

Grade 5: Math Expressions Common Core 2013**Course Overview**

Math Expressions incorporate the best practices of both traditional and reform mathematics curricula. The program strikes a balance between promoting student-generated solution methods and introducing effective research-based methods. Math Expressions fits the learning progressions, the core-grade-level goals, and the dual focus on understanding and fluency of the Common Core State Content Standards.

(160 days)

Scope and Sequence

Timeframe	Unit	Instructional Topics
Ongoing	Building the Math Community	<ol style="list-style-type: none"> 1. Math Talk Community 2. Inquiry Learning Path 3. Student Focus 4. Learning Path Teaching
23 Day(s)	U1: Addition and Subtraction with Fractions	<ol style="list-style-type: none"> 1. Preview and Pre-Assess 2. Equivalent Fractions 3. Addition and Subtraction with Fractions 4. Review and Assess
18 Day(s)	U2: Addition and Subtraction with Decimals	<ol style="list-style-type: none"> 1. Preview and Pre-Assess 2. Whole Numbers and Decimals 3. Addition and Subtraction 4. Round and Estimate with Decimals 5. Review and Assess
24 Day(s)	U3: Multiplication and Division with Fractions	<ol style="list-style-type: none"> 1. Preview and Pre-Assess 2. Multiplication with Fractions 3. Multiplication Links 4. Division with Fractions 5. Review and Assess
19 Day(s)	U4: Multiplication with Whole Numbers and Decimals	<ol style="list-style-type: none"> 1. Preview and Pre-Assess 2. Multiplication with Whole Numbers 3. Multiplication with Decimal Numbers 4. Review and Assess
17 Day(s)	U5: Division with Whole Numbers and Decimals	<ol style="list-style-type: none"> 1. Preview and Pre-Assess 2. Division with Whole Numbers 3. Division with Decimal Numbers 4. Review and Assess
19 Day(s)	U6: Operations and Problem Solving	<ol style="list-style-type: none"> 1. Preview and Pre-Assess 2. Equations and Problem-Solving 3. Comparison Word Problems 4. Problems with More Than One Step 5. Review and Assess
13 Day(s)	U7: Algebra, Patterns, and Coordinate Graphs	<ol style="list-style-type: none"> 1. Preview and Pre-Assess 2. Algebraic Reasoning and Expressions 3. Patterns and Graphs 4. Review and Assess
27 Day(s)	U8: Measurement and Data	<ol style="list-style-type: none"> 1. Preview and Pre-Assess 2. Measurement and Data 3. Area and Volume 4. Classify Geometric Figures 5. Review and Assess

Course Details

UNIT: Building the Math Community -- Ongoing

Description

Effective Math Talk cannot be implemented into a classroom overnight. A teacher must work his or her students up to Level 3 Math Talk over time. It often takes two to three months to build the community.

TOPIC: Math Talk Community [Ongoing]

Learning Targets

Participate in frequent collaborative conversations

Assessment: Teacher observation

Checklist

Solve, discuss, question and justify at the board

Assessment: Teacher observation

Drawings

Math Talk

Solve, discuss, question and justify in small groups

Assessment: Teacher observation

Drawings

Math Talk

Solve, discuss, question and justify in pairs

Assessment: Teacher observation

Drawings

Math Talk

TOPIC: Inquiry Learning Path [Ongoing]

Learning Targets

Participate in guided instruction

Assessment: Teacher observation

Demonstrate sense-making

Assessment: Teacher observation

Drawings

Math Talk

Manipulatives

Gain math fluency

Choose a method

Explain a method

Reflect on and share thinking

Assessment: Teacher observation

Drawings

Math Talk

Manipulatives

Maintain fluency and relate to later topics and skills

Assessment: Teacher observation

Drawings

Math Talk

Manipulatives

TOPIC: Student Focus [Ongoing]

