WSD 2023-2024 Pacing Guide

MATH

4th Grade

4th Grade Math Pacing Guide Overview

A. Assessment Calendar

Date	Assessment
8/29-9/8	WIDA Screener
9/5 - 9/22	Galileo B1 (Fall)
10/9-10/20	SEL Survey/EES Wellness Survey (Fall Conference Week)
1/8-1/26	Galileo B2 (Winter)
1/29-3/22	WIDA Annual & ALT-Access
3/11-3/22	SEL Survey/EES Wellness Survey (Spring Conference Week)
5/1-6/6	SBA (Spring)

B. Contents

Month	Week	Unit/Lessons
Aug-Sept	8/28-9/8	Class Expectations/Routine/Review
Sept	9/5-9/22	Galileo B1 (Fall), etc.
Sept	9/11-9/21	Unit 1: Factors and Multiples (Lessons 1-8)

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Sept	9/22	End of Unit 1 Assessment /Completion Date
Sept	9/25-10/17	Unit 2: Fraction Equivalence and Comparison (Lessons 1-17)
Oct	10/18	End of Unit 2 Assessment /Completion Date
Oct.	10/23-11/20	Unit 3: Extending Operations to Fractions (Lessons 1-20)
Nov	11/21	End of Unit 3 Assessment /Completion Date
Nov/Jan	11/27-1/11	Unit 4: From Hundredths to Hundred-thousands (Lessons 1-23)
Jan	1/12	End of Unit 4 Assessment /Completion Date
Jan	1/8-1/26	Galileo B2 (Winter)
Jan	1/16-2/8	Unit 5: Multiplicative Comparison and Measurement (Lessons 1-18)
Feb	2/9	End of Unit 5 Assessment/Completion Date
Feb/Mar	2/12-3/7	Unit 6: Multiplying and Dividing Multi-digit Numbers (Lessons 1-15)
Mar	3/8	End of Unit 6 Assessment/Completion Date
Mar-April	3/11-4/11	Unit 7: Angles and Angle Measurement (Lessons 1-16)
April	4/12	End of Unit 7 Assessment/Completion Date
April-May	4/15-5/2	Unit 8: Properties of Two-dimensional Shapes (Lessons 1-10)
May	5/3	End of Unit 8 Assessment/Completion Date
May	5/6-5/9	SBA Review
May-June	5/1-6/6	SBA (Spring)

May	5/13-5/30	Unit 9: Putting It All Together (Lessons 1-12)
May	5/31	End of Unit 9 Assessment/Completion Date

Unit 1: Factors and Multiples

Objective: Students apply understanding of multiplication and area to work with factors and multiples.

Section Titles: A)Understand Factors and Multiples B) Find Factor Pairs and Multiples

End of Unit 1 Assessment and Completion Date: 9/21

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Section A: Understand Factors and Multiples

Section Learning Goals:

- Determine if a number is prime or composite.
- Explain what it means to be a factor or a multiple of a whole number.
- Relate the side lengths and area of a rectangle to factors and multiples

Section Alignments (Standards):

<u>CCSS.4.OA.B.4:</u> Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite

Lesson and Student- facing Learning	Warm Up Routine	Materials and Centers:	Required Preparation:
Goals:	Math Language Routine		
Lesson 1: Multiples of a Number Student-facing Goal: • Let's build some rectangles.	Warm Up Routine: Which One Doesn't Belong? Math Language Routine: MLR2 Collect and Display	Materials: Inch tiles Centers: Can You Build It? (3–5) Stage 1: Rectangles (supporting) Stage 2: Multiple Rectangles (addressing) Capture Squares (1–3) Stage 7: Multiply with 6–9 (supporting)	 Activity 1: Each group of 2 needs at least 36 tiles. Activity 2: Each group of 2 needs at least 36 tiles from the previous activity.
Lesson 2: Factor Pairs Student-facing Goal: • Let's learn about factor pairs.	Warm Up Routine: Number Talk Math Language Routine: MLR7 Compare and Connect	 Glue or tape Inch tiles Scissors Tools for creating a visual display Centers: Can You Build It? (3-5) Stage 1: Rectangles (supporting) Stage 2: Multiple Rectangles (addressing) • Capture Squares (1-3) Stage 7: Multiply with 6-9 (supporting) 	Activity 1: Each of the 8 groups needs tools for creating a visual display.

Lesson 3: Prime and Composite	Warm Up Routine:	Materials:	Activity 1: Create a set of cards
Numbers	-Choral Count		from the blackline master for
	-Card Sort	Grid paper	each group of 2.
Let's identify prime and composite numbers.	Math Language Routine: MLR 8 Discussion Supports	 Inch tiles Centers: Find the Number (4) Stage 1: Factors (addressing) Five in a Row: Multiplication (3–5) Stage 1: Factors 1–5 and 10 (supporting) Stage 2: Factors 1–9 (addressing) 	
Lesson 4: Multiplication Practice	Warm Up Routine: Number Talk	Materials: • Centimeter cubes	Activity 1: Create a set of multiplication fluency cards
Student-facing Goal:	Math Language Routine:		from the blackline master for
3	MLR 8 Discussion Supports	Centers:	each group of 2.
Let's practice multiplication.		 Find the Number (4) Stage 1: Factors (addressing) Five in a Row: Multiplication (3–5) Stage 1: Factors 1–5 and 10 (supporting) Stage 2: Factors 1–9 (addressing) Secret Fraction (3) Stage 1: Building Non-Unit Fractions (supporting) 	
Assessment: Section A Checkpoint			

Section B: Find Factor Pairs and Multiples

Section Learning Goals: Apply multiplication fluency within 100 and the relationship between multiplication and division to find factor pairs and multiples.

Section Alignments (Standards):

CCSS.4.OA.B.4: Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole

number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite

Lesson and Student- facing Learning Goals:	Warm Up Routine Math Language Routine	Materials and Centers:	Required Preparation:
Lesson 5: More Multiples	Warm Up Routine:	Materials:	None for this lesson.
Student-facing Goal:	Estimation Exploration	None for this lesson. Centers:	
Student-lacing Goal.	Math Language Routine:	• Can You Build It? (3–5)	
	MLR2 Collect and Display	Stage 1: Rectangles (supporting)	

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 Let's solve problems that involve factors and multiples. 		Stage 2: Multiple Rectangles (addressing) • Find the Number (4) Stage 1: Factors (addressing) • Five in a Row: Multiplication (3–5) Stage 1: Factors 1–5 and 10 (supporting) Stage 2: Factors 1–9 (addressing) • Secret Fraction (3) Stage 1: Building Non-Unit Fractions (supporting)	
Lesson 6: The Locker Problem	Warm Up Routine: Choral Count	Materials:	None for this lesson.
Let's figure out what's happening in a game about lockers. Lesson 7: Find Factors and Multiples	Math Language Routine: MLR7 Compare and Connect Warm Up Routine:	 Coins Index cards Paper Two-color counters Centers: Find the Number (4) Stage 1: Factors (addressing) Five in a Row: Multiplication (3–5) Stage 1: Factors 1–5 and 10 (supporting) Stage 2: Factors 1–9 (addressing) Secret Fraction (3) Stage 1: Building Non-Unit Fractions (supporting) 	None for this lesson.
	Number Talk	Centimeter cubes	• None for this lesson.
Let's find factors and multiples of whole numbers from 1–100.	Math Language Routine: MLR8 Discussion Supports	Centers: • Find the Number (4) Stage 1: Factors (addressing) • Five in a Row: Multiplication (3–5) Stage 1: Factors 1–5 and 10 (supporting) Stage 2: Factors 1–9 (addressing) • Secret Fraction (3) Stage 1: Building Non-Unit Fractions (supporting)	
Lesson 8: Mondrian's Art Student-facing Goal: • Let's make art with rectangles.	Warm Up Routine: Notice and Wonder Math Language Routine: MLR8 Discussion Supports	 Materials: Colored pencils, crayons, or markers Rulers or straightedges Glue or tape Sticky notes Centers:	Activity 1: Each student will need a black marker or crayon.

	 Five in a Row: Multiplication (3–5) Stage 1: Factors 1–5 and 10 (supporting) Stage 2: Factors 1–9 (addressing) Secret Fraction (3) Stage 1: Building Non-Unit Fractions (supporting)
Assessment: Section B Checkpoint	

Unit 1 Vocabulary: composite number factor pair of a whole number multiple of a number prime number

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Unit 2: Fraction Equivalence and Comparison

Objective: Students generate and reason about equivalent fractions and compare and order fractions with the following denominators: 2, 3, 4, 5, 6, 8, 10, 12, and 100.

Section Titles: A)Size and Location of Fractions B) Equivalent Fractions C) Fraction Comparison

End of Unit 2 Assessment and Completion Date: 10/17

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Section A: Size and Location of Fractions

Section Learning Goals: Make sense of fractions with denominators 2, 3, 4, 5, 6, 8, 10, and 12 through physical representations and diagrams.

Reason about the location of fractions on the number line.

Section Alignments (Standards): 4.NBT.B.4; 4.NBT.B.5;

NF.A.1 - Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.;

4.NF.A.2 - Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Lesson and Student-	Warm Up Routine	Materials and Centers:	Required Preparation:
facing Learning Goals:	Math Language Routine		
Lesson 1 : Representations of	Warm Up Routine:	Materials:	Activity 1: Each group of 2 needs 4 strips
Fractions (Part 1)		 Activity 1: Straightedges 	of equal-size paper (cut lengthwise from
	What Do You Know About 1/2?	 Activity 2: Straightedges 	letter-size or larger paper or use the
Student-facing Goal:		 Activity 1: Fraction Strips (groups of 2) 	provided blackline master).
	Math Language Routine:		
Let's name some fractions and		Centers:	
represent them visually.	What Do You Know About ?	 Get Your Numbers in Order (1–5) 	
		Stage 3: Denominators 2 3 4 or 6 (addressing)	

	MLR1 Stronger and Clearer Each Time	Mystery Number (1–4) Stage 3: Fractions with Denominators 2, 3, 4, 6 (supporting)	
Lesson 2 : Representations of Fractions (Part 2) Student-facing Goal: Let's name some other fractions and represent them with diagrams.	Warm Up Routine: Which One Doesn't Belong: All Cut Up Math Language Routine: Which One Doesn't Belong? MLR2 Collect and Display	Materials: Activity 1: Straightedges Activity 2: Materials from a previous lesson Straightedges Centers: Get Your Numbers in Order (1–5) Stage 3: Denominators 2, 3, 4, or 6 (addressing) Mystery Number (1–4) Stage 3: Fractions with Denominators 2, 3, 4, 6 (supporting)	Activity 2: Each student needs access to their fraction strips from a previous lesson.
Lesson 3 : Same Denominator or Numerator Student-facing Goal: Let's compare fractions with the same numerator or the same denominator.	Warm Up Routine: Number Talk: Hundreds More Math Language Routine: Number Talk MLR1 Stronger and Clearer Each Time	Materials: Centers: Get Your Numbers in Order (1–5) Stage 3: Denominators 2, 3, 4, or 6 (addressing) Mystery Number (1–4) Stage 3: Fractions with Denominators 2, 3, 4, 6 (supporting)	
Lesson 4 : Same Size, Related Sizes Student-facing Goal: Let's find some fractions that are the same size.	Warm Up Routine: Notice and Wonder: A Fraction Strip and a Number Line Math Language Routine: Notice and Wonder MLR5 Co-Craft Questions	Materials: ■ Straightedges Centers: ■ Get Your Numbers in Order (1–5) Stage 3: Denominators 2, 3, 4, or 6 (addressing) ■ Number Line Scoot (2–3) Stage 3: Halves, Thirds, Fourths, Sixths and Eighths (supporting)	
Lesson 5 : Fractions on Number Lines Student-facing Goal:	Warm Up Routine:	Materials: Activity 1: Straightedges	

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Let's investigate equivalent fractions on a number line.	Number Talk: A Number Times Twelve Math Language Routine: Number Talk MLR3 Clarify, Critique, Correct	 Centers: Get Your Numbers in Order (1–5) Stage 3: Denominators 2, 3, 4, or 6 (addressing) Number Line Scoot (2–3) Stage 3: Halves, Thirds, Fourths, Sixths and Eighths (supporting) 	
Lesson 6: Relate Fractions to Benchmarks Student-facing Goal: Let's compare the size of fractions to 1/2 and to 1.	Warm Up Routine: Notice and Wonder: A Point on a Number Line Math Language Routine: Card Sort Notice and Wonder MLR8 Discussion Supports	Materials: Activity 2: Where Do They Belong (groups of 2) Centers: • Get Your Numbers in Order (1–5) Stage 3: Denominators 2, 3, 4, or 6 (addressing) • Number Line Scoot (2–3) Stage 3: Halves, Thirds, Fourths, Sixths and Eighths (supporting)	Activity 2: Create a set of fraction cards from the blackline master for each group.
Assessment: Section A Checkpoint			

Section B: Equivalent Fractions

Section Learning Goals: Generate equivalent fractions with the following denominators: 2, 3, 4, 5, 6, 8, 10, 12, and 100. Use visual representations to reason about fraction equivalence, including using benchmarks such as 12 and 1.

