3: Count sides and vertices**
- **Lesson 11.5: As is**
- **Lexxon 11.6: As is**
    - **IXL Skills**
        - **T.4: Compare sides and vertices**

Chapter 11 Rules of Thumb

- Incorporate 2D and 3D shapes into the morning meeting, whenever possible.

SECOND GRADE PRIORITY STANDARDS FOR 2020-2021

Considerations for Addressing PRIORITY Grade-Level Content	
The clusters and standards listed in this table name the priority instructional content for grade 2. The right-hand column contains approaches to shifting how time is dedicated to the clusters and standards in the left-hand column.	
Clusters/Standards	**Considerations**
2.OA.A	*Emphasize* problems that involve sums less than or equal to 20 and/or the related differences to keep the focus on making sense of different problem types; assign fewer problems with sums greater than 20 or related differences.
2.OA.B	*Incorporate* additional practice on the grade 1 fluency of adding and subtracting within 10 (1.OA.C.6) early in the school year to support the addition and subtraction work of grade 2 (2.OA).
2.NBT.B	*Prioritize* strategies based on place value in written work to strengthen the progression toward fluency with multi-digit addition and subtraction. (Note that grade 2 students are not expected to be fluent with three-digit sums and differences; repetitive fluency exercises are not required.) *Incorporate* foundational work on addition and subtraction within 100 from grade 1 (1.NBT.C) to support the addition and subtraction work of grade 2.
2.MD.B.5	Ensure word problems represent all grade 2 problem types, and refer to guidance for 2.OA.A.
2.MD.B.6	No special considerations for curricula well aligned to representing lengths on number line diagrams, as detailed in this standard. Time spent on instruction and practice should NOT be reduced.

SECOND GRADE NON-PRIORITY STANDARDS FOR 2020-2021

Considerations for Addressing REMAINING Grade-Level Content	
The clusters and standards listed in this table represent the remainder of grade 2 grade-level content. The right-hand column contains approaches to shifting how time is dedicated to the clusters and standards in the left-hand column.	
Clusters/Standards	**Considerations**
2.OA.C	*Eliminate* lessons on foundations for multiplication.
2.NBT.A*	*Emphasize* the conceptual understanding of three-digit numbers (as detailed in 2.NBT.A.1). *Integrate* lessons and practice on counting, reading/writing, and comparing numbers (2.NBT.A.2, 3, and 4) into the work of place value. *Limit* the amount of required student practice on counting by ones, reading/writing, and comparing numbers.
2.MD.A*	*Integrate* lessons and practice on comparing and estimating lengths (2.MD.A.2, 3, and 4) into the work of measuring length with tools (2.MD.A.1) in order to reduce the amount of time spent on this cluster. *Limit* the amount of required student practice.
2.MD.C	*Combine* lessons in order to reduce the amount of time spent on time and money. *Emphasize* denominations that support place value understanding such as penny-dime-dollar. *Limit* the amount of required student practice.
2.MD.D	*Eliminate* lessons on generating measurement data (2.MD.D.9) and creating picture/bar graphs (2.MD.D.10). *Integrate* data displays only as settings for addition/subtraction word problems (2.OA.A).
2.G.A	*Combine* lessons to address key concepts on reasoning with shapes and their attributes in order to reduce the amount of time spent on this cluster. *Limit* the amount of required student practice.

**While these clusters are Major Work of the Grade, during the 2020-21 school year, it is recommended that they receive lighter treatment in favor of other priority instructional content.*

SECOND GRADE STANDARD CLUSTERS

Green: Major Clusters
Blue: Supporting Clusters
Yellow: Additional Clusters

MAJOR, SUPPORTING, AND ADDITIONAL CLUSTERS FOR GRADE 2

Emphases are given at the cluster level. Refer to the Common Core State Standards for Mathematics for the specific standards that fall within each cluster.

Key: ■ Major Clusters ☐ Supporting Clusters ○ Additional Clusters

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.
2.NBT.A	■	Understand place value.
2.NBT.B	■	Use place value understanding and properties of operations to add and subtract.
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.
2.G.A	○	Reason with shapes and their attributes.

SECOND GRADE NJ LEARNING STANDARDS

Grade 2 Major Clusters: 2.OA.A, 2.OA.B, 2.NBT.A, 2.NBT.B, 2.MD.A, 2.MD.B, 2.OA.C, 2.MD.C, 2.MD.D

Operations and Algebraic Thinking 2.OA

A. Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.[1]

B. Add and subtract within 20.

2. Fluently add and subtract within 20 using mental strategies.[2] By end of Grade 2, know from memory all sums of two one-digit numbers.

C. Work with equal groups of objects to gain foundations for multiplication.

3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.

4. 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 as a sum of equal addends.

Number and Operations in Base Ten 2.NBT

A. Understand place value.

1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
    a. 100 can be thought of as a bundle of ten tens — called a "hundred."
    b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

2. Count within 1000; skip-count by 5s, 10s, and 100s.

3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

B. Use place value understanding and properties of operations to add and subtract.

5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

6. Add up to four two-digit numbers using strategies based on place value and properties of operations.

7. Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

9. Explain why addition and subtraction strategies work, using place value and the properties of operations.[3]

Measurement and Data 2.MD

A. Measure and estimate lengths in standard units.

1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

2. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

3. Estimate lengths using units of inches, feet, centimeters, and meters.

4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

B. Relate addition and subtraction to length.

5. Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.

6. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

C. Work with time and money.

7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately. *Example: If you have 2 dimes and 3 pennies, how many cents do you have?*

D. Represent and interpret data.

9. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

10. Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems[4] using information presented in a bar graph.

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Geometry 2.G

A. Reason with shapes and their attributes.

1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.[5] Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

3. Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words *halves*, *thirds*, *half of*, *a third of*, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.