

GRADE 6 DIFFERENTIATED MATH (MCDOUGAL COURSE 2) SYLLABUS SEMESTER ONE

Concepts and Skills	Section	6 th Grade State Standards
Describe Patterns and Evaluate Expressions		
Students will be able to describe number patterns using whole number operations.	1.1	
• Students will be able to evaluate variable expressions.	1.2	[SS 6.3.3b, SS 6.3.3c] DK1
• Students will be able to use exponents.	1.3	[SS 6.1.1d] DK1
• Students will be able to use the order of operations.	1.4	[SS 6.3.3b] DK1
Solve and Apply Equations		
• Students will be able to solve equations.	1.5	[SS 6.3.2a, SS 6.3.2b, SS 6.3.3d] DK1
• Students will be able to use formulas to find perimeter and area.	1.6	[SS 6.2.5d] DK1 & DK2
• Students will be able to use a problem-solving plan.	1.7	[SS 6.1.3b, SS 6.1.4a, SS 6.3.2a, SS 6.3.2b] DK1&DK2
Operations with Decimals		
Students will be able to compare, order, and round decimals.	2.1	
• Students will be able to add and subtract decimals.	2.2	[SS 6.1.2b] DK1 & DK2
• Students will be able to multiply decimals.	2.3	
• Students will be able to divide decimals.	2.4	[SS 6.1.3a] DK1
Use and Apply Powers of Ten		
• Students will be able to read and write numbers using scientific notation.	2.5	[SS 6.1.1d] DK1
Students will be able to measure and estimate using metric units. Activity 2.6	2.6	[SS 6.2.5a, SS 6.2.5b]
Students will be able to convert between metric units.	2.7	[SS 6.2.5c]
CUMULATIVE UNIT 1 & 2		
<i>DCA-M #1</i>		
Display and Interpret Data (Project)		
• Students will be able to describe data using mean, median, mode, and range.	3.1	[SS 6.4.1c 6.4.1d] DK1
• Students will be able to make and interpret bar and line graphs	3.2	
• Students will be able to display data using stem-and-leaf plots.	3.3	[SS 6.4.1b, SS 6.4.2a] DK1 & DK2
• Students will be able to make and interpret histograms.	3.5	
• Students will be able to choose appropriate displays for a data set.	3.6	
Use Factors and Multiples		
• Students will be able to write whole numbers as a product of prime numbers.	4.1	[SS 6.1.1.e] DK1
Students will be able to find the greatest common factor.	4.2	
Students will be able to write equivalent fractions.	4.3	
Students will be able to find least common multiples.	4.4	
Compare and Order Fractions and Decimals		
Students will be able to compare and order fractions.	4.5	
Students will be able to compare and order fractions and mixed numbers.	4.6	
Students will be able to write fractions as decimals and decimals as fractions.	4.7	[SS 6.1.1a]
Apply Fractions to Real Life Problems		
REASSESS UNIT 3 W/UNIT 4 TEST		
Perform Operations with Fractions and Mixed Numbers		
• Students will be able to add and subtract fractions with like and unlike denominators.	5.1	
• Students will be able to add and subtract mixed numbers.	5.2	[SS 6.1.2a] DK1 & DK2
• Students will be able to multiply fractions and mixed numbers.	5.3	
• Students will be able to divide fractions and mixed numbers.	5.4	[SS 6.1.3a] DK1
Measure and Convert with Customary Units		
Students will be able to measure and estimate using customary units.	5.5	[SS 6.2.5a]
Students will be able to convert between customary units.	5.6	[SS 6.2.5c]
Problem Solve Using Fractions and Mixed Numbers		
CUMULATIVE UNIT 4 & 5		
Demonstrate Number Sense With Integers		
• Students will be able to compare and order integers.	6.1	[SS 6.1.1b, SS 6.1.1c, SS 6.1.1f] DK1
• Students will be able to identify and plot points in a coordinate plane.	6.8	[SS 6.2.2a] DK1
<i>DCA-M #2Diff</i>		
Evaluate Expressions With Integers		
Students will be able to add integers.	6.2	
Students will be able to add subtract integers.	6.3	
Students will be able to multiply integers.	6.4	
Students will be able to divide integers.	6.5	
Students will be able to evaluate expressions using the distributive property.	6.7	
Solve Problems Using Integers		
<i>REASSES UNIT 6 as needed</i>		
End of Semester 1	SS= State Standard	• SS = State Standard that is assessed DK = Depth of Knowledge assessed

