KINDERGARTEN – 8TH GRADE

Mathematics program of study:
Pennsylvania Standards for Mathematics

Sumdog Scheme of Learning Kindergarten – Grade 8

Use our handy scheme of learning to help with your planning, tracking and monitoring

How to use the Sumdog Scheme of Learning

When students first login to Sumdog, they will complete a diagnostic test, this will place them at the correct starting point in our scheme of learning.

Want to re-set the starting point or choose your own? No problem.

Our advanced learning engine will adapt the questions students receive.

Differentiation is taken care of (in a subtle way).

Questions cover reviews of past content and new, progressive learning following our scheme.

Children love our games.

They are rewarded with coins for their house, pet and garden.

Teacher Tools

Want to focus learning?

You can easily select the appropriate standard for a challenge for your class.

Data and reporting available making **tracking student progress** and assessment **moderation** a breeze!

Choose and set topics for homework, easily.

The best bit is we do the marking!

Keep your class motivated by creating competitions or why not enter a **regional or national contest** and see if you can win our trophy!

Our ready-made assessment library for Grades K-8 has an assessment for each mathematics domain, completely mapped to the Common Core State Standards.

Or easily make your own!

Growth Mindset

With common misconceptions identified, use our questions as a teaching point, learning from mistakes!

Kindergarten

10 More **CC.2.1.K.A.1_1** ■	Count Within 25 **CC.2.1.K.A.2_5** ■	Subtract from 9 or 10 **CC.2.2.K.A.1_14** ■	Count with Doubles **CC.2.2.K.A.1_9** ■
5 More **CC.2.1.K.A.1_2** ■	Count Within 5 **CC.2.1.K.A.2_6** ■	Subtract Within 10 **CC.2.2.K.A.1_15** ■	2D Shapes **CC.2.3.K.A.1_1** ■
Count Down by 1 **CC.2.1.K.A.1_3** ■	Tens and Ones **CC.2.1.K.A.2_7** ■	Subtract Within 20 **CC.2.2.K.A.1_16** ■	3D Shapes **CC.2.3.K.A.1_2** ■
Count in Tens **CC.2.1.K.A.1_4** ■	Compare Numbers **CC.2.1.K.A.3_1** ■	Add to 2 **CC.2.2.K.A.1_2** ■	2D Shapes **CC.2.3.K.A.2_1** ■
Count Up or Down by 1 **CC.2.1.K.A.1_5** ■	Order Numbers **CC.2.1.K.A.3_2** ■	Add to 3 **CC.2.2.K.A.1_3** ■	Compare Length & Weight **CC.2.4.K.A.1_1** ■
Numbers in Words **CC.2.1.K.A.1_6** ■	Add to 1 **CC.2.2.K.A.1_1** ■	Add to 4 **CC.2.2.K.A.1_4** ■	Count Within 10 **CC.2.4.K.A.4_1** ■
Count Down by 1 **CC.2.1.K.A.2_1** ■	Identify Parts in Addition **CC.2.2.K.A.1_10** ■	Add to 5 or 6 **CC.2.2.K.A.1_5** ■	Tens and Ones **CC.2.4.K.A.4_2** ■
Count Up by 1 **CC.2.1.K.A.2_2** ■	Subtract from 11 or 12 **CC.2.2.K.A.1_11** ■	Add to 7, 8, or 9 **CC.2.2.K.A.1_6** ■	
Count Up or Down by 1 **CC.2.1.K.A.2_3** ■	Subtract from 2, 3, 4, 5, or 6 **CC.2.2.K.A.1_12** ■	Add Within 10 **CC.2.2.K.A.1_7** ■	
Count Within 10 **CC.2.1.K.A.2_4** ■	Subtract from 7 or 8 **CC.2.2.K.A.1_13** ■	Add Within 20 **CC.2.2.K.A.1_8** ■	

Strands (Kindergarten – Grade 5):

■ Numbers & Operations ■ Algebraic Concepts ■ Geometry ■ Measurement, Data & Probability