Learning Targets

Demonstrate math leadership

involve

coach

model

clarify

question

feedback

Assessment: Teacher observation
Math Talk
Collaborative group checklist
Participate in frequent collaborative conversations
Assessment: Teacher observation
Checklist

TOPIC: Learning Path Teaching [Ongoing]

Learning Targets

Explore and explain student-generated methods

Phase 1

Assessment: Teacher observation
Drawings
Math Talk
Manipulatives

Explain and grow in math fluency

Phase 2: Research-based and accessible methods

Assessment: Teacher observation
Drawings
Math Talk
Manipulatives

Demonstrate math fluency and proficiency

Phase 3: Formal math methods

Assessment: Teacher observation
Drawings
Math Talk
Manipulatives

UNIT: U1: Addition and Subtraction with Fractions -- 23 Day(s)

Description

Students add and subtract fractions and mixed numbers. They represent the addition and subtraction of fractions with unlike denominators as equivalent problems with like denominators.

Common Core Standards addressed in this unit

Math Practices: K-12.MP.1, K-12.MP.2, K-12.MP.3, K-12.MP.4, K-12.MP.5, K-12.MP.6, K-12.MP.7, K-12.MP.8

Content: CC.5.NF.1, Cc.5.NF.2, CC.5.MD.2

TOPIC: Preview and Pre-Assess -- 3 Day(s)

Learning Targets

Demonstrate prior knowledge and application of addition and subtraction with fractions

Assessment: Pre-Test Form B
Quick Quiz
Complete formative assessment

Assessment: Quick Quiz 1

TOPIC: Equivalent Fractions -- 8 Day(s)

Academic Vocabulary

denominator
fraction
numerator
unit fraction
equivalent fraction
multiplier
n-split
simplify
unsimplify
benchmark
common denominator

common factor
greater than, >
less than, <
mixed number

Learning Targets

Explore the MathBoard 1.1

Assessment: Teacher observation (F)

Explain equivalent fractions 1.2

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Explore equivalent fractions and multipliers 1.3

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Discover strategies for comparing fractions 1.4

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Convert fractions greater than one 1.5

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Complete formative assessment

Assessment: Quick Quiz 1

TOPIC: Addition and Subtraction with Fractions -- 9 Day(s)

Academic Vocabulary

add on
regroup
ungroup
line plot
benchmark
estimate
round
situation equation
solution equation

Learning Targets

Add and subtract like mixed numbers 1.6

Add unlike fractions 1.7

Subtract unlike fractions 1.8

Solve with unlike mixed numbers 1.9

Practice with unlike mixed numbers 1.10

Find reasonable answers 1.11

Solve real world problems 1.12

Focus on mathematical practices 1.13

Math and Bird Hotels
Use Reasoning
Establish a position
Complete formative assessment

Assessment: Quick Quiz 2

TOPIC: Whole Numbers and Decimals -- 5 Day(s)

Learning Targets

Create equivalent fractions by multiplying or dividing numerators and denominators of given fractions by the same number

CC.5.NF.1

Assessment: Differentiated activities

Online practice

Unit Test 1

Compare fractions using a variety of strategies, including by rewriting them with common denominator

CC.5.NF.1

Assessment: Differentiated activities

Online practice

Unit Test 1

Add and subtract fractions and mixed numbers with like and unlike denominators

CC.5.NF.1, CC.5.NF.2

Assessment: Differentiated activities

Online practice

Unit Test 1

Make reasonable estimates of sums and differences of fractions and mixed numbers

CC.5.NF.2

Assessment: Differentiated activities

Online practice

Unit Test 1

Solve real world problems

CC.5.NF.1, CC.5.NF.2

Assessment: Differentiated activities

Online practice

Unit Test 1

UNIT: U2: Addition and Subtraction with Decimals -- 18 Day(s)

Description

Students extend their understanding of the base-ten system to decimals. They observe that the process of composing and decomposing a base-ten unit is the same for decimals as for whole numbers and the same methods of recording operations work can be used with decimals.

