Summit Public Schools

Grade 4

Mathematics Curriculum

Revised: July 2024

Course Description

(1) developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends; Students generalize their understanding of place value to 1,000,000, understanding the relative sizes of numbers in each place. They apply their understanding of models for multiplication (equal-sized groups, arrays, area models), place value, and properties of operations, in particular the distributive property, as they develop, discuss, and use efficient, accurate, and generalizable methods to compute products of multi-digit whole numbers. Depending on the numbers and the context, they select and accurately apply appropriate methods to estimate or mentally calculate products. They develop fluency with efficient procedures for multiplying whole numbers; understand and explain why the procedures work based on place value and properties of operations; and use them to solve problems. Students apply their understanding of models for division, place value, properties of operations, and the relationship of division to multiplication as they develop, discuss, and use efficient, accurate, and generalizable procedures to find quotients involving multi-digit dividends. They select and accurately apply appropriate methods to estimate and mentally calculate quotients, and interpret remainders based upon the context.

(2) developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; Students develop understanding of fraction equivalence and operations with fractions. They recognize that two different fractions can be equal (e.g., 15/9 = 5/3), and they develop methods for generating and recognizing equivalent fractions. Students extend previous understandings about how fractions are built from unit fractions, composing fractions from unit fractions, decomposing fractions into unit fractions, and using the meaning of fractions and the meaning of multiplication to multiply a fraction by a whole number.

(3) Understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.
Students describe, analyze, compare, and classify two-dimensional shapes. Through building, drawing, and analyzing

two-dimensional shapes, students deepen their understanding of properties of two-dimensional objects and the use of them to solve problems involving symmetry.

Supports for English Language Learners		
Sensory Supports	**Graphic Supports**	**Interactive Supports**
Real-life objects	Charts	In pairs or partners
Manipulatives	Graphic Organizers	In triands or small groups
Pictures	Tables	In a whole group
Illustrations, diagrams & drawings	Graphs	Using cooperative group
Magazines & Newspapers	Timelines	Structures
Physical activities	Number lines	Internet / Software support
Videos & Film		In the home language
Broadcasts		With mentors
Models & Figures		

Intervention Strategies		
Accommodations	**Interventions**	**Modifications**
Allow for verbal responses	Multi-sensory techniques	Modified tasks/expectations
Repeat/confirm directions	Increase task structure (e.g. directions, checks for understanding, feedback	Differentiated materials
Permit response provided via computer or electronic device	Increase opportunities to engage in active academic responding	Individualized assessment tools based on student need
Audio Books	Utilize pre-reading strategies and activities previews, anticipatory guides, and semantic mapping	Modified assessment grading

Pacing Guide

Trimester 1	Trimester 2	Trimester 3
Topic 1: Generalize Place Value Understanding **Topic 2:** Fluently Add and Subtract Multi-Digit Whole Numbers **Topic 3:** Use Strategies and Properties to Multiply by 1-Digit Numbers ***Topic 4**: Use Strategies and Properties to Multiply by 2-Digit Numbers & 6.1 ***Topic 5:** Use Strategies and Properties to Divide by 1-Digit Numbers & 6.2- 6.3/4/5 *(Topic Assessment will include questions from topic 6)	***Topics 7/14:** Factors, Multiples & Patterns **Topic 8:** Extend Understanding of Fraction Equivalence and Ordering **Topic 9:** Understand Addition and Subtraction of Fractions **Topic 10:** Extend Multiplication Concepts to Fractions **Topic 12:** Understand and Compare Decimals	**Topic 15:** Geometric Measurement: Understood Concepts of Angles and Angle Measurement **Topic 13**: Measurement: Find Equivalence in Units of Measure **Topic 11:** Represent and Interpret Data on Line Plots **Topic 16:** Lines, Angles, and Shapes

BOY Required Assessments:	Mid-Year Required Assessment:	EOY Required Assessment:	Topic Assessments to be given at the end of each topic throughout the year. Assessments and scoring guides are linked at the end of each topic in this document.
• iReady Math Diagnostic	• iReady Math Diagnostic	• iReady Math Diagnostic	

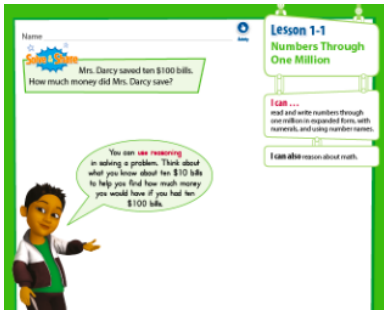
NEW 25-26: Building a Math Community (Beginning of the Year Resources)

Topic 1: Generalizing Place Value Understanding	
Big Idea: **Utilize understanding of place value by rounding and comparing**	
Essential Questions	**Standards**
• How can whole numbers be written? • How can whole numbers be compared? • How are digits in numbers related to one another?	**4.NBT.A.1** Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division. **4.NBT.A.2** Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. **4.NBT.A.3** Use place value understanding to round multi-digit whole numbers to any place.

Topic 1–Generalizing Place Value Understanding

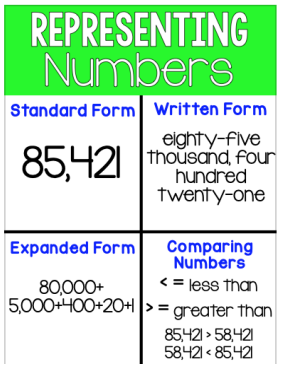
Key Vocabulary: Place value, millions, period, expanded form, Greater than symbol (>), less than symbol (<), rounding, conjecture

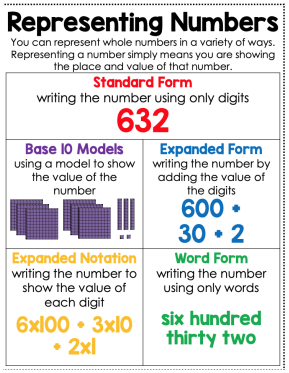
WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Lesson 1: - **Solve and Share:** Page 5	**Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning Animation Plus Video *See teacher manual page 6* **Today we will read and write numbers through one**	**Suggestions/Ideas for Lessons/Topic:** **Meet with Teacher-** Guided/Independent Practice Pages 7-8 **At Your Seat:** - At Your Seat Folder - Review Fun: Math	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 7 & 8 or online edition **(*Printable Format*)** - Quick Check Folder - Topic 1 Google Forms: *Can be used during technology rotation*

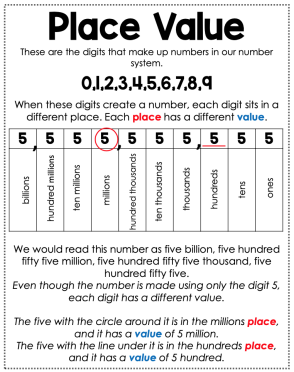


- **Introduce vocabulary on math wall and in math notebooks:** Place value, millions, period, expanded form

million in expanded form, with numerals, and using number names.







We will do this by (choose

Mystery- Case of the Puzzled Pirate

Technology:

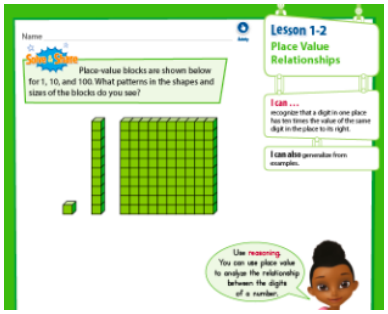
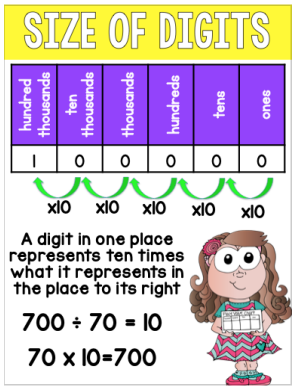
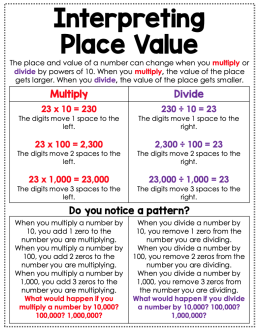
- **Gobbling Globs** on enVision
- **iReady** lesson
- Place Value Hockey
- Rounding Soccer Math
- Roll and Score Expanded Form
- Monster Battle Compare Large Numbers

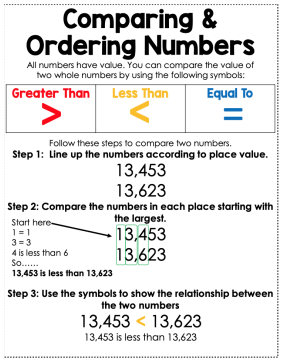
Hands-on:

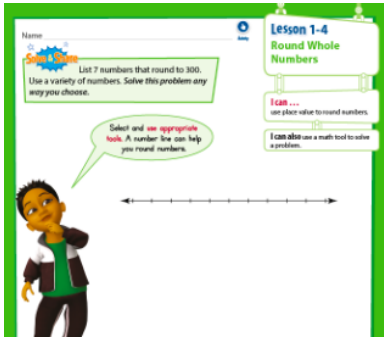
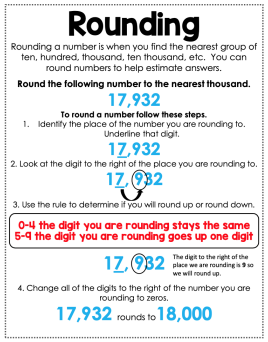
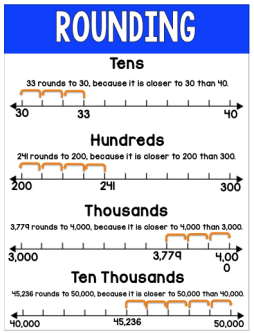
- Hands-on Folder
- enVision Center Games

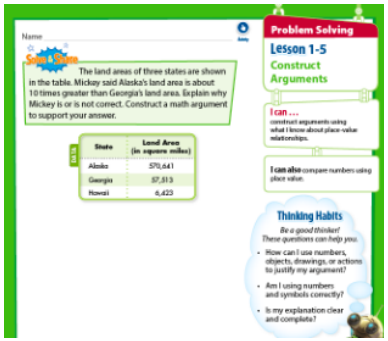
See additional resources under Topic 1

Fluency Review Activity
Page 25

	one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 2: - **Solve and Share:** Page 9  	*See teacher manual page 10* **Today we will recognize the relationship between adjacent digits in a multi-digit number.**   	*See teacher manual pages 12A & 12B* **Meet with Teacher-** Guided/Independent Practice Pages 11-12 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 11 & 12 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	We will do this by (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 3: - **Solve and Share:** Page 13  - **Introduce vocabulary on math wall and in math notebooks:** Greater than symbol (>), less than symbol (<)	*See teacher manual page 14* **Today we will use place value to compare multi-digit whole numbers.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 16A & 16B* **Meet with Teacher-** Guided/Independent Practice Pages 15-16 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 15 & 16 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

Lesson 4: - **Solve and Share:** Page 17  - **Introduce vocabulary on math wall and in math notebooks:** Rounding	*See teacher manual page 18* **Today we will use place value to round multi-digit numbers.**   **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 20A & 20B* **Meet with Teacher-** Guided/Independent Practice Pages 19-20 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 19 & 20 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above) Rounding Exit Ticket & Number Line
Lesson 5: - **Solve and Share:** Page	*See teacher manual page 22*	*See teacher manual pages 24A & 24B*	**Exit Ticket Suggestion-** - **Quick Check:** Students

21  - **Introduce vocabulary on math wall and in math notebooks:** Conjecture	**Today we will use previously learned concepts and skills to construct arguments about place value.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	**Meet with Teacher-** Guided/Independent Practice Pages 23-24 At Your Seat, Technology, Hands On, and Additional Resources see above.	complete checked problems on pages 23 & 24 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key Topic Assessment and Answer Key Folder - After topic assessment, present the essential questions from the beginning of the topic and… - Answer all/some - Give examples - *See teacher edition page 29-30 for possible answers* - Additional Rounding Lesson			
Enrichment Ideas: - Pick a Project - Performance Task - 3-ACT Math - enVision STEM Project - Today's Challenge - **Enrichment**			

Topic 2: Fluently Add and Subtract Multi-Digit Whole Numbers	
Big Idea: **Fluently add and subtract large numbers using the standard algorithm.**	
Essential Questions	**Standards**
• How can sums and differences of whole numbers be estimated? • What are standard procedures for adding and subtracting whole numbers?	**4.NBT.B.4** With accuracy and efficiency, add and subtract multi-digit whole numbers using the standard algorithm **4.OA.A.3** Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

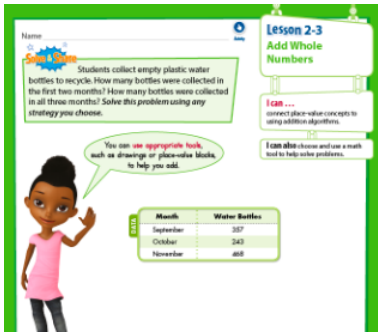
Topic 2: Fluently Add and Subtract Multi-Digit Whole Numbers

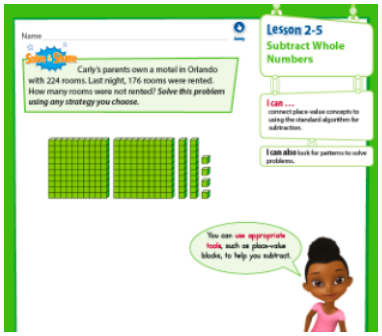
Key Vocabulary: Commutative property of addition, associative property of addition, identity property of addition, count up, count down, compensation, rounding, variable, algorithm**,** inverse operation

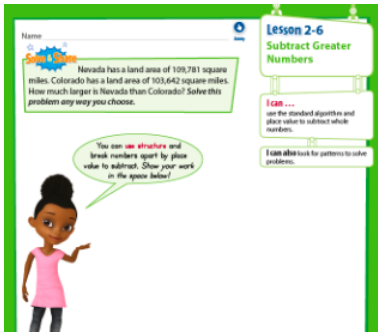
Please make sure to explain to your students the difference between an expression and an equation. While it doesn't come up in the vocabulary of this chapter, they

WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Lesson 1: - **Solve and Share:** Page 37	**Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning	**Suggestions/Ideas for Lessons/Topic:** *See teacher manual pages	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 39 & 40 or online edition **(*Printable Format*)**

