



# Mathematics program of study: Minnesota 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.

Choose and set topics for homework, easily.

**The best bit is we do the marking!**

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!**

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

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

**Growth Mindset**

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



Describe Position <b>K.1.1.1_1</b> ■	Tens and Ones <b>K.1.1.3_7</b> ■	Add with 3 <b>K.1.2.1_3</b> ■	Subtract from 11 <b>K.1.2.1_11</b> ■
Numbers in Words <b>K.1.1.2_1</b> ■	Count Down by 1 <b>K.1.1.4_1</b> ■	Add with 4 <b>K.1.2.1_4</b> ■	Subtract from 12 <b>K.1.2.1_12</b> ■
Count Down by 1 <b>K.1.1.3_1</b> ■	Count Up by 1 <b>K.1.1.4_2</b> ■	Add with 5 <b>K.1.2.1_5</b> ■	Subtract from 3, 4, 5, or 6 <b>K.1.2.1_13</b> ■
Count Up by 1 <b>K.1.1.3_2</b> ■	Count Up or Down by 1 <b>K.1.1.4_3</b> ■	Add with 6 or 7 <b>K.1.2.1_6</b> ■	Subtract from 7, 8, or 9 <b>K.1.2.1_14</b> ■
Count Up or Down by 1 <b>K.1.1.3_3</b> ■	Compare Numbers <b>K.1.1.5_1</b> ■	Add with 8 or 9 <b>K.1.2.1_7</b> ■	2D and 3D Shapes <b>K.3.1.1_1</b> ■
Count within 25 <b>K.1.1.3_4</b> ■	Order Numbers <b>K.1.1.5_2</b> ■	Count with Doubles <b>K.1.2.1_8</b> ■	Halving Length <b>K.3.2.1_1</b> ■
Count within 5 <b>K.1.1.3_5</b> ■	Add with 1 <b>K.1.2.1_1</b> ■	Make 10 <b>K.1.2.1_9</b> ■	
Ten Less <b>K.1.1.3_6</b> ■	Add with 2 <b>K.1.2.1_2</b> ■	Subtract from 10 <b>K.1.2.1_10</b> ■	

## Strands (Kindergarten – Grade 5):

■ Number & Operation   ■ Geometry & Measurement   ■ Data Analysis   ■ Algebra

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Forms of Numbers <b>1.1.1.1_1</b> ■	Tally Charts <b>1.1.1.7_3</b> ■	Count in Fives <b>1.1.2.3_1</b> ■	True or False Equations <b>1.2.2.2_2</b> ■
Count in 1s <b>1.1.1.3_1</b> ■	Addition & Subtraction Word Problems <b>1.1.2.1_1</b> ■	Count in Tens <b>1.1.2.3_2</b> ■	Add within 20 <b>1.2.2.3_1</b> ■
Ten More / Ten Less <b>1.1.1.4_1</b> ■	Part-Part-Whole <b>1.1.2.1_2</b> ■	Count in Twos <b>1.1.2.3_3</b> ■	Subtract Doubles <b>1.2.2.3_2</b> ■
Compare Numbers <b>1.1.1.5_1</b> ■	Subtract From 13 or 14 <b>1.1.2.1_3</b> ■	Ten More <b>1.1.2.3_4</b> ■	Measure Length <b>1.3.2.1_1</b> ■
Order Numbers <b>1.1.1.5_2</b> ■	Subtract from 15, 16, 17, or 18 <b>1.1.2.1_4</b> ■	Patterns <b>1.2.1.1_1</b> ■	Time to 15-Minute Accuracy <b>1.3.2.2_1</b> ■
Dot Plots <b>1.1.1.7_1</b> ■	Take Away <b>1.1.2.1_5</b> ■	Add Three Numbers <b>1.2.2.1_1</b> ■	Time to the Half Hour <b>1.3.2.2_2</b> ■
Dual Bar Graphs <b>1.1.1.7_2</b> ■	Forms of Numbers <b>1.1.2.2_1</b> ■	Related Questions <b>1.2.2.2_1</b> ■	Money <b>1.3.2.3_1</b> ■