Highlight and annotate me

HINT: You can focus learners easily on any skill to match your classroom lesson

Grade 1

Compare & Order Numbers **CC.2.1.1.B.2_1** ■	Add Three Numbers **CC.2.1.1.B.3_5** ■	Add Three Numbers **CC.2.2.1.A.1_1** ■	Subtract Within 20 **CC.2.2.1.A.1_7** ■
Forms of Numbers **CC.2.1.1.B.2_2** ■	Add with Multiples of 10 **CC.2.1.1.B.3_6** ■	Add Within 20 **CC.2.2.1.A.1_2** ■	Add and Subtract with Unknowns **CC.2.2.1.A.2_1** ■
Add 1-Digit to 2-Digit Numbers **CC.2.1.1.B.3_1** ■	Subtract 1-Digit from 2-Digit Numbers **CC.2.1.1.B.3_7** ■	Money **CC.2.2.1.A.1_3** ■	Add Four Numbers **CC.2.2.1.A.2_2** ■
Add 2-Digit Numbers **CC.2.1.1.B.3_2** ■	Subtract 2-Digit Numbers **CC.2.1.1.B.3_8** ■	Subtract from 16, 17, or 18 **CC.2.2.1.A.1_4** ■	Time **CC.2.4.1.A.2_1** ■
Add & Subtract with Unknowns **CC.2.1.1.B.3_3** ■	Subtract with Multiples of 10 **CC.2.1.1.B.3_9** ■	Subtract from 13, 14, or 15 **CC.2.2.1.A.1_5** ■	Picture Graphs **CC.2.4.1.A.4_1** ■
Add Four Numbers **CC.2.1.1.B.3_4** ■		Subtract up to 10 Within 20 **CC.2.2.1.A.1_6** ■	Tables **CC.2.4.1.A.4_2** ■

Strands (Kindergarten – Grade 5):

■ Numbers & Operations ■ Algebraic Concepts ■ Geometry ■ Measurement, Data & Probability

Highlight and annotate me

HINT: You can focus learners easily on any skill to match your classroom lesson

Grade 2

Compare Numbers
CC.2.1.2.B.1_1

Order Numbers
CC.2.1.2.B.1_2

Place Value and Number Forms up to 10,000
CC.2.1.2.B.1_3

Numbers in Words
CC.2.1.2.B.2_1

Skip Count
CC.2.1.2.B.2_2

Skip Count Objects
CC.2.1.2.B.2_3

Add 1-Digit Numbers
CC.2.1.2.B.3_1

Subtract 2- & 3-Digit Numbers
CC.2.1.2.B.3_10

Subtract Multiples of 10
CC.2.1.2.B.3_11

Subtract Multiples of 100
CC.2.1.2.B.3_12

Add 2- and 3-Digit Numbers
CC.2.1.2.B.3_2

Add Multiples of 10
CC.2.1.2.B.3_3

Add Multiples of 100
CC.2.1.2.B.3_4

Column Addition & Subtraction
CC.2.1.2.B.3_5

More and Less
CC.2.1.2.B.3_6

Regrouping Place Values
CC.2.1.2.B.3_7

Related Addition & Subtraction
CC.2.1.2.B.3_8

Subtract 1-Digit Numbers
CC.2.1.2.B.3_9

Addition Word Problems
CC.2.2.2.A.1_1

Money to $2
CC.2.2.2.A.1_2

Add Four Numbers
CC.2.2.2.A.2_1

Money to 50Â¢
CC.2.2.2.A.2_2

Arrays and Multiplication
CC.2.2.2.A.3_1

Arrays & Repeated Addition
CC.2.2.2.A.3_2

3D Shapes
CC.2.3.2.A.1_1

Irregular Shapes
CC.2.3.2.A.1_2

Fractions
CC.2.3.2.A.2_1

Estimate Length
CC.2.4.2.A.1_1

Time
CC.2.4.2.A.2_1

Mixed Amounts of Money
CC.2.4.2.A.3_1

Money to $2
CC.2.4.2.A.3_2

Money to 50Â¢
CC.2.4.2.A.3_3

Bar Graphs
CC.2.4.2.A.4_1

Dot Plots
CC.2.4.2.A.4_2

Interpret Scale
CC.2.4.2.A.4_3

Pictographs
CC.2.4.2.A.4_4

Add and Subtract Mixed Metric Units
CC.2.4.2.A.6_1

Add Metric Lengths
CC.2.4.2.A.6_2

Subtract Metric Lengths
CC.2.4.2.A.6_3

Strands (Kindergarten – Grade 5):
Numbers & Operations | Algebraic Concepts | Geometry | Measurement, Data & Probability