 - **Introduce vocabulary on math wall and in math notebooks:** Commutative property of addition, associative property of addition, identity property of addition, count up, count down, compensation	Animation Plus Video *See teacher manual page 38* **Today we add and subtract whole numbers mentally using a variety of methods.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	40A & 40B* **Meet with Teacher-** Guided/Independent Practice Pages 39-40 **At Your Seat:** - At Your Seat Folder **Technology:** - **Addit** on enVision - **Fluency Games (Add and subtract multi-digit whole numbers)** on enVision - **iReady** lesson **Hands-on:** - Hands-on Folder - enVision Center Games *See additional resources under Topic 2* **Fluency Review Activity** *Page 69*	- Quick Check Folder - Topic 2 Google Forms: *Can be used during technology rotation*
Lesson 2: - **Solve and Share:** Page 41	*See teacher manual page 42* **Today we will round greater whole numbers to estimate sums and differences.**	*See teacher manual pages 44A & 44B* **Meet with Teacher-** Guided/Independent Practice Pages 43-44	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 43 & 44 or online edition **(*Printable Format*)** - Quick Check Folder

	**We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	At Your Seat, Technology, Hands On, and Additional Resources see above.	- Google Forms (see above)
Lesson 3: - **Solve and Share:** Page 45  - **Introduce vocabulary on math wall and in math notebooks:** Rounding	*See teacher manual page 46* **Today we will add 3-digit numbers using place-value concepts and the standard algorithm.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 48A & 48B* **Meet with Teacher-** Guided/Independent Practice Pages 47-48 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 47 & 48 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 4: - **Solve and Share:** Page 49	*See teacher manual page 50* **Today we will add numbers to one million with and without regrouping using the standard algorithm.** **We will do this by** (choose	*See teacher manual pages 52A & 52B* **Meet with Teacher-** Guided/Independent Practice Pages 51-52 At Your Seat, Technology, Hands On, and Additional	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 51 & 52 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

 - **Introduce vocabulary on math wall and in math notebooks:** Variable, algorithm	one or more of the following to complete whole class):**complete whole class):** - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	Resources see above.	
Lesson 5: - **Solve and Share:** Page 53 	*See teacher manual page 54* **Today we will use place value and the standard algorithm to subtract whole numbers.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 56A & 56B* **Meet with Teacher-** Guided/Independent Practice Pages 55-56 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 55 & 56 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 6: - **Solve and Share:** Page 57	*See teacher manual page 58* **Today we will use place value and an algorithm to subtract whole numbers.**	*See teacher manual pages 60A & 60B* **Meet with Teacher-** Guided/Independent Practice Pages 59-60	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 59 & 60 or online edition **(*Printable Format*)** - Quick Check Folder

 - **Introduce vocabulary on math wall and in math notebooks:** Inverse operation	**We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	At Your Seat, Technology, Hands On, and Additional Resources see above.	- Google Forms (see above)
Lesson 7: - **Solve and Share:** Page 61  	*See teacher manual page 62* **Today we will use number sense and regrouping to subtract across zeros.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 64A & 64B* **Meet with Teacher-** Guided/Independent Practice Pages 63-64 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 63 & 64 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 8: - **Solve and Share:** Page 65	*See teacher manual page 66* **Today we will use previously learned concepts and skills to reason abstractly and make sense of quantities and their**	*See teacher manual pages 68A & 68B* **Meet with Teacher-** Guided/Independent Practice Pages 67-68	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 67 & 86 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	**relationships in problem situations.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	At Your Seat, Technology, Hands On, and Additional Resources see above.	

Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key
Topic Assessment and Answer Key Folder

- After topic assessment, present the essential questions from the beginning of the topic and…
  - Answer all/some
  - Give examples
  - *See teacher edition page 73-74 for possible answers*

Enrichment Ideas:

- Pick a Project
- Performance Task
- enVision STEM Project
- Today's Challenge
- **Enrichment**

Topic 3: Use Strategies and Properties to Multiply by 1-Digit Numbers	
Big Idea: Arrays, area models, and/or equations be used to solve multi-digit multiplication equations	
Essential Questions	**Standards**
• How can you multiply by multiples of 10, 100, and 1,000? • How can you multiply whole numbers?	**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.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. **4.OA.A.3** Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Topic 3: Use Strategies and Properties to Multiply by 1-Digit Numbers

Key Vocabulary: Associative property of multiplication, partial products, Numerical expression, distributive property, Compensation, commutative property of multiplication, factors, multiples, product, expression, equation

Please include *expression* as one of the vocabulary words you introduce and continue to use throughout the multiplication and division units. It is important for students to know the correct math language and definitions that define an expression versus an equation.

WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore			

materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)

Lesson 1:

- **Solve and Share:** Page 81

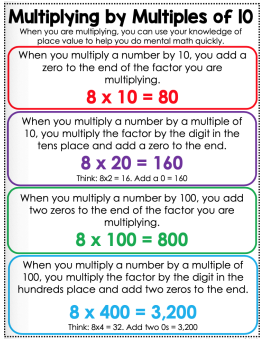


- **Introduce vocabulary on math wall and in math notebooks:** Associative property of multiplication

Daily Optional Mini-Lesson Support for Each Lesson/Topic:
Watch Visual Learning Animation Plus Video

See teacher manual page 82

Today we will multiply multiples of 10, 100, and 1,000 using mental math and place-value strategies.



We will do this by (choose one or more of the following to complete whole class):

- **Convince me!**
- **Guided Practice**
- Pick problems from **Independent Practice and Problem Solving**

Suggestions/Ideas for Lessons/Topic:

See teacher manual pages 84A & 84B

Meet with Teacher-
Guided/Independent Practice
Pages 83-84

At Your Seat:

- At Your Seat Folder
- Halloween Math Mystery Pictures

Technology:

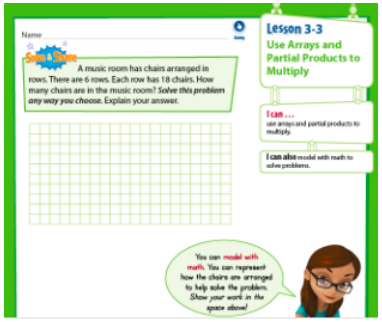
- **iReady** lesson
- **Launch that Sheep** on enVision
- **Power House** on enVision
- Multiplication Blocks
- Magic Multiply
- Mission Multiply
- Multiplication 4 in a Row
- Clear It
- Multi-Digit Multiplication

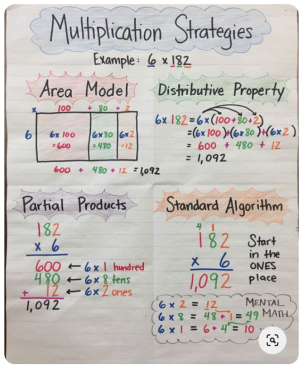
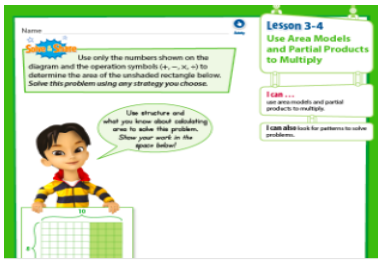
Hands-on:

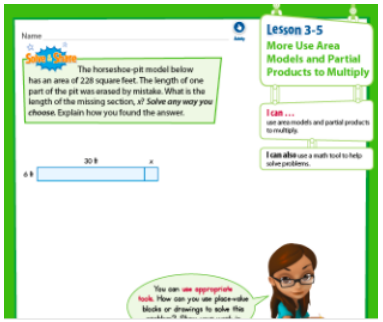
- Hands-on Folder
- enVision Center Games

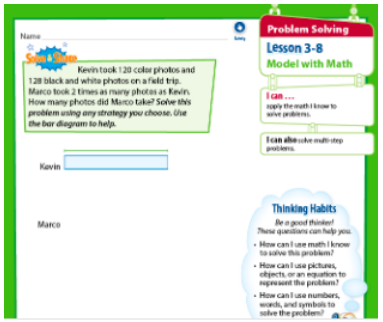
Exit Ticket Suggestion-

- **Quick Check:** Students complete checked problems on pages 83 & 84 or online edition **(*Printable Format*)**
- Quick Check Folder

		See additional resources under Topic 3 **Fluency Review Activity** *Page 113*	
Lesson 2: - **Solve and Share:** Page 85  	*See teacher manual page 86* **Today we will use rounding to estimate products, and check if answers are reasonable.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 88A & 88B* **Meet with Teacher-** Guided/Independent Practice Pages 87-88 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 87 & 88 or online edition **(*Printable Format*)** - Quick Check Folder
Lesson 3: - **Solve and Share:** Page 89  - **Introduce vocabulary on math wall and in math notebooks:** Partial	*See teacher manual page 90* **Today we will use arrays and partial products to multiply 2- and 3-digit numbers by 1-digit numbers.**	*See teacher manual pages 92A & 92B* **Meet with Teacher-** Guided/Independent Practice Pages 91-92 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 91 & 92 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

products	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 4: - **Solve and Share:**Page 93  - **Introduce vocabulary on math wall and in math notebooks:** Numerical expression, distributive property	*See teacher manual page 94* **Today we will use area models and the Distributive Property to multiply larger numbers.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 96A & 96B* **Meet with Teacher-** Guided/Independent Practice Pages 95-96 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 95 & 96 or online edition **(*Printable Format*)** - Quick Check Folder

Lesson 5: - **Solve and Share:** Page 97  	*See teacher manual page 98* **Today we will use place value and partial products to multiply 3- and 4-digit numbers by 1-digit numbers.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 100A & 100B* **Meet with Teacher-** Guided/Independent Practice Pages 99-100 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 99 & 100 or online edition **(*Printable Format*)** - Quick Check Folder
Lesson 6: - **Solve and Share:** Page 101  - **Introduce vocabulary on math wall and in math notebooks:** Compensation, commutative property of multiplication	*See teacher manual page 102* **Today we will use place value and properties of operations to multiply mentally.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 104A & 104B* **Meet with Teacher-** Guided/Independent Practice Pages 103-104 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 103 & 104 or online edition **(*Printable Format*)** - Quick Check Folder
Lesson 7: - **Solve and Share:** Page	*See teacher manual page 106*	*See teacher manual pages 108A & 108B*	**Exit Ticket Suggestion-** - **Quick Check:** Students complete

105  	**Today we will choose an appropriate strategy to multiply 2-, 3-, and 4-digit numbers by 1-digit numbers.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	**Meet with Teacher-** Guided/Independent Practice Pages 107-108 At Your Seat, Technology, Hands On, and Additional Resources see above.	checked problems on pages 107 & 108 or online edition **(*Printable Format*)** - Quick Check Folder
Lesson 8: - **Solve and Share:** Page 109  	*See teacher manual page 110* **Today we will use previously learned concepts and skills to represent and solve problems.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 112A & 112B* **Meet with Teacher-** Guided/Independent Practice Pages 111-112 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 111 & 112 or online edition **(*Printable Format*)** - Quick Check Folder

Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key
Topic Assessment and Answer Key Folder
- After topic assessment, present the essential questions from the beginning of the topic and…
  - Answer all/some

- Give examples
- *See teacher edition page 119-120 for possible answers*

Enrichment Ideas:

- Pick a Project
- Performance Task
- 3-ACT Math
- enVision STEM Project
- Today's Challenge
- **Enrichment**

Topic 4 & 6.1: Use Strategies and Properties to Multiply by 2-Digit Numbers & Interpret/Make Comparisons Using Addition and Multiplication

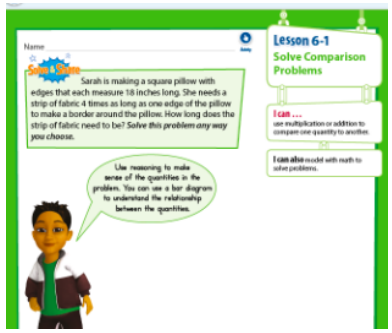
Big Idea: **Place value understanding and properties of operations be used to multiply multi-digit numbers**

Essential Questions	Standards
• How can you use a model to multiply? • How can you use the Distributive Property to multiply? • How can you use multiplication to solve problems? • What real-world type of problem might you need to use multiplication in order to solve it?	**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.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. **4.OA.A.3** Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Topic 4 & 6.1: Use Strategies and Properties to Multiply by 2-Digit Numbers & Interpret/Make Comparisons Using Addition and Multiplication

WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Topic 6-Lessons 6-1: Use Operations with Whole Numbers to Solve Problems Using Comparisons			
Lesson 1:	**Daily Optional**	**Suggestions/Ideas for**	**Exit Ticket Suggestion-**

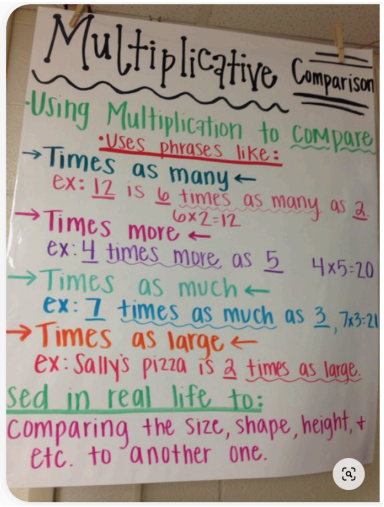
- **Solve and Share:** Page 225



Mini-Lesson Support for Each Lesson/Topic:
Watch Visual Learning Animation Plus Video

See teacher manual page 226

Today we will interpret comparisons as multiplication or addition equations.