Common Core Standards addressed in this unit

Math Practices: K-12.MP.1, K-12.MP.2, K-12.MP.3, K-12.MP.4, K-12.MP.5, K-12.MP.6, K-12.MP.7, K-12.MP.8

Content: CC.5.NBT.1, CC.5.NBT.3a, CC.5.NBT.3b, CC.5.NBT.4, CC.5.NBT.7, CC.5.MD.1

TOPIC: Preview and Pre-Assess -- 1 Day(s)

Learning Targets

Demonstrate prior knowledge and application of addition and subtraction with decimals

Assessment: Quick Quiz

Pre-Test Form B

TOPIC: Whole Numbers and Decimals -- 5 Day(s)

Academic Vocabulary

decimal

tenth

hundredth

thousandth

notation

standard form

word form

expanded form

power of ten

Learning Targets

Relate decimals as equal divisions 2.1

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Expand thousands to thousandths 2.2

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Equate and compare thousandths 2.3

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Complete formative assessment

Assessment: Quick Quiz 1

TOPIC: Addition and Subtraction -- 6 Day(s)

Academic Vocabulary

meter (m)
decimeter (dm)
centimeter (cm)
millimeter (mm)
grouping
ungrouping
break apart drawing
Commutative Property of Addition
Associative Property of Addition
Distributive Property of Multiplication over Addition

Learning Targets

Add and subtract decimals 2.4

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Add whole numbers and decimals 2.5

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Subtract whole and decimal numbers 2.6

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Use properties and strategies for real world applications 2.7

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Complete formative assessment

Assessment: Quick Quiz 2

TOPIC: Round and Estimate with Decimals -- 4 Day(s)

Academic Vocabulary

round
estimate

Learning Targets

Round and estimate with decimals 2.8

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Graph with decimals 2.9

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Focus on mathematical practices 2.10

Math and solar system
Model Math
Establish a position

Assessment: Student Activity book

Differentiated activities
Math Talk
Math journals

Compete formative assessment

Assessment: Quick Quiz 3

TOPIC: Multiplication with Fractions -- 9 Day(s)

Learning Targets

Read, write and identify the places of decimal numbers and whole numbers

CC.5.NBT.1, CC.5.NBT.3, CC.5.NBT.3b

Assessment: Differentiated activities

Online practice
Unit Test 2

Compare decimal numbers

CC.5.NBT.3b

Assessment: Differentiated activities

Online practice
Unit Test 2

Round and estimate sums and differences

CC.5.NBT.4

Assessment: Differentiated activities

Online practice
Unit Test 2

Add and subtract decimals to hundredths

CC.5.NBT.7

Assessment: Differentiated activities

Online practice
Unit Test 2

Solve problems involving addition and subtraction of decimals

CC.5.NBT.4, CC.5.NBT.7

Assessment: Differentiated activities

Online practice
Unit Test 2

UNIT: U3: Multiplication and Division with Fractions -- 24 Day(s)

Description

Students extend work with multiplication and fractions and explore fractions and division. Visual models and real world situations are used throughout the unit to illustrate important fraction concepts.

Common Core Standards addresses in this unit

Math Practices: K-12.MP.1, K-12.MP.2, K-12.MP.3, K-12.MP.4, K-12.MP.5, K-12.MP.6, K-12.MP.7, K-12.MP.8

Content: CC.5.NF.1, CC.5.NF.2, CC.5.NF.3, CC.5.NF.4a, C.5.NF.4b, CC.5.NF.5a, CC.5.NF.5b, CC.5.NF.6, CC.5.NF.47a, C.5.NF.7b, CC.5.NF.7c, CC.5.MD.2

TOPIC: Preview and Pre-Assess -- 1 Day(s)

Learning Targets

Demonstrate prior knowledge and application of multiplication and division with fractions