Highlight and annotate me

HINT:
You can focus learners easily on any skill to match your classroom lesson

Grade 3

Add and Subtract with Multiples of 10, 100, and 1,000
CC.2.1.3.B.1_1

Column Addition and Subtraction
CC.2.1.3.B.1_2

Multiply or Divide by Multiples
CC.2.1.3.B.1_3

Fractions
CC.2.1.3.C.1_1

Doubling
CC.2.2.3.A.1_1

Halving
CC.2.2.3.A.1_2

Multiplication Word Problems
CC.2.2.3.A.1_3

Multiply 2-Digit and 1-Digit Numbers
CC.2.2.3.A.1_4

Multiply or Divide by Multiples
CC.2.2.3.A.1_5

Related Multiplication Facts
CC.2.2.3.A.1_6

Unknown Numbers in Multiplication and Division (2s, 5s, 10s)
CC.2.2.3.A.1_7

Unknown Numbers in Multiplication and Division (3s, 4s, 8s)
CC.2.2.3.A.1_8

Properties of Multiplication
CC.2.2.3.A.2_1

Related Multiplication Facts
CC.2.2.3.A.2_2

Unknown Numbers in Multiplication and Division (3s, 4s, 8s)
CC.2.2.3.A.2_3

10s Multiplication Facts 1-4
CC.2.2.3.A.3_1

3s Multiplication Facts
CC.2.2.3.A.3_10

4s Multiplication Facts
CC.2.2.3.A.3_11

5s Multiplication Facts 1-5
CC.2.2.3.A.3_12

5s Multiplication Facts 6-10
CC.2.2.3.A.3_13

6s Multiplication Facts
CC.2.2.3.A.3_14

7s Multiplication Facts
CC.2.2.3.A.3_15

8s Multiplication Facts
CC.2.2.3.A.3_16

9s Multiplication Facts
CC.2.2.3.A.3_17

Arrays
CC.2.2.3.A.3_18

Division Facts 10-18
CC.2.2.3.A.3_19

10s Multiplication Facts 6-10
CC.2.2.3.A.3_2

Division Facts 20-28
CC.2.2.3.A.3_20

Division Facts 30-36
CC.2.2.3.A.3_21

Division Facts 4-9
CC.2.2.3.A.3_22

Division Facts 40-49
CC.2.2.3.A.3_23

Division Facts 50-64
CC.2.2.3.A.3_24

Division Facts 70-100
CC.2.2.3.A.3_25

Division Tables (2, 5, 10)
CC.2.2.3.A.3_26

Division Tables (3, 4, 6, 7, 8, 9)
CC.2.2.3.A.3_27

Halving
CC.2.2.3.A.3_28

Multiply 3-digit and 1-digit Numbers
CC.2.2.3.A.3_29

11 and 12 Division Tables
CC.2.2.3.A.3_3

Strands (Kindergarten – Grade 5):
Numbers & Operations | Algebraic Concepts | Geometry | Measurement, Data & Probability