Section Alignments (Standards): 4.NBT.B.4; 4.NBT.B.5;

4.NF.A.1 - Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.;

4.NF.A.2 - Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Lesson and Student-	Warm Up Routine	Materials and Centers:	Required Preparation:
facing Learning Goals:	Math Language Routine		
Lesson 7 : Equivalent Fractions	Warm Up Routine:	Materials:	
		 Activity 2: Tools for creating a visual display 	

Student-facing Goal:	True or False: Equivalence	Centers:	
Let's find some equivalent fractions.	Math Language Routine: True or False MLR7 Compare and Connect	 Get Your Numbers in Order (1–5) Stage 4: Denominators 2, 3, 4, 5, 6, 8, 10, 12, or 100 (addressing) Mystery Number (1–4) Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (addressing) 	
Lesson 8: Equivalent Fractions on the Number Line Student-facing Goal:	Warm Up Routine: Estimation Exploration: A Shaded Portion	Materials: Centers:	Activity 1: Consider creating a human number line by placing a strip of masking tape or painter's tape, at least 25 feet long, on the floor of the
Let's use number lines to reason about equivalent fractions.	Math Language Routine: Estimation Exploration MLR8 Discussion Supports	 Get Your Numbers in Order (1–5) Stage 4: Denominators 2, 3, 4, 5, 6, 8, 10, 12, or 100 (addressing) Mystery Number (1–4) Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (addressing) 	classroom or a hallway.
Lesson 9: Explain Equivalence Student-facing Goal:	Warm Up Routine: Number Talk: Familiar Numbers	Materials:	Activity 2: Each group needs 4 sticky notes.
Let's talk about how we know	Math Language Routine: Number Talk	Activity 2: How Do You Know (groups of 15)	
whether two fractions are equivalent.	MLR1 Stronger and Clearer Each Time MLR8 Discussion Supports	Centers: • Get Your Numbers in Order (1–5) Stage 4: Denominators 2, 3, 4, 5, 6, 8, 10, 12, or 100 (addressing) • Mystery Number (1–4) Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (addressing)	
Lesson 10 :Use Multiples to Find Equivalent Fractions	Warm Up Routine: Notice and Wonder: Four Equations	Materials:	
Student-facing Goal:		Centers:	
Let's look at a way to find equivalent fractions without using diagrams.	Math Language Routine: Notice and Wonder MLR2 Collect and Display	 Get Your Numbers in Order (1–5) Stage 4: Denominators 2, 3, 4, 5, 6, 8, 10, 12, or 100 (addressing) Mystery Number (1–4) 	

Lesson 11 :Use Factors to Find Equivalent Fractions Student-facing Goal: Let's find equivalent fractions by working with numerators and denominators.	Warm Up Routine: Which One Doesn't Belong: Four Representations Math Language Routine:	Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (addressing) Materials: Activity 3: Fractions Galore (groups of 3) Centers: Get Your Numbers in Order (1–5) Stage 4: Denominators 2, 3, 4, 5, 6, 8, 10, 12, or 100 (addressing) Mystery Number (1–4) Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (addressing)	Activity 3: Create a set of Fraction Galore cards from the blackline for each group of 3.
Assessment: Section B Checkpoint			

Section C: Fraction Comparison

Section Learning Goals: Use visual representations or a numerical process to reason about fraction comparison.

Section Alignments (Standards): 4.NF.A;

NF.A.1 - Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.;

4.NF.A.2 - Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

Lesson and Student-	Warm Up Routine	Materials and Centers:	Required Preparation:
facing Learning Goals:	Math Language Routine		
Lesson 12: Ways to Compare	Warm Up Routine:	Materials:	Activity 2: Each group of 2 needs 3
Fractions	Estimation Exploration: What's	Activity 2: Colored pencils	colored pencils (3 different colors).
	That Point?	Centers:	
Student-facing Goal:		Mystery Number	
Let's compare some fractions.	Math Language Routine:	Stage 4: Fractions with Denominators 5, 8, 10, 12, 100	
	Estimation Exploration	(addressing)	

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	Notice and Wonder MLR8 Discussion Supports	 Compare Stage 3: Multiply within 100 (supporting) 	
Lesson 13: Use Equivalent Fractions to Compare Student-facing Goal: Let's compare fractions by writing an equivalent fraction.	Warm Up Routine: Notice and Wonder: Pairs of Numbers Math Language Routine: Notice and Wonder MLR7 Compare and Connect	Materials: Centers: Mystery Number Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (addressing) Compare Stage 3: Multiply within 100 (supporting)	
Lesson 14: Fraction Comparison Problems Student-facing Goal: Let's solve different kinds of fraction comparison problems.	Warm Up Routine: Number Talk: Multiples of Ten Math Language Routine: Number Talk MLR8 Discussion Supports	Materials: • Tools for creating a visual display Centers: • Compare Stage 3: Multiply within 100 (supporting) • How Close? (1–5) Stage 6: Multiply to 3,000 (supporting)	Each group of 3–4 needs tools for creating a visual display during the lesson synthesis.
Lesson 15 :Common Denominators to Compare Student-facing Goal: Let's compare fractions by writing equivalent fractions with the same denominator.	Warm Up Routine: What Do You Know about 15 and 30? Math Language Routine: What Do You Know About? MLR8 Discussion Supports	Materials: Centers: Compare Stage 3: Multiply within 100 (supporting) How Close? (1–5) Stage 6: Multiply to 3,000 (supporting)	
Lesson 16 :Compare and Order Fractions Student-facing Goal: Let's put some fractions in order.	Warm Up Routine: Number Talk: Multiples of 6 and 12 Math Language Routine: Number Talk MLR8 Discussion Supports	Materials: Activity 1: Compare Stage 5-8 Directions (groups of 2) Activity 1: Fraction Cards Grade 4 (groups of 2) Centers: Compare Stage 3: Multiply within 100 (supporting) How Close? (1–5) Stage 6: Multiply to 3,000 (supporting)	Activity 1: Create a set of cards from the blackline master for each group of 2–4 students.
Lesson 17: Paper Clip Games Student-facing Goal:	Warm Up Routine: Notice and Wonder: Lots of Paper Clips	Materials: Activity 1: Markers Paper	Activity 1: Each group of 2 needs 1-inch paper strips and 10–12 paper clips.

Let's create a game about locating and comparing fractions on the number line.	Math Language Routine: Notice and Wonder MLR2 Collect and Display	Paper clips Tape (painter's or masking) Activity 2: Markers Paper Paper clips Tape (painter's or masking) Centers: Compare Stage 3: Multiply within 100 (supporting) Stage 5: Fraction (addressing) How Close? (1–5) Stage 6: Multiply to 3,000 (supporting)	
Assessment: Section C Checkpoint			

Vocabulary:

common denominator

Denominator

Equivalent fractions

numerator

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End of Unit 2 Assessment and Completion Date: 10/17

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Unit 3: Extending Operations and Fractions

Objectives: Students learn that a fraction a/b is a product of a whole number 'a' and a unit fraction 1/b, or $a/b = a \times 1/b$, and that $n \times a/b = (n \times a)/b$. Students learn to add and subtract fractions with like denominators, and to add and subtract tenths and hundredths.

Section Titles: a)Equal Groups of Fractions; b) Addition and Subtraction of Fractions; c) Addition of Tenths and Hundredths

★ End of Unit 3 Assessment and Completion Date: 11/21

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Section A: Equal Groups of Fractions

Section Learning Goals: Recognize that $n \times a/b = (n \times a)/b$. Represent and explain that a fraction a/b is a multiple of 1/b, namely $a \times 1/b$. Represent and solve problems involving multiplication of a fraction by a whole number.

Section Alignments (Standards): 4.NF.B.4; 4.NF.B.4.a; 4.NF.B.4.b; 4.NF.B.4.c

NF.B.4: Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. Understand a fraction a/b as a multiple of 1/b. Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem.

problem.			
Lesson and Student- facing Learning Goals:	Warm Up Routine Math Language Routine	Materials and Centers:	Required Preparation:
Lesson 1 : Lesson 1: Equal Groups of Unit Fractions	Warm Up Routine: How Many Do You See?	Materials: none • Centers:	
Student-facing Goal: Let's look at equal groups of fractions.	Math Language Routine: MLR8 Discussion Supports	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Compare (1–5) Stage 5: Fractions (supporting) 	
Lesson 2: Representations of Equal Groups of Fractions Student-facing Goal: Let's look at diagrams and expressions that can help us multiply a whole number and a fraction	Warm Up Routine: Number Talk, Card Sort Math Language Routine: MLR8 Discussion Supports	Materials: none • Centers: • Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting)	Activity 1: Create a set of cards from the blackline master for each group of 2.

		,,	
		Stage 2: Multiply a Fraction by a Whole Number	
		(addressing)	
		• <u>Compare (1–5)</u> <u> </u>	
		Stage 5: Fractions (supporting)	
Lesson 3: Patterns in Multiplication	Warm Up Routine: Choral	Materials: Paper	
	Count		
Student-facing Goal: Let's look at		Centers:	
patterns in multiplication of a	Math Language Routine: MLR8	Rolling for Fractions (3–5)	
fraction by a whole number.	Discussion Supports	Stage 1: Equivalent Fractions (supporting)	
		Stage 2: Multiply a Fraction by a Whole Number	
		(addressing)	
		• <u>Compare (1–5)</u> <u></u>	
		Stage 5: Fractions (supporting)	
Lesson 4: Equal Groups of Non-Unit	Warm Up Routine:Notice and	Materials: none	
Fractions	Wonder	•	
Student feeting Cook Lotte moultimbe		Contars	
Student-facing Goal: Let's multiply	• 5 Practices	Centers: ■ Rolling for Fractions (3–5)	
any fraction by a whole number.		Stage 1: Equivalent Fractions (supporting)	
number.	A II I D II MI DC	Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number	
	Math Language Routine:MLR6	(addressing)	
	Three Reads		
		• Compare (1–5) Stage F: Fractions (supporting)	
		Stage 5: Fractions (supporting)	
Lesson 5: Equivalent Multiplication	Wayne Un Doubing Hour Many	- Dolling for Fractions (2, E)	
Expressions	Warm Up Routine:How Many Do You See?	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) 	
Expressions	Do You see:		
Student-facing Goal: Let's write	Math Language Routine:MLR8	Stage 2: Multiply a Fraction by a Whole Number	
multiplication expressions in	Discussion Supports	(addressing)	
different ways.	Discussion supports	• Estimate and Measure (1–4) Stage 2: Overter Inches (2000 parting)	
		Stage 3: Quarter Inches (supporting)	
		• Target Measurements (2–5)	
		Stage 2: Quarter Inches (supporting)	
Lesson 6: Problems with Equal	Warm Up Routine:True or	Rolling for Fractions (3–5)	o Activity 1: Gather
Groups of Fractions	False	Stage 1: Equivalent Fractions (supporting)	rectangular sticky
		Stage 2: Multiply a Fraction by a Whole Number	notes with
		(addressing)	fractional lengths. If

Student-facing Goal: Let's solve problems with fractions.	Math Language Routine:MLR7 Compare and Connect	 Estimate and Measure (1–4) Stage 3: Quarter Inches (supporting) Target Measurements (2–5) Stage 2: Quarter Inches (supporting) 	this is not possible then cut rectangles from card stock with fractional lengths.
Assessment: Section A Checkpoint			

Section B: Addition and Subtraction of Fractions

Section Learning Goals: Create and analyze line plots that display measurement data in fractions of a unit (1/8, 1/4, 1/2). Represent and solve problems that involve the addition and subtraction of fractions and mixed numbers, including m...

Section Alignments (Standards): 4.NF.B.3; 4.NF.B.3.a; 4.NF.B.3.b; 4.NF.B.3.c; 4.NF.B.3.d; 4.NF.B.4.c; 4.NF.B.4

4.NF.B.3: Understand a fraction a/b with a > 1 as a sum of fractions 1/b. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.

4.NF.B.4: Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. Understand a fraction a/b as a multiple of 1/b. Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem

Lesson and Student- facing Learning Goals:	Warm Up Routine Math Language Routine	Materials and Centers:	Required Preparation:
Lesson 7: Fractions as Sums	Warm Up Routine: Choral	Materials:	Activity 1:
Student-facing Goal: Let's write	Count	Measuring cups	Gather 14-cup and 34-cup
fractions as sums.	Math Language Routine:MLR7 Compare and Connect	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Estimate and Measure (1–4) Stage 3: Quarter Inches (supporting) Target Measurements (2–5) Stage 2: Quarter Inches (supporting) 	measuring cups, if available.