Assessment: Quick Quiz

Pre-Test Form B

TOPIC: Multiplication with Fractions -- 9 Day(s)

Topic Level Key Questions

comparison bars

multiplicative comparison

factor

product

area model for multiplication

fraction-bar model for multiplication

Multiply and Simplify Method

Simplify and Multiply Method

Unit Fraction Method

Learning Targets

Practice basic multiplication concepts 3.1

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Practice multiplication with non-unit fractions 3.2

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Practice multiplication with fractional solutions 3.3

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Multiply a fraction by a fraction 3.4

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Demonstrate multiplication strategies 3.5

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Multiply mixed numbers 3.6

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals
Complete formative assessment

Assessment: Quick Quiz 1

TOPIC: Multiplication Links -- 4 Day(s)

Academic Vocabulary

Associative Property
Commutative Property
Distributive Property

Learning Targets

Explore and apply fraction operations 3.7

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Solve real world problems 3.8

Discuss fraction operations
Mixed practice

Assessment: Student Activity book
Differentiated activities
Math Talk
Math journals

Make generalizations 3.9

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals
Complete formative assessment

Assessment: Quick Quiz 2

TOPIC: Division with Fractions -- 8 Day(s)

Academic Vocabulary

decimal fraction
dividend
divisor
quotient

Learning Targets

Explain and demonstrate when dividing is also multiplying 3.10

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Solve division problems 3.11

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Distinguish multiplication from division 3.12

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk

Math journals
Review operations with fractions 3.13
Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals
Focus on mathematical practices 3.14
Math and marching bands
Use reasoning
Establish a position
Assessment: Student Activity book
Differentiated activities
Math Talk
Math journals
Complete formative assessment
Assessment: Quick Quiz 3

TOPIC: Multiplication with Whole Numbers -- 6 Day(s)

Learning Targets

Multiply a fraction, whole number, or mixed number by a fraction or a mixed number

CC.5.NF.4, CC.5.NF.4a, CC.5.NF.4b

Assessment: Differentiated activities

Online practice

Unit Test 3

Divide a fraction, whole number, or mixed number by a fraction or a mixed number

CC.5.NF.7, CC.5.NF.7a, CC.5.NF.7b

Assessment: Differentiated activities

Online practice

Unit Test 3

Divide a whole number by a whole number in case where the quotient is a fraction or a mixed number

CC.5.NF.3

Assessment: Differentiated activities

Online practice

Unit Test 3

Predict how a product will compare to one factor based on the size of the other factor

CC.5.NF.5, CC.5.NF.5a, CC.5.NF.5b

Assessment: Differentiated activities

Online practice

Unit Test 3

Solve real world problems

CC.5.NF.3, CC.5.NF.6, CC.5.NF.7c

Assessment: Differentiated activities

Online practice

Unit Test 3

UNIT: U4: Multiplication with Whole Numbers and Decimals -- 19 Day(s)

Description

This unit emphasizes the shifting of digits when multiplying with decimals. Students multiply with numbers greater than 1 and less than 1 using the traditional algorithm. Fluency for multiplying multi-digit whole numbers begins.

Common Core Standards addressed in this unit

Math Practices: K-12.MP.1, K-12.MP.2, K-12.MP.3, K-12.MP.4, K-12.MP.5, K-12.MP.6, K-12.MP.7, K-12.MP.8

Content: CC.5.NB.1, CC.5.NB.2, CC.5.NB.4, CC.5.NB.4, CC.5.NB.7, CC.5.NF.5a, CC.5.NF.5b, CC.5.NBT.3b

TOPIC: Preview and Pre-Assess -- 1 Day(s)

Learning Targets

Demonstrate prior knowledge and application of multiplication with whole numbers and decimals

Assessment: Quick Quiz

Pre-Test Form B

TOPIC: Multiplication with Whole Numbers -- 6 Day(s)