We will do this by (choose one or more of the following to complete whole class):
- **Convince me!**
- **Guided Practice**
- Pick problems from **Independent Practice and Problem Solving**

Lessons/Topic:

See teacher manual pages 228A & 228B

Meet with Teacher-
Guided/Independent Practice Pages 227-228

At Your Seat:
- At Your Seat Folder

Technology (6.1):
- iReady lesson
- Basketball Shootout
- Creepy Creatures

Technology (Topic 4):
- **Launch that Sheep** on enVision
- **Cosmic Caravan** on enVision
- **Save the Word** on enVision
- Multi-Digit Multiplication
- iReady lesson

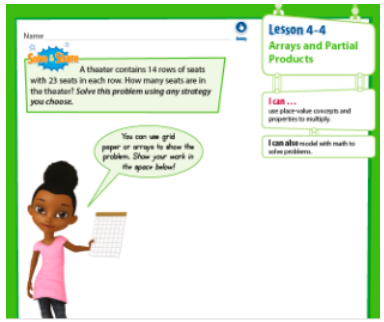
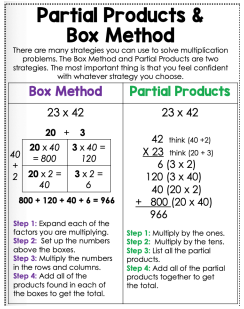
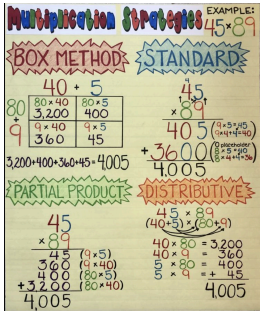
Hands-on:
- Hands-on Folder
- enVision Center Games

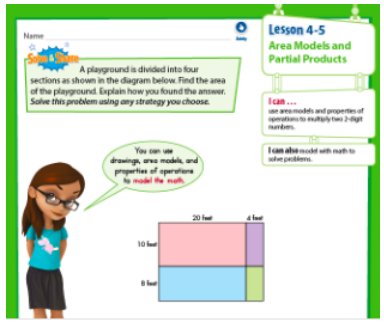
See additional resources under Topic 4 & Comparisons

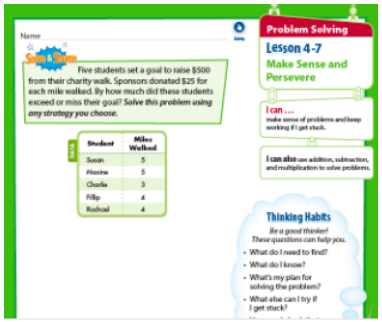
- **Quick Check:** Students complete checked problems on pages 227 & 228 or online edition **(*Printable Format*)**
- Quick Check Folder
- Topic 4/Comparisons Google Forms: *Can be used during technology rotation*

		Enrichment **Fluency Review Activity** *Page 249*	
Topic 4: Use Strategies and Properties to Multiply by 2-Digit Numbers			
Lesson 1: - **Solve and Share:** Page 129  	**Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning Animation Plus Video *See teacher manual page 130* **Today we will use mental-math strategies to multiply 2-digit multiples of 10 by 2-digit multiples of 10.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	**Suggestions/Ideas for Lessons/Topic:** *See teacher manual pages 132A & 132B* **Meet with Teacher-** Guided/Independent Practice Pages 131-132 **Fluency Review Activity** *Page 157*	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 131 & 132 or online edition **(*Printable Format*)** - Quick Check Folder - Topic 4/Comparisons Google Forms: *Can be used during technology rotation*
Lesson 2: - **Solve and Share:** Page 133	*See teacher manual page 134* **Today we will use models and properties of operations to multiply**	*See teacher manual pages 136A & 136B* **Meet with Teacher-** Guided/Independent Practice Pages 135-136	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 135 & 136 or online edition **(*Printable Format*)**

	**2-digit numbers by multiples of 10.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	At Your Seat, Technology, Hands On, and Additional Resources see above.	- Quick Check Folder - Google Forms (see above)
Lesson 3: - **Solve and Share:** Page 137 	*See teacher manual page 138* **Today we will use rounding or compatible numbers to estimate products of two 2-digit numbers.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 140A & 140B* **Meet with Teacher-** Guided/Independent Practice Pages 139-140 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 139 & 140 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 4: - **Solve and Share:** Page 141	*See teacher manual page 142* **Today we will use arrays, place value, partial products, and properties of operations to multiply two 2-digit numbers.**	*See teacher manual pages 144A & 144B* **Meet with Teacher-** Guided/Independent Practice Pages 143-144 At Your Seat, Technology,	**Exit Ticket Suggestion-** - **Quick Check:**Students complete checked problems on pages 143 & 144 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	Hands On, and Additional Resources see above.	
Lesson 5: - **Solve and Share:** Page 145	*See teacher manual page 146* **Today we will use the Distributive Property and an area model to multiply two 2-digit numbers.** **We will do this by** (choose	*See teacher manual pages 148A & 148B* **Meet with Teacher-** Guided/Independent Practice Pages 147-148 At Your Seat, Technology, Hands On, and Additional	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 147 & 148 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	Resources see above.	
Lesson 6: - **Solve and Share:** Page 149 	*See teacher manual page 150* **Today we will use place value and partial products to calculate products of 2-digit by 2-digit multiplication problems.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 152A & 152B* **Meet with Teacher-** Guided/Independent Practice Pages 151-152 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 151 & 152 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 7: - **Solve and Share:** Page 153	*See teacher manual page 154* **Today we will make sense of problems and persevere in solving them.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice**	*See teacher manual pages 156A & 156B* **Meet with Teacher-** Guided/Independent Practice Pages 155-156 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 155 & 156 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	- Pick problems from **Independent Practice and Problem Solving**		

Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key
Topic Assessment and Answer Key Folder

- After topic assessment, present the essential questions from the beginning of the topic and…
  - Answer all/some
  - Give examples
  - *See teacher edition page 161-162 for possible answers*

Enrichment Ideas:

- Pick a Project
- Performance Task
- enVision STEM Project
- Today's Challenge
- **Enrichment**

Topic 5: Use Strategies and Properties to Divide by 1-Digit Numbers & Interpret/Make Comparisons Using Multiplication and Division

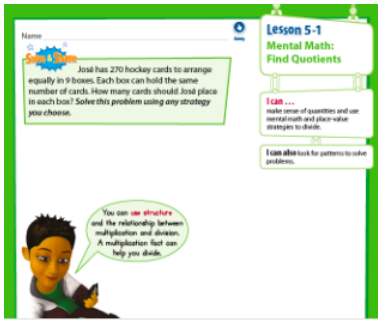
Big Idea: **Arrays, area models, and/or equations be used to solve multi-digit division equations**

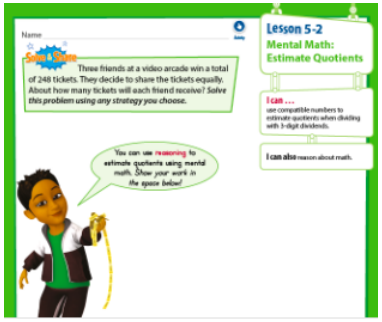
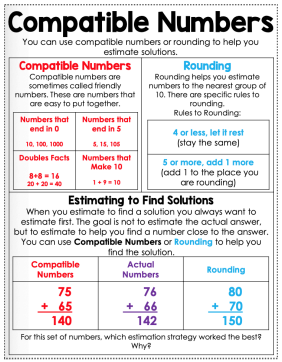
Essential Questions	Standards
• How can mental math be used to divide? • How can quotients be estimated? • How can the steps for dividing be explained?	**4.NBT.B.6** Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, 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. **4.OA.A.3** Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

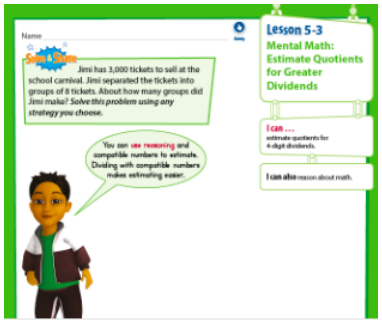
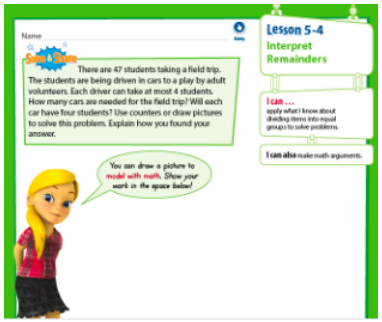
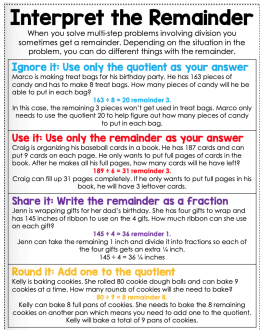
Topic 5: Use Strategies and Properties to Divide by 1-Digit Numbers & Interpret/Make Comparisons Using Multiplication and Division

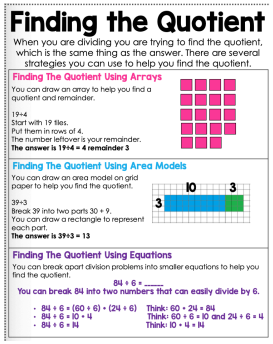
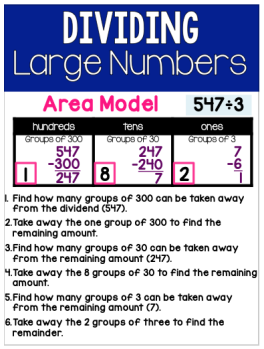
Key Vocabulary: divisor, dividend, remainder, quotient, partial quotient

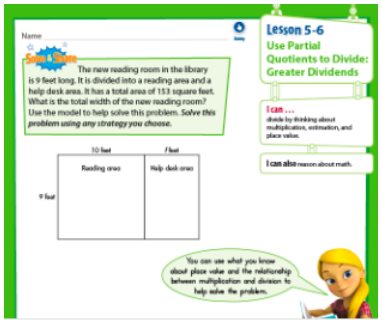
WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Topic 5: Use Strategies and Properties to Divide by 1-Digit Numbers			
Lesson 1: - **Solve and Share:** Page 169	**Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning Animation Plus Video	**Suggestions/Ideas for Lessons/Topic:** *See teacher manual pages 172A & 172B* **Meet with Teacher-**	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 171 & 172 or online edition **(*Printable Format*)** - Quick Check Folder

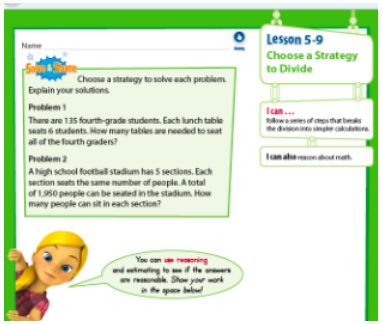
	*See teacher manual page 170* **Today we will use mental math and place-value strategies to divide multiples of 10 and 100 by 1-digit divisors.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	Guided/Independent Practice Pages 171-172 **At Your Seat:** - At Your Seat Folder - Review Fun: Math Mystery- Case of the Super Bad Superhero - Halloween Math Mystery Pictures **Technology:** - **Launch that Sheep** on enVision - Division Baseball - Missing Divisor - Division with Remainders - Division with Remainders (Bigger Numbers) - Division with Dividend up to 1000 - iReady lesson **Hands-on:** - Hands-on Folder - enVision Center Games *See additional resources under Topic 5* **Fluency Review Activity** *Page 209*	- Topic 5 Google Forms : *Can be used during technology rotation*
Lesson 2:	*See teacher manual page	*See teacher manual pages	**Exit Ticket Suggestion-**

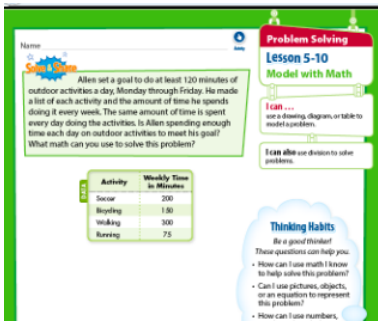
- **Solve and Share:** Page 173  	174* **Today we will use compatible numbers to estimate quotients.**  **Compatible Numbers** You can use compatible numbers or rounding to help you estimate solutions. **Compatible Numbers** Compatible numbers are sometimes called friendly numbers. These are numbers that are easy to put together. Numbers that end in 0: 10, 100, 1000 Numbers that end in 5: 5, 15, 105 Doubles Facts: 8+8 = 16, 20 + 20 = 40 Numbers that Make 10: 1 + 9 = 10 **Rounding** Rounding helps you estimate numbers to the nearest group of 10. There are specific rules to rounding. Rules to Rounding: 4 or less, let it rest (stay the same) 5 or more, add 1 more (add 1 to the place you are rounding) **Estimating to Find Solutions** When you estimate to find a solution you always want to estimate first. The goal is not to estimate the actual answer, but to estimate to help you find a number close to the answer. You can use **Compatible Numbers** or Rounding to help you find the solution. Compatible Numbers: 75 + 65 = 140 Actual Numbers: 76 + 66 = 142 Rounding: 80 + 70 = 150 For this set of numbers, which estimation strategy worked the best? Why? **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	176A & 176B* **Meet with Teacher-** Guided/Independent Practice Pages 175-176 At Your Seat, Technology, Hands On, and Additional Resources see above.	- **Quick Check:** Students complete checked problems on pages 175 & 176 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 3: - **Solve and Share:** Page 177	*See teacher manual page 178* **Today we will use place-value patterns and division facts to estimate quotients for 4-digit dividends.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!**	*See teacher manual pages 180A & 180B* **Meet with Teacher-** Guided/Independent Practice Pages 179-180 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 179 & 180 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	- **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 4: - **Solve and Share:** Page 181  - **Introduce vocabulary on math wall and in math notebooks:** Remainder	*See teacher manual page 182* **Today we will solve division problems and interpret remainders.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 184A & 184B* **Meet with Teacher-** Guided/Independent Practice Pages 183-184 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 183 & 184 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 5: - **Solve and Share:** Page	*See teacher manual page 186*	*See teacher manual pages 188A & 188B*	**Exit Ticket Suggestion-** - **Quick Check:** Students complete

185  - **Introduce vocabulary on math wall and in math notebooks:** Partial quotients	**Today we will use partial quotients to divide.**   **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	**Meet with Teacher-** Guided/Independent Practice Pages 187-188 At Your Seat, Technology, Hands On, and Additional Resources see above.	checked problems on pages 187 & 188 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 6: - **Solve and Share:** Page 189	*See teacher manual page 190* **Today we will use partial quotients and place-value understandings to divide with greater dividends.**	*See teacher manual pages 192A & 192B* **Meet with Teacher-** Guided/Independent Practice Pages 191-192	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 191 & 192 or online edition **(*Printable Format*)** - Quick Check Folder

	**We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	At Your Seat, Technology, Hands On, and Additional Resources see above.	- Google Forms (see above)
Lesson 7: - **Solve and Share:** Page 193 	*See teacher manual page 194* **Today we will use place value and models to divide 2- and 3-digit numbers by 1-digit numbers.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 196A & 196B* **Meet with Teacher-** Guided/Independent Practice Pages 195-196 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 195 & 196 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 8: - **Solve and Share:** Page 197	*See teacher manual page 198* **Today we will continue to use place value and sharing to divide 2- and 3-digit numbers by 1-digit numbers.** **We will do this by** (choose	*See teacher manual pages 200A & 200B* **Meet with Teacher-** Guided/Independent Practice Pages 199-200 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 199 & 200 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 9: - **Solve and Share:** Page 201 	*See teacher manual page 202* **Today we will choose a strategy to divide that follows a series of steps to break division into simpler calculations.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 204A & 204B* **Meet with Teacher-** Guided/Independent Practice Pages 203-204 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 203 & 204 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 10: - **Solve and Share:** Page 205	*See teacher manual page 206* **Today we will use previously learned concepts and skills to model and solve problems.** **We will do this by** (choose one or more of the following to complete whole class):	*See teacher manual pages 208A & 208B* **Meet with Teacher-** Guided/Independent Practice Pages 207-208 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 207 & 208 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	- **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
<u>Topic 6-Lesson 6-2 & 6-3/4/5: Use Operations with Whole Numbers to Solve Problems Using Comparisons</u>			
Lesson 2: - **Solve and Share:** Page 229 	*See teacher manual page 230* **Today we will use multiplication and division to compare two quantities.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 232A & 232B* **Meet with Teacher-** Guided/Independent Practice Pages 231-232 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 231 & 232 or online edition **(*Printable Format*)**
Lessons 3/4/5: (Pacing Suggestion: 2 days) **(combined lessons; choose problems from the three lessons you feel will best support student understanding of solving multi-step problems using all four operations)**	**Today we will model and solve multi-step problems by finding hidden questions using bar diagrams and equations.**	Guided/Independent Practice Pages 235-236, 239-240, 243-244 At Your Seat, Technology, Hands On, and Additional Resources see above.	Students complete checked problems on pages 235 & 236, 239 & 240, 243 & 244