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Add 10s within 1000 <b>2.1.1.1_1</b> ■	Subtract within 1,000 <b>2.1.1.1_12</b> ■	Add with Multiples of 10 <b>2.1.2.4_2</b> ■	Add & Subtract with Unknowns <b>2.1.2.5_2</b> ■
Add 2-Digit Numbers <b>2.1.1.1_2</b> ■	Forms of Numbers <b>2.1.1.2_1</b> ■	Column Addition <b>2.1.2.4_3</b> ■	Add with Multiples of 10 <b>2.1.2.5_3</b> ■
Add and Subtract with Unknowns <b>2.1.1.1_3</b> ■	More/Less <b>2.1.1.3_1</b> ■	Column Subtraction <b>2.1.2.4_4</b> ■	Addition Word Problems <b>2.1.2.5_4</b> ■
Add or Subtract 100s within 1,000 <b>2.1.1.1_4</b> ■	Compare and Order Numbers <b>2.1.1.5_1</b> ■	Forms of Numbers <b>2.1.2.4_5</b> ■	Subtract from 2-Digit Numbers <b>2.1.2.5_5</b> ■
Add to 3-Digit Numbers <b>2.1.1.1_5</b> ■	Add Four 1-Digit Numbers <b>2.1.2.1_1</b> ■	Money <b>2.1.2.4_6</b> ■	Subtract from a Multiple of 10 <b>2.1.2.5_6</b> ■
Estimate on a Number Line <b>2.1.1.1_6</b> ■	Add Three or Four Numbers <b>2.1.2.1_2</b> ■	Subtract 2-Digit Numbers <b>2.1.2.4_7</b> ■	Subtract Multiples of 10 <b>2.1.2.5_7</b> ■
Forms of Numbers <b>2.1.1.1_7</b> ■	Inverse Relationships <b>2.1.2.1_3</b> ■	Subtract from 2-Digit Numbers <b>2.1.2.4_8</b> ■	Subtract with Multiples of 10 <b>2.1.2.5_8</b> ■
Numbers in Words <b>2.1.1.1_8</b> ■	Inverse Relationships <b>2.1.2.2_1</b> ■	Subtract Multiples of 10 <b>2.1.2.4_9</b> ■	Subtract within 20 <b>2.1.2.5_9</b> ■
Related Questions <b>2.1.1.1_9</b> ■	Related Questions <b>2.1.2.2_2</b> ■	Subtract Multiples of 10 <b>2.1.2.4_10</b> ■	Bar Graphs <b>2.1.2.6_1</b> ■
Subtract 10s within 1,000 <b>2.1.1.1_10</b> ■	Estimate Addition & Subtraction <b>2.1.2.3_1</b> ■	Subtract with Multiples of 10 <b>2.1.2.4_11</b> ■	Pictograph <b>2.1.2.6_2</b> ■
Subtract 1s within 1,000 <b>2.1.1.1_11</b> ■	Add 2-Digit Numbers <b>2.1.2.4_1</b> ■	Add 1-Digit Numbers within 100 <b>2.1.2.5_1</b> ■	

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Picture Graphs <b>2.1.2.6_3</b> ■	Count in 5s, 50s, 100s, or 1,000s <b>2.2.1.1_3</b> ■	Classify 3D Shapes <b>2.3.1.1_2</b> ■	Time to 5 Minutes <b>2.3.3.1_3</b> ■
Scaled Graphs <b>2.1.2.6_4</b> ■	Count Up & Down in 3s, 4s, or 8s <b>2.2.1.1_4</b> ■	Classify 2D Shapes <b>2.3.1.2_1</b> ■	Coin Amounts and Change <b>2.3.3.2_1</b> ■
Tables <b>2.1.2.6_5</b> ■	Number Patterns <b>2.2.1.1_5</b> ■	Estimate & Compare Lengths <b>2.3.2.1_1</b> ■	Money <b>2.3.3.2_2</b> ■
Area <b>2.2.1.1_1</b> ■	Use Arrays to Solve Equations <b>2.2.1.1_6</b> ■	Time to 1 Minute <b>2.3.3.1_1</b> ■	
Arrays <b>2.2.1.1_2</b> ■	Classify 2D Shapes <b>2.3.1.1_1</b> ■	Time to 15 Minutes <b>2.3.3.1_2</b> ■	