Academic Vocabulary

shift

base

exponent

exponential form

power of ten

partial products

Place Value Sections

Expanded Notation

New Groups Below

Place Value Rows

Short Cut

Learning Targets

Shift patterns in multiplication 4.1

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Explore patterns with fives and zeros 4.2

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Share methods for multiplication 4.3

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Multiply two-digit numbers 4.4

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Practice multiplication 4.5

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Complete formative assessment

Assessment: Quick Quiz 1

TOPIC: Multiplication with Decimal Numbers -- 9 Day(s)

Academic Vocabulary

Commutative Property of Addition

Associative Property of Addition

Distributive Property of Multiplication over Addition

Learning Targets

Multiply decimals by whole numbers 4.6

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Multiply by decimals 4.7

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Multiply with decimals greater than one 4.8

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Compare shift patterns 4.9

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Estimate products 4.10

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Practice multiplication 4.11

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Focus on mathematical practices 4.12

Math and insects
Use reasoning
Establish a position

Assessment: Student Activity book
Differentiated activities
Math Talk
Math journals

Complete formative assessment

Assessment: Quick Quiz 2

TOPIC: Division with Whole Numbers -- 6 Day(s)

Learning Targets

Multiply whole numbers by powers of ten with and without exponents

CC.5.NBT.1, CC.5.NBT.2

Assessment: Differentiated activities
Online practice
Unit Test 4

Multiply multidigit whole numbers fluently

CC.5.NBT.4, CC.NBT.5

Assessment: Differentiated activities
Online practice
Unit Test 4

Multiply decimals by powers of ten with and without exponents

CC.5.NBT.1, CC.5.NBT.2

Assessment: Differentiated activities

Online practice

Unit Test 4

Multiply decimal numbers

CC.5.NBT.4, CC.5.NBT.7

Assessment: Differentiated activities

Online practice

Unit Test 4

Solve real world problems

CC.5.NBT.5, CC.5.NBT.7

Assessment: Differentiated activities

Online practice

Unit Test 4

UNIT: U5: Division with Whole Numbers and Decimals -- 17 Day(s)

Description

Students extend their understanding of division to include 2-digit divisors. They also explore dividing with decimals numbers. They solve real world problems and interpret remainders in the contexts of the problems.

Common Core Standards addressed in this unit

Math Practices: K-12.MP.1, K-12.MP.2, K-12.MP.3, K-12.MP.4, K-12.MP.5, K-12.MP.6, K-12.MP.7, K-12.MP.8

Content: CC.5.NBT.2, CC.5.NBT.3b, CC.5.NBT.5, CC.5.NBT.6, CC.5.NBT.7, CC.5.NF.5a

TOPIC: Preview and Pre-Assess -- 1 Day(s)

Learning Targets

Demonstrate prior knowledge and application of division with whole numbers and decimals

Assessment: Quick Quiz

Pre-Test Form B

TOPIC: Division with Whole Numbers -- 6 Day(s)

Academic Vocabulary

Digit-by-Digit Method

dividend

divisor

Expanded Notation

Place Value Sections

quotient

remainder

overestimate

underestimate

Learning Targets

Divide whole numbers by one digit 5.1

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Explore dividing by two-digit whole numbers 5.2

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Adjust estimates 5.3

Assessment: Homework and Remembering

Student Activity book

Differentiated activities
Math Talk
Math journals
Interpret remainders 5.4

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals
Practice division 5.5

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals
Complete formative assessment

Assessment: Quick Quiz 1

TOPIC: Division with Decimal Numbers -- 8 Day(s)

Learning Targets

Divide decimal numbers by whole numbers 5.6

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Divide whole numbers by decimal numbers 5.7

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Divide by two decimal numbers 5.8

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Practice division 5.9

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Distinguish between multiplication and division 5.10

Assessment: Homework and Remembering
Student Activity book
Differentiated activities
Math Talk
Math journals