- **Solve and Share:** Pages 233, 247, 252			

Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key
Topic Assessment and Answer Key Folder

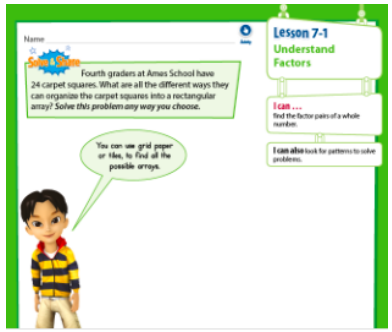
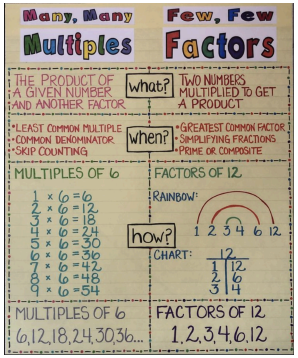
- After topic assessment, present the essential questions from the beginning of the topic and…
  - Answer all/some
  - Give examples
  - *See teacher edition page 215-216 for possible answers*

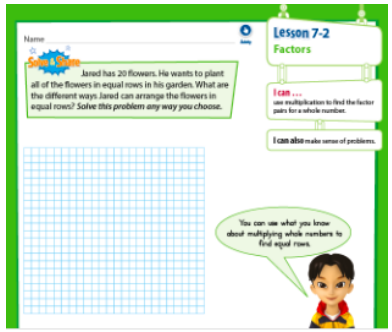
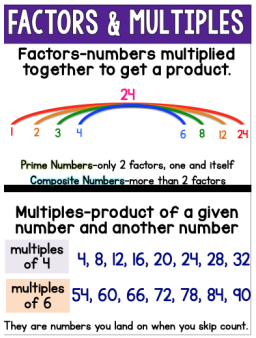
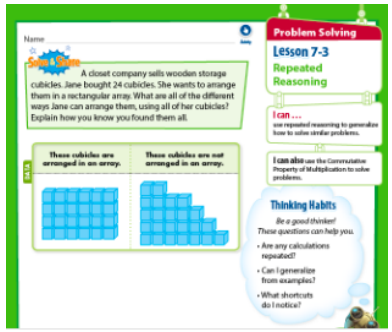
Enrichment Ideas:

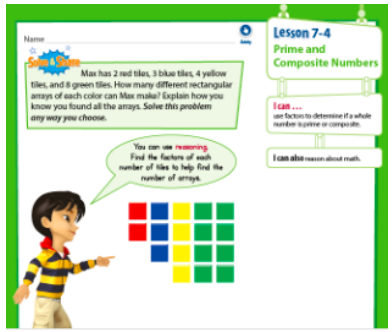
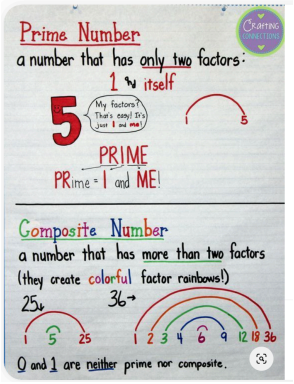
- Pick a Project
- Performance Task
- 3-ACT Math
- enVision STEM Project
- Today's Challenge
- **Enrichment**

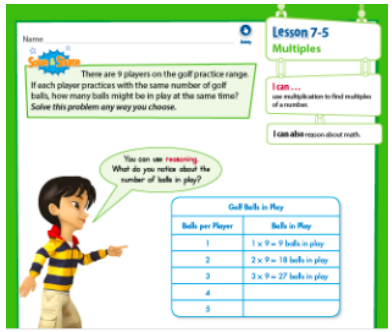
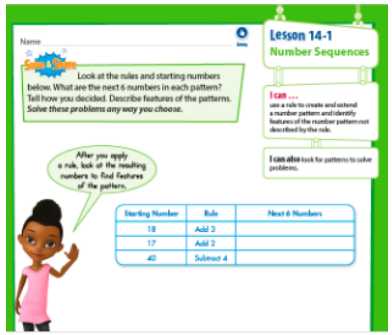
Topics 7/14: Factors, Multiples & Patterns	
Big Idea: **Factors, multiples, and patterns are sequences that are governed by a rule that allows for generalizations in math**	
Essential Questions	**Standards**
• How can you use arrays or multiplication to find the factors of a number? • How can you identify prime and composite numbers? • How can you find multiples of a number? • How do I generate a number pattern by following a given rule?	**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. **4.OA.C.5** Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. *For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.*

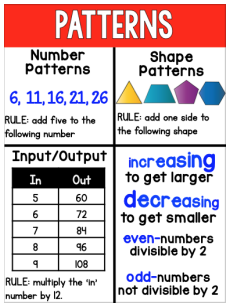
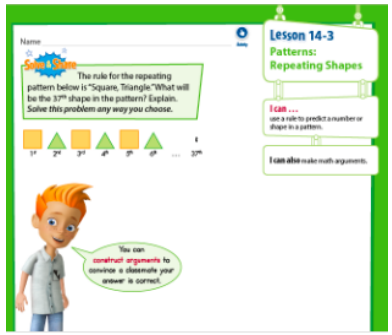
Topics 7/14: Factors, Multiples & Patterns			
Key Vocabulary: factor pairs, generalize, Prime number, composite number**,** multiple			
WARM-UP Number Talk Warm-Up Option	**MINI-LESSON**	**MATH ROTATIONS**	**SHARE/REFLECTION**
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Topic 7: Factors and Multiples			
Lesson 1: - **Solve and Share:** Page 261	**Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning Animation Plus Video	**Suggestions/Ideas for Lessons/Topic:** *See teacher manual pages 264A & 264B* **Meet with Teacher-** Guided/Independent Practice	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 263 & 264 or online edition **(*Printable Format*)** - Quick Check Folder - Topic 7/14 Google Forms: *Can

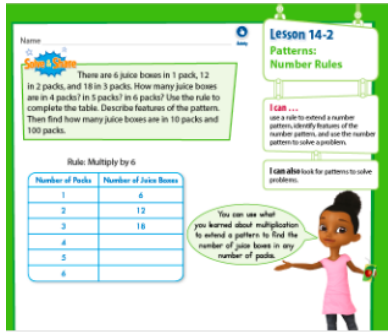
 - **Introduce vocabulary on math wall and in math notebooks:** Factor pairs	*See teacher manual page 262* **Today we will use arrays to find the factors of a given whole number.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	Pages 263-264 **At Your Seat:** - At Your Seat Folder - Halloween Math Mystery Pictures **Technology:** - **Save the World** on enVision - Number Ninja Multiples - Number Ninja Prime Numbers - Factor Pair Up - Flying Through Factors - Cheetah Chaser - **iReady** lesson **Hands-on:** - Hands-on Folder - enVision Center Games *See additional resources under Topics 7/14* **Fluency Review Activity** *Page 281*	be used during technology rotation*
Lesson 2: - **Solve and Share:** Page 265	*See teacher manual page 266* **Today we will use multiplication to find all the factor pairs for a whole number.**	*See teacher manual pages 268A & 268B* **Meet with Teacher-** Guided/Independent Practice Pages 267-268	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 267 & 268 or online edition **(*Printable Format*)** - Quick Check Folder

	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	At Your Seat, Technology, Hands On, and Additional Resources see above.	- Google Forms (see above)
Lesson 3: - **Solve and Share:** Page 269  - **Introduce vocabulary on math wall and in math**	*See teacher manual page 270* **Today we will use repeated reasoning to generalize how to solve problems that are similar.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 272A & 272B* **Meet with Teacher-** Guided/Independent Practice Pages 271-272 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 271 & 272 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

notebooks: Generalize			
Lesson 4: - **Solve and Share:** Page 273  - **Introduce vocabulary on math wall and in math notebooks:** Prime number, composite number	*See teacher manual page 274* **Today we will use factors to determine whether a whole number greater than 1 is prime or composite.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 276A & 276B* **Meet with Teacher-** Guided/Independent Practice Pages 275-276 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 275 & 276 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 5: - **Solve and Share:** Page 277	*See teacher manual page 278* **Today we will use multiplication to find multiples of a given whole number.**	*See teacher manual pages 280A & 280B* **Meet with Teacher-** Guided/Independent Practice Pages 279-280	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 279 & 280 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

 - **Introduce vocabulary on math wall and in math notebooks:** Multiple	**We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	At Your Seat, Technology, Hands On, and Additional Resources see above.	
<u>Topic 14: Algebra: Generate and Analyze Patterns</u> **Key Vocabulary:** rule, Repeating pattern			
Lesson 1: - **Solve and Share:** Page 521  - **Introduce vocabulary on math wall and in math notebooks:** Rule	**Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning Animation Plus Video **Lesson 1:** *See teacher manual page 522* **Today we will create or extend a number sequence based on a rule. Identify features of the pattern in the sequence that are not described by the rule.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!**	**Lesson 1:** *See teacher manual pages 524A & 524B* **Meet with Teacher-** Guided/Independent Practice Pages 523-524 **At Your Seat:** - At Your Seat Folder **Technology:** - **Fluency Games (Add and subtract multi-digit whole numbers)** on enVision - Numeric Patterns - Patterns Involving Addition and Multiplication	**Exit Ticket Suggestion-** **Lesson 1:** - **Quick Check:** Students complete checked problems on pages 523 & 524 or online edition **(*Printable Format*)** - Quick Check Folder

	- **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	- Mixed Patterns - iReady lesson **Hands-on:** - Hands-on Folder - enVision Center Games *See additional resources under Topic 7 & Patterns* **Enrichment** **Fluency Review Activity** *Page 537*	
Lesson 2: - **Solve and Share:** Page 525 	**Lesson 2:** *See teacher manual page 526* **Today we will use a rule to extend a number pattern and solve a problem. Identify features of the pattern.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	**Lesson 2:** *See teacher manual pages 528A & 528B* **Meet with Teacher-** Guided/Independent Practice Pages 527-528	**Lesson 2:** - **Quick Check:** Students complete checked problems on pages 527 & 528 or online edition **(*Printable Format*)** - Quick Check Folder
Lesson 3: - **Solve and Share:** Page 529	**Lesson 3:** *See teacher manual page 530*	**Lesson 3:** *See teacher manual pages 532A & 532B*	**Lesson 3:** - **Quick Check:** Students complete checked problems on

<table>
<tr>
<td> 

- Introduce vocabulary on math wall and in math notebooks: Repeating pattern</td>
<td>Today we will generate a shape pattern that follows a given rule and predict a shape in the pattern.

We will do this by (choose one or more of the following to complete whole class):
- Convince me!
- Guided Practice
- Pick problems from Independent Practice and Problem Solving</td>
<td>Meet with Teacher-
Guided/Independent Practice
Pages 531-532</td>
<td>pages 531 & 532 or online edition (*Printable Format*)
- Quick Check Folder</td>
</tr>
<tr>
<td>Lesson 4:
- Solve and Share: Page 533
 
</td>
<td>Lesson 4:
See teacher manual page 534
Today we will solve problems by using patterns.

We will do this by (choose one or more of the following to complete whole class):
- Convince me!
- Guided Practice
- Pick problems from Independent Practice and Problem Solving</td>
<td>Lesson 4:
See teacher manual pages 536A & 536B
Meet with Teacher-
Guided/Independent Practice
Pages 535-536</td>
<td>Lesson 4:
- Quick Check: Students complete checked problems on pages 535 & 536 or online edition (*Printable Format*)
- Quick Check Folder</td>
</tr>
<tr>
<td colspan="4">Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key
Topic Assessment and Answer Key Folder
NOTE: Use Topics 7 and 14 Assessment Practice to make sure review is comprehensive</td>
</tr>
</table>

- After topic assessment, present the essential questions from the beginning of the topic and…
    - Answer all/some
    - Give examples
    - *See teacher edition page 285-286 for possible answers*

Enrichment Ideas:

- Pick a Project
- Performance Task
- 3-ACT Math
- enVision STEM Project
- Today's Challenge
- **Enrichment**

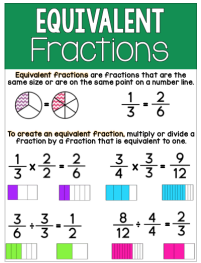
Topic 8: Extend Understanding of Fraction Equivalence and Ordering	
Big Idea: **Equivalent fractions and benchmark fractions help when comparing fractions**	
Essential Questions	**Standards**
• What are some ways to name the same part of a whole? • How can you compare fractions with unlike numerators and denominators?	**4.NF.A.1** Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × 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

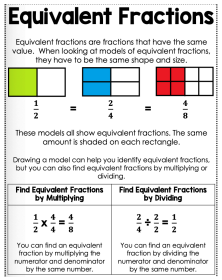
Topic 8: Extend Understanding of Fraction Equivalence and Ordering			
WARM-UP Number Talk Warm-Up Option	**MINI-LESSON**	**MATH ROTATIONS**	**SHARE/REFLECTION**
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Lesson 1: - **Solve and Share:** Page 293	**Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning Animation Plus Video *See teacher manual page 294*	**Suggestions/Ideas for Lessons/Topic:** *See teacher manual pages 296A & 296B* **Meet with Teacher-** Guided/Independent Practice Pages 295-296	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 295 & 296 or online edition **(*Printable Format*)** - Quick Check Folder - Topic 8 Google Forms: *Can be used during technology rotation*

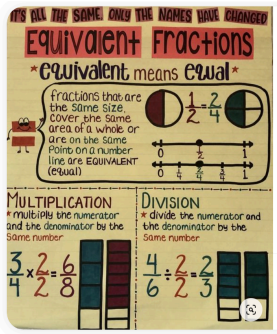


- **Introduce vocabulary on math wall and in math notebooks:** Fraction, numerator, denominator, equivalent fractions

Today we will use area models to recognize and generate equivalent fractions.