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Lesson 8: Addition of Fractions Student-facing Goal: Let's explore sums of fractions on a number line.	Warm Up Routine:Notice and Wonder Math Language Routine:MLR8 Discussion Supports	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Estimate and Measure (1–4) Stage 3: Quarter Inches (supporting) Target Measurements (2–5) Stage 2: Quarter Inches (supporting) 	Activity 3: Create a set of cards from the blackline master for each group of 2. Make Two Jumps (groups of 2)
Lesson 9: Differences of Fractions Student-facing Goal: Let's explore differences of fractions on a number line.	Warm Up Routine:True or False Math Language Routine:MLR8 Discussion Supports	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Estimate and Measure (1–4) Stage 3: Quarter Inches (supporting) Target Measurements (2–5) Stage 2: Quarter Inches (supporting) 	Activity 3: Create a set of cards from the blackline master for each group of 2. Make a Jump, Subtraction Edition (groups of 2)
Lesson 10: The Numbers in Subtraction Student-facing Goal: Let's subtract fractions from whole numbers.	Warm Up Routine:Number Talk 5 Practices Card Sort Math Language Routine:Activity 2: Create a set of cards for each group of 2.	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Compare (1–5)	Activity 2: Create a set of cards for each group of 2. <u>Card Sort: Twelfths</u> (groups of 2)
Lesson 11: Subtract Fractions Flexibly Student-facing Goal: Let's find all kinds of differences.	Warm Up Routine:Which One Doesn't Belong? Math Language Routine:MLR1 Stronger and Clearer Each Time	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Compare (1–5) Stage 5: Fractions (supporting) Creating Line Plots (2–5) Stage 2: Quarter Inches (supporting) 	Each group of 4 needs tools for creating a visual display during the lesson synthesis.

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		Stage 3: Eighth Inches, Add and Subtract	
		(addressing)	
Lesson 12: Sums and Differences of Fractions Student-facing Goal: Let's add and subtract fractions and analyze our strategies.	Warm Up Routine:Number Talk Math Language Routine:MLR8 Discussion Supports	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Compare (1–5) Stage 5: Fractions (supporting) Stage 2: Quarter Inches (supporting) Stage 3: Eighth Inches, Add and Subtract (addressing) 	
Lesson 13: Fractional Measurements on Line Plots	Warm Up Routine:Notice and Wonder	Materials: • Colored pencils	Activity 1: Each student needs a used colored pencil.
Student-facing Goal: Let's create line plots and analyze the data.	Math Language Routine:MLR7 Compare and Connect	Centers: • Estimate and Measure (1–4) Stage 3: Quarter Inches (supporting) • Target Measurements (2–5) Stage 2: Quarter Inches (supporting) • Creating Line Plots (2–5) Stage 2: Quarter Inches (supporting) Stage 3: Eighth Inches, Add and Subtract (addressing)	
Lesson 14: Problems about Fractional Measurement Data	Warm Up Routine:Notice and Wonder	Materials: • Centers:	
Student-facing Goal: Let's solve problems involving measurement data on line plots.	Math Language Routine:MLR8 Discussion Supports	 Compare (1–5) Stage 5: Fractions (supporting) Creating Line Plots (2–5) Stage 2: Quarter Inches (supporting) Stage 3: Eighth Inches, Add and Subtract (addressing) 	
Assessment: Section B Checkpoint	Harrie de de la c		
Section C: Addition of Tenths and	<u>Hunareatns</u>		

Section Learning Goals: Reason about equivalence to add tenths and hundredths. Reason about equivalence to solve problems involving addition and subtraction of fractions and mixed numbers.

Section Alignments (Standards): 4.NF.A.1; 4.NF.A.2; 4.NF.B.3.c; 4.NF.B.3.d; 4.NF.B.4; 4.NF.B.4.c; 4.NF.C.5

4.NF.B.3: Understand a fraction a/b with a > 1 as a sum of fractions 1/b. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.

4.NF.B.4: Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. Understand a fraction a/b as a multiple of 1/b. Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem.

Lesson and Student- facing Learning Goals:	Warm Up Routine Math Language Routine	Materials and Centers:	Required Preparation:
		•	
Lesson 15: An Assortment of Fractions Student-facing Goal: Let's find the heights of some stacked objects.	Warm Up Routine:Which One Doesn't Belong? Math Language Routine:MLR1 Stronger and Clearer Each Time	 Compare (1–5) Stage 5: Fractions (supporting) Jump the Line (2–5) Stage 2: Add and Subtract Tenths and Hundredths (addressing) 	
Lesson 16: Tenths and Hundredths, Together Student-facing Goal: Let's add some tenths and hundredths.	Warm Up Routine:Notice and Wonder Math Language Routine:MLR1 Stronger and Clearer Each Time	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Compare (1–5) Stage 5: Fractions (supporting) 	
Lesson 17: Sums of Tenths and Hundredths Student-facing Goal: Let's add more tenths and hundredths.	Warm Up Routine:Which One Doesn't Belong? • Card Sort Math Language Routine:MLR8 Discussion Supports	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Compare (1–5) Stage 5: Fractions (supporting) 	 Activity 1: Create a set of cards from the blackline master for each group of 2-4 students.

			 Activity 3: Create a set of cards from the blackline master for each group of 2. Card Sort: Less Than, Equal to, or Greater Than 1 (groups of 2) Fraction Action: Tenths, Hundredths (groups of 2)
Lesson 18: Lots of Fractions to Add Student-facing Goal: Let's add tenths and hundredths again, more than two at a time.	Warm Up Routine:Number Talk Math Language Routine:MLR8 Discussion Supports	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Compare (1–5) Stage 5: Fractions (supporting) 	 Activity 1: Gather a few coins of different thicknesses for display. Activity 2:
Lesson 19: Flexible with Fractions Student-facing Goal: Let's solve all kinds of problems involving fractions.	Warm Up Routine:Notice and Wonder Math Language Routine:R6 Three Reads	 Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Stage 2: Multiply a Fraction by a Whole Number (addressing) Compare (1–5) ■ Stage 5: Fractions (supporting) 	 Activity 1: Each group needs 12 small sticky notes measuring 178 by 138 inches. Activity 3: Create one set of Match Cards for each group of 24 students. Find a Match (groups of 24)

Lesson 20: Sticky Notes	Warm Up Routine:Which One	 Rolling for Fractions (3–5) 	Activity 1: Gather rectangular sticky
	Doesn't Belong?	 Stage 1: Equivalent Fractions (supporting) 	notes with fractional lengths. If this
Student-facing Goal: Let's make a		 Stage 2: Multiply a Fraction by a Whole Number 	is not possible then cut rectangles
design using sticky notes.	Math Language Routine:MLR8	(addressing)	from card stock with fractional
	Discussion Supports	 Compare (1–5) ■ 	lengths.
		 Stage 5: Fractions (supporting) 	
Assessment: Section C			
Checkpoint			

Vocabulary:

Mixed numbe

End of Unit 3 Assessment and Completion Date: 11/21

https://wapatosd.ilclassroom.com/lesson_plans/120034-4-3-end-of-unit-assessment?path=Wiki.3977826%2FWiki.587417%2FWiki.587430%2FWiki.628592&card=2440682

Unit 4: From Hundredths to Hundred-thousands

Objective: Students read, write and compare numbers in decimal notation. They also extend place value understanding for multi-digit whole numbers and add and subtract within 1,000,000.

Section Titles: A: Decimals with Tenths and Hundredths, B: Place-value Relationships through 1,000,000, C: Compare, Order, and Round, D: Add and Subtract

Tend of Unit 4 Assessment and Completion Date: 01/11

https://wapatosd.ilclassroom.com/lesson_plans/119997-4-4-end-of-unit-assessment?path=Wiki.3977826%2FWiki.587417%2FWiki.587430%2FWiki.665258&card=2439831

Section A: Decimals with Tenths and Hundredths

Section Learning Goals:

- Represent, compare, and order decimals to the hundredths by reasoning about their size.
- Write tenths and hundredths in decimal notation.

Section Alignments (Standards): 4.NF.C, 4.NF.C.5, 4.NBT.A.1, 4.NBT.A.2, 4.NBT.B.4, 4.NBT.A.3

4.NF.C.6: Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

4.NF.C.7: Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

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Lesson and Student-	Warm Up Routine	Materials and Centers:	Required Preparation:
facing Learning Goals:	Math Language Routine		
Lesson 1: Decimal Numbers	Warm Up Routine:	Materials:	None for this lesson.
	Notice and Wonder	Colored pencils	
Student-facing Goal:		Centers:	
 Let's learn about decimals. 	Math Language Routine:	 Rolling for Fractions (3–5) 	
	MLR2 Collect and Display	Stage 1: Equivalent Fractions (supporting)	
		 Get Your Numbers in Order (1–5) 	
		Stage 4: Denominators 2, 3, 4, 5, 6, 8, 10, 12, or 100	
		(supporting)	
Lesson 2: Equivalent Decimals	Warm Up Routine:	Materials:	Activity 1: Create a set of cards from the
	True or False	None for this lesson.	blackline master for each group of 2–4.
Student-facing Goal:	Card Sort		
 Let's think about equivalent 	Math Language Routine:	Centers:	
decimals.	MLR1 Stronger and Clearer Each	 Rolling for Fractions (3–5) 	
ı	Time	Stage 1: Equivalent Fractions (supporting)	

		• Get Your Numbers in Order (1–5) Stage 4: Denominators 2, 3, 4, 5, 6, 8, 10, 12, or 100 (supporting)	
Lesson 3: Decimals on Number Lines Student-facing Goal: • Let's compare some decimals.	Warm Up Routine: Which One Doesn't Belong? Math Language Routine: MLR8 Discussion Supports	Materials: None for this lesson. Centers: Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Get Your Numbers in Order (1–5) Stage 4: Denominators 2, 3, 4, 5, 6, 8, 10, 12, or 100 (supporting)	None for this lesson.
Lesson 4: Compare and Order Decimals Student-facing Goal: • Let's put some decimals in order.	Warm Up Routine: Estimation Exploration Math Language Routine: MLR6 Three Reads	Materials: None for this lesson. Centers: Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Get Your Numbers in Order (1–5) Stage 4: Denominators 2, 3, 4, 5, 6, 8, 10, 12, or 100 (supporting)	None for this lesson.
Lesson 5: Compare and Order Decimals and Fractions Student-facing Goal: • Let's put fractions and decimals in order.	Warm Up Routine: Number Talk Math Language Routine: MLR8 Discussion Supports	Materials: None for this lesson. Centers: Rolling for Fractions (3–5) Stage 1: Equivalent Fractions (supporting) Get Your Numbers in Order (1–5) Stage 4: Denominators 2, 3, 4, 5, 6, 8, 10, 12, or 100 (supporting)	Activity 1: Create a set of cards from the blackline master for each group of 2–4.
Assessment: Section A Checkpoint			

Section B: Place-value Relationships through 1,000,000

Section Learning Goals:

- Read, represent, and describe the relative magnitude of multi-digit whole numbers up to 1 million.
- Recognize that in a multi-digit whole number, the value of a digit in one place represents ten times what it represents in the place to its right.