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Number Forms <b>3.1.1.1_1</b> ■	Add & Subtract with Unknowns <b>3.1.2.1_4</b> ■	Multi-Step Addition & Subtraction <b>3.1.2.2_1</b> ■	Division Facts 31-40 <b>3.1.2.4_5</b> ■
Identify Place Value <b>3.1.1.2_1</b> ■	Add & Subtract within 10,000 <b>3.1.2.1_5</b> ■	3-Digit Multiplication <b>3.1.2.3_1</b> ■	Division Facts 41-60 <b>3.1.2.4_6</b> ■
Number Forms <b>3.1.1.2_2</b> ■	Add Multiples of 10 <b>3.1.2.1_6</b> ■	Given Products or Quotients <b>3.1.2.3_2</b> ■	Division Facts 61-100 <b>3.1.2.4_7</b> ■
Estimate Addition & Subtraction <b>3.1.1.4_1</b> ■	Add Multiples of 100 <b>3.1.2.1_7</b> ■	Inverse Relationships <b>3.1.2.3_3</b> ■	Division Facts to 10 <b>3.1.2.4_8</b> ■
Estimation <b>3.1.1.4_2</b> ■	Column Addition <b>3.1.2.1_8</b> ■	Related Questions <b>3.1.2.3_4</b> ■	Division Tables: 2, 5, 10, 11, 12 <b>3.1.2.4_9</b> ■
Round Numbers <b>3.1.1.4_3</b> ■	Column Subtraction <b>3.1.2.1_9</b> ■	Represent Multiplication <b>3.1.2.3_5</b> ■	Division Tables: 3, 4, 6, 7, 8 <b>3.1.2.4_10</b> ■
Compare & Order Numbers <b>3.1.1.5_1</b> ■	Multi-Step Addition & Subtraction <b>3.1.2.1_10</b> ■	Represent Multiplication <b>3.1.2.3_6</b> ■	Given Products or Quotients <b>3.1.2.4_11</b> ■
Add 10s, 100s, 1,000s, & 10,000s <b>3.1.2.1_1</b> ■	Subtract 10s, 100s, 1,000s, & 10,000s <b>3.1.2.1_11</b> ■	Divide by 1-Digit Numbers <b>3.1.2.4_1</b> ■	Multi-Step Multiplication or Division Word Problems <b>3.1.2.4_12</b> ■
Add 1s within 1,000 <b>3.1.2.1_2</b> ■	Subtract 1s within 1,000 <b>3.1.2.1_12</b> ■	Dividing by 10 or 100 <b>3.1.2.4_2</b> ■	Multiply with 10 up to 5 <b>3.1.2.4_13</b> ■
Add & Subtract with 2-Digit Numbers <b>3.1.2.1_3</b> ■	Subtract Multiples of 10 & 100 <b>3.1.2.1_13</b> ■	Division Facts 11-20 <b>3.1.2.4_3</b> ■	Multiply with 10, 6 to 10 <b>3.1.2.4_14</b> ■
		Division Facts 21-30 <b>3.1.2.4_4</b> ■	

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Multiply with 2 up to 5 <b>3.1.2.4_15</b> ■	Identifying Fractions <b>3.1.3.1_1</b> ■	Division Tables: 2, 5, 10, 11, 12 <b>3.2.2.2_1</b> ■	Multiply with 4 <b>3.2.2.2_11</b> ■
Multiply with 2, 6 to 10 <b>3.1.2.4_16</b> ■	Fractions of a Dollar <b>3.1.3.2_1</b> ■	Multiply with 10 up to 5 <b>3.2.2.2_2</b> ■	Multiply with 5 up to 5 <b>3.2.2.2_12</b> ■
Multiply with 5 up to 5 <b>3.1.2.4_17</b> ■	Turns with Multiples of 1/4 <b>3.1.3.2_2</b> ■	Multiply with 10, 6 to 10 <b>3.2.2.2_3</b> ■	Multiply with 5, 6 to 10 <b>3.2.2.2_13</b> ■
Multiply with 5, 6 to 10 <b>3.1.2.4_18</b> ■	Compare Fractions <b>3.1.3.3_1</b> ■	Multiply with 11 up to 5 <b>3.2.2.2_4</b> ■	Multiply with 6, 7, or 9 <b>3.2.2.2_14</b> ■
Related Questions <b>3.1.2.4_19</b> ■	Order Fractions <b>3.1.3.3_2</b> ■	Multiply with 11, 6 to 12 <b>3.2.2.2_5</b> ■	Multiply with 8 <b>3.2.2.2_15</b> ■
Solve Division Word Problems <b>3.1.2.4_20</b> ■	Sequences with Fractions <b>3.1.3.3_3</b> ■	Multiply with 12 up to 5 <b>3.2.2.2_6</b> ■	Unknown Numbers in Division <b>3.2.2.2_16</b> ■
Solve Multiplication Word Problems <b>3.1.2.4_21</b> ■	Unit Fraction Multiplication <b>3.1.3.3_4</b> ■	Multiply with 12, 6 to 12 <b>3.2.2.2_7</b> ■	Unknown Numbers in Multiplication <b>3.2.2.2_1</b> ■
2-Digit Multiplication <b>3.1.2.5_1</b> ■	Inverse Relationships <b>3.2.2.1_1</b> ■	Multiply with 2 up to 5 <b>3.2.2.2_8</b> ■	Lines <b>3.3.1.1_1</b> ■
3-Digit Multiplication <b>3.1.2.5_2</b> ■	Related Questions <b>3.2.2.1_2</b> ■	Multiply with 2, 6 to 10 <b>3.2.2.2_9</b> ■	Add to Find Perimeter <b>3.3.2.2_1</b> ■
Multiplying with 10s and 100s <b>3.1.2.5_3</b> ■	Unknown Numbers in Division <b>3.2.2.1_3</b> ■	Multiply with 3 <b>3.2.2.2_10</b> ■	