We will do this by (choose one or more of the following to complete whole class):

- **Convince me!**
- **Guided Practice**
- Pick problems from **Independent Practice and**

At Your Seat:

- At Your Seat Folder

Technology:

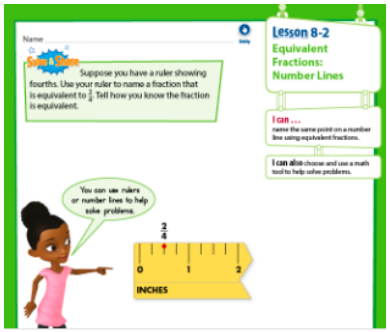
- **iReady** lesson
- **Save the Word** on enVision
- Fraction Dolphins
- Equivalent Fractions Bingo
- Tug Team Dirt Bikes Comparing Fractions
- Alien Invasion

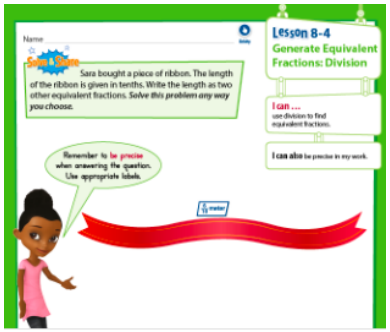
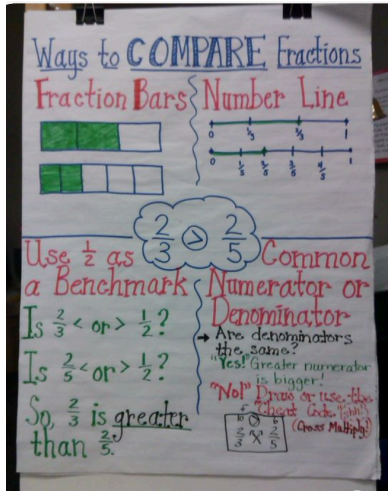
Hands-on:

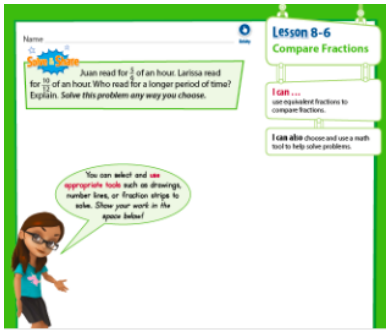
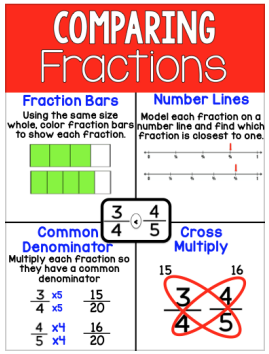
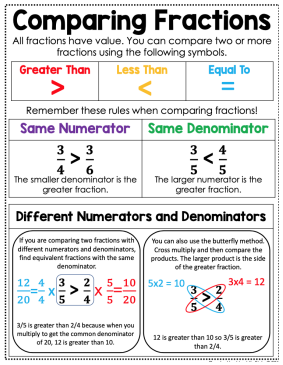
- Hands-on Folder
- enVision Center Games

See additional resources under Topic 8

Fluency Review Activity
Page 321

	Problem Solving		
Lesson 2: - **Solve and Share:** Page 297 	*See teacher manual page 298* **Today we will use a number line to locate and identify equivalent fractions.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 300A & 300B* **Meet with Teacher-** Guided/Independent Practice Pages 299-300 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 299 & 300 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 3: - **Solve and Share:** Page 301 	*See teacher manual page 302* **Today we will use multiplication to find equivalent fractions.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 304A & 304B* **Meet with Teacher-** Guided/Independent Practice Pages 303-304 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 303 & 304 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 4: - **Solve and Share:** Page 305	*See teacher manual page 306* **Today we will use division to find equivalent fractions.**	*See teacher manual pages 308A & 308B* **Meet with Teacher-** Guided/Independent Practice	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 307 & 308 or online

 - **Introduce vocabulary on math wall and in math notebooks:** Common factor	**We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	Pages 307-308 At Your Seat, Technology, Hands On, and Additional Resources see above.	edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 5: - **Solve and Share:** Page 309  - **Introduce vocabulary on math wall and in math notebooks:** Benchmark fraction	*See teacher manual page 310* **Today we will use benchmarks, area models, and number lines to compare fractions.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!**	*See teacher manual pages 312A & 312B* **Meet with Teacher-** Guided/Independent Practice Pages 311-312 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 311 & 312 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	- **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 6: - **Solve and Share:** Page 313 	*See teacher manual page 314* **Today we will use models or rename fractions to compare.**   **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from	*See teacher manual pages 316A & 316B* **Meet with Teacher-** Guided/Independent Practice Pages 315-316 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 315 & 316 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	Independent Practice and Problem Solving		
Lesson 7: - **Solve and Share:** Page 317  	*See teacher manual page 318* **Today we will construct arguments about fractions.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 320A & 320B* **Meet with Teacher-** Guided/Independent Practice Pages 319-320 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 319 & 320 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key
Topic Assessment and Answer Key Folder
- After topic assessment, present the essential questions from the beginning of the topic and…
  - Answer all/some
  - Give examples
  - *See teacher edition page 325-326 for possible answers*

Enrichment Ideas:
- Pick a Project
- Performance Task
- enVision STEM Project
- Today's Challenge
- **Enrichment**

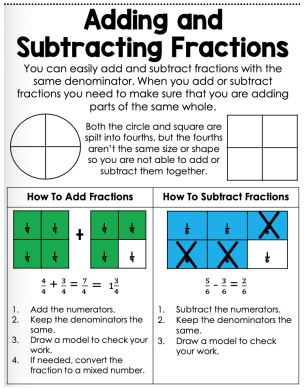
Topic 9: Understand Addition and Subtraction of Fractions	
Big Idea: **Adding and subtracting fractions and whole numbers**	
Essential Questions	**Standards**
• How do you add and subtract fractions and mixed numbers with like denominators? • How can fractions be added and subtracted on a number line?	**4.NF.B.3a:** Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. **4.NF.B.3b:** 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. *Examples: 3/8 = 1/8 + 1/8 + 1/8 ; 3/8 = 1/8 + 2/8 ; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8.* **4.NF.B.3c:** 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. **4.NF.B.3d:** 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.

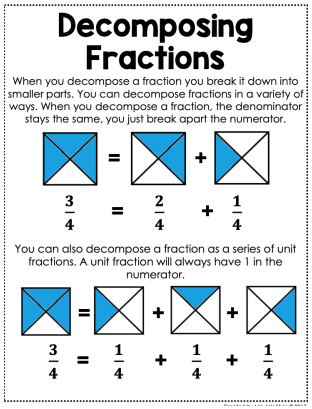
Topic 9: Understand Addition and Subtraction of Fractions

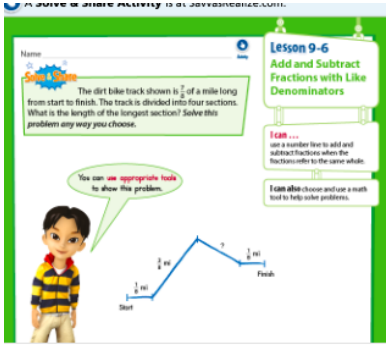
Key Vocabulary: Decompose, compose, mixed number**,** improper fraction

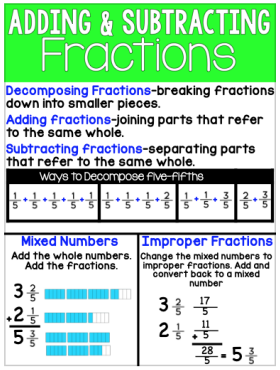
WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Lesson 1: - **Solve and Share:** Page 333	**Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning Animation Plus Video	**Suggestions/Ideas for Lessons/Topic:** *See teacher manual pages 336A & 336B*	**Exit Ticket Suggestion- Quick Check:** - Students complete checked problems on pages 335 & 336 or online edition **(*Printable Format*)**

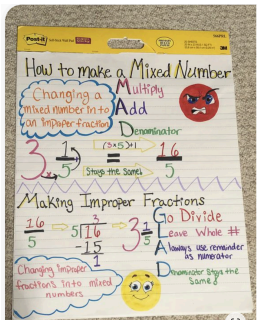
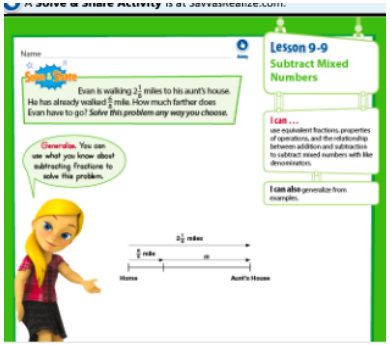
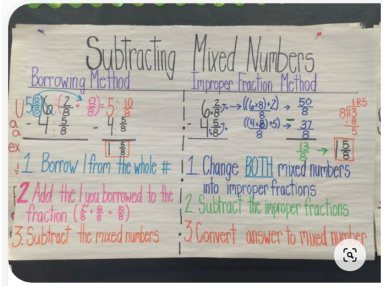
	*See teacher manual page 334* **Today we will use fraction strips and number lines to add fractions.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	**Meet with Teacher-** Guided/Independent Practice Pages 335-336 **At Your Seat:** - At Your Seat Folder **Technology:** - **Fancy Flea** on enVision - **Gem Quest** on enVision - **Flying Cow Incident** on enVision - **Save the Word** on enVision - Speedway Adding Fractions - Feed Me Fractions - Add and Subtract Fractions with Like Denominators - Add and Subtract Fractions - **iReady** lesson **Hands-on:** - Hands-on Folder - enVision Center Games *See additional resources under Topic 9* **Fluency Review Activity** *Page 373*	- Quick Check Folder - Topic 9 Google Forms : *Can be used during technology rotation*

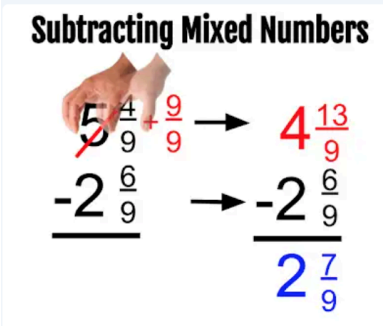
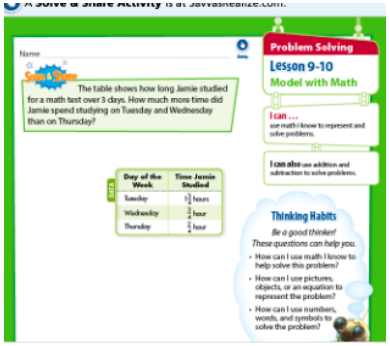
Lesson 3: - **Solve and Share:** Page 341  	*See teacher manual page 342* **Today we will solve problems involving joining parts of the same whole by adding fractions with like denominators.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 344A & 344B* **Meet with Teacher-** Guided/Independent Practice Pages 343-344 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 343 & 344 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 2: - **Solve and Share:** Page 337	*See teacher manual page 338* **Today we will decompose a fraction or mixed number into a sum of fractions in more than one way.**	*See teacher manual pages 340A & 340B* **Meet with Teacher-** Guided/Independent Practice Pages 339-340 At Your Seat, Technology, Hands On, and Additional	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 339 & 340 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

 - **Introduce vocabulary on math wall and in math notebooks:** Decompose, compose, mixed number	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	Resources see above.	
Lesson 4: - **Solve and Share:** Page 345 	*See teacher manual page 346* **Today we will use tools such as fraction strips, area models, and number lines to subtract fractions.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent**	*See teacher manual pages 348A & 348B* **Meet with Teacher-** Guided/Independent Practice Pages 347-348 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 347 & 348 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	Practice and Problem Solving		
Lesson 5: - **Solve and Share:** Page 349	*See teacher manual page 350* **Today we will solve problems involving separating parts of the same whole by subtracting fractions.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 352A & 352B* **Meet with Teacher-** Guided/Independent Practice Pages 351-352 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 351 & 352 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 6: - **Solve and Share:** Page 353  	*See teacher manual page 354* **Today we will count forward or backward on a number line to add or subtract.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 356A & 356B* **Meet with Teacher-** Guided/Independent Practice Pages 355-356 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 355 & 356 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

Lesson 7: - **Solve and Share:** Page 357  	*See teacher manual page 358* **Today we will use models and equivalent fractions to add and subtract mixed numbers.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 360A & 360B* **Meet with Teacher-** Guided/Independent Practice Pages 359-360 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 359 & 360 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 8: - **Solve and Share:** Page 361	*See teacher manual page 362* **Today we will use equivalent fractions and properties of operations to add mixed numbers with like denominators.**	*See teacher manual pages 364A & 364B* **Meet with Teacher-** Guided/Independent Practice Pages 363-364 At Your Seat, Technology,	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 363 & 364 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	Hands On, and Additional Resources see above.	
Lesson 9: - **Solve and Share:** Page 365 	*See teacher manual page 366* **Today we will use equivalent fractions, properties of operations, and the relationship between addition and subtraction to subtract mixed numbers with like denominators.** 	*See teacher manual pages 368A & 368B* **Meet with Teacher-** Guided/Independent Practice Pages 367-368 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 367 & 368 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 10: - **Solve and Share:** Page 369 	*See teacher manual page 370* **Today we will use previously learned concepts and skills to represent and solve problems.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 372A & 372B* **Meet with Teacher-** Guided/Independent Practice Pages 371-372 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 371 & 372 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key Topic Assessment and Answer Key Folder			

- After topic assessment, present the essential questions from the beginning of the topic and…
    - Answer all/some
    - Give examples
    - *See teacher edition page 377-378 for possible answers*

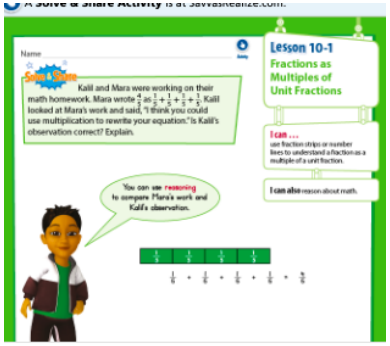
Enrichment Ideas:

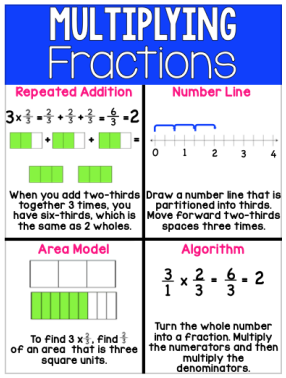
- Pick a Project
- Performance Task
- 3-ACT Math
- enVision STEM Project
- Today's Challenge
- **Enrichment**

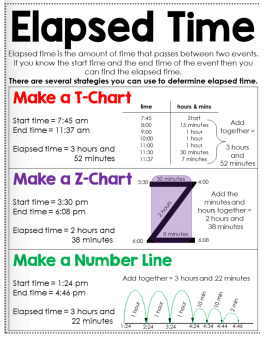
Topic 10: Extend Multiplication Concepts to Fractions	
Big Idea: **Apply and extend previous understandings of multiplication to multiply a fraction by a whole number**	
Essential Questions	**Standards**
• How can you describe a fractions using a unit fraction? • How can you multiply a fraction by a whole number?	**4.NF.B.4a-c** Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. a. Understand a fraction a/b as a multiple of 1/b. For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4). 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. For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.) c. 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. For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie? **4.NF.B.3d** Understand a fraction a/b with a > 1 as a sum of fractions 1/b. d. 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.M.A.2** Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.