Section Alignments (Standards): 4.NF.C, 4.NF.C.5, 4.NBT.A.1, 4.NBT.A.2, 4.NBT.B.4, 4.NBT.A.3

4.NF.C.6: Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

4.NF.C.7: Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Lesson and Student- facing Learning Goals:	Warm Up Routine Math Language Routine	Materials and Centers:	Required Preparation:
Lesson 6: How Much is 10,000? Student-facing Goal: • Let's represent 10,000.	Warm Up Routine: What Do You Know About? Math Language Routine: MLR8 Discussion Supports	Materials: Base-ten blocks Centers: Greatest of Them All (1-5) Stage 2: Three-digit Numbers (supporting) Stage 3: Multi-digit Numbers (addressing) Mystery Number (1-4) Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (supporting)	Activity 1: Create a set of cards from the blackline master for each group of 4. Remove the cards showing 1. These cards will be redistributed during the activity. Each group of 4 needs a small collection of base-ten blocks (2 thousands, 5 hundreds, 10 tens, and 20 ones).
Lesson 7: Numbers Within 100,000 Student-facing Goal:s. • Let's read, write, and represent multi-digit numbers.	Warm Up Routine: Choral Count Math Language Routine: MLR8 Discussion Supports	Materials: None for this lesson Centers: Greatest of Them All (1-5) Stage 2: Three-digit Numbers (supporting) Stage 3: Multi-digit Numbers (addressing) Mystery Number (1-4) Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (supporting)	None for this lesson
Lesson 8: Beyond 100,000	Warm Up Routine:	Materials:	None for this lesson

Student-facing Goal: • Let's read, write, and represent numbers beyond 100,000.	How Many Do You See? Math Language Routine: MLR7 Compare and Connect	Base-ten blocks Centers: Greatest of Them All (1-5) Stage 2: Three-digit Numbers (supporting) Stage 3: Multi-digit Numbers (addressing) Mystery Number (1-4) Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (supporting)	
Lesson 9: Same Digit, Different Value Student-facing Goal: • Let's describe the relationship between the digits in multi-digit numbers.	Warm Up Routine: True or False Card Sort Math Language Routine: MLR2 Collect and Display	Materials: None for this lesson Centers: Greatest of Them All (1-5) Stage 2: Three-digit Numbers (supporting) Stage 3: Multi-digit Numbers (addressing) Mystery Number (1-4) Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (supporting)	Activity 1: Create a set of cards from the blackline master for each group of 2 students.
Lesson 10: Ten Times As Much Student-facing Goal: • Let's write equations to show the relationship between the digits in multi-digit numbers.	Warm Up Routine: Number Talk Math Language Routine: MLR1 Stronger and Clearer Each Time	Materials: None for this lesson Copy: Greatest of Them All (1-5) Stage 2: Three-digit Numbers (supporting) Stage 3: Multi-digit Numbers (addressing) Mystery Number (1-4) Stage 4: Fractions with Denominators 5, 8, 10, 12, 100 (supporting)	None for this lesson
Lesson 11: Large Numbers on a Number Line Student-facing Goal: • Let's locate multi-digit numbers on a number line.	Warm Up Routine: Estimation Exploration Math Language Routine: MLR8 Discussion Supports	Materials: None for this Lesson Centers: Greatest of Them All (1-5) Stage 2: Three-digit Numbers (supporting) Stage 3: Multi-digit Numbers (addressing) Tic Tac Round (3-5) Stage 1: Nearest Ten or Hundred (supporting)	None for this lesson

1	Assessment: Section B		
(Checkpoint		

Section C: Compare, Order, and Round

Section Learning Goals: Compare, order, and round multi-digit whole numbers within 1,000,000.

Section Alignments (Standards): 4.NF.C, 4.NF.C.5, 4.NBT.A.1, 4.NBT.A.2, 4.NBT.B.4, 4.NBT.A.3

4.NF.C.6: Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

4.NF.C.7: Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Lesson and Student-	Warm Up Routine	Materials and Centers:	Required Preparation:
facing Learning Goals:	Math Language Routine		
Lesson 12: Compare Multi-digit	Warm Up Routine:	Materials:	Activity 3: Each group of 2 needs a set of
Numbers	Which One Doesn't Belong?	Number cards 0–10	cards from the previous activity.
	Math Language Routine:	 Materials from a previous activity 	
Student-facing Goal:	MLR2 Collect and Display	Centers:	
 Let's compare large 		Greatest of Them All (1-5)	
numbers		Stage 3: Multi-digit Numbers (addressing)	
		• <u>Tic Tac Round</u> (3-5)	
		Stage 1: Nearest Ten or Hundred (supporting)	
Lesson 13: Order Multi-digit	Warm Up Routine:	Materials:	
Numbers	True or False	None for this lesson	
	Math Language Routine:	Centers:	
Student-facing Goal:	MLR1 Stronger and Clearer Each	 Greatest of Them All (1-5) 	
 Let's put some multi-digit 	Time	Stage 3: Multi-digit Numbers (addressing)	
numbers in order.		• <u>Tic Tac Round</u> (3-5)	
		Stage 1: Nearest Ten or Hundred (supporting)	
Lesson 14: Multiples of 10,000 and	Warm Up Routine:	Materials:	Activity 1: Create number lines from the
100,000	Choral Count	Stickers	blackline master and post them around
	Math Language Routine:	Sticky notes	the room before the activity.
Student-facing Goal:	MLR8 Discussion Supports	Centers:	
 Let's explore multiples of 		 Greatest of Them All (1-5) 	
1,000, 10,000, and 100,000		Stage 3: Multi-digit Numbers (addressing)	
		• <u>Tic Tac Round</u> (3-5)	
		Stage 1: Nearest Ten or Hundred (supporting)	

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and how other numbers relate to them.			
Lesson 15: The Nearest Multiples of 1,000, 10,000, and 100,000 Student-facing Goal:	Warm Up Routine: Estimation Exploration Math Language Routine: MLR8 Discussion Supports	Materials: None for this lesson Centers:	
Let's find multiples of 1 thousand, 10 thousand, and 100 thousand that are the nearest to a number.	WEND DISCUSSION Supports	Greatest of Them All (1-5) Stage 3: Multi-digit Numbers (addressing) Tic Tac Round (3-5) Stage 1: Nearest Ten or Hundred (supporting)	
Lesson 16: Round Numbers	Warm Up Routine: Numer Talk	Materials: • None for this lesson	
Student-facing Goal: • Let's round some large numbers.	Math Language Routine: MLR8 Discussion Supports	Centers: Greatest of Them All (1-5) Stage 3: Multi-digit Numbers (addressing) Mystery Number (1-4) Stage 5: Six-digit Numbers (addressing)	
Lesson 17: Apply Rounding	Warm Up Routine: Notice and Wonder	Materials: • None for this lesson	
Student-facing Goal: ■ Let's round large numbers to learn about situations and solve problems.	Math Language Routine: MLR7 Compare and Connect	Centers: Mystery Number (1-4) Stage 5: Six-digit Numbers (addressing) Tic Tac Round (3-5) Stage 1: Nearest Ten or Hundred (supporting)	
Assessment: Section C Checkpoint			
Спескроппе			

Section D: Add and Subtract

Section Learning Goals: Add and subtract multi-digit whole numbers using the standard algorithm.

Section Alignments (Standards): 4.NF.C, 4.NF.C.5, 4.NBT.A.1, 4.NBT.A.2, 4.NBT.B.4, 4.NBT.A.3

4.NF.C.6: Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.

4.NF.C.7: Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Lesson and Student-	Warm Up Routine	Materials and Centers:	Required Preparation:
facing Learning Goals:	Math Language Routine		
Lesson 18: Standard Algorithm to Add and Subtract Student-facing Goal: Let's find sums and differences of large numbers.	Warm Up Routine: Estimation Exploration Math Language Routine: MLR2 Collect and Display	Materials: • Grid paper Centers: • Number Puzzles: Addition and Subtraction (1–4) Stage 6: Beyond 1,000 (addressing) • <u>Tic Tac Round</u> Stage 2: Any Place (addressing)	
Lesson 19: Compose and Decompose to Add and Subtract Student-facing Goal: Let's compose and decompose units to add and subtract.	Warm Up Routine: Number Talk Math Language Routine: MLR7 Compare and Connect	Materials:	
Lesson 20: Add and Subtract Within 1,000,000 Student-facing Goal: • Let's use the standard algorithm to add and subtract.	Warm Up Routine: Notice and Wonder Math Language Routine: MLR8 Discussion Supports	Materials:	
Lesson 21: Zeros in the Standard Algorithm Student-facing Goal: • Let's subtract from numbers with several zeros.	Warm Up Routine: Which One Doesn't Belong? Math Language Routine: MLR8 Discussion Supports	Materials: • Grid paper Centers: • Number Puzzles: Addition and Subtraction (1–4) Stage 6: Beyond 1,000 (addressing) • Tic Tac Round (3-5) Stage 2: Any Place (addressing)	
Lesson 22: Solve Problems Involving Large Numbers Student-facing Goal: • Let's solve problems by adding and subtracting.	Warm Up Routine: True or False Math Language Routine: MLR6 Three Reads	Materials: • Grid paper Centers: • Number Puzzles: Addition and Subtraction (1–4) Stage 6: Beyond 1,000 (addressing)	

		Tic Tac Round (3-5) Stage 2: Any Place (addressing)	
Lesson 23: Bees are Buzzing Student-facing Goal:	Warm Up Routine: Estimation Exploration Math Language Routine:	Materials: • None for this lesson.	
 Let's investigate insect populations. 	MLR5 Co-Craft Questions	Centers: • Number Puzzles: Addition and Subtraction (1–4) Stage 6: Beyond 1,000 (addressing) • Tic Tac Round (3-5) Stage 2: Any Place (addressing)	
Assessment: Section D Checkpoint			

Vocabulary: rounding

End of Unit 4 Assessment and Completion Date: 01/11

https://wapatosd.ilclassroom.com/lesson_plans/119997-4-4-end-of-unit-assessment?path=Wiki.3977826%2FWiki.587417%2FWiki.587430%2FWiki.665258&card=2439831

Unit 5: Multiplicative Comparison and Measurement

Objective: Students interpret, represent, and solve multiplicative comparison problems using an understanding of the relationship between multiplication and division. They use this thinking to convert units of measure within a given system from larger to smaller units.

Section Titles: A) Multiplicative Comparison Measurement Conversion B)Measurement Conversion C)Let's Put it to Work

End of Unit 5 Assessment and Completion Date: 02/9

https://wapatosd.ilclassroom.com/lesson_plans/119957-4-5-end-of-unit-assessment?path=Wiki.3977826%2FWiki.587417%2FWiki.587430%2FWiki.958470&card=2439251

Section A: Multiplicative Comparison

Section Learning Goals: Analyze, describe, and represent multiplicative comparison situations.

Solve one-step and two-step problems involving multiplicative comparison.

Section Alignments (Standards): 4.NBT.B.5; 4.OA.A.3

4.OA.A.1: Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

4.OA.A.2: Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison

Lesson and Student-	Warm Up Routine	Materials and Centers:	Required Preparation:
facing Learning Goals:	Math Language Routine		
Lesson 1 :Times as Many Student-facing Goal: Let's represent situations that involve "times as many."	Warm Up Routine: Notice and Wonder: Compare Cubes Math Language Routine: Notice and Wonder MLR8 Discussion Supports	 Materials: Activity 1, 2 & 3: Connecting cubes Virtual connecting cubes included Activity 3: Number cubes Activity 3: Times as Many Recording Mat (groups of 1) Centers: How Close? Stage 5: Multiply to 100 (supporting) Stage 6: Multiply to 3,000 (addressing) Five in a Row: Multiplication Stage 2: Factors 1–9 (supporting) 	Activity 3: Each group of 2 needs 40 connecting cubes.
Lesson 2: Interpret Representations of Multiplicative Comparison Student-facing Goal:	Warm Up Routine: How Many Do You See: Times as Many	Materials: ■ Activity 1: Connecting cubes Virtual connecting cubes included	