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Perimeter of Composite Rectilinear Shapes <b>3.3.2.2_2</b>	Elapsed Time <b>3.3.3.1_1</b>	Time Durations <b>3.3.3.2_1</b>	Line Graphs <b>3.4.1.1_1</b>
Perimeter of Polygons <b>3.3.2.2_3</b>	Read Schedules <b>3.3.3.1_2</b>	Time on a Clock <b>3.3.3.2_2</b>	Picture Graphs, Bar Graphs, & Line Plots <b>3.4.1.1_2</b>
Add to Find Perimeter <b>3.3.2.3_1</b>	Time on a Clock <b>3.3.3.1_3</b>	Units of Time <b>3.3.3.2_3</b>	Tables <b>3.4.1.1_3</b>
	Time Tables <b>3.3.3.1_4</b>	Subtract with Money <b>3.3.3.3_1</b>	

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Division Tables <b>4.1.1.1_1</b> ■	Multiply with 2-Digit Numbers <b>4.1.1.3_2</b> ■	Multiply with Unit Fractions <b>4.1.2.3_2</b> ■	Angles <b>4.3.2.2_1</b> ■
Multiply with 3 <b>4.1.1.1_2</b> ■	Multiply with 4-Digit Numbers <b>4.1.1.3_3</b> ■	Subtract Fractions <b>4.1.2.3_3</b> ■	Area <b>4.3.2.3_1</b> ■
Multiply with 4 <b>4.1.1.1_3</b> ■	Estimate Products & Quotients <b>4.1.1.4_1</b> ■	Express Decimals <b>4.1.2.4_1</b> ■	Area <b>4.3.2.4_1</b> ■
Multiply with 6 <b>4.1.1.1_4</b> ■	Divide by 1-Digit Numbers <b>4.1.1.6_1</b> ■	Compare Decimals <b>4.1.2.5_1</b> ■	Multiply with 2-Digit Numbers <b>4.3.2.4_2</b> ■
Multiply with 8 <b>4.1.1.1_5</b> ■	Divide by 10 or 100 <b>4.1.1.6_2</b> ■	Order Decimals <b>4.1.2.5_2</b> ■	Transformations <b>4.3.3.1_1</b> ■
Multiply with 9 or 7 <b>4.1.1.1_6</b> ■	Divide Multi-Digit Numbers <b>4.1.1.6_3</b> ■	Express Decimals <b>4.1.2.6_1</b> ■	Transformations <b>4.3.3.2_1</b> ■
Related Division Questions <b>4.1.1.1_7</b> ■	Halving <b>4.1.1.6_4</b> ■	Round Decimals <b>4.1.2.7_1</b> ■	Angles <b>4.3.3.3_1</b> ■
Two-Step Questions <b>4.1.1.1_8</b> ■	Model Dividing by 1-Digit Numbers <b>4.1.1.6_5</b> ■	Number Patterns <b>4.2.1.1_1</b> ■	Transformations <b>4.3.3.3_2</b> ■
Multiply by Powers of 10 <b>4.1.1.2_1</b> ■	Equivalent Fractions <b>4.1.2.1_1</b> ■	Dot Plots <b>4.2.2.2_1</b> ■	2 Times table (fluent) ■
Number Patterns <b>4.1.1.2_2</b> ■	Fractions on a Number Line <b>4.1.2.2_1</b> ■	Two-Step Questions <b>4.2.2.2_2</b> ■	3 Times table (fluent) ■
Multiply by Powers of 10 <b>4.1.1.3_1</b> ■	Add Fractions <b>4.1.2.3_1</b> ■	Angles <b>4.3.1.1_1</b> ■	4 Times table (fluent) ■
			5 Times table (fluent) ■
			10 Times table (fluent) ■