Highlight and annotate me

HINT: You can focus learners easily on any skill to match your classroom lesson

Multiply or Divide by Multiples of 10 or 100
CC.2.2.3.A.3_30

Related Division Facts
CC.2.2.3.A.3_31

Related Multiplication Facts
CC.2.2.3.A.3_32

Unknown Numbers in Multiplication &Division
CC.2.2.3.A.3_33

Unknown Numbers in Multiplication & Division
CC.2.2.3.A.3_34

11s Multiplication Facts 1-5
CC.2.2.3.A.3_4

11s Multiplication Facts 6-12
CC.2.2.3.A.3_5

12s Multiplication Facts 1-5
CC.2.2.3.A.3_6

12s Multiplication Facts 6-12
CC.2.2.3.A.3_7

2s Multiplication Facts 1-5
CC.2.2.3.A.3_8

2s Multiplication Facts 6-10
CC.2.2.3.A.3_9

Add and Subtract with Multiples
CC.2.2.3.A.4_1

Multi-Step Addition & Subtraction Problems
CC.2.2.3.A.4_2

Patterns in a Table
CC.2.2.3.A.4_3

Shapes
CC.2.3.3.A.1_1

Area of Rectangles
CC.2.3.3.A.2_1

Fractions
CC.2.3.3.A.2_2

Turns
CC.2.3.3.A.2_3

Volume
CC.2.4.3.A.1_1

24hr Times
CC.2.4.3.A.2_1

Add and Subtract Durations
CC.2.4.3.A.2_2

Unlisted Times & Scheduled Times
CC.2.4.3.A.2_3

Elapsed Time
CC.2.4.3.A.2_4

Future and Past Times
CC.2.4.3.A.2_5

Time Sequences
CC.2.4.3.A.2_6

24hr Timetables
CC.2.4.3.A.4_1

Frequency Tables
CC.2.4.3.A.4_2

Line Graphs
CC.2.4.3.A.4_3

Line Plots
CC.2.4.3.A.4_4

Tables
CC.2.4.3.A.4_5

Tally Charts
CC.2.4.3.A.4_6

Timetables
CC.2.4.3.A.4_7

Area Expressions
CC.2.4.3.A.5_1

Area Models
CC.2.4.3.A.5_2

Area of Rectangles
CC.2.4.3.A.5_3

Perimeter of Polygons
CC.2.4.3.A.6_1

Perimeter of Rectangles
CC.2.4.3.A.6_2

Perimeter of Rectilinear Shapes
CC.2.4.3.A.6_3

Strands (Kindergarten – Grade 5):
Numbers & Operations | Algebraic Concepts | Geometry | Measurement, Data & Probability

Highlight and annotate me

HINT:
You can focus learners easily on any skill to match your classroom lesson

Grade 4

Compare, Order, and Round Numbers
CC.2.1.4.B.1_1

Place Value
CC.2.1.4.B.1_2

Addition
CC.2.1.4.B.2_1

Column Subtraction
CC.2.1.4.B.2_2

Divide 2- or 3-Digit by 1-Digit Numbers
CC.2.1.4.B.2_3

Division with Powers of Ten
CC.2.1.4.B.2_4

Subtraction
CC.2.1.4.B.2_5

Compare and Order Fractions
CC.2.1.4.C.1_1

Equivalent Fractions
CC.2.1.4.C.1_2

Fraction Tenths and Hundredths
CC.2.1.4.C.1_3

Fraction Words
CC.2.1.4.C.1_4

Add and Subtract Fractions with Like Denominators
CC.2.1.4.C.2_1

Unit Fraction Multiplication
CC.2.1.4.C.2_2

Decimal Tenths and Hundredths
CC.2.1.4.C.3_1

Addition
CC.2.2.4.A.1_1

Multiply 4-Digit by 1-Digit Numbers
CC.2.2.4.A.1_10

Multiply by 2-Digit Numbers
CC.2.2.4.A.1_11

Remainders
CC.2.2.4.A.1_12

Subtraction
CC.2.2.4.A.1_13

Column Subtraction
CC.2.2.4.A.1_2

Divide 2- or 3-Digit by 1-Digit Numbers
CC.2.2.4.A.1_3

Divide 4-Digit by 1-Digit Numbers
CC.2.2.4.A.1_4

Division with Powers of Ten
CC.2.2.4.A.1_5

Dot Plots
CC.2.2.4.A.1_6

Mentally Divide
CC.2.2.4.A.1_7

Multi-Step Addition or Subtraction Problems
CC.2.2.4.A.1_8

Multi-Step Multiplication or Division Problems
CC.2.2.4.A.1_9

Factors
CC.2.2.4.A.2_1

Multiplying 3 Numbers
CC.2.2.4.A.2_2

Sequences
CC.2.2.4.A.2_3

Count by 1,000s
CC.2.2.4.A.4_1

Sequences
CC.2.2.4.A.4_2

Angles
CC.2.3.4.A.1_1

Angles
CC.2.3.4.A.2_1

Line of Symmetry
CC.2.3.4.A.3_1

Lines of Symmetry
CC.2.3.4.A.3_2

Compare and Estimate Length, Mass, Volume
CC.2.4.4.A.1_1

Convert Customary Measures
CC.2.4.4.A.1_2

Convert Metric Measures
CC.2.4.4.A.1_3

Strands (Kindergarten – Grade 5):
Numbers & Operations · Algebraic Concepts · Geometry · Measurement, Data & Probability

Highlight and annotate me

HINT: You can focus learners easily on any skill to match your classroom lesson

Convert Metric Measures with Mixed Units
CC.2.4.4.A.1_4

Convert Units of Time
CC.2.4.4.A.1_5

Angles
CC.2.4.4.A.6_1

2 Times table (fluent)

3 Times table (fluent)

4 Times table (fluent)

5 Times table (fluent)

10 Times table (fluent)

Strands (Kindergarten – Grade 5):
Numbers & Operations | Algebraic Concepts | Geometry | Measurement, Data & Probability