Focus on mathematical practices 5.11

Math and currency
Use reasoning
Establish a position
Assessment: Student Activity book
Differentiated activities
Math Talk
Math journals
Complete formative assessment

Assessment: Quick Quiz 2

TOPIC: Equations and Problem-Solving -- 5 Day(s)

Learning Targets

Divide multidigit whole numbers by one-and two-digit whole numbers in cases with and without remainders

CC.5.NBT.6

Assessment: Differentiated activities

Online practice

Unit Test 5

Interpret the remainder of a whole number division problem in a way that makes sense in the context of the problem

CC.5.NBT.6

Assessment: Differentiated activities

Online practice

Unit Test 5

Describe the shift patterns that occur when a number is divided by powers of 10 that are expressed with and without exponents

CC.5.NBT.2

Assessment: Differentiated activities

Online practice

Unit Test 5

Divide whole numbers and decimals by decimals to hundredths

CC.NBT.7

Assessment: Differentiated activities

Online practice

Unit Test 5

Solve real world problems

CC.5.NBT.6, CC.NBT.7

Assessment: Differentiated activities

Online practice

Unit Test 5

UNIT: U6: Operations and Problem Solving -- 19 Day(s)

Description

This unit focuses on interpreting problems and representing them. It emphasizes the problem-solving process and problem types using whole numbers, fractions, and decimals.

Common Core Standards addressed in this unit

Math Practices: K-12.MP.1, K-12.MP.2, K-12.MP.3, K-12.MP.4, K-12.MP.5, K-12.MP.6, K-12.MP.7, K-12.MP.8

Content: CC.5.NBT.4, CC.5.NBT.5a, CC.5.NBT.5b, CC.5.NBT.6, CC.5.NBT.7, CC.5.NF.5a, CC.5.NF.1, CC.5.NF.2, CC.5.NF.4a, CC.5.NF.4b, CC.5.NF.6, CC.5.NF.7a, CC.5.NF.7b, CC.5.NF.7c, CC.5.OA.1

TOPIC: Preview and Pre-Assess -- 1 Day(s)

Learning Targets

Demonstrate prior knowledge and application of operations and problem solving skills

Assessment: Quick Quiz

Pre-Test Form B

TOPIC: Equations and Problem-Solving -- 5 Day(s)

Academic Vocabulary

situation equation

solution equation

break apart drawing

rectangle model

benchmark

Learning Targets

Write situation and solution equations for addition and subtraction 6.1

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Write situation and solution equations for multiplication and division 6.2

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Write word problems 6.3

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Determine reasonable answers 6.4

rounding
estimation
mental math

Assessment: Student Activity book

Differentiated activities
Math Talk
Math journals

Complete formative assessment

Assessment: Quick Quiz 1

TOPIC: Comparison Word Problems -- 5 Day(s)

Academic Vocabulary

comparison
leading language
misleading language
scaling
additive
multiplicative

Learning Targets

Explore the language of comparison problems 6.5

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Model multiplicative comparison problems 6.6

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Solve different types of comparison problems 6.7

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Complete formative assessment

Assessment: Quick Quiz 2

TOPIC: Problems with More Than One Step -- 6 Day(s)

Academic Vocabulary

parentheses
equation

Learning Targets

Analyze equations and parentheses to complete problems 6.8

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Complete multi-step word problems 6.9

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Practice problem-solving 6.10

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Focus on mathematical practices 6.11

Math and gymnastics
Use reasoning
Establish a position

Assessment: Student Activity book

Differentiated activities
Math Talk
Math journals

Complete formative assessment

Assessment: Quick Quiz 3

TOPIC: Algebraic Reasoning and Expressions -- 4 Day(s)