Let's make sense of representations of problems with "times as many." Math Language Routine: How Many Do You See? MLR7 Compare and Connect MLR8 Discussion Supports Math Language Routine: How Many Do You See? MLR7 Compare and Connect MLR8 Discussion Supports Math Language Routine: MLR8 Discussion Supports Math Language Routine: MLR8 Discussion Supports Math Language Routine: Number Talk: Find the Unknown Factor Stage 6: Multiply to 3,000 (addressing) Materials: Materials: Materials: Activity 1: Connecting cubes Virtual connecting cubes included Activity 2: Connecting cubes Virtual connecting cubes included Activity 2: Connecting cubes included Activity 3: Centers: How Close? Stage 6: Multiply to 3,000 (addressing) Activity 3: Centers: Five in a Row: Multiplication Stage 2: Factors 1—9 (supporting) Activity 0: 3,000 (addressing)	sson 3 : Solve Multiplicative
MLR7 Compare and Connect MLR8 Discussion Supports Lesson 3 : Solve Multiplicative Comparison Problems Student-facing Goal: Let's solve multiplicative comparison problems. Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Centers: How Close? Stage 2: Factors 1–9 (supporting) Math Language Found (supporting) Materials: Activity 1: Connecting cubes Virtual connecting cubes Virtual connecting cubes Virtual connecting cubes included Centers: How Close? Stage 6: Multiply to 3,000 (addressing)	son 3 : Solve Multiplicative
MLR8 Discussion Supports • How Close? Stage 5: Multiply to 100 (supporting) Stage 6: Multiply to 3,000 (addressing) Lesson 3: Solve Multiplicative Comparison Problems Number Talk: Find the Unknown Factor Student-facing Goal: Let's solve multiplicative comparison problems. Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Stage 6: Multiply to 3,000 (addressing)	-
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Lesson 3 : Solve Multiplicative Comparison ProblemsWarm Up Routine: Number Talk: Find the Unknown FactorMaterials: 	-
Comparison ProblemsNumber Talk: Find the Unknown FactorActivity 1: Connecting cubes includedStudent-facing Goal: Let's solve multiplicative comparison problems.Math Language Routine: Number Talk MLR7 Compare and ConnectActivity 1: Connecting cubes includedMath Language Routine: Number Talk MLR7 Compare and ConnectVirtual connecting cubes includedCenters: How Close? Stage 6: Multiply to 3,000 (addressing)	-
Student-facing Goal: Let's solve multiplicative comparison problems. Math Language Routine: Number Talk MLR7 Compare and Connect Method Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Math Language Routine: Number Talk MLR7 Compare and Connect Stage 6: Multiply to 3,000 (addressing)	inparison Froblems
Student-facing Goal: Let's solve multiplicative comparison problems. Math Language Routine: Number Talk MLR7 Compare and Connect Meth Language Routine: Number Talk MLR7 Compare and Connect Multiply to 3,000 (addressing) Activity 2: Connecting cubes Virtual connecting cubes included Centers: How Close? Stage 6: Multiply to 3,000 (addressing)	
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MLR7 Compare and Connect • How Close? Stage 6: Multiply to 3,000 (addressing)	
• How Close? Stage 6: Multiply to 3,000 (addressing)	biems.
Stage 6: Multiply to 3,000 (addressing)	
Five in a Row: Multiplication	
Stage 2: Factors 1–9 (supporting)	
Lesson 4: Solve Multiplicative Warm Up Routine: Materials:	
Comparison Problems with Large Notice and Wonder: Too Many •	nparison Problems with Large
Numbers Times More?	mbers
Centers:	
Student-facing Goal: Math Language Routine: • Five in a Row: Multiplication	dent-facing Goal:
Let's represent and solve Notice and Wonder Stage 2: Factors 1–9 (supporting)	's represent and solve
multiplicative comparison problems MLR8 Discussion Supports • How Close?	Itiplicative comparison problems
with larger numbers. Stage 6: Multiply to 3,000 (addressing)	h larger numbers.
Lesson 5:One- and Two-step Warm Up Routine: Materials:	son 5:One- and Two-step
Comparison Problems Which One Doesn't Belong:	nparison Problems
Something's Missing Centers:	
Student-facing Goal: Five in a Row: Multiplication	dent-facing Goal:
Let's solve multiplicative comparison Math Language Routine: Stage 2: Factors 1–9 (supporting)	
word problems. 5 Practices	
Which One Doesn't Belong? How Close?	
MLR6 Three Reads Stage 6: Multiply to 3,000 (addressing)	
Lesson 6:Ten Times as Many Warm Up Routine: Materials:	son 6:Ten Times as Many
Choral Count: 12, 15 and 24	•
Student-facing Goal: Centers:	dent-facing Goal:
Let's represent "10 times as many." Math Language Routine: Compare	=
Choral Count Stage 3: Multiply within 100 (supporting)	
MLR8 Discussion Supports	

	How Close? Stage 6: Multiply to 3,000 (addressing)	
Assessment: Section A Checkpoint		

Section B: Measurement Conversion

Section Learning Goals: Convert from larger units to smaller units within a given system of measurement.

Solve multi-step problems involving multiplicative comparison and measurement.

Understand the relative sizes of kilometers, meters and centimeters, liters and milliliters, kilograms and grams, and pounds and ounces.

Section Alignments (Standards): 4.MD.A.1; 4MD.A.2; 4.OA.A.2; 4. OA.A.3

4.OA.A.1: Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

4.OA.A.2: Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol

for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison

Lesson and Student-	Warm Up Routine	Materials and Centers:	Required Preparation:
facing Learning Goals:	Math Language Routine		
Lesson 7 : Meters and Centimeters	Warm Up Routine:	Materials:	
	Notice and Wonder: Big Bug, Little	Activity 1:	
Student-facing Goal:	Bug	• Scissors	
Let's explore lengths in meters and		● Tape	
centimeters.	Math Language Routine:	Activity 1: Centimeter Grid Paper - Standard (groups of	
	Notice and Wonder	2)	
	MLR8 Discussion Supports	Centers:	
		• <u>Compare</u>	
		Stage 3: Multiply within 100 (supporting)	
		How Close?	
		Stage 6: Multiply to 3,000 (addressing)	
Lesson 8 : Meters and Kilometers	Warm Up Routine:	Materials:	
	Number Talk: Times Hundreds and	Activity 1: Scissors	
Student-facing Goal:	Thousands	Activity 1: How Long is One Kilometer? (groups of 4)	
Let's explore measurements in meters		Centers:	
and kilometers.	Math Language Routine:	<u>Compare</u>	
	Number Talk	Stage 3: Multiply within 100 (supporting)	
	MLR7 Compare and Connect		
		How Close?	
		Stage 6: Multiply to 3,000 (addressing)	

Lesson 9: Grams and Kilograms, Liters and Milliliters Student-facing Goal: Let's explore measurements in grams, kilograms, liters and milliliters.	Warm Up Routine: Which One Doesn't Belong: Meter, Meter on the Page Math Language Routine: Which One Doesn't Belong? MLR2 Collect and Display	Materials:	Activity 1: Gather one or more boxes of 100 metal paper clips, if available. Activity 2: If possible, gather a 1-milliliter medicine dropper, a 20-milliliter medicine dosage cup, a 100-milliliter measuring cup or cylinder, and an empty 1-liter bottle with a line at the 1-liter mark. Obtain 1.5 liters of water or access to a water source.
Lesson 10 :Multi-step Measurement Problems Student-facing Goal: Let's solve multi-step measurement problems.	Warm Up Routine: Notice and Wonder: Distances Traveled Math Language Routine: Notice and Wonder MLR1 Stronger and Clearer Each Time MLR7 Compare and Connect	Materials: Centers: Compare Stage 3: Multiply within 100 (supporting) Would You Rather? Stage 2: Compare to Smaller Units (addressing)	
Lesson 11: Pounds and Ounces Student-facing Goal: Let's explore measurements in pounds and ounces.	Warm Up Routine: Notice and Wonder: A Recipe Math Language Routine: Notice and Wonder MLR8 Discussion Supports	Materials: Activity 1: Pounds and Ounces (groups of 4) Centers: Compare Stage 3: Multiply within 100 (supporting) Would You Rather? Stage 2: Compare to Smaller Units (addressing)	Activity 1: Create a set of cards from the blackline master for each group of 4. If possible, gather examples of packaged food items—one that is labeled "1 ounce" and another labeled "1 pound".
Lesson 12: Hours, Minutes, and Seconds Student-facing Goal: Let's explore time in hours, minutes, and seconds.	Warm Up Routine: What Do You Know about 1 Hour? Math Language Routine:	Materials: Centers: Compare Stage 3: Multiply within 100 (supporting) Would You Rather? Stage 2: Compare to Smaller Units (addressing)	
Lesson 13: Multi-step Measurement Problems with Fractions	Warm Up Routine:	Materials:	Activity 2: Create a set of cards from the blackline master for each group of 2.

Student-facing Goal: Let's solve some multi-step measurement problems.	True or False: Some Number Times a Fraction Math Language Routine: True or False? MLR4 Information Gap MLR8 Discussion Supports	 Activity 2: Info Gap Noah's School Day (Part 2) (groups of 2) Centers: Compare Stage 3: Multiply within 100 (supporting) Would You Rather? Stage 2: Compare to Smaller Units (addressing) 	
Assessment: Section B Checkpoint			

Section C: Let's Put it to Work

Section Learning Goals: Solve multi-step problems involving multiplicative comparison and measurement.

Section Alignments (Standards): 4.MD.A.1; 4.MD.A.2; 4.MD.A.3; 4.NBT.B; 4.NF.B.4; 4.NF.B.4.c; 4.OA.A.2

4.OA.A.2: Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison

Lesson and Student- facing Learning Goals:	Warm Up Routine Math Language Routine	Materials and Centers:	Required Preparation:
Lesson 14: Weight and Capacity	Warm Up Routine:	Materials:	Activity 1:
Measurements Student-facing Goal: Let's solve problems about weight and capacity.	Number Talk: Lots of Thousands Math Language Routine: Number Talk MLR6 Three Reads MLR8 Discussion Supports	 Activity 1: Containers of different sizes Centers: Can You Draw It? Stage 4: Area and Perimeter (supporting) Rectangle Rumble Stage 3: Factors 1–10 (supporting) 	Gather a one-gallon jug (with or without milk), a one-quart container, and a one-cup container for display during the launch. On chart paper, create the table in the activity with an extra column for showing the amounts of lassi in cups, to be displayed during synthesis.
Lesson 15 : Length Measurements	Warm Up Routine: Which One Doesn't Belong:	Materials: • Activity 1	
Student-facing Goal:	Measurements	Rulers	
Let's solve problems about distances		 Yardsticks 	
and lengths.	Math Language Routine:		
	Which One Doesn't Belong?	Centers:	
	MLR5 Co-Craft Questions	• <u>Can You Draw It?</u>	

	MLR7 Compare and Connect	Stage 4: Area and Perimeter (supporting) Rectangle Rumble Stage 3: Factors 1–10 (supporting)	
Lesson 16 : Compare Perimeters of Rectangles Student-facing Goal: Let's solve problems about rectangles of different sizes.	Warm Up Routine: Number Talk: Two and Four Times a Fraction Math Language Routine: Number Talk MLR8 Discussion Supports	Materials: Activity 1: Pipe cleaners Activity 2: Pipe cleaners Rulers (inches) Tape Activity 3: Rulers or straightedges Activity 3: Centimeter Grid Paper - Standard (groups of 2) Centers: Can You Draw It? Stage 4: Area and Perimeter (supporting) Rectangle Rumble Stage 3: Factors 1–10 (supporting)	Activity 2: Each group of 2 needs a 12-inch pipe cleaner, an inch ruler, and tape.
Lesson 17: More Perimeter Problems Student-facing Goal: Let's solve problems about the perimeter of various shapes.	Warm Up Routine: True or False: Fractions and Whole Numbers Math Language Routine: True or False MLR7 Compare and Connect	 Materials: Activity 2: Missing Measurements - Small (groups of 4) Activity 2: Missing Measurements - Large (groups of 12) Centers: Can You Draw It? Stage 4: Area and Perimeter (supporting) Rectangle Rumble Stage 3: Factors 1–10 (supporting) 	Activity 2: If the activity is done as a gallery walk, print and cut 1–2 copies of the blackline master with the larger images and post them around the classroom. Otherwise, print and cut 1 copy of the blackline master with the smaller images for each group of 3–4 students.
Lesson 18: Two Truths and a Lie Student-facing Goal: Let's compare facts about animals.	Warm Up Routine: Notice and Wonder: Animal Facts Math Language Routine: Notice and Wonder MLR2 Collect and Display	Materials:	Activity 1: If students are performing their own research, provide access to books about animals or Internet-enabled devices.

	Stage 4: Area and Perimeter (supporting) Rectangle Rumble Stage 3: Factors 1–10 (supporting)	
Assessment: Section C Checkpoint		

Vocabulary:

No Unit 5 terms

Find of Unit 5 Assessment and Completion Date: 02/9

https://wapatosd.ilclassroom.com/lesson_plans/119957-4-5-end-of-unit-assessment?path=Wiki.3977826%2FWiki.587417%2FWiki.587430%2FWiki.958470&card=2439251

Unit 6: Multiplying and Dividing Multi-digit Numbers

Students multiply and divide multi-digit whole numbers using partial products and partial quotients strategies, and apply this understanding to solve multi-step problems using the four operations.

Section Titles: A: Features of Patterns; B: Multi-digit Multiplication; C: Multi-digit Division; D: Let's Put It to Work: Problem Solving with Large Numbers

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https://wapatosd.ilclassroom.com/lesson_plans/119608-4-6-end-of-unit-assessment?path=Wiki.3977826%2FWiki.587417%2FWiki.587430%2FWiki.1079015&card=2431945

Section A: Features of Patterns

Section Learning Goals: Generate a number or shape pattern that follows a given rule. Identify apparent features of a number pattern that were not explicit in the rule itself.