NOTES:

- Cover problem solving strategy sections in each chapter. [SS 6.3.2a, SS 6.3.2b] DK1 & DK2
- Use appropriate estimation methods to check the reasonableness of solutions for problems involving positive rational number. [SS 6.1.4a] DK1 & DK2
- Select and apply the appropriate method of computation when problem solving throughout the course. [6.1.3b] DK1 & DK2

GRADE 6 DIFFERENTIATED MATH (MCDOUGAL COURSE 2) SYLLABUS SEMESTER TWO

Concepts and Skills	Section	State Standards
Write Equations and Expressions and Simplify		
• Students will be able to write variable equations and expressions.	7.1	[SS 6.3.1a] DK1 & DK2
Students will be able to simplify variable expressions.	7.2	
Solve Equations		
Apply Equations		
• Students will be able to solve additions and subtraction equations. Include word problems.	7.3	[SS6.3.1b, SS6.3.3a, SS6.3.3d, SS6.3.3e] DK1 & DK2
• Students will be able to solve multiplication and division equations. Include word problems	7.4	
• Students will be able to solve two-step equations. Include word problems.	7.5	
DCA-M #3Diff		
Understand and Use Properties of Similarity		
Students will be able to use properties of similar and congruent polygons.	10.5	
Students will be able to use similar triangles to find lengths indirectly.	10.6	
Students will be able to identify transformations and symmetry in figures.	10.7	[SS 6.2.3a]
CUMULATIVE TEST UNIT 7&10		
Simplify Radical Expressions and Apply Pythagorean Theorem		
Students will be able to evaluate expressions involving square roots.	11.1	
Students will be able to find the length of a side of a right triangle using the Pythagorean Theorem.	11.3	
Find Perimeter and Area of Polygons and Circles		
• Students will be able to find perimeter and area of parallelograms.	11.4	[SS 6.2.5d, SS 6.2.5e] DK1 & DK2
• Students will be able to find the perimeter and area of triangles and trapezoids.	11.5	
Students will be able to find the circumferences of circles.	11.6	
Students will be able to find the areas of circles.	11.7	
Draw and Classify Solids		
Students will be able to classify solids and identify their parts.	12.1	[SS 6.2.1a, SS 6.2.4a] DK1 & DK2
• Students will be able to sketch solids and identify 2-D drawings of 3-D objects (NETS).	12.2 & Supp	
Find Surface Area of Prisms and Cylinders		
Students will be able to find surface area of rectangular prisms.	12.3	
Students will be able to find surface area of cylinders.	12.4	
Find Volume of Prisms and Cylinders		
• Students will be able to find volume of rectangular prisms.	12.5	[SS 6.2.5f] DK1 & DK2
Students will be able to find volume of cylinders.	12.6	
CUMULATIVE UNIT 11 & 12		
Determine Probability Outcomes		
• Students will be able to find the probability of an event.	13.1	[SS 6.1.1a, SS 6.4.3a, SS 6.4.3b, SS 6.4.3c] DK1 & DK2
DCA-M #3BDiff (paper/pencil)		
At this point in the curriculum all 6th Grade Assessed State Standards have been covered		
Students will be able to use a tree diagram and the counting principle to find outcomes.	13.2-13.3	
Students will be able to determine probabilities for independent and dependent events.	13.6	
Compare Rates and Ratios		
Students will be able to write and compare ratios.	8.1	
Students will be able to use rates to compare two quantities with different units.	8.2	
Solve Proportions		
Students will be able to solve proportions using equivalent ratios and algebra.	8.4	
Students will be able to solve proportions using cross products.	8.5	
Students will be able to use proportions with scale drawings.	8.6	
CUMULATIVE ASSESSMENT 13 & 8		
Find Percents		
Students will be able to find the percent of a number.	9.1	
Students will be able to write percents as decimals and decimals as percents.	9.3	[SS 6.6.1a]
Solve Percent Problems		
Students will be able to use proportions to solve percent problems.	9.2	
Students will be able to use equations to solve percent problems.	9.4	
<i>(Reassess Unit 9 as needed)</i>		
End of Semester	SS= State Standard	• SS = State Standard that is assessed
		DK = Depth of Knowledge assessed

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- Use appropriate estimation methods to check the reasonableness of solutions for problems involving positive rational number. [SS 6.1.4a] DK1 & DK2
- Select and apply the appropriate method of computation when problem solving throughout the course. [6.1.3b] DK1 & DK2