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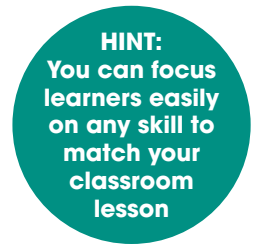
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Numerical Patterns <b>5.1.1.1_1</b> ■	Add & Subtract Decimals <b>5.1.3.1_2</b> ■	Write Expressions <b>5.2.3.2_2</b> ■	Volume in Cube Units <b>5.3.2.3_1</b> ■
2-Digit by 2-Digit Multiplication <b>5.1.1.4_1</b> ■	Add & Subtract Fractions <b>5.1.3.1_3</b> ■	Substitute & Evaluate with Expressions <b>5.2.3.3_1</b> ■	Volume in Cube Units <b>5.3.2.4_1</b> ■
Divide by 10 or 100 <b>5.1.1.4_2</b> ■	Add & Subtract Fractions <b>5.1.3.4_1</b> ■	Recognize Nets <b>5.3.1.1_1</b> ■	Volume with Customary Units <b>5.3.2.4_2</b> ■
Numerical Patterns <b>5.1.1.4_3</b> ■	Addition and Subtraction Word Problems with Fractions and Decimals <b>5.1.3.4_2</b> ■	Identify Nets that Make a Figure <b>5.3.1.2_1</b> ■	Volume with Metric Units <b>5.3.2.4_3</b> ■
Word Problems with Division <b>5.1.1.4_4</b> ■	Numerical Patterns <b>5.2.1.1_1</b> ■	Recognize Nets <b>5.3.1.2_2</b> ■	Measures of Spread and Centre <b>5.4.1.1_1</b> ■
Compare and Order Fractions <b>5.1.2.3_1</b> ■	The Coordinate Grid <b>5.2.1.2_1</b> ■	Area of Figures <b>5.3.2.1_1</b> ■	Double Line Graphs <b>5.4.1.2_1</b> ■
Convert Between Fractions and Decimals <b>5.1.2.4_1</b> ■	Expressions & Equations <b>5.2.2.1_1</b> ■	Perimeter & Area Problems <b>5.3.2.1_2</b> ■	Dual Bar Graphs <b>5.4.1.2_2</b> ■
Equivalent Fractions <b>5.1.2.4_2</b> ■	Properties <b>5.2.2.1_2</b> ■	Surface Area <b>5.3.2.2_1</b> ■	6 Times table (fluent) ■
Round Decimals <b>5.1.2.5_3</b> ■	Word Problems with Division <b>5.2.2.1_3</b> ■	Volume in Cube Units <b>5.3.2.2_2</b> ■	7 Times table (fluent) ■
Add and Subtract Decimal Tenths <b>5.1.3.1_1</b> ■	Comparison Word Problems <b>5.2.3.2_1</b> ■	Volume with Customary Units <b>5.3.2.2_3</b> ■	8 Times table (fluent) ■
			9 Times table (fluent) ■
			11 Times table (fluent) ■
			12 Times table (fluent) ■

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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)

■ Ratios & Proportional Relationships (RP)

■ Statistics & Probability (SP)

■ The Number System (NS)

■ Geometry (G)

■ Functions (F)

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**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** ■

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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):

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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.** ■

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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  $x^2 = p$  &  $x^3 = p$ , 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**

Use informal arguments to establish facts about the angle sum and exterior angle of triangles

**8.G.A.5**

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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** ■

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# 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.

<b>Grades K-5</b>	<b>Kindergarten</b>	<b>5 Assessments</b>
	<b>Grade 1</b>	<b>4 Assessments</b>
	<b>Grade 2</b>	<b>4 Assessments</b>
	<b>Grade 3</b>	<b>5 Assessments</b>
	<b>Grade 4</b>	<b>6 Assessments</b>
	<b>Grade 5</b>	<b>6 Assessments</b>
<b>Grades 6-8</b>	<b>Grade 6</b>	<b>8 Assessments</b>
	<b>Grade 7</b>	<b>6 Assessments</b>
	<b>Grade 8</b>	<b>7 Assessments</b>

**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				



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