Highlight and annotate me

HINT: You can focus learners easily on any skill to match your classroom lesson

3- and 4-Digit Multiplication
CC.2.1.5.B.1_1

Add and Subtract Decimal Numbers
CC.2.1.5.B.1_2

Compare Numbers
CC.2.1.5.B.1_3

Measurement
CC.2.1.5.B.1_4

Round Decimal Numbers
CC.2.1.5.B.1_5

Round Whole Numbers
CC.2.1.5.B.1_6

Add Decimals
CC.2.1.5.B.2_1

Multiply Decimal Numbers
CC.2.1.5.B.2_2

Subtract Decimals
CC.2.1.5.B.2-3

Add and Subtract Fractions
CC.2.1.5.C.1_1

Add and Subtract Fractions with Related Denominators
CC.2.1.5.C.1_2

Divide with Fractions and Whole Numbers
CC.2.1.5.C.2_1

Divide with Unit Fractions
CC.2.1.5.C.2_2

Find a Fraction of a Number
CC.2.1.5.C.2_3

Multiply Fractions
CC.2.1.5.C.2_4

Expressions and Equations
CC.2.2.5.A.1_1

Multi-Step Multiplication and Division Problems
CC.2.2.5.A.1_2

Coordinate Grid
CC.2.3.5.A.1_1

First Quadrant Coordinate Grid
CC.2.3.5.A.1_2

Plotting Polygons
CC.2.3.5.A.1_3

Triangles
CC.2.3.5.A.2_1

Measurement
CC.2.4.5.A.1_1

Data Displays
CC.2.4.5.A.2_1

Measurement
CC.2.4.5.A.5_1

Volume
CC.2.4.5.A.5_2

Volume Word Problems
CC.2.4.5.A.5_3

6 Times table (fluent)

7 Times table (fluent)

8 Times table (fluent)

9 Times table (fluent)

11 Times table (fluent)

12 Times table (fluent

Strands (Kindergarten – Grade 5):
Numbers & Operations · Algebraic Concepts · Geometry · Measurement, Data & Probability

Highlight and annotate me

HINT:
You can focus learners easily on any skill to match your classroom lesson

Numerical expressions involving whole-numbers
6.EE.A.1

Identify parts of an expression
6.EE.A.2.b

Write, read, and evaluate expressions
6.EE.A.2.c

Apply the properties of operations
6.EE.A.3

Identify when two expressions are equivalent
6.EE.A.4

Understand solving an equation or inequality
6.EE.B.5

Use variables to represent numbers
6.EE.B.6

Solve problems by writing equations
6.EE.B.7

Write an inequality of the form to represent a constraint or condition
6.EE.B.8

Use variables to represent two quantities in a real-world problem
6.EE.C.9

Find the area of right triangles, other triangles
6.G.A.1

Find the volume of a right rectangular prism with fractional edge lengths
6.G.A.2

Draw polygons in the coordinate plane given coordinates for the vertices
6.G.A.3

Part 1 – Represent three-dimensional figures using nets made up of rectangles and triangles
6.G.A.4

Part 2 – Represent three-dimensional figures using nets made up of rectangles and triangles
6.G.A.4

Interpret and compute quotients of fractions
6.NS.A.1

Fluently divide multi-digit numbers using the standard algorithm.
6.NS.B.2

Fluently add, subtract, multiply, and divide multi-digit decimals
6.NS.B.3

Find the greatest common factor of two whole numbers less than or equal to 100
6.NS.B.4

Understand that positive and negative number are used together to describe quantities
6.NS.C.5

Recognize opposite signs of numbers as indicating locations on the number line
6.NS.C.6.a

Understand signs of numbers in quadrants of the coordinate plane
6.NS.C.6.b

Understand a rational number as a point on the number line.
6.NS.C.6.c

Interpret statements of inequality about the relative position of two numbers on
6.NS.C.7.a

Understand ordering and absolute value of rational numbers.
6.NS.C.7.c

Understand the concept of a ratio
6.RP.A.1

Understand the concept of a unit rate
6.RP.A.2

Strands (Grade 6 – 8):
- Expressions & Equations (EE)
- The Number System (NS)
- Ratios & Proportional Relationships (RP)
- Geometry (G)
- Statistics & Probability (SP)
- Functions (F)