Section Alignments (Standards): 4.MD.A.1, 4.MD.A.3, 4.OA.A.3, 4.OA.C.5

4.NBT.B.5: Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

4.NBT.B.6: Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Lesson and Student- facing Learning	Warm Up Routine	Materials and Centers:	Required Preparation:
Goals:	Math Language Routine		
Lesson 1 : Patterns that Grow	Warm Up Routine: Notice and	Materials:	Activity 2: Consider preparing a set of
	Wonder	Pattern blocks	pattern blocks for building the first two
Student-facing Goal:		Centers:	or three steps of the giraffe pattern. The

Let's describe patterns and think about what might come next.	 5 Practices MLR7 Compare and Connect Math Language Routine:MLR2 Collect and Display 	Can You Draw It? (1–5) Stage 4: Area and Perimeter (supporting) Five in a Row: Multiplication (3–5) Stage 2: Factors 1–9 (supporting)	set should include 6 hexagons, 6 triangles, 3 trapezoids, and 24 squares.
Lesson 2: Patterns that Repeat Student-facing Goal: Let's look at shapes that repeat by a rule and make some predictions about the patterns they create.	Warm Up Routine: How Many Do You See? Math Language Routine:MLR8 Discussion Supports	Materials: Centers: Can You Draw It? (1–5) Stage 4: Area and Perimeter (supporting) Five in a Row: Multiplication (3–5) Stage 2: Factors 1–9 (supporting)	
Lesson 3: From Visual Patterns to Numerical Patterns Student-facing Goal: Let's look at numerical patterns we can write to describe patterns in rectangles.	 Warm Up Routine: Number Talk MLR3 Clarify, Critique, Correct MLR1 Stronger and Clearer Each Time Math Language Routine: MLR2 Collect and Display 	Materials: ■ Graph paper Centers: Can You Draw It? (1–5) ■ Stage 4: Area and Perimeter (supporting) Five in a Row: Multiplication (3–5) ■ Stage 2: Factors 1–9 (supporting)	
Lesson 4: Numerical Patterns Student-facing Goal: Let's explore numerical patterns.	Warm Up Routine: Which One Doesn't Belong? • MLR5 Co-craft Questions Math Language Routine: MLR8 Discussion Supports	Materials: Centers: Can You Draw It? (1–5) Stage 4: Area and Perimeter (supporting) Five in a Row: Multiplication (3–5) Stage 2: Factors 1–9 (supporting)	
Assessment: Section A Checkpoint			

Section B: Multi-digit Multiplication

Section Learning Goals: Multiply a whole number of up to four digits by a one-digit whole number, and 2 two-digit numbers using strategies based on place value and the properties of operations.

Section Alignments (Standards): 4.MD.A.1, 4.MD.A.3, 4.OA.A.3, 4.OA.C.5

4.NBT.B.5: Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

4.NBT.B.6: Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using

equations, rectangular arrays, and/or area models.

Lesson and Student- facing Learning Goals:	Warm Up Routine Math Language Routine	Materials and Centers:	Required Preparation:
Lesson 5:Products Beyond 100 Student-facing Goal: Let's find products beyond 100.	Warm Up Routine:Number Talk • MLR7 Compare and Connect Math Language Routine:MLR2 Collect and Display	Materials: ■ Tools for creating a visual display Centers: Can You Draw It? (1–5) Stage 4: Area and Perimeter (supporting) Five in a Row: Multiplication (3–5) Stage 2: Factors 1–9 (supporting)	Activity 2: Create 4 posters showing the 4 representations shown in the activity narrative.
Lesson 6: Multiply Two-digit Numbers and One-digit Numbers	Warm Up Routine: Notice and Wonder	Materials: • Centers:	
Student-facing Goal : Let's multiply two-digit and one-digit numbers.	Math Language Routine:MLR1 Stronger and Clearer Each Time	Can You Draw It? (1–5) ■ Stage 4: Area and Perimeter (supporting) Five in a Row: Multiplication (3–5) Stage 2: Factors 1–9 (supporting)	
Lesson 7:Multiply Three- and Four-digit Numbers by One-digit Numbers	Warm Up Routine:Estimation Exploration	Materials: • Centers:	
Student-facing Goal: Let's multiply three- and four-digit numbers by one-digit numbers.	Math Language Routine:MLR2 Collect and Display	Number Puzzles: Multiplication and Division (4–5) Stage 1: Two-digit Factors (addressing) Compare (1–5) Stage 3: Multiply within 100 (supporting)	
Lesson 8 :Multiply 2 Two-digit Numbers Student-facing Goal: Let's multiply 2 two-digit numbers.	Warm Up Routine:Number Talk • MLR5 Co-craft Questions Math Language Routine:MLR8 Discussion Supports	Materials: • Centers: Number Puzzles: Multiplication and Division (4–5)	

Lesson 9 :Recording Partial Products: One-digit and Three- or Four-digit Factors Student-facing Goal: Let's analyze and try an algorithm that uses partial products.	Warm Up Routine:Which One Doesn't Belong? Math Language Routine:MLR8 Discussion Supports MLR8 Discussion Supports	Stage 1: Two-digit Factors (addressing) Compare (1–5) Stage 3: Multiply within 100 (supporting) Materials: Centers: Number Puzzles: Multiplication and Division (4–5) Stage 1: Two-digit Factors (addressing) Compare (1–5) Stage 3: Multiply within 100 (supporting)
Lesson 10 :Using Algorithms with Partial Products: 2 Two-digit Numbers Student-facing Goal: Let's try multiplying two-digit numbers with an algorithm that uses partial products.	Warm Up Routine: Number Talk: Products Math Language Routine: MLR1 Stronger and Clearer Each Time MLR8 Discussion Supports	Materials: Centers: Five in a Row: Multiplication (3–5) Stage 2: Factors 1–9 (supporting) Compare (1–5) Stage 3: Multiply within 100 (supporting)
Lesson 11:Partial Products and the Standard Algorithm Student-facing Goal: Let's compare multiplication algorithms.	Warm Up Routine: Number Talk: The Value of the Digits Math Language Routine: MLR8 Discussion Supports	Materials: Centers: Five in a Row: Multiplication (3–5) Stage 2: Factors 1–9 (supporting) Compare (1–5) Stage 3: Multiply within 100 (supporting)
Lesson 12: Solve Problems Involving Multiplication Student-facing Goal: Let's solve problems using what we learned about multiplication of whole numbers.	Warm Up Routine: What Do You Know About 1 Year? Math Language Routine: MLR8 Discussion Supports	Materials: ■ Activity 1: Tools for creating a visual display Centers: Five in a Row: Multiplication (3–5) Stage 2: Factors 1–9 (supporting) Compare (1–5)

	Stage 3: Multiply within 100 (supporting)	
Assessment: Section B Checkpoint		

Section C: Multi-digit Division

Section Learning Goals: Divide numbers of up to four digits by one-digit divisors to find whole-number quotients and remainders, using strategies based on place value, properties of operations, and the relationship between multiplication ...

Section Alignments (Standards): 4.MD.A.1, 4.MD.A.3, 4.OA.A.3, 4.OA.C.5

4.NBT.B.5: Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

4.NBT.B.6: Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using

equations, rectangular arrays, and/or area models.

Lesson and Student- facing Learning	Warm Up Routine	Materials and Centers:	Required Preparation:
Goals: Lesson 13 : Situations Involving Equal-size Groups Student-facing Goal: Let's interpret and solve division problems.	Math Language Routine Warm Up Routine: Estimation Exploration MLR5 Co-craft Questions Math Language Routine: MLR2 Collect and Display	Materials: Centers: • Five in a Row: Multiplication (3–5) ■ Stage 2: Factors 1–9 (supporting) • Compare (1–5) ■ Stage 3: Multiply within 100 (supporting)	
Lesson 14: Situations Involving Factors and Multiples Student-facing Goal: Let's interpret and solve division problems beyond 100.	Warm Up Routine: Number Talk Math Language Routine: MLR8 Discussion Supports	Materials: Centers: Five in a Row: Multiplication (3–5) Stage 2: Factors 1–9 (supporting) Compare (1–5) Stage 3: Multiply within 100 (supporting)	
Lesson 15: Situations Involving Area Student-facing Goal: Let's divide to find the side length of a rectangle.	Warm Up Routine: Estimation Exploration Math Language Routine:MLR7 Compare and Connect	Materials: Grid paper Sticky notes Centers: Rolling for Fractions (3–5)	Activity 2: If doing a gallery walk, create 3–4 posters to display during the activity that show or describe different strategies students are likely to use to solve the problem.

	1		
		Stage 2: Multiply a Fraction by a Whole	
		• Compare (1–5) <u></u>	
		Stage 3: Multiply within 100 (supporting)	
Lesson 16: Base-ten Blocks to Divide	Warm Up Routine: What Do You	Materials:	Activity 1: Each group of 3–4 students
	Know About?		needs a set of base-ten blocks that
Student-facing Goal: Let's use		Base-ten blocks	includes 4 hundreds blocks, 10 ten
base-ten blocks to divide.	 MLR7 Compare and 	Tools for creating a visual display	blocks, and 25 ones blocks.
	Connect	Tools for creating a visual display	
	Connect	Centers:	
	Math Language Routine:	• Compare (1–5) =	
		Stage 4: Divide within 100 (supporting)	
		Rolling for Fractions (3–5)	
		Stage 2: Multiply a Fraction by a Whole Number	
		(supporting)	
Lesson 17: Base-ten Diagrams to	Warm Up Routine: Which One	Materials:	
Represent Division	Doesn't Belong?	A A	
Represent Division	Doesn't belong:	Centers:	
Student-facing Goal: Let's divide	Math Language Routine: MLR8	• Compare (1–5) 	
using base-ten blocks or diagrams.	Discussion Supports	Stage 4: Divide within 100 (supporting)	
		• Rolling for Fractions (3–5)	
		Stage 2: Multiply a Fraction by a Whole Number	
		(supporting	
Lesson 18: Divide with Partial	Warm Up Routine: Number Talk	Materials:	
Quotients		Base-ten blocks	
Student-facing Goal: Let's analyze	Math Language Routine: MLR8	Centers:	
and use an algorithm that uses partial	Discussion Supports	• <u>Compare (1–5)</u>	
quotients.		Stage 4: Divide within 100 (supporting)	
		 Rolling for Fractions (3–5) 	
		Stage 2: Multiply a Fraction by a Whole Number	
		(supporting)	
Lesson 19: Division With and	Warm Up Routine: Notice and	Materials:	
Without Remainders	Wonder	•	
		Centers:	
Student-facing Goal: Let's find	Math Language Routine: MLR2	• <u>Compare (1–5)</u>	
quotients and remainders using an	Collect and Display	Stage 4: Divide within 100 (supporting)	
algorithm that uses partial quotients.		• Rolling for Fractions (3–5)	

		Stage 2: Multiply a Fraction by a Whole Number (supporting)	
Lesson 20: Interpret Remainders in Division Situations Student-facing Goal: Let's solve problems involving division and	Warm Up Routine: Choral Count Math Language Routine: MLR8 Discussion Supports	Materials: • Centers: Compare (1–5) Stage 4: Divide within 100 (supporting)	
interpret remainders. Assessment: Section C Checkpoint		Watch Your Remainder (4–5) Stage 1: One-digit Divisors (addressing)	

Section D: Let's Put It to Work: Problem Solving with Large Numbers

Section Learning Goals: Use the four operations to solve problems that involve multi-digit whole numbers and assess the reasonableness of answers.

Section Alignments (Standards): 4.MD.A.1, 4.MD.A.3, 4.OA.A.3, 4.OA.C.5

4.NBT.B.5: Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

4.NBT.B.6: Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Lesson and Student- facing Learning	Warm Up Routine	Materials and Centers:	Required Preparation:
Goals:	Math Language Routine		
Lesson 21 :Different Ways to Solve	Warm Up Routine: Which One	Materials:	Going on a Field Trip (groups of 1)
Problems	Doesn't Belong?	•	
		Centers:	
Student-facing Goal: Let's reason	 MLR5 Co-craft Questions 	• Compare	
about and solve multi-step problems.	Math Language Routine:MLR7	Stage 7: Multi-digit Operations (addressing)	
	Compare and Connect	Watch Your Remainder	
	Compare and Comment	Stage 1: One-digit Divisors (addressing)	

Lesson 22 : Problems About Perimeter and Area Student-facing Goal: Let's solve situations involving perimeter and area.	Warm Up Routine: How Many Do You See? Math Language Routine:MLR8 Discussion Supports	Materials: Grid paper Inch tiles Centers: Compare Stage 7: Multi-digit Operations (addressing) Watch Your Remainder Stage 1: One-digit Divisors (addressing)	
Lesson 23: Solve Problems with Many Operations Student-facing Goal: Let's solve multi-step problems involving the four operations.	Warm Up Routine:True or False Math Language Routine:MLR8 Discussion Supports	Materials:	
Lesson 24: Assess the Reasonableness of Solutions Student-facing Goal: Let's solve problems and assess the reasonableness of solutions.	Warm Up Routine:Notice and Wonder Math Language Routine:MLR8 Discussion Supports	Materials:	
Lesson 25: Paper Flower Decorations Student-facing Goal: Let's make patterns with paper flowers.	Warm Up Routine:How Many Do You See? Math Language Routine:MLR7 Compare and Connect	Materials: Centers: Compare Stage 7: Multi-digit Operations (addressing)	Activity 1: Gather rubber bands or pipe cleaners and 60 sheets of tissue paper that measure 18 inches by 24 inches.