Learning Targets

Write an equation to solve a problem

CC.5.OA.1, CC.5.NBT.7

Assessment: Differentiated activities

Online practice
Unit Test 6

Write a word problem and model the product of quotient

C.5.NF.7a, CC.5.NF.7b

Assessment: Differentiated activities

Online practice
Unit Test 6

Determine if an answer is reasonable

CC.5.NF.5, CC.5.NF.5a

Assessment: Differentiated activities

Online practice
Unit Test 6

Solve real world comparison problems

CC.5.OA.1, CC.5.NBT.7

Assessment: Differentiated activities

Online practice
Unit Test 6

Solve multi-step problems

CC.5.NBT.5, CC.5.NBT.6, CC.5.NBT.7

Assessment: Differentiated activities

Online practice

Unit Test 6

UNIT: U7: Algebra, Patterns, and Coordinate Graphs -- 13 Day(s)

Description

Students read, write, simplify, and evaluate algebraic expressions using the Order of Operations. They explore patterns and relationships, and plot and locate points in the coordinate plane.

Common Core Standards addressed in this unit

Math Practices: K-12.MP.1, K-12.MP.2, K-12.MP.3, K-12.MP.4, K-12.MP.5, K-12.MP.6, K-12.MP.7, K-12.MP.8

Content: CC.5.OA.1, CC.5.OA.2, CC.5.OA.3, CC.5.G.1, CC.5.G.2

TOPIC: Preview and Pre-Assess -- 1 Day(s)

Learning Targets

Demonstrate prior knowledge and application of algebra, patterns and coordinate graphs

Assessment: Quick Quiz

Pre-Test Form B

TOPIC: Algebraic Reasoning and Expressions -- 4 Day(s)

Topic Level Key Questions

expression

Order of Operations

simplify

evaluate

variable

Learning Targets

Read and write expressions 7.1

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Simplify expressions 7.2

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Evaluate expressions 7.3

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Complete formative assessment

Assessment: Quick Quiz 1

TOPIC: Patterns and Graphs -- 6 Day(s)

Academic Vocabulary

numerical pattern

term

coordinate pair

ordered pair

origin

x-coordinate

y-coordinate

x-axis

y-axis

Learning Targets

Generate patterns and explore relationships 7.4

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Locate, plot and analyze the coordinate plane 7.5

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Graph coordinate pairs 7.6

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Focus on mathematical practices 7.7

Math and constellations

Use reasoning

Establish a position

Assessment: Student Activity book

Differentiated activities

Math Talk

Math journals

Complete formative assessment

Assessment: Quick Quiz 2

TOPIC: Measurement and Data -- 8 Day(s)

Learning Targets

Use the Order of Operations to simplify and evaluate expressions with and without grouping symbols

CC.5.OA.1

Assessment: Differentiated activities

Online practice

Unit Test 7

Write simple expressions from words and write words for simple expressions

CC.5.OA.2

Assessment: Differentiated activities

Online practice

Unit Test 7

Generate two numerical patterns given rules and generate ordered pairs

CC.5.OA.3, CC.5.G.2

Assessment: Differentiated activities

Online practice

Unit Test 7

Locate and plot points in Quadrant 1 of the coordinate plane

CC.5.G.1, CC.5.G.2

Assessment: Differentiated activities

Online practice

Unit Test 7

Solve real world problems

CC.5.G.2

Assessment: Differentiated activities

Online practice

Unit Test 7

UNIT: U8: Measurement and Data -- 27 Day(s)

Description

Students convert units within the same measurement system using both multiplication and division. They review perimeter and area and explore the concept of volume of a rectangular prism. Students also classify and draw polygons according to properties. They begin to formulate the idea of a hierarchy of quadrilateral properties.