Highlight and annotate me

HINT: You can focus learners easily on any skill to match your classroom lesson

Make tables of equivalent ratios
6.RP.A.3.a

Solve unit rate problems including those involving unit pricing and constant speed.
6.RP.A.3.b

Part 2 – Use ratio and rate reasoning to solve real-world and mathematical problems
6.RP.A.3.c

Part 2 – Use ratio and rate reasoning to solve real-world and mathematical problems
6.RP.A.3.c

Use ratio and rate reasoning to solve real-world and mathematical problems
6.RP.A.3.d

Recognize a statistical question
6.SP.A.1

Recognize that a measure of centre for a numerical data set
6.SP.A.3

Display numerical data in plots on a number line
6.SP.B.4

Part 1 – Reporting the number of observations.
6.SP.B.5.A

Part 2 – Reporting the number of observations.
6.SP.B.5.A

Describing the nature of the attribute under investigation
6.SP.B.5.B

Part 1 – Summarize numerical data sets in relation to their context
6.SP.B.5.c

Part 2 – Summarize numerical data sets in relation to their context
6.SP.B.5.c

Part 3 – Summarize numerical data sets in relation to their context
6.SP.B.5.c

Strands (Grade 6 – 8):

- Expressions & Equations (EE)
- The Number System (NS)
- Ratios & Proportional Relationships (RP)
- Geometry (G)
- Statistics & Probability (SP)
- Functions (F)

Highlight and annotate me

HINT:
You can focus learners easily on any skill to match your classroom lesson

Apply properties of operations
7.EE.A.1

Solve mathematical problems posed with positive and negative rational numbers
7.EE.B.3

Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$
7.EE.B.4.a

Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$
7.EE.B.4.b

Describe the two-dimensional figures that result from slicing three-dimensional figures
7.G.A.3

Know the formulas for the area and circumference of a circle
7.G.B.4

Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step
7.G.B.5

Part 1 – Solve real-world and mathematical problems of two- and three-dimensional objects
7.G.B.6

Part 2 – Solve real-world and mathematical problems of two- and three-dimensional objects
7.G.B.6

Part 3 – Solve real-world and mathematical problems of two- and three-dimensional objects
7.G.B.6

Part 4 – Solve real-world and mathematical problems of two- and three-dimensional objects
7.G.B.6

Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers
7.NS.A.1

Understand $p + q$ as the number located a distance $|q|$ from p, in the positive or negative direction depending on whether q is positive or negative.
7.NS.A.1.b

Understand subtraction of rational numbers as adding the additive inverse, $p - q = p + (-q)$.
7.NS.A.1.c

Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers
7.NS.A.1.d

Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
7.NS.A.2.c

Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
7.NS.A.2.d

Part 1 – Solve real-world and mathematical problems involving the four operations with rational numbers.
7.NS.A.3

Part 2 – Solve real-world and mathematical problems involving the four operations with rational numbers.
7.NS.A.3

Strands (Grade 6 – 8):
- Expressions & Equations (EE)
- The Number System (NS)
- Ratios & Proportional Relationships (RP)
- Geometry (G)
- Statistics & Probability (SP)
- Functions (F)

Highlight and annotate me

HINT: You can focus learners easily on any skill to match your classroom lesson

Part 3 – Solve real-world and mathematical problems involving the four operations with rational numbers.
7.NS.A.3 ■

Part 4 – Solve real-world and mathematical problems involving the four operations with rational numbers.
7.NS.A.3 ■

Recognize and represent proportional relationships between quantities.
7.RP.A.2.a ■

Recognize and represent proportional relationships between quantities.
7.RP.A.2.b ■

Recognize and represent proportional relationships between quantities.
7.RP.A.2.c ■

Part 1 – Use proportional relationships to solve multistep ratio and percent problems.
7.RP.A.3 ■

Part 2 – Use proportional relationships to solve multistep ratio and percent problems.
7.RP.A.3 ■

Understand that statistics can be used to gain information about a population by examining a sample of the population
7.SP.A.1 ■

Use data from a random sample to draw inferences about a population with an unknown characteristic of interest.
7.SP.A.2 ■

Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring.
7.SP.C.5 ■

Develop a probability model and use it to find probabilities of events.
7.SP.C.7.a ■

Understand that the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
7.SP.C.8.A ■