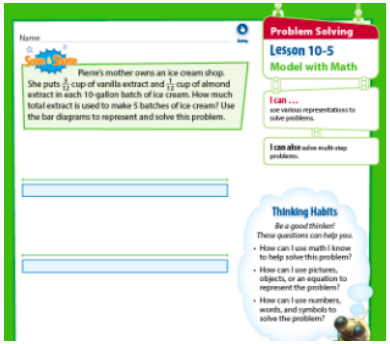
Topic 10: Extend Multiplication Concepts to Fractions

Key Vocabulary: unit fraction

WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Lesson 1: - **Solve and Share:** Page 385  - **Introduce vocabulary on math wall and in math notebooks:** Unit fraction	**Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning Animation Plus Video *See teacher manual page 386* **Today we will use a model, repeated addition, and multiplication to understand a fraction as a multiple of a unit fraction.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	**Suggestions/Ideas for Lessons/Topic:** *See teacher manual pages 388A & 388B* **Meet with Teacher-** Guided/Independent Practice Pages 387-388 **At Your Seat:** - At Your Seat Folder **Technology:** - **Save the Word** on enVision - Multiply Fractions by Whole Numbers - Multiplying Fractions by Whole Numbers - Multiplying Fractions by Whole Numbers - **iReady** lesson **Hands-on:** - Hands-on Folder - enVision Center Games *See additional resources under Topic 10* **Fluency Review Activity**	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 387 & 388 or online edition **(*Printable Format*)** - Quick Check Folder - Topic 10 Google Forms: *Can be used during technology rotation*

		Page 405	
Lesson 2: - **Solve and Share:** Page 389  	*See teacher manual page 390* **Today we will use models to multiply fractions by whole numbers.**  **We will do this by (choose one or more of the following to complete whole class):** - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 392A & 392B* **Meet with Teacher-** Guided/Independent Practice Pages 391-392 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 391 & 392 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 3: - **Solve and Share:** Page 393	*See teacher manual page 394* **Today we will use symbols and equations to multiply a fraction by a whole number.**	*See teacher manual pages 396A & 396B* **Meet with Teacher-** Guided/Independent Practice Pages 395-396 At Your Seat, Technology,	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 395 & 396 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	**We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	Hands On, and Additional Resources see above.	
Lesson 4: - **Solve and Share:** Page 397 	*See teacher manual page 398* **Today we will use the four operations to solve problems involving time.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 400A & 400B* **Meet with Teacher-** Guided/Independent Practice Pages 399-400 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 399 & 400 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 5:	*See teacher manual page	*See teacher manual pages	**Exit Ticket Suggestion-**

- **Solve and Share:** Page 401  	402* **Today we will use previously learned concepts and skills to represent and solve problems.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	404A & 404B* **Meet with Teacher-** Guided/Independent Practice Pages 403-404 At Your Seat, Technology, Hands On, and Additional Resources see above.	- **Quick Check:** Students complete checked problems on pages 403 & 404 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key
Topic Assessment and Answer Key Folder

- After topic assessment, present the essential questions from the beginning of the topic and…
  - Answer all/some
  - Give examples
  - *See teacher edition page 409-410 for possible answers*

Enrichment Ideas:

- Pick a Project
- Performance Task
- enVision STEM Project
- Today's Challenge
- **Enrichment**

Topic 12: Understand and Compare Decimals	
Big Idea: **Fraction understanding can be used to read, write, and compare decimal fractions**	
Essential Questions	**Standards**
• How can you write a fraction as a decimal? • How can you locate points on a number line? • How do you compare decimals?	**4.NF.C.5** Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.4 For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100. **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. **4.M.A.2** Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing

Topic 12: Understand and Compare Decimals

Key Vocabulary: Decimal, decimal point, tenth, hundredth

WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Lesson 1:	**Daily Optional**	**Suggestions/Ideas for**	**Exit Ticket Suggestion-**

- **Solve and Share:** Page 445

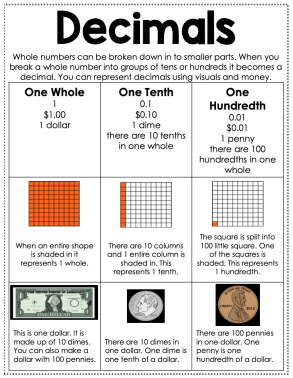


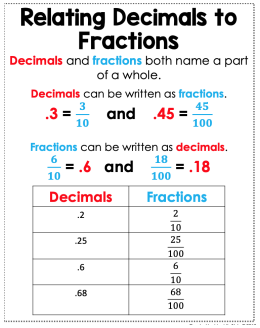
- **Introduce vocabulary on math wall and in math notebooks:** Decimal, decimal point, tenth, hundredth

Mini-Lesson Support for Each Lesson/Topic:
Watch Visual Learning Animation Plus Video

See teacher manual page 446

Today we will relate fractions and decimals with denominators of 10 and 100.





We will do this by (choose one or more of the following to complete whole class):
- **Convince me!**
- **Guided Practice**
- Pick problems from

Lessons/Topic:

See teacher manual pages 448A & 448B

Meet with Teacher-
Guided/Independent Practice
Pages 447-448

At Your Seat:
- At Your Seat Folder
- End of Topic Review Fun: Math Mystery- Case of the Disappearing Donuts

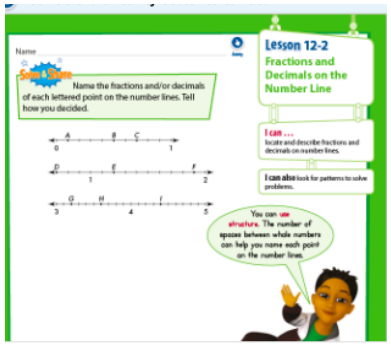
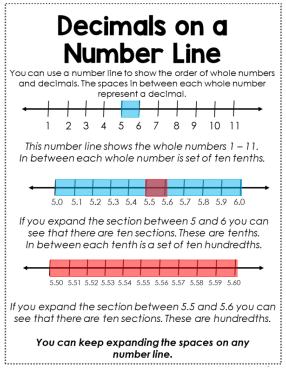
Technology:
- **Save the Word** on enVision
- Pair Fractions and Decimals
- Decimal Detectives
- Convert Fractions and Mixed Numbers to Decimals
- **iReady** lesson

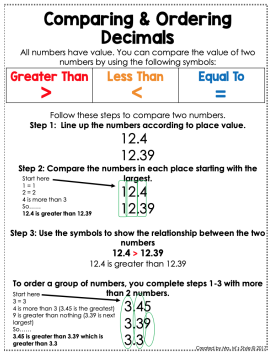
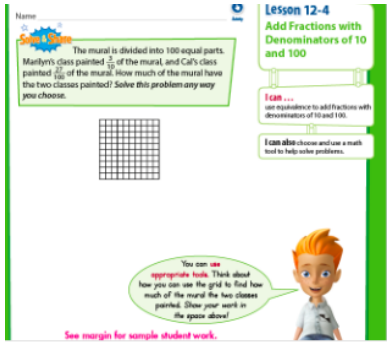
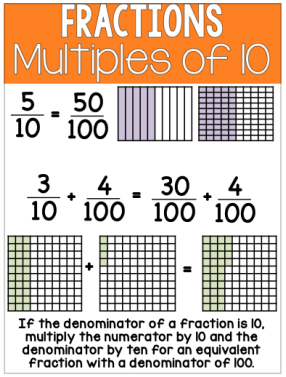
Hands-on:
- Hands-on Folder
- enVision Center Games

See additional resources under Topic 12

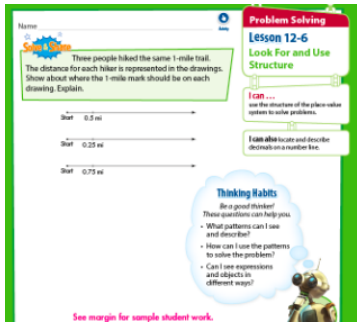
Fluency Review Activity
Page 469

- **Quick Check:** Students complete checked problems on pages 447 & 448 or online edition **(*Printable Format*)**
- Quick Check Folder
- Topic 12 Google Forms: *Can be used during technology rotation*

	Independent Practice and Problem Solving		
Lesson 2: - **Solve and Share:** Page 449  	*See teacher manual page 450* **Today we will locate and describe fractions and decimals on number lines.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 452A & 452B* **Meet with Teacher-** Guided/Independent Practice Pages 451-452 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 451 & 452 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 3: - **Solve and Share:** Page 453	*See teacher manual page 454* **Today we will compare decimals by reasoning about their size.**	*See teacher manual pages 456A & 456B* **Meet with Teacher-** Guided/Independent Practice Pages 455-456 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 455 & 456 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 4: - **Solve and Share:** Page 457 	*See teacher manual page 458* **Today we will add fractions with denominators of 10 and 100 by using equivalent fractions.** 	*See teacher manual pages 460A & 460B* **Meet with Teacher-** Guided/Independent Practice Pages 459-460 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 459 & 460 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	We will do this by (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 5: - **Solve and Share:** Page 461  	*See teacher manual page 462* **Today we will use fractions or decimals to solve word problems involving money.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 464A & 464B* **Meet with Teacher-** Guided/Independent Practice Pages 463-464 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 463 & 464 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 6: - **Solve and Share:** Page 465	*See teacher manual page 466* **Today we will use the structure of the place-value system for decimals to solve problems.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!**	*See teacher manual pages 468A & 468B* **Meet with Teacher-** Guided/Independent Practice Pages 467-468 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 467 & 468 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

<table>
<tr>
<td> 
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<td>- Guided Practice
- Pick problems from Independent Practice and Problem Solving</td>
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<tr>
<td colspan="4">Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key Topic Assessment and Answer Key Folder
- After topic assessment, present the essential questions from the beginning of the topic and…
- Answer all/some
- Give examples
- *See teacher edition page 473-474 for possible answers*</td>
</tr>
<tr>
<td colspan="4">Enrichment Ideas:
- Pick a Project
- Performance Task
- enVision STEM Project
- Today’s Challenge
- Enrichment</td>
</tr>
</table>

Topic 15 and Lesson 16.1: Geometric Measurement: Understand Concepts of Angles and Angle Measurement

Big Idea: **Understand Concepts of Angles and Angle Measurement**

Essential Questions	Standards
• What are some common geometric terms? • How can you measure angles?	**4.M.B.4** Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: a. 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. b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees. **4.M.B.5** Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure. **4.M.B.6** Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure. **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.

Topic 15: Geometric Measurement: Understand Concepts of Angles and Angle Measurement

Key Vocabulary: Point, line, line segment, ray, right angle, acute angle, obtuse angle, straight angle**,** Degree, unit angle, angle measure, protractor, vertex

WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore			

materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)

Lesson 1:

- **Solve and Share:** Page 549

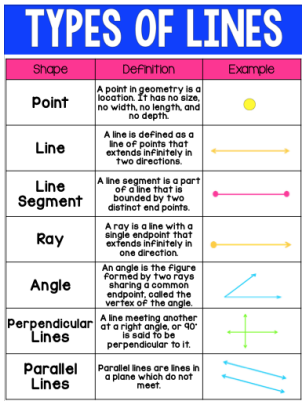


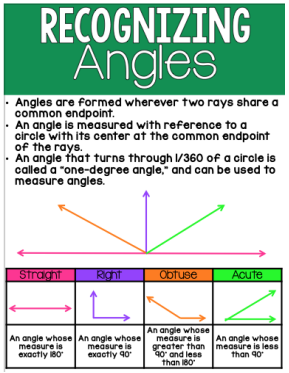
- **Introduce vocabulary on math wall and in math notebooks:** Point, line, line segment, ray, right angle, acute angle, obtuse angle, straight angle

Daily Optional Mini-Lesson Support for Each Lesson/Topic: Watch Visual Learning Animation Plus Video

See teacher manual page 550

Today we will recognize and draw lines, rays, and angles with different measures.