Common Core Standards addressed in this unit

Math Practices: K-12.MP.1, K-12.MP.2, K-12.MP.3, K-12.MP.4, K-12.MP.5, K-12.MP.6, K-12.MP.7, K-12.MP.8

Content: CC.5.MD.1, CC.5.MD.3A, CC.5.MD.3b, CC.5.MD.5a, CC.5.MD.5b, Cc.5.NF.4b, CC.5.G.3, CC.5.G.4

TOPIC: Preview and Pre-Assess -- 1 Day(s)

Learning Targets

Demonstrate prior knowledge and application of measurement and data

Assessment: Quick Quiz

Pre-Test Form B

TOPIC: Measurement and Data -- 8 Day(s)

Academic Vocabulary

meter

millimeter

centimeter

decimeter

dekameter

hectometer

kilometer

liter

milliliter

centiliter

deciliter

dekaliter

hectoliter

kiloliter

mass

gram

milligram

centigram

decigram

dekagram

hectogram

kilogram

mile

ton

frequency table

line plot

Learning Targets

Convert metric units of length 8.1

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Convert metric units of liquid volume 8.2

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Convert metric units of mass 8.3

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Determine customary units of length 8.4

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Determine customary measures of liquid volume 8.5

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Determine customary units of weight 8.6

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Read and make line plots 8.7

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Complete formative assessment

Assessment: Quick Quiz 1

TOPIC: Area and Volume -- 8 Day(s)

Academic Vocabulary

perimeter

area

square centimeter

square unit

face

edge

cube

unit cube

volume

rectangular prism

cubic unit

one-dimensional

two-dimensional

three-dimensional

composite

Learning Targets

Determine perimeter and area of rectangles 8.8

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Determine cubic units and volume 8.9

Assessment: Homework and Remembering

Student Activity book

Differentiated activities

Math Talk

Math journals

Visualize volume 8.10

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals
Explore volume formulas 8.11

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Determine length, area and volume 8.12

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Determine volume of composite solid figures 8.13

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Complete formative assessment

Assessment: Quick Quiz 3

TOPIC: Classify Geometric Figures -- 8 Day(s)

Academic Vocabulary

acute angle
adjacent angles
adjacent sides
congruent
counterexample
line of symmetry
opposite angles
opposite sides
parallel
parallelogram
perpendicular
quadrilateral
rectangle
rhombus
right angle
square
trapezoid
scalene triangle
obtuse angle
obtuse triangle
equilateral triangle
isosceles triangle
closed
concave
convex
open
polygon
reflex angle
regular polygon

Learning Targets

Sort and reason attributes of quadrilaterals 8.14

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Sort and reason attributes of triangles 8.15

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Sort and reason attributes of two-dimensional shapes 8.16

Assessment: Homework and Remembering

Student Activity book
Differentiated activities
Math Talk
Math journals

Focus on mathematical practices 8.17

Math and aquariums
Use reasoning
Establish a position

Assessment: Student Activity book

Differentiated activities
Math Talk
Math journals

Solve real world problems

Assessment: Differentiated activities

TOPIC: Review and Assess -- 2 Day(s)

Learning Targets

Multiply or divide to convert among standard measurement units within a given measurement system

CC.5.MD.1

Assessment: Differentiated activities

Online practice
Unit Test 8

Use a formula to find the area or unknown side length of a rectangle with fractional side lengths

CC.5.NF.4b

Assessment: Differentiated activities

Online practice
Unit Test 8

Use a formula to find the volume of a rectangular prism

CC.5.MD.3a, CC.5.MD.3b, CC.5.MD.4, CC.5.MD.5a, CC.5.MD.5b, CC.5.MD.5c

Assessment: Differentiated activities

Online practice
Unit Test 8

Classify two-dimensional figures based on properties

CC.5.G.3, CC.5.G.4

Assessment: Differentiated activities

Online practice
Unit Test 8

Make a line plot to display fractional measurements and solve problems

CC.5.MD.2

Assessment: Differentiated activities

Online practice
Unit Test 8

Solve real world problems

CC.5.MD.1, CC.5.MD.2, CC.5.MD.5, CC.5.MD.5b

Assessment: Differentiated activities

Online practice
Unit Test 8