Find probabilities of compound events using lists, tables, tree diagrams, and simulation.
7.SP.C.8. ■

Strands (Grade 6 – 8):
- Expressions & Equations (EE)
- The Number System (NS)
- Ratios & Proportional Relationships (RP)
- Geometry (G)
- Statistics & Probability (SP)
- Functions (F)

Highlight and annotate me

HINT: You can focus learners easily on any skill to match your classroom lesson

Part 1 – Know and apply the properties of integer exponents to generate equivalent numerical expressions.
8.EE.A.1

Part 2 – Know and apply the properties of integer exponents to generate equivalent numerical expressions.
8.EE.A.1

Use square root & cube root symbols to represent solutions to equations of the form x2 = p & x3 = p, where p is a positive rational number.
8.EE.A.2

Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities
8.EE.A.3

Part 1 – Perform operations with numbers expressed in scientific notation
8.EE.A.4.1

Part 2 – Perform operations with numbers expressed in scientific notation
8.EE.A.4.1

Graph proportional relationships, interpreting the unit rate as the slope of the graph.
8.EE.B.5

Use similar triangles to explain why the slope M is the same between any two distinct points on a non-vertical line in the coordinate plane
8.EE.B.6

Analyze and solve pairs of simultaneous linear equations.
8.EE.C.8.b

Understand that a function is a rule that assigns to each input exactly one output.
8.F.A.1

Compare properties of two functions each represented in a different way
8.F.A.2

Interpret the equation y = mx + b as defining a linear function
8.F.A.3

Construct a function to model a linear relationship between two quantities.
8.F.B.4

Describe qualitatively the functional relationship between two quantities by analyzing a graph
8.F.B.5

Verify experimentally the properties of rotations, reflections, and translations
8.G.A.1

Verify experimentally the properties of rotations, reflections, and translations
8.G.A.1.a

Verify experimentally the properties of rotations, reflections, and translations
8.G.A.1.b

Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations
8.G.A.2

Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
8.G.A.3

Strands (Grade 6 – 8):
- Expressions & Equations (EE)
- The Number System (NS)
- Ratios & Proportional Relationships (RP)
- Geometry (G)
- Statistics & Probability (SP)
- Functions (F)

Highlight and annotate me

HINT: You can focus learners easily on any skill to match your classroom lesson

Use informal arguments to establish facts about the angle sum and exterior angle of triangles
8.G.A.5 ■

Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in two and three dimensions.
8.G.B.7 ■

Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.
8.G.B.8 ■

Know the formulas for the volumes of cones, cylinders, and spheres
8.G.C.9 ■

Know that numbers that are not rational are called irrational.
8.NS.A.1 ■

Use rational approximations of irrational numbers to compare the size of irrational numbers
8.NS.A.2 ■

Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities.
8.SP.A.1 ■

Know that straight lines are widely used to model relationships between two quantitative variables.
8.SP.A.2 ■

Strands (Grade 6 – 8):
- ■ Expressions & Equations (EE)
- ■ The Number System (NS)
- ■ Ratios & Proportional Relationships (RP)
- ■ Geometry (G)
- ■ Statistics & Probability (SP)
- ■ Functions (F)

Highlight and annotate me

HINT: You can focus learners easily on any skill to match your classroom lesson

Sumdog Assessment Library

Using our assessment library, you can select a pre-made assessment that is matched to the Mathematics Standards from the Common Core State Standards.

We have an assessment for each unit and have mapped them to our progression framework. Our detailed report can easily be exported and printed to save for your tracking and monitoring evidence.

Grades K–5	Kindergarten	5 Assessments
	Grade 1	4 Assessments
	Grade 2	4 Assessments
	Grade 3	5 Assessments
	Grade 4	6 Assessments
	Grade 5	6 Assessments
Grades 6–8	Grade 6	8 Assessments
	Grade 7	6 Assessments
	Grade 8	7 Assessments

REMEMBER:
You can also create your own custom assessments on Sumdog. Selecting the standards you want to assess.

Teacher Planning Template

Class/Student Name: _____ **Grade:** _____

	SEMESTER 1	SEMESTER 2	SEMESTER 3	SEMESTER 4
Teacher Notes				
Challenges				
Focus Skills				
Sumdog Assessments				
Sumdog Homework				

Have any questions about our scheme of learning?
Visit www.sumdog.com to find out more.