Suggestions/Ideas for Lessons/Topic:

See teacher manual pages 552A & 552B

Meet with Teacher-
Guided/Independent Practice
Pages 551-552

At Your Seat:

- At Your Seat Folder

Technology:

- **Save the Word** on enVision
- Quarterback- Reading Angles
- Measuring Angles
- Triangle Splat Game
- Using a Protractor
- Acute, Obtuse, and Right Angles
- Line, Line Segments, and Rays
- Perpendicular, Parallel, and Intersecting Lines
- Lines, Angles, and a City Grid
- **iReady** lesson

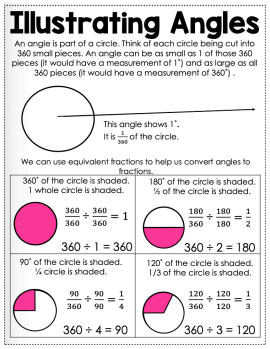
Hands-on:

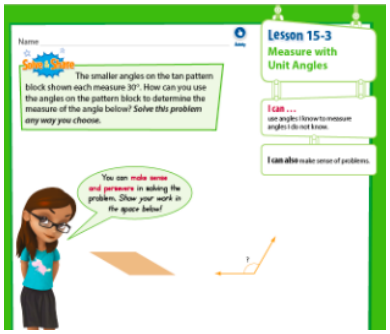
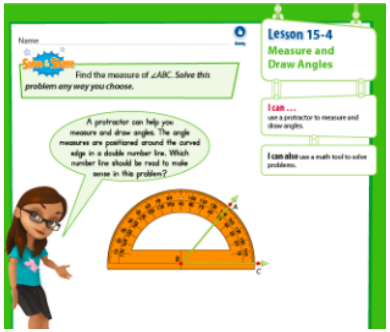
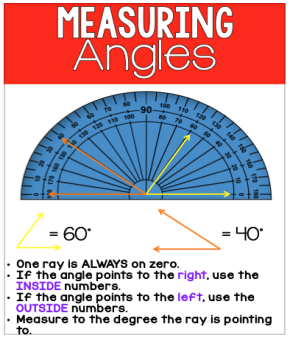
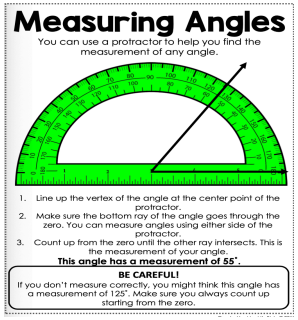
- Hands-on Folder
- enVision Center Games

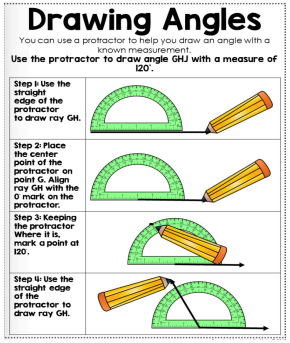
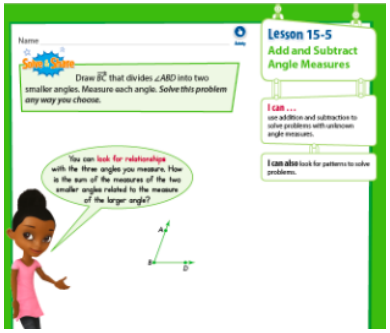
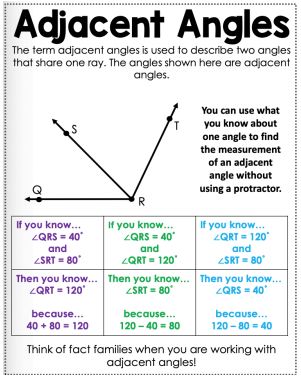
*See additional resources

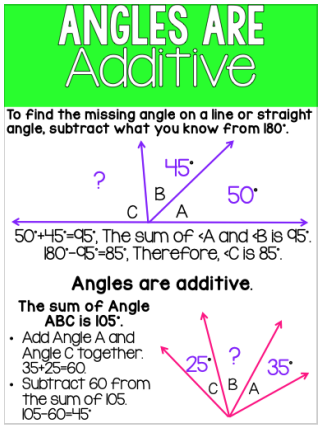
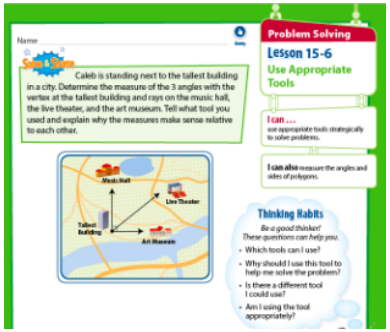
Exit Ticket Suggestion-

- **Quick Check:** Students complete checked problems on pages 551 & 552 or online edition **(*Printable Format*)**
- Quick Check Folder
- Topic 15 Google Forms: *Can be used during technology rotation*

		under Topic 15 &16.1* **Fluency Review Activity** *Page 573*	
Lesson 2: - **Solve and Share:** Page 553  - **Introduce vocabulary on math wall and in math notebooks:** Degree, unit angle, angle measure	*See teacher manual page 554*  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 556A & 556B* **Meet with Teacher-** Guided/Independent Practice Pages 555-556 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 555 & 556 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 3: - **Solve and Share:** Page 557	*See teacher manual page 558* **Today we will use known angle measures to measure unknown angles.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!**	*See teacher manual pages 560A & 560B* **Meet with Teacher-** Guided/Independent Practice Pages 559-560 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 559 & 560 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	- **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 4: - **Solve and Share:** Page 561  - **Introduce vocabulary on math wall and in math notebooks:** Protractor, vertex	*See teacher manual page 562* **Today we will use a protractor to measure and draw angles.**  	*See teacher manual pages 564A & 564B* **Meet with Teacher-** Guided/Independent Practice Pages 563-564 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 563 & 564 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 5: - **Solve and Share:** Page 565 	*See teacher manual page 566* **Today we will use addition and subtraction to solve problems with unknown angle measures.** 	*See teacher manual pages 568A & 568B* **Meet with Teacher-** Guided/Independent Practice Pages 567-568 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 567 & 568 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 6: - **Solve and Share:** Page 569 	*See teacher manual page 570* **Today we will use appropriate tools, such as a protractor and ruler, to solve problems.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and**	*See teacher manual pages 572A & 572B* **Meet with Teacher-** Guided/Independent Practice Pages 571-572 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 571 & 572 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	Problem Solving		

Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer key
Topic Assessment and Answer Key Folder
***NOTE: Use Topic 15 Assessment Practice on pages 613-614**
After topic assessment, present the essential questions from the beginning of the topic and…

- Answer all/some
- Give examples
- *See teacher edition page 577-578 for possible answers*

Enrichment Ideas:

- Pick a Project
- Performance Task
- 3-ACT Math
- enVision STEM Project
- Today's Challenge
- **Enrichment**

Topic 13: Measurement: Find Equivalence in Units of Measure

Big Idea: **Know relative sizes of measurement units**

Essential Questions	Standards
• How can you convert from one unit to another? • How can you be precise when solving math problems?	**4.M.A.1** Know relative sizes of measurement units within one system of units including km, m, cm. mm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36). **4.M.A.2** Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing. **4.M.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. **4.NF.B.4c** Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. c. 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. For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie? **4.NF.B.3d** Understand a fraction a/b with a > 1 as a sum of fractions 1/b . d. 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.

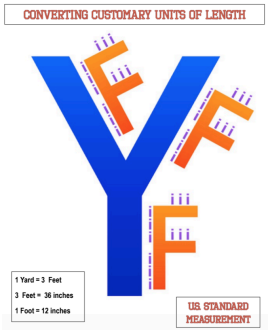
Topic 13: Measurement: Find Equivalence in Units of Measure

Key Vocabulary: Capacity, quart, gallon, cup, pint, fluid ounce, Weight, ounce, pound, ton**,** Millimeter, centimeter, meter, kilometer**,** Mass, milliliter, liter, gram, milligram, kilogram, perimeter, area, formula

WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Lesson 1: - **Solve and Share:** Page 481	**Daily Optional Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning Animation Plus Video *See teacher manual page 482*	**Suggestions/Ideas for Lessons/Topic:** *See teacher manual pages 484A & 484B* **Meet with Teacher-** Guided/Independent Practice Pages 483-484 **At Your Seat:** - At Your Seat Folder	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 483 & 484 or online edition **(*Printable Format*)** - Quick Check Folder - Topic 13 Google Forms: *Can be used during technology rotation*



Today we will recognize the relative size of customary units of length and convert from a larger unit to a smaller unit.



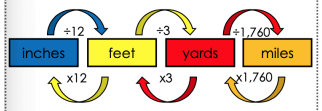
Measuring Length

There are two different systems for measuring length. You can use the customary system or the metric system. Learning the two systems are important. You want to be able to select the appropriate unit of measurement for the length you are measuring.

CUSTOMARY	METRIC
An **INCH** is the smallest unit in the customary system. It is about the length of a paperclip.	A **MILIMETER** is the smallest unit in the metric system. It is about the width of the tip on a sharp pencil.
A **FOOT** is the same as 12 inches. It is about the length of a ruler.	A **CENTIMETER** is the same as 10 millimeters. It is about the width of your pinky finger.
A **YARD** is the same as 3 feet or 36 inches. It is about the length of a baseball bat.	A **METER** is the same as 100 centimeters or 1,000 millimeters. It is about the width of a door.
A **MILE** is the same as 1,760 yards or 5,280 feet or 63,360 inches It is about the length of 17 football fields.	A **KILOMETER** is the same as 1,000 meters. It is about the length of 11 football fields.

CUSTOMARY CONVERSIONS

You can multiply or divide to convert measurements within the same system. You can use this chart to help you make your conversions.



Example:
If you have a rope that is 72 inches long and you wanted to know how many feet that is you would use the following equation.

72 inches ÷12 = 6 feet

You know that the rope is 6 feet long. If you wanted to convert that rope into yards you would use the following equation.

6 feet ÷3 = 2 yards.

You know that 72 inches = 6 feet = 2 yards.

- Review Fun: Math Mystery- Case of the Misplaced Pot of Gold
- Review Fun: Math Mystery- Case of the Graduation Gremlins

Technology:

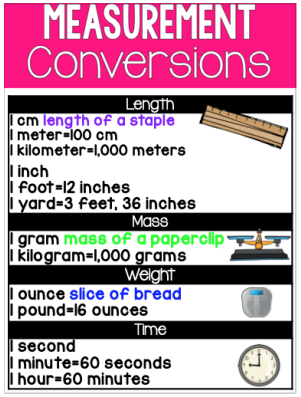
- **Galaxy Hunt** on enVision
- **Save the Word** on enVision
- Zoo Designer
- Area Climber
- Perimeter Climber
- Area Adventure
- Units of Measurement
- Horrendous Soup
- Compare and Convert Customary Units
- Compare and Convert Metric Units
- Convert Mixed Customary Units
- **iReady** lesson

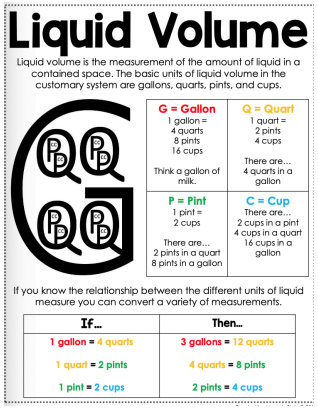
Hands-on:

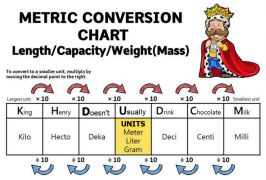
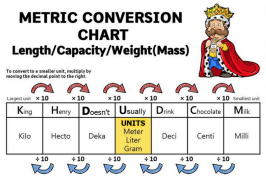
- Hands-on Folder
- enVision Center Games

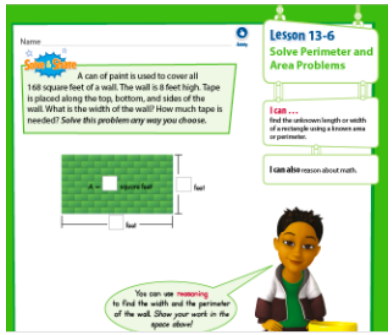
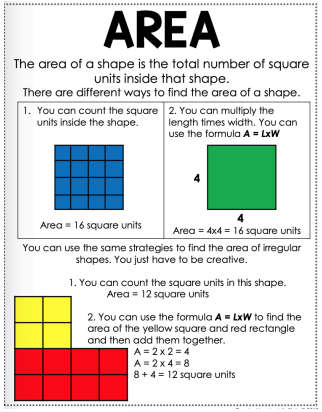
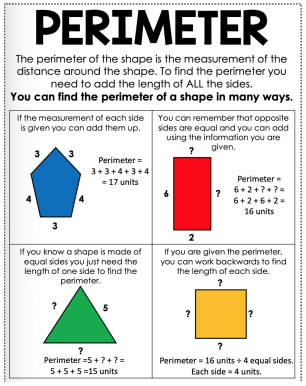
See additional resources under Topic 13

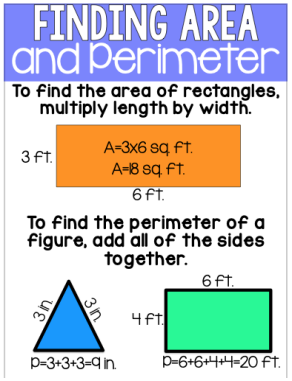
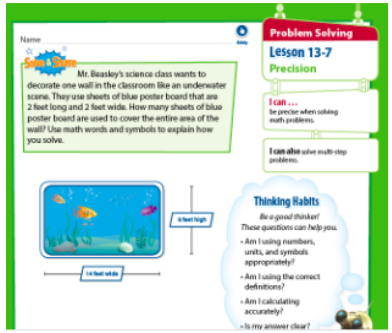
Fluency Review Activity

	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*Page 509*	
Lesson 2: - **Solve and Share:** Page 485  - **Introduce vocabulary on math wall and in**	*See teacher manual page 486* **Today we will recognize the relative size of customary units of capacity and convert from a larger unit to a smaller unit.** In the land of KING GALLON, there lived FOUR QUEENS. One Queen was King Gallon's wife, and the other three Queens were her friends. Each of the four Queens had ONE PRINCE and ONE PRINCESS. Each prince and princess wore TWO CROWNS. On each crown, there were EIGHT OPALS!	*See teacher manual pages 488A & 488B* **Meet with Teacher-** Guided/Independent Practice Pages 487-488 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 487 & 488 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

math notebooks: Capacity, quart, gallon, cup, pint, fluid ounce	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 3: - **Solve and Share:** Page 489  - **Introduce vocabulary on math wall and in math notebooks:**	*See teacher manual page 490* **Today we will recognize the relative size of customary units of weight and convert from a larger unit to a smaller unit.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and**	*See teacher manual pages 492A & 492B* **Meet with Teacher-** Guided/Independent Practice Pages 491-492 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 491 & 492 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

Weight, ounce, pound, ton	**Problem Solving**		
Lesson 4: - **Solve and Share:** Page 493  - **Introduce vocabulary on math wall and in math notebooks:** Millimeter, centimeter, meter, kilometer	*See teacher manual page 494* **Today we will recognize the relative size of metric units of length and convert from a larger unit to a smaller unit.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 496A & 496B* **Meet with Teacher-** Guided/Independent Practice Pages 495-496 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 495 & 496 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 5: - **Solve and Share:** Page 497 - **Introduce vocabulary on math wall and in math notebooks:** Mass, milliliter, liter, gram, milligram, kilogram	*See teacher manual page 498* **Today we will recognize the relative size of metric units of capacity and mass and convert from a larger unit to a smaller unit.**  	*See teacher manual pages 500A & 500B* **Meet with Teacher-** Guided/Independent Practice Pages 499-500 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 499 & 500 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	We will do this by (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 6: - **Solve and Share:** Page 501  - **Introduce vocabulary on math wall and in math notebooks:** Perimeter, area, formula	*See teacher manual page 502* **Today we will find the unknown length or width of a rectangle using the known area or perimeter.**   	*See teacher manual pages 504A & 504B* **Meet with Teacher-** Guided/Independent Practice Pages 503-504 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 503 & 504 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	 **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 7: - **Solve and Share:** Page 505 	*See teacher manual page 506* **Today we will be precise when solving measurement problems.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 508A & 508B* **Meet with Teacher-** Guided/Independent Practice Pages 507-508 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 507 & 508 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Review and Assessment: Use these days to review topic concepts/takeaways and administer the post assessment and score with answer			

key Topic Assessment and Answer Key Folder

- After topic assessment, present the essential questions from the beginning of the topic and…
  - Answer all/some
  - Give examples
  - *See teacher edition page 513-514 for possible answers*