	Stage 1: One-digit Divisors (addressing)	Cut the tissue paper in the following ways (measurements do not need to be exact): 20 sheets cut into strips that are 4 inches by 9 inches 40 sheets cut into strips that are 6 inches by 12 inches (length should be about 2 times the width)
Assessment: Section D Checkpoint		

Vocabulary:

Dividend

remainder

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Unit 7: Angles and Angle Measurement

Objectives: Students learn to draw and identify points, rays, segments, angles, and lines, including parallel and perpendicular lines. Students also learn how to use a protractor to measure angles and draw angles of given measurements, and identify acute, obtuse, right, and straight angles in two-dimensional figures.

Section Titles: A: Points, Lines, Segments, Rays, and Angles, B: The Size of Angles, C: Angle Analysis

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https://wapatosd.ilclassroom.com/lesson_plans/119553-4-7-end-of-unit-assessment?path=Wiki.3977826%2FWiki.587417%2FWiki.587430%2FWiki.1367650&card=2430999

Section A: Points, Lines, Segments, Rays, and Angles

Section Learning Goals:

- Draw and identify points, lines, rays, segments, and parallel and intersecting lines in geometric figures.
- Recognize that angles are formed wherever two rays share a common endpoint and identify angles in two-dimensional figures.

Section Alignments (Standards): 4.G.A.1, 4.MD.C.5, 4.NBT.B.4, 4.NBT.B.5, 4.MD.C.5.a, 4.MD.C.5.b, 4.MD.C.6, 4.MD.C.7, 4.NBT.B.6, 4.G.A.2

4.G.A.1: Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

4.MD.C.5: Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.

Lesson and Student- facing Learning Goals:	Warm Up Routine Math Language Routine	Materials and Centers:	Required Preparation:
Lesson 1: How Would You Describe These Figures? Student-facing Goal: Let's draw and describe geometric figures.	Warm Up Routine: Notice and Wonder Math Language Routine: MLR2 Collect and Display	Materials: Chart paper Index cards Rulers or straightedges Centers: Rolling for Fractions (3–5) Stage 2: Multiply a Fraction by a Whole Number (supporting) Compare (1–5) Stage 5: Fractions (supporting) Stage 7: Multi-digit Operations (supporting) Target Measurements (2–5)	Activity 1: Create a set of 4 cards from the blackline master for each group of 2. Create a poster with the two images shown in activity synthesis.
Lesson 2: Points, Lines, Rays, and Segments Student-facing Goal:	Warm Up Routine: Number Talk MLR7 Compare and Connect Math Language Routine:	Stage 4: Degrees (addressing) Materials: • Rulers or straightedges Centers:	Activity 1: Create a set of cards from the blackline master for each group of 2–4 student
Let's draw points, lines, line segments, and rays.	MLR8 Discussion Supports	 Rolling for Fractions (3–5) Stage 2: Multiply a Fraction by a Whole Number (supporting) Compare (1–5) Stage 5: Fractions (supporting) Stage 7: Multi-digit Operations (supporting) 	
Lesson 3: Two or More Lines Student-facing Goal:	Warm Up Routine: How Many Do You See? Math Language Routine:	Materials: ■ Rulers or straightedges	
Let's look at lines that cross and lines that don't.	MLR2 Collect and Display	Centers: • Rolling for Fractions (3–5)	

Lesson 4: Points and Lines All Around Student-facing Goal: Let's find parallel and intersecting lines all around us.	Warm Up Routine: Which One Doesn't Belong? Math Language Routine: MLR8 Discussion Supports	Stage 2: Multiply a Fraction by a Whole Number (supporting) Compare (1–5) Stage 5: Fractions (supporting) Stage 7: Multi-digit Operations (supporting) Materials: Materials from a previous lesson Rulers or straightedges Centers: Rolling for Fractions (3–5) Stage 2: Multiply a Fraction by a Whole Number (supporting) Compare (1–5) Stage 5: Fractions (supporting) Stage 7: Multi-digit Operations (supporting)	Activity 1: Gather Collect and Display charts from previous lessons. Each student will need access to their personal word walls created in previous lessons.
Lesson 5: What is an Angle? Student-facing Goal: Let's look for angles and find out ways to describe them. Assessment: Section A Checkpoint	Warm Up Routine: Notice and Wonder Math Language Routine: MLR2 Collect and Display MLR1 Stronger and Clearer Each Time	Materials: Rulers or straightedges Centers: Compare (1–5) Stage 5: Fractions (supporting) Stage 7: Multi-digit Operations (supporting) Target Measurements (2–5) Stage 4: Degrees (addressing)	Create a set of cards (4 cards total) for each group of 2 from the blackline master. Each group of 2 needs 2 cards (sets 1 and 2). Additional cards (sets 3A and 3B) can be used for extension.

Section B: The Size of Angles

Section Learning Goals:

- Recognize that angles can be measured in degrees, and can be found using addition and subtraction.
- Use a protractor to measure and draw angles, and recognize that perpendicular lines meet or cross at a right angle.

Section Alignments (Standards): 4.G.A.1, 4.MD.C.5, 4.NBT.B.4, 4.NBT.B.5, 4.MD.C.5.a, 4.MD.C.5.b, 4.MD.C.6, 4.MD.C.7, 4.NBT.B.6, 4.G.A.2

4.G.A.1: Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

4.MD.C.5: Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.

Lesson and Student-	Warm Up Routine	Materials and Centers:	Required Preparation:
facing Learning Goals:	Math Language Routine		
Lesson 6: Compare and Describe	Warm Up Routine:	Materials:	Activity 1: Create one set of cards from
Angles	Which One Doesn't Belong?	 Materials from a previous activity 	the blackline master for each group of 2
	Math Language Routine:	Patty paper	students.
Student-facing Goal:	MLR2 Collect and Display	Centers:	
Let's think about how to compare and		• <u>Compare (1–5)</u>	
describe angles.		Stage 5: Fractions (supporting)	
		Stage 7: Multi-digit Operations (supporting)	
		 Target Measurements (2–5) 	
		Stage 4: Degrees (addressing)	
Lesson 7: The Size of Angles on a	Warm Up Routine:	Materials:	None for this lesson.
Clock	Notice and Wonder	Patty paper	
	Math Language Routine:	Rulers or straightedges	
Student-facing Goal:	None for this lesson.	Centers:	
Let's describe angles using the hands		• <u>Compare (1–5)</u>	
of a clock.		Stage 5: Fractions (supporting)	
		Stage 7: Multi-digit Operations (supporting)	
		 <u>Target Measurements (2–5)</u> 	
		Stage 4: Degrees (addressing)	
Lesson 8: The Size of Angles in	Warm Up Routine:	Materials:	Activity 2: Create a paper half-circle
Degrees	What Do You Know About?	Paper	from the blackline master for each
	Math Language Routine:	 Rulers or straightedges 	student.
Student-facing Goal:	None for this lesson.		
Let's describe the size of angles using		Centers:	
degrees.		• <u>Compare (1–5)</u>	
		Stage 5: Fractions (supporting)	
		Stage 7: Multi-digit Operations (supporting)	
		 Target Measurements (2–5) 	
		Stage 4: Degrees (addressing)	
Lesson 9: Use a Protractor to	Warm Up Routine:	Materials:	
Measure Angles	True or False	 Protractors 	

	•	<u>. </u>	
Student-facing Goal: Let's use some tools to measure angles.	MLR1 Stronger and Clearer Each Time Math Language Routine: MLR2 Collect and Display	Centers: Compare (1–5) Stage 5: Fractions (supporting) Stage 7: Multi-digit Operations (supporting) Target Measurements (2–5) Stage 4: Degrees (addressing)	
Lesson 10: Angle Measurement and	Warm Up Routine:	Materials:	Activity 2: Prepare at least 2 pieces of
Perpendicular Lines Student-facing Goal: Let's measure all kinds of angles.	Number Talk MLR2 Collect and Display Math Language Routine: MLR8 Discussion Supports	 Protractors Rulers or straightedges Colored pencils Paper 	paper (or sticky notes) for each student.
		Centers:	
Lesson 11: Use a Protractor to Draw	Warm Up Routine:	Materials:	
Angles	Estimation Exploration	 Protractors 	
	Math Language Routine:	 Rulers or straightedges 	
Student-facing Goal:	MLR8 Discussion Supports	Index cards	
Let's draw some angles.			
		Centers:	
		 Compare (1–5) Stage 5: Fractions (supporting) Stage 7: Multi-digit Operations (supporting) Target Measurements (2–5) Stage 4: Degrees (addressing) 	
Assessment: Section B Checkpoint		, <u>y</u>	

Section C: Angle Analysis

Section Learning Goals:

- Draw and identify acute, obtuse, right, and straight angles in two-dimensional figures.
- Write equations to represent angle relationships and reason about and find unknown measurements.

Section Alignments (Standards): 4.G.A.1, 4.MD.C.5, 4.NBT.B.4, 4.NBT.B.5, 4.MD.C.5.a, 4.MD.C.5.b, 4.MD.C.6, 4.MD.C.7, 4.NBT.B.6, 4.G.A.2

4.G.A.1: Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

4.MD.C.5: Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to measure angles. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.

Lesson and Student- facing Learning Goals:	Warm Up Routine Math Language Routine	Materials and Centers:	Required Preparation:
Lesson 12: Types of Angles Student-facing Goal: Let's look at different types of angles.	Warm Up Routine: Number Talk Math Language Routine: MLR2 Collect and Display	Materials: • Materials from a previous lesson • Protractors • Pattern blocks • Centers: • Can You Draw It? (1–5) Stage 4: Area and Perimeter (supporting) • Which One? (K–5) Stage 4: Grade 3 Shapes (supporting)	Activity 1: Students need their angle cards from the previous lesson.
Lesson 13: Find Angle Measurements Student-facing Goal: Let's compose and decompose angles to find their measurements.	Warm Up Routine: Notice and Wonder Math Language Routine: MLR5 Co-craft Questions	Materials:	 Activity 1: Create 4 copies of each angle (p, q, r, and s) from the blackline master for each group of 2–4 students. Cut out the angles in advance, or prepare scissors and extra time for students to cut out the angles. If using patty paper instead of cutouts of the angles, each student needs 1–2 sheets of patty paper.

Lesson 14: Reasoning about Angles	Warm Up Routine:	Materials:	
(Part 1)	Which One Doesn't Belong?	 Protractors 	
	MLR1 Stronger and Clearer Each	 Rulers or straightedges 	
Student-facing Goal:	Time	Centers:	
Let's find the size of angles on the	Math Language Routine:	• Can You Draw It? (1–5)	
clock.	MLR8 Discussion Supports	Stage 4: Area and Perimeter (supporting)	
		Which One? (K–5)	
		Stage 4: Grade 3 Shapes (supporting)	
Lesson 15: Reasoning About Angles	Warm Up Routine:	Materials:	Activity 2: Create a set of cards from the
(Part 2)	How Many Do You See? MLR4 Information Gap	None for this lesson	blackline master for each group of 2.
Student-facing Goal:	Math Language Routine:	Centers:	
Let's figure out missing angle	MLR8 Discussion Supports	• Can You Draw It? (1–5)	
measurements.		Stage 4: Area and Perimeter (supporting)	
		• Which One? (K–5)	
		Stage 4: Grade 3 Shapes (supporting)	
Lesson 16: Guess the Figure	Warm Up Routine:	Materials:	Activity 1: Create a set of cards from the
	Notice and Wonder	 Rulers or straightedges 	blackline master for each group of 2
Student-facing Goal:	Math Language Routine:		students.
Let's draw and identify all kinds of	MLR2 Collect and Display	Centers:	
two-dimensional figures.		• Can You Draw It? (1–5)	
		Stage 4: Area and Perimeter (supporting)	
		Which One? (K-5)	
		Stage 4: Grade 3 Shapes (supporting)	
Assessment: Section C			
Checkpoint			

Vocabulary:

acute angle, angle, intersecting lines, line, obtuse angle, parallel lines, perpendicular lines, point, ray, right angle, segment or line segment, straight angle, vertex.

End of Unit 7 Assessment and Completion Date: 04/10

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Unit 8: Properties of Two-dimensional Shapes

Objective: Students classify triangles and quadrilaterals based on the properties of their side lengths and angles, and learn about lines of symmetry in two-dimensional figures. They use their understanding of these attributes to solve problems, including problems involving perimeter and area.

Section Titles: A) Side Lengths, Angles, and Lines of Symmetry B) Reason about Properties to Solve Problems

End of Unit 8 Assessment and Completion Date: 04/25

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Section A: Ways to Look at Figures

Section Learning Goals: Classify triangles (including right triangles), parallelograms, rectangles, rhombuses, and squares based on the properties of their side lengths and angles. Identify and draw lines of symmetry in two-dimensional figures.