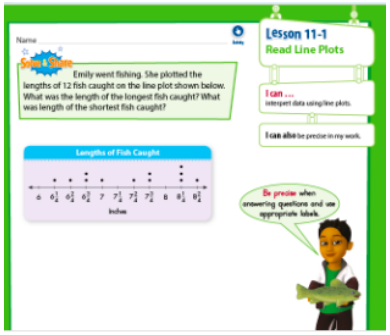
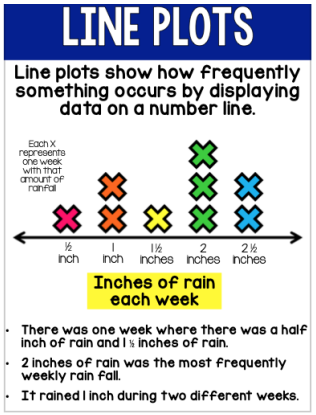
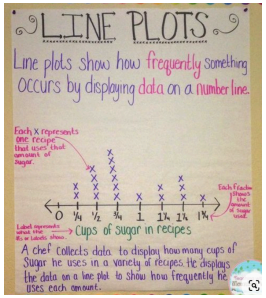
Enrichment Ideas:

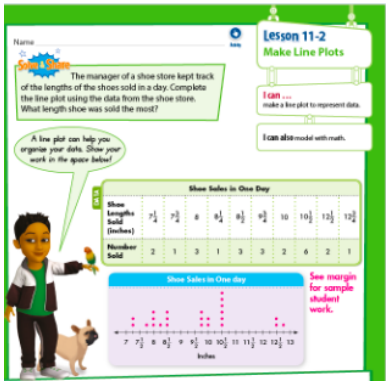
- Pick a Project
- Performance Task
- 3-ACT Math
- enVision STEM Project
- Today's Challenge
- **Enrichment**

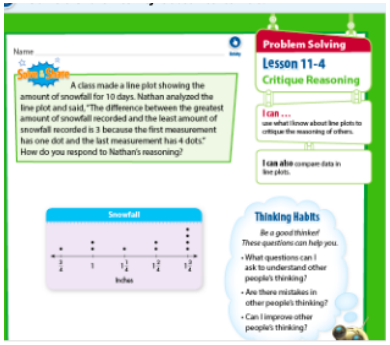
Topic 11: Represent and interpret Data on Line Plots	
Big Idea: **Interpret data and make line plots to display data**	
Essential Questions	**Standards**
• How can you solve problems using data on a line plot? • How can you make a line plot?	**4.NF.B.3c--d** Understand a fraction a/b with a > 1 as a sum of fractions 1/b. c. 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. d. 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.DL.A.1** Create data-based questions, generate ideas based on the questions, and then refine the questions. **4.DL.A.2** Develop strategies to collect various types of data and organize data digitally. **4.DL.A.3** Understand that subsets of data can be selected and analyzed for a particular purpose. **4.DL.A.4** Analyze visualizations of a single data set, share explanations, and draw conclusions that the data supports. **4.DL.B.5** Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection. **4.NF.A.1** Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × 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.

Topic 11: Represent and Interpret Data on Line Plots

Key Vocabulary: line plot, scale

WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Lesson 1: - **Solve and Share:** Page 417  - **Introduce vocabulary on math wall and in math notebooks:** Line Plot, scale	**Daily Optional Mini-Lesson Support for Each Lesson/Topic:** Watch Visual Learning Animation Plus Video *See teacher manual page 418* **Today we will read and interpret data using line plots.**   	**Suggestions/Ideas for Lessons/Topic:** *See teacher manual pages 420A & 420B* **Meet with Teacher-** Guided/Independent Practice Pages 419-420 **At Your Seat:** - At Your Seat Folder **Technology:** - **Factory Frenzy** on enVision - **Save the Word** on enVision - Interpret Line Plots - Create Line Plots - Balloon Pop - **iReady** lesson **Hands-on:** - Hands-on Folder - enVision Center Games *See additional resources under Topic 11* **Fluency Review Activity** *Page 433*	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 419 & 420 or online edition **(*Printable Format*)** - Quick Check Folder - Topic 11 Google Forms: *Can be used during technology rotation*

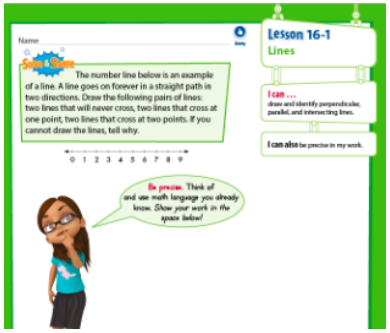
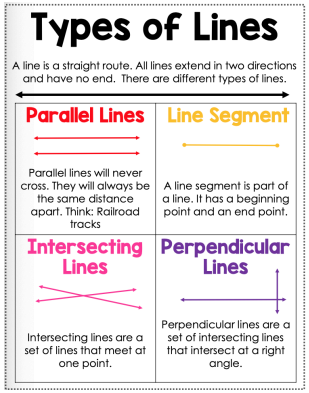
	We will do this by (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**		
Lesson 2: - **Solve and Share:** Page 421 	*See teacher manual page 422* **Today we will represent data using line plots and interpret data in line plots to solve problems.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 424A & 424B* **Meet with Teacher-** Guided/Independent Practice Pages 423-424 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 423 & 424 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 3: - **Solve and Share:** Page 425	*See teacher manual page 426* **Today we will solve problems involving line plots and fractions.** **We will do this by** (choose one or more of the following to complete whole class):	*See teacher manual pages 428A & 428B* **Meet with Teacher-** Guided/Independent Practice Pages 427-428 At Your Seat, Technology,	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 427 & 428 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

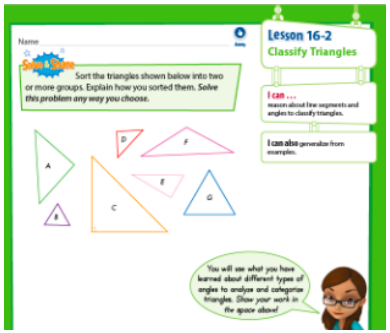
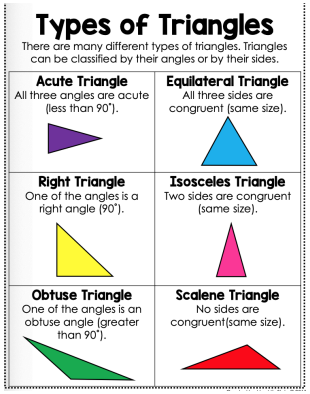
	- **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	Hands On, and Additional Resources see above.	
Lesson 4: - **Solve and Share:** Page 429 	*See teacher manual page 430* **Today we will critique the reasoning of others using an understanding of line plots.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 432A & 432B* **Meet with Teacher-** Guided/Independent Practice Pages 431-432 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 431 & 432 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Review and Assessment: Use this day to review topic concepts/takeaways and administer the post assessment and score with answer key Topic Assessment and Answer Key Folder - After topic assessment, present the essential questions from the beginning of the topic and… - Answer all/some - Give examples - *See teacher edition page 437-438 for possible answers*			
Enrichment Ideas: - Pick a Project - Performance Task			

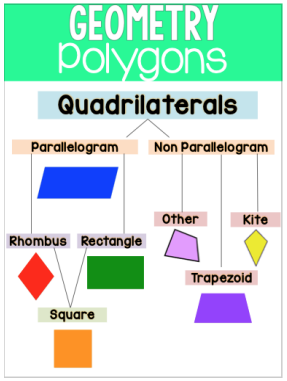
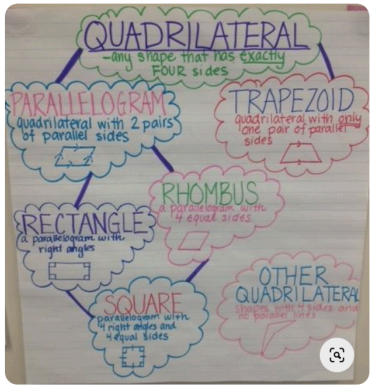
- 3-ACT Math
- enVision STEM Project
- Today's Challenge
- **Enrichment**

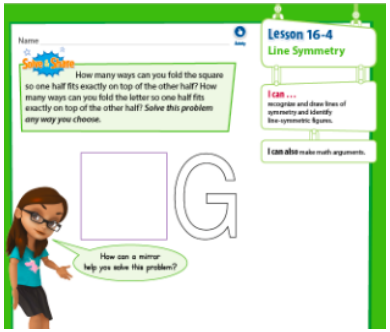
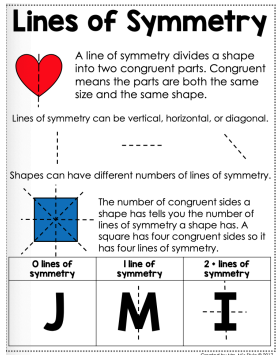
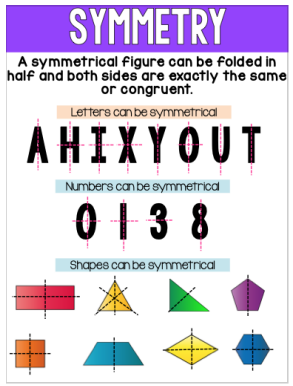
Topic 16: Lines, Angles, and Shapes	
Big Idea: **Describe, analyze, compare, and classify 2-D shapes**	
Essential Questions	**Standards**
• How can you classify triangles and quadrilaterals? • What is line symmetry?	**4.G.A.1** Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. **4.G.A.2** Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines **4.G.A.3** Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.

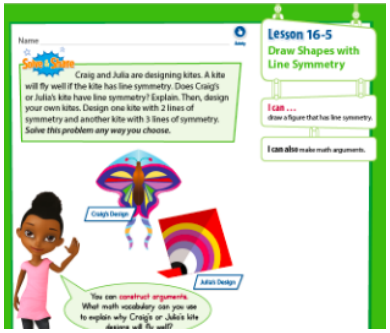
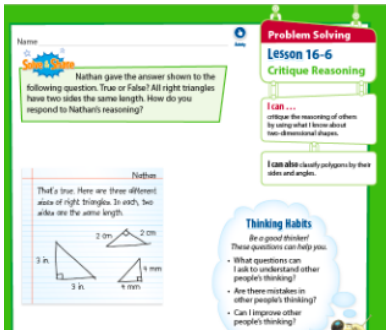
Topic 16: Lines, Angles, and Shapes
Essential Questions *What provocative questions will foster inquiry, understanding, and transfer of learning?*

WARM-UP Number Talk Warm-Up Option	MINI-LESSON	MATH ROTATIONS	SHARE/REFLECTION
Topic Opener Day: This day can be used to complete the Student Edition "Review What You Know", preview vocabulary, explore materials and manipulatives, and pre-teach games or at your seat activities (and any other rotations)			
Topic 16- Lesson 1: - **Solve and Share:** Page 585  - **Introduce vocabulary on math wall and in math notebooks:** Parallel lines, perpendicular lines, intersecting lines	**Topic 16- Lesson 1:** *See teacher manual page 586* **Today we will draw and identify perpendicular, parallel, and intersecting lines.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	**Topic 16- Lesson 1:** *See teacher manual pages 588A & 588B* **Meet with Teacher-** Guided/Independent Practice Pages 587-588 **At Your Seat:** - At Your Seat Folder - Review Fun: Math Mystery- Case of the Giant Goblin **Technology:** - **Save the Word** on enVision - Symmetree - Symmetry Challenge - Triangle Splat Game - Types of Triangles - Classify Quadrilateral Shapes - **iReady** lesson **Hands-on:** - Hands-on Folder - enVision Center Games *See additional resources under Topic 16*	**Topic 16- Lesson 1:** **Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 587 & 588 or online edition **(*Printable Format*)** - Quick Check Folder - Topic 16 Google Forms: *Can be used during technology rotation*

		Fluency Review Activity *Page 609*	
Lesson 2: - **Solve and Share:** Page 589  - **Introduce vocabulary on math wall and in math notebooks:** Right triangle, obtuse triangle, acute triangle, equilateral triangle, isosceles triangle, scalene triangle	*See teacher manual page 590* **Today we will classify triangles by line segments and angles.**  **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 592A & 592B* **Meet with Teacher-** Guided/Independent Practice Pages 591-592 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 591 & 592 or online edition **(*Printable Format*)**
Lesson 3: - **Solve and Share:** Page 593	*See teacher manual page 594* **Today we will classify quadrilaterals by lines and angles.**	*See teacher manual pages 596A & 596B* **Meet with Teacher-** Guided/Independent Practice Pages 595-596 At Your Seat, Technology,	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 595 & 596 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

 - **Introduce vocabulary on math wall and in math notebooks:** Parallelogram, rectangle, square, rhombus, trapezoid, quadrilateral	   **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice**	Hands On, and Additional Resources see above.	

	- Pick problems from **Independent Practice and Problem Solving**		
Lesson 4: - **Solve and Share:** Page 597  - **Introduce vocabulary on math wall and in math notebooks:** Line symmetric, line of symmetry	*See teacher manual page 598* **Today we will recognize and draw lines of symmetry. Identify line symmetric figures.**   **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice**	*See teacher manual pages 600A & 600B* **Meet with Teacher-** Guided/Independent Practice Pages 599-600 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 599 & 600 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

	- Pick problems from **Independent Practice and Problem Solving**		
Lesson 5: - **Solve and Share:** Page 601  	*See teacher manual page 602* **Today we will draw figures that have line symmetry.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 604A & 604B* **Meet with Teacher-** Guided/Independent Practice Pages 603-604 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 603 & 604 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)
Lesson 6: - **Solve and Share:** Page 605  	*See teacher manual page 606* **Today we will use understanding of two-dimensional shapes to critique the reasoning of others.** **We will do this by** (choose one or more of the following to complete whole class): - **Convince me!** - **Guided Practice** - Pick problems from **Independent Practice and Problem Solving**	*See teacher manual pages 608A & 608B* **Meet with Teacher-** Guided/Independent Practice Pages 607-608 At Your Seat, Technology, Hands On, and Additional Resources see above.	**Exit Ticket Suggestion-** - **Quick Check:** Students complete checked problems on pages 607 & 608 or online edition **(*Printable Format*)** - Quick Check Folder - Google Forms (see above)

Review and Assessment (2 days): Review topic concepts and administer the Topic Test and score with answer key Topic Assessment and Answer Key Folder
Enrichment Ideas: - Pick a Project - Performance Task - enVision STEM Project - Today's Challenge - **Enrichment**