Section Alignments (Standards): 4.G.A.3

4.G.A.2: Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

4.MD.A.3: Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

Lesson and Student- facing Learning Goals:	Warm Up Routine Math Language Routine	Materials and Centers:	Required Preparation:
Lesson 1: Ways to Look at Figures Student-facing Goal: Let's sort two-dimensional figures.	Warm Up Routine: Which One Doesn't Belong: Geometric Figures Math Language Routine: Which One Doesn't Belong? MLR2 Collect and Display	Materials:	Activity 1: Create a set of cards from the blackline master for each group of 2–4.
Lesson 2: Ways to Look at Triangles Student-facing Goal: Let's sort and analyze triangles.	Warm Up Routine: Number Talk: Sums and Products Math Language Routine: Number Talk MLR8 Discussion Supports	Picture Books (K–5) Stage 3: Find Shapes (supporting)	Activity 1: Each group needs a set of shape cards from the previous lesson. If time permits, separate the triangle cards from each set in advance.

Lesson 3: Ways to Look at Quadrilaterals Student-facing Goal: Let's sort and identify quadrilaterals.	Warm Up Routine: How Many Do You See: Brick Pattern Math Language Routine: How Many Do You See? MLR8 Discussion Supports	 Which One? (K-5) Stage 4: Grade 3 Shapes (supporting) Can You Draw It? (1-5) Stage 4: Area and Perimeter (supporting) 	Gather the Collect and Display chart from the previous lesson for display in the activity synthesis. Activity 1: Each group needs a set of shape cards from the previous lesson. If time permits, separate the quadrilateral cards from each set in advance. Activity 2: Each group needs a set of shape cards from the previous activity.
Lesson 4: Symmetry in Figures (Part 1) Student-facing Goal: Let's describe symmetry in two-dimensional figures.	Warm Up Routine: Notice and Wonder: Seeing Double Math Language Routine: Notice and Wonder MLR1 Stronger and Clearer Each Time MLR8 Discussion Supports	Materials: Activity 1 Patty paper Protractors Rulers or straightedge Scissors Activity 2 Materials from a previous lesson Patty paper Protractors Rulers Activity 3 Patty paper Rulers or straightedges Activity 1: Perfect Matches (groups of 6) Activity 2: Shape Cards Grade 4 (groups of 2) Center: Which One? (K-5) Stage 4: Grade 3 Shapes (supporting) Can You Draw It? (1-5) Stage 4: Area and Perimeter (supporting)	Activity 1: Make copies of the set of figures in the second question available for cutting and for demonstration during the lesson synthesis. Activity 2: Sort the shape cards from the previous lessons into three groups of 12 cards (A–L, M–X, and Y–JJ).
Lesson 5: Symmetry in Figures (Part 2)	Warm Up Routine: Number Talk: Keeping Track	Materials: Activity 1 Patty paper	Activity 3: Create a set of triangle cutouts from the blackline master for each group of 2.
Student-facing Goal:	Math Language Routine: Number Talk	Rulers or straightedges Activity 2	

		<u>. </u>	
Let's draw some figures that have lines of symmetry.	MLR1 Stronger and Clearer Each Time Which One?	Paper Patty paper Protractors Rulers or straightedges Scissors Activity 3 Patty paper Protractors Rulers or straightedges Scissors Activity 3: Two Symmetrical Figures (groups of 2) Centers:	
Lesson 6: All Kinds of Attributes Student-facing Goal: Let's use what we know about attributes of figures to create drawings.	Warm Up Routine: How Many Do You See: Dot after Dot Math Language Routine: How Many Do You See Notice and Wonder MLR2 Collect and Display	Materials: Activity 1: Straightedges Centers: Symmetrical Designs (4) Stage 1: Lines of Symmetry (addressing) Compare (1–5) Stage 5: Fractions (supporting) Stage 7: Multi-Digit Operations (supporting)	
Assessment: Section A Checkpoint			

Section B: Reason about Properties to Solve Problems

Section Learning Goals: Solve problems involving unknown side lengths, perimeter, area, and angle measurements using the known attributes and properties of two-dimensional shapes.

Section Alignments (Standards): 4.G.A.3

4.G.A.2: Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.

4.MD.A.3: Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

Lesson and Student- facing Learning	Warm Up Routine	Materials and Centers:	Required Preparation:
Goals:	Math Language Routine		
Lesson 7: Ways to Find Unknown Length (Part 1)	Warm Up Routine: Number Talk: Multiple Thirds	Materials: • Activity 2: Patty paper • Activity 3: Patty paper	
Student-facing Goal: Let's find the perimeter of different shapes.	Math Language Routine: Number Talk MLR3 Clarify, Critique, Correct MLR8 Discussion Supports	 Which One? (K-5) Stage 5: Grade 4 Shapes (addressing) Can You Draw It? (1-5) Stage 5: Grade 4 Shapes (addressing) Compare (1-5) ■ Stage 5: Fractions (supporting) 	
Lesson 8: Ways to Find Unknown Length (Part 2) Student-facing Goal: Let's find the unknown lengths in figures.	Warm Up Routine: True or False: Equations with Fractions Math Language Routine: True or False? MLR8 Discussion Supports	Materials:	
Lesson 9 :Symmetry in Action	Warm Up Routine: Which One Doesn't Belong:	Materials: • Activity 1:	
Student-facing Goal: Let's investigate symmetry and perimeter in folded figures.	Figures Math Language Routine: Which One Doesn't Belong? MLR8 Discussion Supports	 Paper Patty paper Protractors Rulers or straightedges Scissors 	

		 Activity 2: Paper Patty paper Rulers or straightedges Scissors Activity 1: Before and After (groups of 6) Centers: Which One? (K-5) Stage 5: Grade 4 Shapes (addressing)
		 Compare (1–5) Stage 5: Fractions (supporting) How Are They the Same? (1–5) Stage 7: Multi-digit Operations (supporting)
Lesson 10 :Ways to Find Angle Measurements Student-facing Goal:	Warm Up Routine: How Many Do You See: Symmetry in a Star Math Language Routine: How Many Do You See? MLR8 Discussion Supports	Materials:
		Centers: ■ Which One? (K–5) Stage 5: Grade 4 Shapes (addressing) ■ Compare (1–5) ■ Stage 5: Fractions (supporting) ■ How Are They the Same? (1–5) Stage 7: Multi-digit Operations (supporting)
Assessment: Section B Checkpoint		

Vocabulary:

Line of symmetry Right triangle symmetry

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Unit 9: Putting It All Together

Students consolidate and solidify their understanding of various concepts and skills related to major work of the grade. They also continue to work toward fluency goals of the grade.

Section Titles: A: Reason with Fractions; B: Whole-number Operations; C: Solve Problems with Multiplication and Division; D: Creation and Design

End of Unit 9 Assessment and Completion Date: 05/20

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Wiki.587417%2FWiki.587430%2FWiki.1786117&card=2417717

Section A: Reason with Fractions

Section Learning Goals: Solve problems involving fraction equivalence and operating with fractions.

Section Alignments (Standards): 4.NF.A.1; 4.NF.A.2; 4.NF.B.3; 4.NF.B.3.a; 4.NF.B.3.b; 4.NF.B.3.c; 4.NF.B.3.d; 4.NF.B.4; 4.NF.C.5; 4.NF.C.6; 4.NF.C.7

Lesson and Student-	Warm Up Routine	Materials and Centers:	Required Preparation:
facing Learning Goals:	Math Language Routine		
Lesson 1 :Add, Subtract, and	Warm Up Routine:Number Talk:	Materials:	
Multiply Fractions	Fluency and Fractions	None	
		Centers:	
Student-facing Goal:Let's practice	Math Language Routine: MLR8	•	
solving problems involving fractions.	Discussion Supports	None	
Lesson 2: Sums and Differences of	Warm Up Routine:Number Talk:	Materials:	
Fractions	Wholes and Units	None	
		Centers:	
Student-facing Goal: Let's practice	Math Language Routine:MLR8	•	
solving problems involving fractions.	Discussion Supports	None	
Lesson 3: Stories with Fractions	Warm Up Routine: Number Talk	Materials:	
		None	
Student-facing Goal: Let's add and	Math Language Routine: MLR8	Centers:	
subtract mixed numbers.	Discussion Supports	•	
		None	
Assessment: Section A Checkpoint			
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Section B: Whole-number Operations

Section Learning Goals: Add, subtract, multiply, and divide multi-digit numbers using place value understanding.

Section Alignments (Standards): 4.NBT.B; 4.NBT.B.4; 4.NBT.B.5; 4.NBT.B.6

Lesson and Student- facing Learning	Warm Up Routine	Materials and Centers:	Required Preparation:
Goals:	Math Language Routine		

Lesson 4: Another Look at the	Warm Up Routine: Number Talk	Materials:	
Standard Algorithm		Grid paper	
	Math Language Routine:MLR7	Centers:	
Student-facing Goal: Let's subtract	Compare and Connect	None	
from numbers with zeros.			
Lesson 5: Multiplication of	Warm Up Routine: Estimation	Materials:	
Multi-digit Numbers	Exploration	Grid paper	
		Centers:	
Student-facing Goal: Let's multiply	Math Language Routine:MLR8	None	
multi-digit numbers.	Discussion Supports		
Lesson 6 : What's the Quotient?	Warm Up Routine:Number Talk	Materials:	
		None	
Student-facing Goal: Let's find some	Math Language Routine:MLR2	Centers:	
quotients of multi-digit numbers.	Collect and Display	None	
Assessment: Section B Checkpoint			

Section C: Solve Problems with Multiplication and Division

Section Learning Goals: Solve problems involving measurement comparison.

Section Alignments (Standards): 4.NBT.B; 4.NBT.B.4; 4.NBT.B.5; 4.NBT.B.6; 4.OA.A.2; 4.OA.A.3

Section Anglinients (Standards). 4.Not.b.4, 4.Not.b.5, 4.Not.b.0, 4.OA.A.2, 4.OA.A.3				
Lesson and Student- facing Learning	Warm Up Routine	Materials and Centers:	Required Preparation:	
Goals:	Math Language Routine			
Lesson 7: Solve Multiplicative	Warm Up Routine: Notice and	Materials:		
Comparison Problems	Wonder	None		
		Centers:		
Student-facing Goal: Let's solve	Math Language Routine:MLR8	• None		
real-world multiplicative comparison	Discussion Supports			
problems.				
Lesson 8: Solve Problems with	Warm Up Routine:Number Talk	Materials:		
Multiplication and Division		None		
	Math Language Routine:MLR8			
Student-facing Goal: Let's make	Discussion Supports	Centers:		
sense of situations and solve word		• None		
problems.				
Lesson 9: Create Word Problems	Warm Up Routine:Number Talk	Materials:		
		None		
Student-facing Goal: Let's write our	Math Language Routine:MLR8	Centers:		
own word problems.	Discussion Supports	None		
Assessment: Section C Checkpoint				

Section D: Creation and Design

Section Learning Goals: Review the major work of the grade by creating and designing instructional routines.

Section Alignments (Standards):

4.G.A.1; 4.NBT.A; 4.NBT.A.1; 4.NBT.B; 4.NBT.B.5; 4.NF.B; 4.NF.B.4; 4.OA; 4.OA.A; 4.OA.A; 4.OA.A.3; 4.OA.B.4; 4.OA.C; 4.OA.C.5

Lesson and Student- facing Learning	Warm Up Routine	Materials and Centers:	Required Preparation:
Goals:	Math Language Routine		
Lesson 10 : Estimation Exploration	Warm Up Routine: Estimation	Materials:	Activity 2: Gather two magazines or
	Exploration	 Tools for creating a visual display 	other sources of images for each group
Student-facing Goal: Let's design an		Centers:	of 3–4 students.
Estimation Exploration activity.	Math Language Routine:MLR8	None	
	Discussion Supports		
Lesson 11: Which One Doesn't	Warm Up Routine:Which One	Materials:	
Belong?	Doesn't Belong?	None	
		Centers:	
Student-facing Goal: Let's complete	Math Language Routine:MLR8	None	
and create Which One Doesn't Belong	Discussion Supports		
sets.			
Lesson 12 : Number Talk	Warm Up Routine:Number Talk	Materials:	
		None	
Student-facing Goal: Let's create our	Math Language Routine:MLR7	Centers:	
own Number Talks.	Compare and Connect	None	
Assessment: Section D			
Checkpoint			

Vocabulary:

No Unit 9 terms

End of Unit 9 Assessment and Completion Date: 05/20

https://wapatosd.ilclassroom.com/lesson_plans/118987-4-9-end-of-course-assessment-and-resources?path=Wiki.3977826%2F Wiki.587417%2FWiki.587430%2FWiki.1786117&card=2417717